

NIGHTSKY

time-warped reverberator

USER MANUAL

strymon[®]

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Introduction



NightSky is a reverberant synthesis workstation and hands-on experimental sound design platform. NightSky allows real-time continuous control of reverb pitch/processing rate/core size and harmonic structure, and its tone shaping options include a synth-like resonant filter with multiple modulation waveshapes. A built-in eight step sequencer with variable glide time is included for controlling the reverb size/pitch. Sequencer steps can be individually tuned in semitone increments or to notes in one of several selectable musical scales, or freely with no pitch quantization.

Front Panel - TONE

Applies filtering to the high and low frequency portions of the reverb.



LOW CUT

Removes low end content both at the output and in the regenerating core portion of the reverb as the knob is turned clockwise.

HIGH CUT

Removes high frequency content from the reverb as the knob is turned clockwise. Location and characteristics determined by the **FILTER** section.

FILTER

Selects the response of the **HIGH CUT** knob. Press the button to select one of two options.

regen: Removes high frequencies from the regenerating core, creating a reverb that gets darker as it decays.

low pass: Applies a synth-style peaking, high frequency roll-off to the reverb output, selectively shaping the frequency content. The low pass filter's resonance can be controlled via the **low pass resonance** Live Edit function.

low pass resonance: Adjusts the filter Q, or sharpness of the resonant frequency. Press and hold the **FILTER** button and turn the **REVERB** knob to adjust. Higher values result in a peaking response. Lower values create a gradual roll-off.



Front Panel - DECAY

Selects the reverb type and sets the tail characteristics.



LENGTH

Adjusts the reverb decay time from less than one second to nearly infinite sustain. At higher **LENGTH** settings, decay time may be impacted by the **TONE** settings.

TEXTURE

Selects one of three different reverb types.

sparse: Granular-sounding reverb that can create interesting effects with staccato inputs, or produce a clean reverb with sustained inputs.

dense: Plate-like reverb with a fast response and dense reflections that can venture into ambient territory at high decay times.

diffuse: Slow-building, atmospheric wash that excels at ambient, swell, and even reverse-like textures.

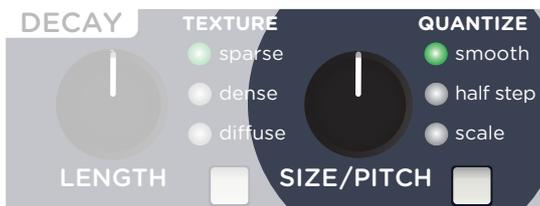
pre-delay: Adjusts the time between the dry signal and the onset of the reverb. Press and hold the **TEXTURE** button and turn the **REVERB** knob to adjust (counter-clockwise = shorter, clockwise = longer).



Front Panel - DECAY (cont.)

SIZE/PITCH

Increases the size of the reverb core to create a larger “space” for reflections as the knob is turned clockwise.



NOTE: When there is audio in the reverb buffer or held by engaging **INFINITE**, adjusting **SIZE/PITCH** will change the pitch of the reverberated audio.

*(See [page 18](#) for **INFINITE** details.)*

QUANTIZE

Selects the response and range of the **SIZE/PITCH** knob. Press the button to select one of three options.

smooth: **SIZE/PITCH** varies smoothly and continuously over a 2.5 octave pitch range.

half step: **SIZE/PITCH** is quantized into half-step intervals over a two octave range.

scale: **SIZE/PITCH** is quantized into selectable scales over a two octave range.

Quantize Mode Pitch Range

For **smooth** mode:

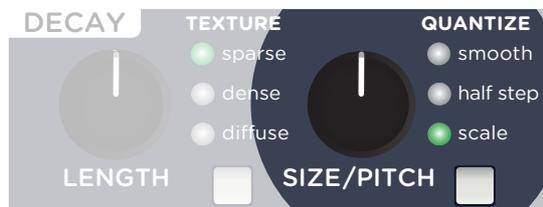
12 o'clock = middle of range
 minimum = 1.25 octaves up
 maximum = 1.25 octaves down

For **half-step** and **scale** modes:

12 o'clock = middle of range
 minimum = 1 octave up
 maximum = 1 octave up

TIP: You can “play” the **SIZE/PITCH** knob using MIDI notes C-2 to C0. Sending a MIDI note in this range will automatically set the **QUANTIZE** mode to **half step**.

Front Panel - DECAY (cont.)

**SCALE SELECT**

Select one of eight scales that determine the quantization intervals of the **SIZE/PITCH** knob when **QUANTIZE** is set to **scale** mode. Press and hold the **QUANTIZE** button and press the **PRESET BUTTON** that corresponds with the scales noted below. The status is shown by illuminated **PRESET BUTTON**.

- 1 = minor pentatonic
- 2 = major pentatonic
- 3 = major
- 4 = dorian
- 5 = minor blues
- 6 = harmonic minor
- 7 = whole tone
- 8 = diminished

Front Panel - VOICE

Adds pitch, harmonics, and distortion to the reverberated signal.



INTERVAL

Selects the pitch interval of the shimmer effect. Two octaves of total range from -1 octave to +1 octave. Two additional **INTERVAL** options (-detune and +detune) are available around the 12 o'clock position of the knob.

NOTE: Additional **INTERVAL** options are available via MIDI.
(See [page 38](#) for details.)

SHIMMER (button)

Selects the type of shimmer effect. Press to select one of two options.

input: Shimmer effect is applied to the input of the reverb core and does not regenerate.

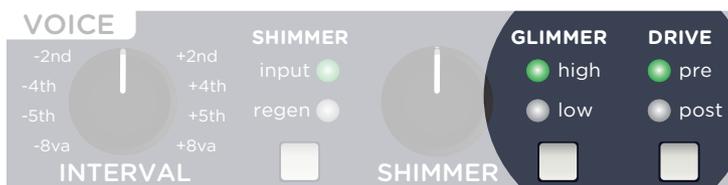
regen: Shimmer effect is applied within the reverb core and the effect is regenerative, resulting in continuously ascending or descending pitches as the reverb decays.

NOTE: Smaller **SIZE/PITCH** settings and higher **LENGTH** settings will result in more intense pitch regeneration.

SHIMMER (knob)

Sets the amount of the shimmer effect. Shimmer effect is off when set to minimum.

Front Panel - VOICE (cont.)



GLIMMER

Dynamically enhances aspects of the input signal's harmonic spectrum. Press to select one of three options.

high: Higher frequency harmonics are accentuated, creating a washy, dreamy top end.

low: Lower frequency harmonics are enhanced, creating mysterious and synth-like textures.

LED off: **GLIMMER** is disabled.

glimmer gain: Adjusts the sensitivity of the glimmer effect to the input signal. Press and hold the **GLIMMER** button and turn the **REVERB** knob to adjust.

DRIVE

Adds saturated overdriven harmonics with a soft clipping characteristic to the reverb. Press the button to select one of three options.

pre: Applies drive to the signal before the reverb core.

post: Applies drive after the reverb core, allowing the reverb tail to dynamically go into and out of saturation as the reverb decays.

LED off: **DRIVE** is disabled.

drive gain: Adjusts the sensitivity of the drive effect. Press and hold the **DRIVE** button and turn the **REVERB** knob to adjust.

Front Panel - MOD

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Applies modulation of the selected waveshape to the selected target.



SPEED

Adjusts the rate of modulation from 0.06Hz (16 second sweep) to 12Hz (0.08 second sweep).

TARGET

Selects the process that the modulation is applied to. Press the button to select one of three options.

verb: Modulates the delay lines within the reverb core.

pitch: Modulates the SIZE/PITCH control position.

filter: Modulates the HIGH CUT tone control position.

Front Panel - MOD (cont.)



SHAPE

Selects the shape of the modulating waveform. Press the button to select one of six options.

triangle: The modulation wave rises and falls evenly.

square: The modulation wave jumps between two fixed values.

ramp: The modulation wave rises gradually and falls abruptly.

saw: The modulation wave falls gradually and rises abruptly.

random: The modulation wave jumps between random values.

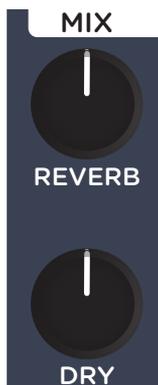
env: The modulation responds to playing dynamics with the input sensitivity set by the **DEPTH** knob. The sensitivity increases as the **DEPTH** knob is turned further from the 12 o'clock position. With the **DEPTH** knob set to the LEFT of 12 o'clock, the envelope starts at a higher value and goes to a lower value with an input signal (negative modulation). With the **DEPTH** knob set to the RIGHT of 12 o'clock, the envelope starts at a lower values and goes to a higher value with an input signal (positive modulation).

DEPTH

With the exception of the env shape, adjusts the amount of modulation. Modulation is off at the fully counterclockwise position. When **env** is selected, modulation is off at 12 o'clock.

Front Panel - MIX

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REVERB

Sets the output level of the reverberated signal.

DRY

Sets the output level of the dry signal. No dry signal at minimum, unity gain at 12 o'clock, and +3dB boost of the dry signal at maximum.

Rear Panel - Rear Panel I/O and Control

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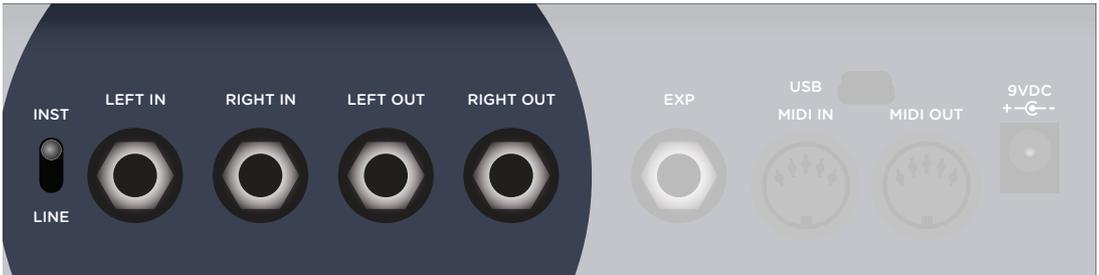
INPUTS

High impedance ultra low-noise discrete Class A JFET preamp inputs. Use **LEFT IN** for mono input.

OUTPUTS

Low impedance stereo outputs. Use **LEFT OUT** for mono output.

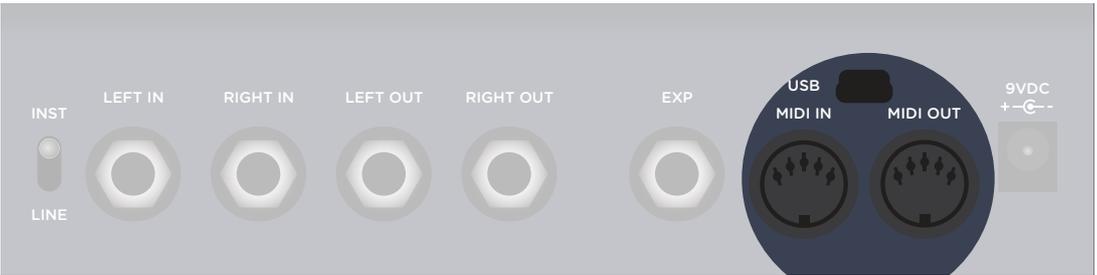
NOTE: With mono input using **LEFT IN**, output can be either mono (**LEFT OUT**) or stereo.



INPUT MODE

Sets the input level to the effect processing. Use **INST** for guitars or instruments with lower output. Setting to **LINE** adds 10dB of clean headroom. Use **LINE** input mode with synthesizers, amplifier and mixer effects loops, or guitar rigs with high output levels if more clean headroom is desired.

Rear Panel - Rear Panel I/O and Control (cont.)



MIDI IN

Full featured 5-pin DIN MIDI input. Provides support for receiving:

MIDI Program Change (PC):
Recall up to 300 presets.

MIDI Continuous Controller (CC): Control the individual parameters of NightSky including all knobs, switches, buttons, and Live Edit functions.

MIDI Clock: Syncs the sequencer tempo with an external MIDI Clock source.

MIDI OUT

Sends MIDI data generated by NightSky or echoes MIDI messages received at the **MIDI IN** port.

(See [page 31](#) for details.)

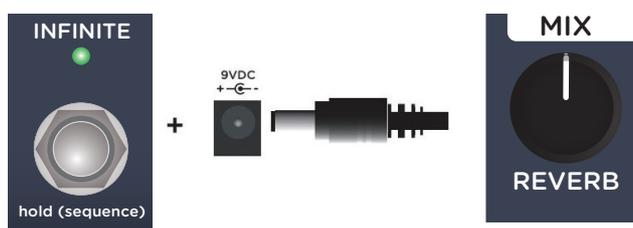
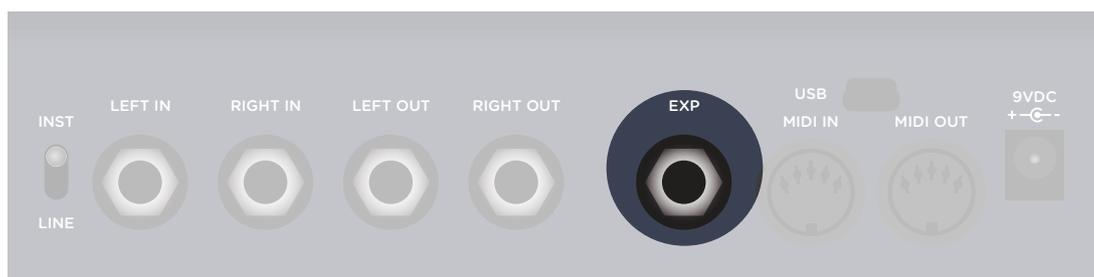
NOTE: NightSky can respond to MIDI messages received at the **MIDI IN**, **USB** port, or the **EXP** jack.

(See [page 26](#) for details.)

Rear Panel - Rear Panel I/O and Control (cont.)

EXP

To configure the **EXP** jack, press and hold the **INFINITE** footswitch while connecting power to NightSky. Once all three footswitch LEDs light up, release the footswitch. Turn the **REVERB** knob to select the mode (see below). The current mode will be displayed on the **INFINITE** LED.



Expression Pedal Mode: GREEN - Allows continuous control over any of the knobs in any direction with a standard TRS expression pedal.

(See [page 32](#) for details.)

MIDI mode: BLUE - Allows for the selection of up to three presets using a Strymon MultiSwitch Plus or for full MIDI functionality including access to 300 presets by sending MIDI Program Change messages via 1/4" TRS MIDI connection.

(See [page 34](#) for MultiSwitch Plus or [page 36](#) for MIDI.)

Preset Up/Down mode: RED - Scroll up or down through the 16 on-board presets and toggle bypass with MultiSwitch Plus.

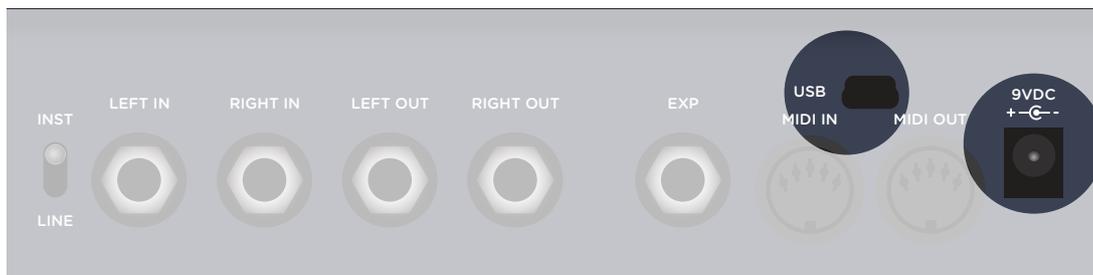
(See [page 34](#) for details.)

MOD/TONE/VOICE Bypass Mode: WHITE - Use MultiSwitch Plus to independently bypass the **MOD**, **TONE**, and **VOICE** sections of NightSky.

(See [page 34](#) for details.)

Rear Panel - Rear Panel I/O and Control (cont.)

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USB

Used for MIDI control as well as for performing firmware updates.

(See [page 34](#) for details.)

9VDC

Use the included power supply or an adapter with the following rating: 9VDC center negative 300mA minimum.

Footswitches - ON

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ON

Press to engage (**GREEN** LED ON) or bypass (LED OFF) the effect. Press and hold to sweep between the current sound and a set of “morph” knob settings.

(See [page 28](#) for details.)

BYPASS is configured for True Bypass by default, but can also be set to Buffered Bypass.

(See [page 29](#) for details.)

Footswitches - INFINITE



INFINITE

Holds the input to the reverb core while also allowing new audio to be processed by the reverb on top of the “frozen” audio. Press and hold to toggle in and out of Sequence mode.

(See [page 21](#) for details.)

Configuring Infinite Input: Press and hold the **TARGET** button and turn the **REVERB** knob. The status will be shown on **PRESET BUTTON 1**.

Infinite Input On = GREEN LED (New audio is processed by the reverb while **INFINITE** is ON)

Infinite Input Off = RED LED (New audio is not processed by the reverb while **INFINITE** is ON)

Footswitches - FAVORITE



There are 16 onboard presets that are accessible by using the 8 **PRESET BUTTONS** on NightSky. They are arranged in 2 banks of 8 presets with different **PRESET BUTTON** colors indicating the selected bank.

RECALL ACTIVE FAVORITE

Press the **FAVORITE** footswitch to engage the active onboard preset. The selected **PRESET BUTTON** and LED color determines the current active onboard preset.

SELECTING THE ACTIVE PRESET

PRESET BUTTONS 1-8 select the active onboard preset and engage the **FAVORITE** footswitch if not already engaged.

Press the lit **PRESET BUTTON** to switch between two banks. **GREEN** LED indicates presets 1-8, **AMBER** indicates presets 9-16.

(See [page 20](#) for details on saving presets.)

COMPARE MODE

As the knob and button settings are adjusted with the **FAVORITE** engaged, the **FAVORITE** LED temporarily changes from **GREEN** to **RED** when the current position is identical to the selected preset.

NOTE: The onboard presets 1-16 are assigned to MIDI Program Changes 0-15.

Footswitches - FAVORITE (cont.)



SAVE TO A PRESET LOCATION

Press and hold the **FAVORITE** footswitch until the LED flashes **BLUE** to enter SAVE mode, then release the footswitch. There are three ways to select a preset location and complete the save:

- 1 Press the **FAVORITE** footswitch to save to the currently selected preset location. Note that this could be a preset location selected via MIDI.
- 2 Press one of the eight **PRESET BUTTONS** to select a new preset location, and then press the **FAVORITE** footswitch to save to that location. Press the same **PRESET BUTTON** twice before pressing the **FAVORITE** footswitch to save to a different preset bank.
- 3 Send NightSky a MIDI Program Change message to save to the corresponding preset location.

To exit without saving, press the **INFINITE** footswitch.

NOTE: Saving a preset saves all knob, switch, and button settings, as well as all Live Edit functions, expression control settings, morph settings, and the current sequence.

Sequence Mode

NightSky has a built-in eight step sequencer where each step can have an independent **SIZE/PITCH** parameter setting for creating rhythmical pitch patterns with the currently loaded reverb settings. The sequence can be stepped through manually with the **ON (sequence step)** footswitch, or it can run continuously at the tempo set by using the **FAVORITE (sequence tap)** footswitch. Sequences are saved per preset.

- 1 To enter Sequence mode, press and hold the **INFINITE (sequence)** footswitch until the **ON LED** turns **RED**.



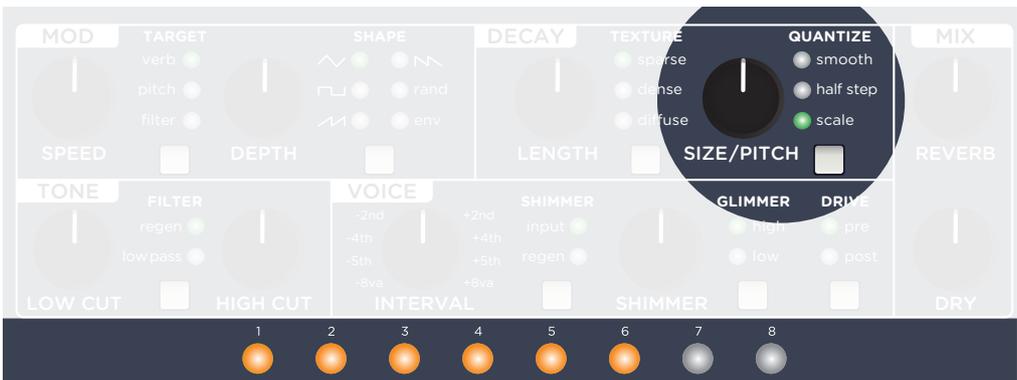
- 2 **PRESET BUTTONS** now become sequence steps 1 through 8 with an **AMBER** button indicating that the step is active.

NOTE: An unlit **PRESET BUTTON** will be skipped over and does not indicate a rest.

Sequence Mode (cont.)

PROGRAMMING A SEQUENCE

- 1 Press a **PRESET BUTTON** to enable (**AMBER** button LED) or disable (button LED OFF) the sequence step. A maximum of eight steps can be active for the sequence.



- 2 Press and hold a **PRESET BUTTON** and turn the **SIZE/PITCH** knob to set the desired pitch for each sequence step. A minimum of two active steps are required for the sequence to run.

TIP: Try setting **QUANTIZE** to **half step** or **scale** for more harmonious sequences.

TIP: It is helpful to have audio in the reverb buffer while you program the sequence. This can be done by playing audio through the pedal or holding the audio using the **INFINITE** footswitch.

Sequence Mode (cont.)

RUN THE SEQUENCE

Tap a tempo using the **FAVORITE (sequence tap)** footswitch to run the sequencer at the rate of the tapped tempo. A **PRESET BUTTON LED** will illuminate **RED** to indicate the current step. The maximum step length is 2000ms and the sequence will automatically run if a second tap is not entered before the maximum step length.



NOTE: A minimum of two active steps are required for the sequence to run.

A single press of the **FAVORITE (sequence tap)** footswitch resets the sequencer to run from step 1 if the sequencer is already running. If NightSky is receiving MIDI clock, a single press will run the sequence.

SEQUENCE GLIDE

Sequence Glide can be adjusted to add portamento to smooth the changes between the sequence steps.

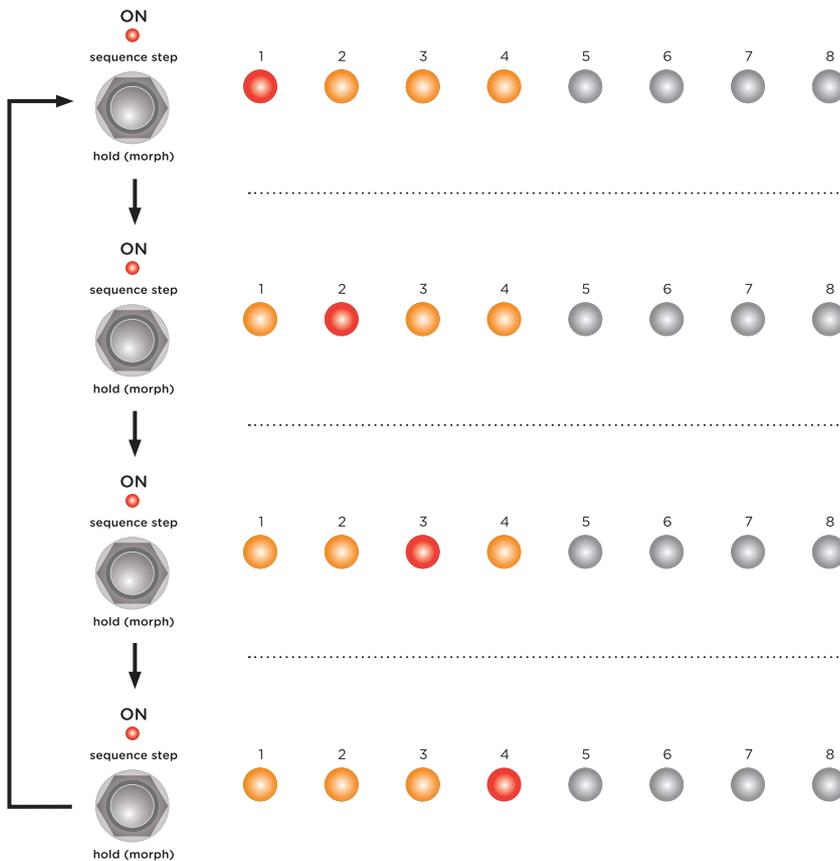
Press and hold the **SHAPE** button and turn the **REVERB** knob to adjust the amount of Sequence Glide.



Sequence Mode (cont.)

MANUAL STEP MODE

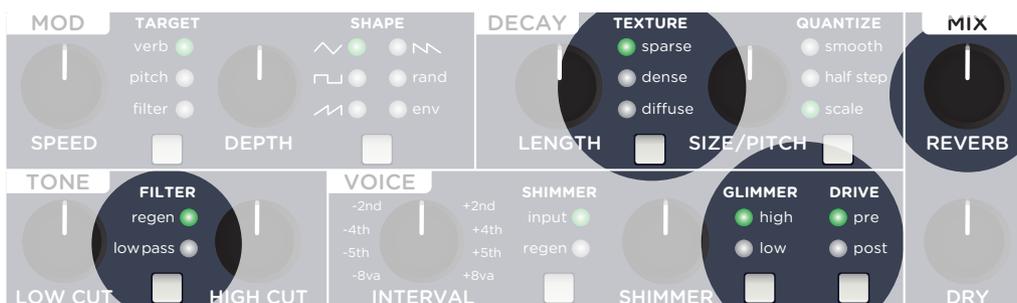
Press the **ON (sequence step)** footswitch to advance the sequence to the next step with each press. A **PRESET BUTTON LED** will illuminate **RED** to indicate the current step.



NOTE: If the sequencer is running, pressing the **ON (sequence step)** footswitch once will stop the sequence and return to the first step.

Live Edit Functions

NightSky provides a way to adjust several settings that do not have a dedicated knob or button. Live Edit Functions are saved per preset.



PRE-DELAY

Adjusts the time between the dry signal and the onset of the reverb. Press and hold the **TEXTURE** button and turn the **REVERB** knob to adjust (counter-clockwise = shorter, clockwise = longer).

GLIMMER GAIN

Adjusts the sensitivity of the glimmer effect to the input signal. Press and hold the **GLIMMER** button and turn the **REVERB** knob to adjust.

DRIVE GAIN

Adjusts the sensitivity of the drive effect. Press and hold the **DRIVE** button and turn the **REVERB** knob to adjust.

LOW PASS RESONANCE

Adjusts the filter Q, or sharpness of the resonant frequency. Press and hold the **FILTER** button and turn the **REVERB** knob to adjust. Higher values result in a peaking response. Lower values create a gradual roll-off.

Live Edit Functions (cont.)



SCALE SELECT

Selects one of eight scales that determine the quantization intervals of the **SIZE/PITCH** knob when **QUANTIZE** is set to scale mode. Press and hold the **QUANTIZE** button and press the **PRESET BUTTON** that corresponds with the scales noted below. The status will be shown by illuminated **PRESET BUTTON**.

1 = minor pentatonic

5 = minor blues

2 = major pentatonic

6 = harmonic minor

3 = major

7 = whole tone

4 = dorian

8 = diminished

RESPOND TO MIDI CLOCK

Determines whether NightSky's sequencer will respond to MIDI Clock.

Press and hold **PRESET BUTTONS 1 & 4**, turn the **SPEED** knob.

ON LED color will indicate the status.

MIDI Clock Off = **RED** LED (default)

MIDI Clock On = **GREEN** LED

MIDI EXPRESSION

Allows you to send MIDI CC# 100 as a MIDI expression pedal.

Press and hold **PRESET BUTTONS 1 & 4**, turn the **LOW CUT** knob.

ON LED color will indicate the status.

MIDI Expression Off = **RED** LED (NightSky will not respond to MIDI expression CC# 100)

MIDI Expression On = **GREEN** LED (NightSky will respond to MIDI expression CC# 100)

Live Edit Functions (cont.)

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INFINITE INPUT

Determines whether new audio received at the inputs will continue to be processed by the reverb while **INFINITE** is active.

Press and hold the **TARGET** button and turn the **REVERB** knob. The status will be shown on **PRESET BUTTON 1**.

Infinite Input On = **GREEN** LED (New audio is processed by the reverb while **INFINITE** is ON)

Infinite Input Off = **RED** LED (New audio is not processed by the reverb while **INFINITE** is ON)

Morph

The Morph function allows NightSky to sweep between the current sound of the pedal and a set of alternate knob settings and back by holding down the **ON** footswitch. Morph parameter settings are saved per preset.



SETTING UP MORPH PARAMETERS

- 1 Press and hold **PRESET BUTTONS 2 & 7** together to enter MORPH setup mode. When **PRESET BUTTONS 1-8** all flash **GREEN**, release the buttons.
- 2 Adjust the knobs to the desired MORPH setting.
- 3 Press any **PRESET BUTTON** to exit MORPH setup mode.
- 4 **morph speed:** Sets the amount of time it takes to arrive at the MORPH setting. Press and hold the **ON** footswitch and turn the **REVERB** knob to adjust the Morph Speed.
- 5 Adjust the knobs back to the desired sound.
- 6 Press and hold **ON** footswitch to sweep between the current setting and the Morph setting. Release **ON** footswitch to return to the current setting of the pedal.

Power Up Modes

Global parameters and functions can be accessed via a power up procedure. All power up functions persist through power cycles.

- 1 Press and hold the **INFINITE** footswitch while connecting power to the pedal. Once the three footswitch LEDs light up, release the footswitch.
 - 2 Adjust the desired functions with the knobs and buttons noted below.
 - 3 Press any footswitch to exit power up mode.
-

BYPASS MODE

Press **PRESET BUTTON 1**, LED color indicates status.

True Bypass = **GREEN** (default)

Buffered Bypass = **RED** Preserves the high frequency response of your guitar signal through your pedal chain and long cable runs.

PERSIST

Press **PRESET BUTTON 2**, LED color indicates status.

Persist ON = **GREEN** Reverb in the buffer will persist when the pedal is bypassed or a new preset is loaded. Enabling Spillover automatically puts NightSky into Buffered Bypass mode.

Persist OFF = **RED** (default) Reverb in the buffer will stop when the pedal is bypassed or a new preset is loaded.

Power Up Modes (cont.)

Global parameters and functions can be accessed via a power up procedure. All power up functions persist through power cycles.

- 1 Press and hold the **INFINITE** footswitch while connecting power to the pedal. Once the three footswitch LEDs light up, release the footswitch.
 - 2 Adjust the desired functions with the knobs and buttons noted below.
 - 3 Press any footswitch to exit power up mode.
-

SET MIDI CHANNEL

Turn the **SPEED** knob to select. **ON** LED indicates channel selection.

1 = **GREEN** (default)

2 = **AMBER**

3 = **RED**

4-16 = **BLUE** (channel set by next MIDI message) With this option, MIDI Channel is set to the channel of the next incoming MIDI Program Change message received.

TRS MIDI OUTPUT

This determines what kind of MIDI data is sent out of NightSky's TRS MIDI output. Note that if you are only sending MIDI data to NightSky – the most common configuration – the MIDI Output mode must be set to OFF.

Turn the **LENGTH** knob to select, status is shown on the **FAVORITE** LED.

On = **GREEN** Only NightSky UI messages are sent out of NightSky.

Through = **AMBER** Incoming MIDI messages are sent to the MIDI OUTPUT without additional MIDI messages generated by NightSky.

Off = **RED** (default) No MIDI Messages are sent out of NightSky.

Power Up Modes (cont.)

Global parameters and functions can be accessed via a power up procedure. All power up functions persist through power cycles.

- 1 Press and hold the **INFINITE** footswitch while connecting power to the pedal. Once the three footswitch LEDs light up, release the footswitch.
 - 2 Adjust the desired functions with the knobs and buttons noted below.
 - 3 Press any footswitch to exit power up mode.
-

Send MIDI CC

Press **PRESET BUTTON 4**, LED color indicates status.

Send MIDI CC On = **GREEN**

Send MIDI CC Off = **RED** (default)

MIDI Program Change

Press **PRESET BUTTON 5**, LED color indicates status.

Send MIDI Program Change On = **GREEN**

Send MIDI Program Change Off = **RED** (default)

5 Pin DIN MIDI Through

Press **PRESET BUTTON 6**, LED color indicates status.

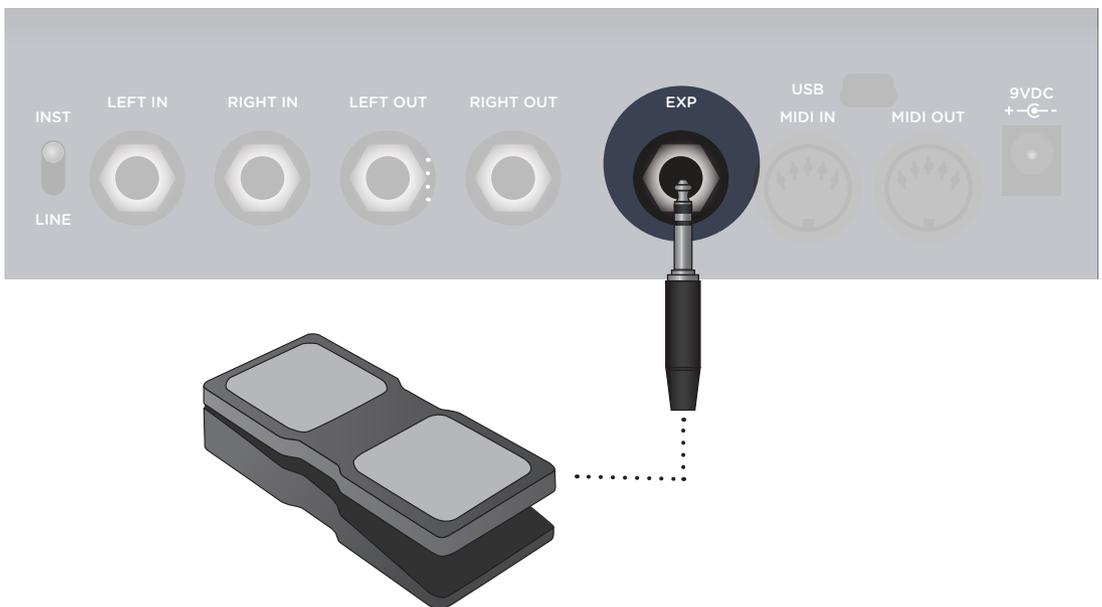
On = **GREEN** (default) **NOTE:** Only messages generated by NightSky's UI are sent out of the MIDI OUT port.

Through = **RED** LED **NOTE:** MIDI messages sent to NightSky are echoed to the MIDI OUT port without adding messages generated by the UI.

External Control – Expression Pedal Setup

Use a TRS Expression pedal to control the knobs of NightSky.

- 1 Configure the **EXP** jack for Expression mode.
(See [page 15](#) for details.)
- 2 Connect the Expression pedal to the **EXP** jack of NightSky using a TRS cable.



- 3 Press and hold the **PRESET BUTTONS 1 & 8** together for one second until all the **PRESET BUTTONS** are flashing **GREEN**.



- 4 Rock the expression pedal back to the **HEEL** position and **PRESET BUTTONS 1-4** will flash **GREEN**.



External Control – Expression Pedal Setup (cont.)

- 5 Set the knobs the way you would like them to be in the HEEL position. Once a knob is turned, **PRESET BUTTONS 1-4** will flash **RED**.



- 6 Rock the expression pedal forward to the TOE position and **PRESET BUTTONS 5-8** will flash **GREEN**.



- 7 Set the knobs the way you would like them to be in the TOE position. Once a knob is turned, **PRESET BUTTONS 5-8** will flash **RED**.



- 8 Press any **PRESET BUTTON** to store and exit setup. Buttons will stop flashing.

NOTE: Expression pedal settings are saved and recalled as part of the onboard favorite setting and MIDI accessible presets.

We recommend using an expression pedal with a 25k Ohm minimum potentiometer.

External Control – MultiSwitch Plus

Configure NightSky for use with MultiSwitch Plus.

- 1 Press and hold the **INFINITE** footswitch while connecting power to the pedal. Once the three footswitch LEDs light up, release the footswitch.
- 2 Turn the **SPEED** knob all the way counter-clockwise to set the MIDI channel to Channel 1. The **ON** LED should be **GREEN**.
- 3 Turn the **LENGTH** knob all the way counter-clockwise to set the TRS MIDI OUT mode to ON. The **FAVORITE** LED should be **GREEN**.
- 4 Turn the **REVERB** knob to the desired MultiSwitch Plus function. *(See [page 15](#) for a list of possible functions.)*
- 5 Press the **INFINITE** footswitch to store these settings.
- 6 Connect a TRS cable to the EXP jack of NightSky.



External Control – MultiSwitch Plus (cont.)

Configuring and using MultiSwitch Plus with NightSky.

- 7** Press and hold the **A** footswitch on MultiSwitch Plus when connecting the TRS cable to MultiSwitch Plus for Preset mode.



MIDI/Preset Mode	Preset 2	Preset 3	Preset 4
OR			
Press and hold the C footswitch on MultiSwitch Plus when connecting the TRS cable to MultiSwitch Plus for Preset Scroll mode or MOD/TONE/VOICE Bypass Mode.	⋮	⋮	⋮
Preset Up/Down Mode	Previous Preset	On/Bypass	Next Preset
MOD/TONE/VOICE Bypass Mode	MOD On/Off	TONE On/Off	VOICE On/Off

- 8** MultiSwitch Plus will now function according to the EXP jack mode you have chosen in step three.

NOTE: If NightSky is in Sequence mode, loading a new preset will stop the sequence and cause the pedal to switch to Reverb mode.

NOTE: In MOD/TONE/VOICE Bypass Mode, the LEDs for each section will turn off when it is bypassed. These bypass settings can be saved to a preset, however, the LEDs for all sections will be lit when you recall the preset regardless of the bypass state.

MIDI Specifications

MIDI PROGRAM CHANGES

NightSky contains 300 preset locations, numbered sequentially from 0-299. Because MIDI Program Change messages have a maximum number of 128 (0-127), the presets are grouped into three MIDI patch banks.

MIDI BANK 0 = PRESETS 0-127

MIDI BANK 1 = PRESETS 128-255

MIDI BANK 2 = PRESETS 256-299

NightSky always powers up in MIDI Patch Bank 0, so if you plan to stay within the first 127 presets, simply send a standard MIDI Program Change message to load a preset.

MIDI Program Change #'s 0-7 will illuminate the **PRESET BUTTONS GREEN** to correspond with presets 1-8.

MIDI Program Change #'s 9-15 will illuminate the **PRESET BUTTONS AMBER** to correspond with presets 1-8.

MIDI Program Change #'s 16-126 will NOT change the color of the **PRESET BUTTONS**, but it will change the color of the **FAVORITE LED** to **AMBER**.

If you will be using MIDI Banks 1 and/or 2, it is advisable to send a standard MIDI Bank Change message (MIDI CC# 0 with a value equal to the MIDI Bank#) before each MIDI Program Change.

Selecting bank 0, patch 127 will put NightSky into Manual mode. In this mode, the pedal will be set to the current knob and button settings. No preset data can be stored at this preset location.

NOTE: The relevant MIDI program change numbers correspond to the MultiSwitch PLUS footswitch numbers.

MultiSwitch PLUS footswitch 1 = MIDI Program Change 1

MultiSwitch PLUS footswitch 2 = MIDI Program Change 2

MultiSwitch PLUS footswitch 3 = MIDI Program Change 3

MIDI Specifications (cont.)

MIDI CC NUMBERS

PARAMETERS	CC#	RANGE	NOTES
Bank Select	0	0-2	
Mix - Reverb Level	11	0-127	
Mix - Dry Level	12	0-127	
Mod - Speed	13	0-127	
Mod - Target	14	0-2	(0=verb, 1=pitch, 2=filter)
Mod - Depth	15	0-127	
Mod - Shape	16	0-5	(0=triangle, 1=square, 2=ramp, 3=saw, 4=random, 5=envelope)
Decay - Pre-Delay	17	0-127	
Decay - Length	18	0-127	
Decay - Texture	19	0-2	(0=sparse, 1=dense, 2=diffuse)
Decay - Size/Pitch	20	0-127	
Decay - Quantez	21	0-2	(0=smooth, 1=half step, 2=scale)
Tone - Low Cut	22	0-127	
Tone - High Cut	23	0-127	
Tone - Filter	24	0-1	(0=regen, 1=lowpass)
Tone - Lowpass Q	25	0-127	
Voice - Interval	26	0-25	*See page 39 for details
Voice - Scale Select	27	0-7	(0=minor pentatonic, 1=major pentatonic, 2=major, 3=dorian, 4=minor blues, 5=harmonic minor, 6=whole tone, 7=diminished)

NOTE: All on/off parameters are implemented with 0=off and any other value (1-127)=on. They are documented as “0, 127” because many MIDI controllers send out 0 and 127 for on/off switches.

MIDI Specifications (cont.)

MIDI CC NUMBERS

PARAMETERS	CC#	RANGE	NOTES
Voice - Shimmer	28	0-1	(0=input, 1=regen)
Voice - Shimmer Level	29	0-127	
Voice - Glimmer	30	0-2	(0=off, 1=high, 2=low)
Voice - Glimmer Gain	31	0-127	
Voice - Drive	33	0-2	(0=off, 1=pre, 2=post)
Voice - Drive Level	34	0-127	
Freeze	35	0, 1-127	(0=off, 1-127=on)
Morph	36	0, 1-127	(0=off, 1-127=on)
Morph Speed	37	0-127	
Sequence Mode	41	0, 1-127	(0=preset, 1-127=sequence)
Sequencer Step 1 Off/On	42	0, 1-127	(0=off, 1-127=on)
Sequencer Step 2 Off/On	43	0, 1-127	(0=off, 1-127=on)
Sequencer Step 3 Off/On	44	0, 1-127	(0=off, 1-127=on)
Sequencer Step 4 Off/On	45	0, 1-127	(0=off, 1-127=on)
Sequencer Step 5 Off/On	46	0, 1-127	(0=off, 1-127=on)
Sequencer Step 6 Off/On	47	0, 1-127	(0=off, 1-127=on)
Sequencer Step 7 Off/On	48	0, 1-127	(0=off, 1-127=on)
Sequencer Step 8 Off/On	49	0, 1-127	(0=off, 1-127=on)
Sequencer Step 1 Size	50	0-127	
Sequencer Step 2 Size	51	0-127	
Sequencer Step 3 Size	52	0-127	
Sequencer Step 4 Size	53	0-127	
Sequencer Step 5 Size	54	0-127	
Sequencer Step 6 Size	55	0-127	
Sequencer Step 7 Size	56	0-127	
Sequencer Step 8 Size	57	0-127	
Sequence Glide	58	0-127	

MIDI Specifications (cont.)

MIDI CC NUMBERS

PARAMETERS	CC#	RANGE	NOTES
MIDI Expression Off/On	60	0, 1-127	(0=off, 1-127=on)
MIDI Clock Off/On	63	0, 1-127	(0=off, 1-127=on)
Footswitch On	80	0, 1-127	(0=release, 1-127=press)
Footswitch Favorite	81	0, 1-127	(0=release, 1-127=press)
Footswitch Infinite	82	0, 1-127	(0=release, 1-127=press)
Persist	83	0, 1-127	(0=persist off, 1-127=persist on)
Sequence Tap	93	any	
Expression Pedal	100	0-127	
Bypass/On	102	0, 1-127	(0=bypass, 1-127=on)

* Voice - Interval

26

0: -octave	9: -minor 3rd	18: +perfect fourth
1: -major 7th	10: -major 2nd	19: +tritone
2: -minor 7th	11: -minor 2nd	20: +perfect fifth
3: -major 6th	12: -detune	21: +minor sixth
4: -minor 6th	13: +detune	22: +major sixth
5: -perfect 5th	14: +minor second	23: +minor seventh
6: -tritone	15: +major second	24: +major seventh
7: -perfect 4th	16: +minor third	25: +octave0 - octave
8: -major 3rd	17: +major third	

SIZE/PITCH MIDI Note Range - MIDI Notes C -2 to C0 (2 octave range in half step increments)

Factory Reset

Restore the pedal to factory power up modes and Live Edit Functions.



- 1 Press and hold the **ON** footswitch while powering up the pedal. Once the **ON** LED starts flashing, release the footswitch.
- 2 Turn **LENGTH** knob from 0-100% and back two (2) times. The **FAVORITE** LED will change colors at the extremes of the knob range and blink **RED** to indicate when the reset is taking place.
 - Turn 1: **AMBER** LED
 - Turn 2: **RED** LED
 - Turn 3: **AMBER** LED
 - Turn 4: All three footswitch LEDs flash **RED**, NightSky resets and restarts.

Factory Settings

.....

POWER UP DEFAULTS

Bypass Mode: True Bypass

MIDI Channel: 1

Persist: Off

EXP Jack Options: Expression

SEND MIDI CC: Off

MIDI Program Change: Off

TRS MIDI Output Mode: On

DIN MIDI Thru Mode: On

MANUAL MODE LIVE EDIT DEFAULTS

MIDI clock / MIDI exp: OFF

Glimmer Gain: max

Drive Gain: max

Pre-Delay: min

Infinite Input: on

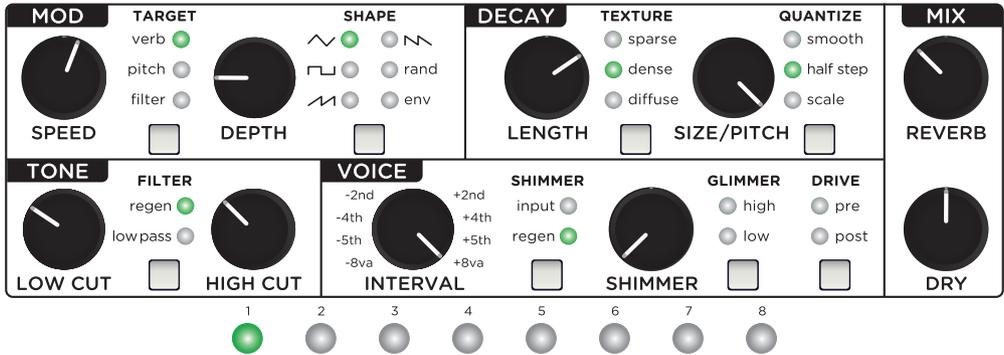
Scale Select: major pentatonic

Low Pass Resonance: 12 o'clock

Sequence Glide: min

Sample Settings

PRESET 1 - LOOK UP



MIDI clock / MIDI exp: OFF

Glimmer Gain: 12 o'clock

Drive Gain: max

Pre-Delay: 10 o'clock

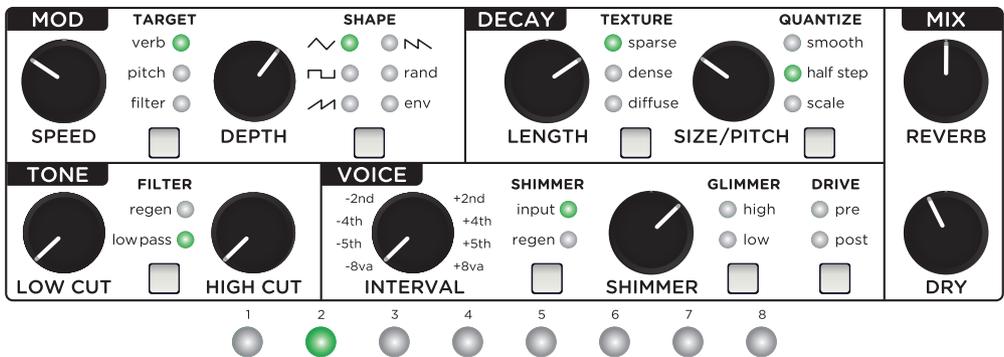
Infinite Input: on

Scale Select: minor pentatonic

Low Pass Resonance: min

Sequence Glide: min

PRESET 2 - NEW MOON



MIDI clock / MIDI exp: OFF

Glimmer Gain: 12 o'clock

Drive Gain: max

Pre-Delay: min

Infinite Input: on

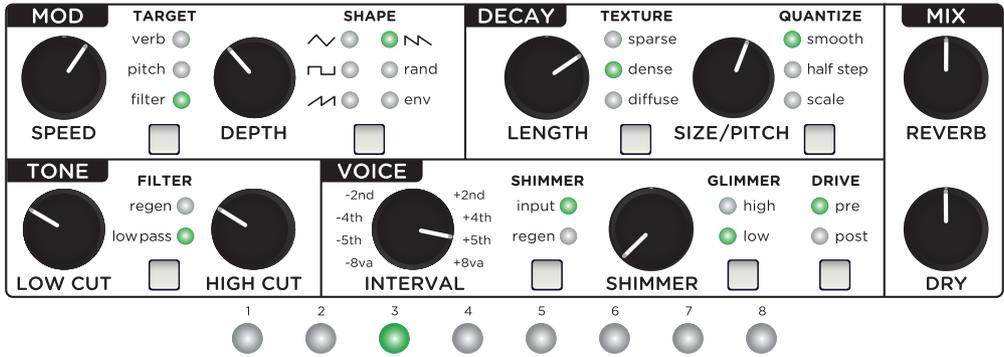
Scale Select: whole tone

Low Pass Resonance: 12 o'clock

Sequence Glide: min

Sample Settings

PRESET 3 - PULSAR



MIDI clock / MIDI exp: OFF

Glimmer Gain: 12 o'clock

Drive Gain: 1 o'clock

Pre-Delay: min

Infinite Input: on

Scale Select: harmonic minor

Low Pass Resonance: 12 o'clock

Sequence Glide: min

PRESET 4 - SOLAR WIND



MIDI clock / MIDI exp: OFF

Glimmer Gain: 12 o'clock

Drive Gain: max

Pre-Delay: min

Infinite Input: on

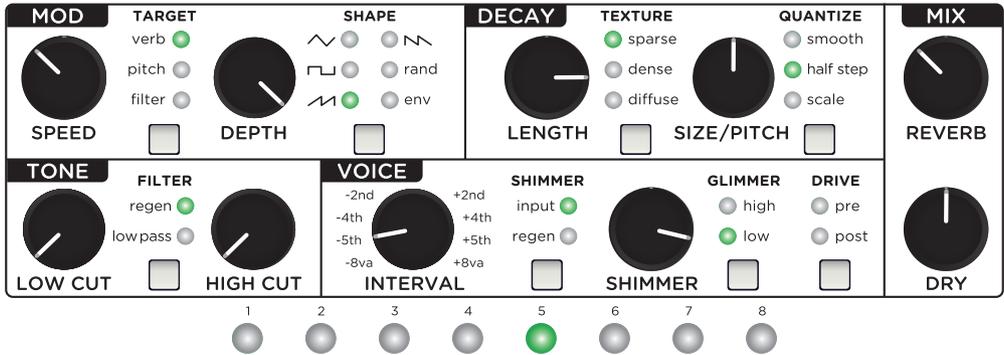
Scale Select: minor pentatonic

Low Pass Resonance: 11 o'clock

Sequence Glide: 11 o'clock

Sample Settings

PRESET 5 - RINGS OF SATURN



MIDI clock / MIDI exp: OFF

Glimmer Gain: 12 o'clock

Drive Gain: max

Pre-Delay: min

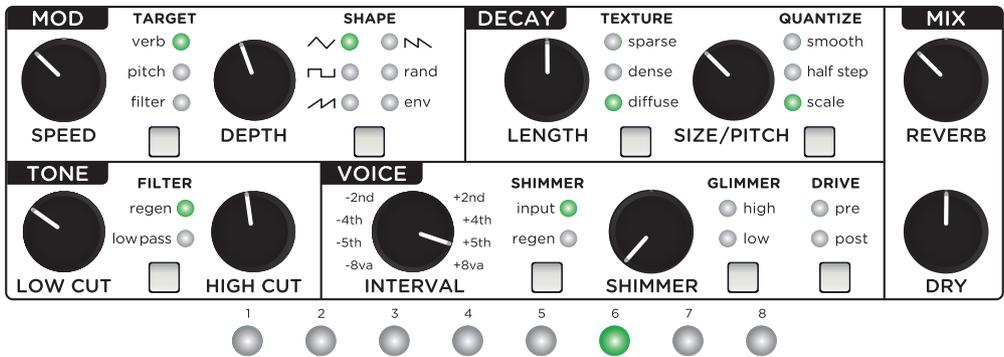
Infinite Input: on

Scale Select: major

Low Pass Resonance: 11 o'clock

Sequence Glide: 12 o'clock

PRESET 6 - ZENITH



MIDI clock / MIDI exp: OFF

Glimmer Gain: 12 o'clock

Drive Gain: max

Pre-Delay: 12 o'clock

Infinite Input: on

Scale Select: major

Low Pass Resonance: 12 o'clock

Sequence Glide: min

Sample Settings

PRESET 7 - OMEGA NEBULA

MIDI clock / MIDI exp: OFF

Glimmer Gain: 12 o'clock

Drive Gain: max

Pre-Delay: min

Infinite Input: on

Scale Select: dorian

Low Pass Resonance: 12 o'clock

Sequence Glide: min

PRESET 8 - SAFE LANDING

MIDI clock / MIDI exp: OFF

Glimmer Gain: 12 o'clock

Drive Gain: max

Pre-Delay: min

Infinite Input: off

Scale Select: major

Low Pass Resonance: 12 o'clock

Sequence Glide: min

Sample Settings

PRESET 9 - APERTURE

The screenshot shows the NightSky interface for Preset 9 - Aperture. The interface is organized into several sections:

- MOD:** SPEED knob.
- TARGET:** verb (checked), pitch, filter, DEPTH knob.
- SHAPE:** Waveform icons: ~ (checked), rand, env.
- DECAY:** LENGTH knob.
- TEXTURE:** sparse, dense (checked), diffuse.
- QUANTIZE:** smooth (checked), half step, scale.
- MIX:** REVERB knob.
- TONE:** LOW CUT knob.
- FILTER:** regen (checked), low pass.
- VOICE:** INTERVAL knob with labels: -2nd, -4th, -5th, -8va, +2nd, +4th, +5th, +8va.
- SHIMMER:** input, regen (checked), SHIMMER knob.
- GLIMMER:** high, low.
- DRIVE:** pre, post, DRY knob.

Below the interface are eight numbered buttons (1-8). Button 1 is highlighted in orange.

MIDI clock / MIDI exp: OFF

Glimmer Gain: 12 o'clock

Drive Gain: max

Pre-Delay: min

Infinite Input: on

Scale Select: minor pentatonic

Low Pass Resonance: min

Sequence Glide: min

PRESET 10 - SPIRAL GALAXY

The screenshot shows the NightSky interface for Preset 10 - Spiral Galaxy. The interface is organized into several sections:

- MOD:** SPEED knob.
- TARGET:** verb (checked), pitch, filter, DEPTH knob.
- SHAPE:** Waveform icons: ~, rand (checked), env.
- DECAY:** LENGTH knob.
- TEXTURE:** sparse, dense (checked), diffuse.
- QUANTIZE:** smooth, half step (checked), scale.
- MIX:** REVERB knob.
- TONE:** LOW CUT knob.
- FILTER:** regen, low pass (checked), HIGH CUT knob.
- VOICE:** INTERVAL knob with labels: -2nd, -4th, -5th, -8va, +2nd, +4th, +5th, +8va.
- SHIMMER:** input (checked), regen, SHIMMER knob.
- GLIMMER:** high, low.
- DRIVE:** pre, post, DRY knob.

Below the interface are eight numbered buttons (1-8). Button 2 is highlighted in orange.

MIDI clock / MIDI exp: OFF

Glimmer Gain: 12 o'clock

Drive Gain: max

Pre-Delay: min

Infinite Input: on

Scale Select: dorian

Low Pass Resonance: 12 o'clock

Sequence Glide: 11 o'clock

Sample Settings

PRESET 11 - NORTHERN LIGHTS

MIDI clock / MIDI exp: OFF

Glimmer Gain: 12 o'clock

Drive Gain: max

Pre-Delay: min

Infinite Input: on

Scale Select: minor blues

Low Pass Resonance: 11 o'clock

Sequence Glide: min

PRESET 12 - MAGNETIC FIELD

MIDI clock / MIDI exp: OFF

Glimmer Gain: 12 o'clock

Drive Gain: max

Pre-Delay: min

Infinite Input: on

Scale Select: harmonic minor

Low Pass Resonance: 10 o'clock

Sequence Glide: min

Sample Settings

PRESET 13 - SPACE WALK

MIDI clock / MIDI exp: OFF

Glimmer Gain: 12 o'clock

Drive Gain: max

Pre-Delay: min

Infinite Input: on

Scale Select: dorian

Low Pass Resonance: 12 o'clock

Sequence Glide: min

PRESET 14 - RETROGRADE

MIDI clock / MIDI exp: OFF

Glimmer Gain: 12 o'clock

Drive Gain: max

Pre-Delay: min

Infinite Input: on

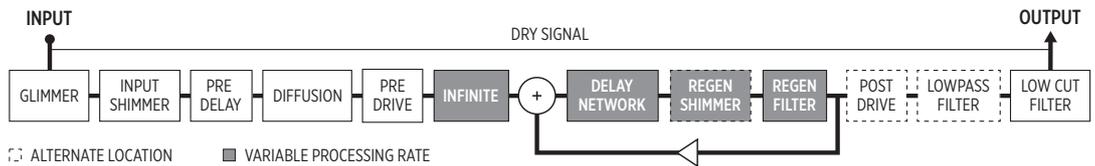
Scale Select: major pentatonic

Low Pass Resonance: 10 o'clock

Sequence Glide: 11 o'clock

Signal Flow Diagram

This diagram shows the complete routing of audio through NightSky. Keep in mind that **DRIVE**, **SHIMMER**, and **FILTER** blocks can be located in only one of the shown locations.



Features

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- Three selectable reverb types offer a wide variety of ambient textures
- MOD section with various waveforms to modulate the reverb or tone filters
- TONE section to sculpt the high and low EQ of the reverb
- VOICE section to enhance the aural spectrum of the reverb
- Adjustable SHIMMER for adding pitch shifting of up to +/- 1 octave to the reverb
- GLIMMER dynamically enhances harmonics for synth-like textures
- Pre or Post DRIVE to add saturated overdriven harmonics to the reverb
- Adjustable reverb core size to increase or decrease the space for reflections
- Independent REVERB and DRY level controls
- 4-pole 24dB/octave variable resonance low pass filter for synth-like filter sweeps
- Step sequencer for programming rhythmic pitch variations of the reverb
- Access to 16 presets from the front panel and 300 presets via MIDI
- Selectable Buffered vs. True Bypass
- Input Level switch allows for both instrument and line level signals
- On, Favorite, and Infinite footswitches
- Expression pedal input allows the connection of an expression pedal, MultiSwitch Plus, or 1/4" to MIDI cable
- Full featured MIDI input/output supporting MIDI CCs, program changes, MIDI clock sync and more
- USB jack for controlling via MIDI from a computer or for performing firmware updates
- Analog dry path for a zero latency dry signal that is never converted to digital
- Premium JFET analog front end
- Ultra low noise, high performance 24-bit 96kHz A/D and D/A converters provide uncompromising audio quality
- Super high performance SHARC DSP
- 32-bit floating point processing
- High impedance ultra low-noise discrete Class A JFET preamp inputs
- Low impedance stereo outputs
- Designed and built in the USA

Specifications

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Input Impedance	1M Ohm
Output Impedance	100 Ohm
A/D & D/A	24-bit 96kHz
Max Input Level	+8dBu
Frequency Response	20Hz to 20kHz
Signal to Noise	115dB typical
DSP Performance	1585 MegaFLOPS
Bypass Switching	True Bypass (electromechanical relay switching)
Dimensions	4.5" deep x 7" wide x 1.75" tall (11.4 cm deep x 17.8 cm wide x 4.4 cm tall)

Power Adapter Requirements

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Use an adapter with the following rating: 9VDC center negative; 300mA minimum.

Strymon Non-Transferrable Limited Warranty

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Warranty

Strymon warrants the product to be free from defects in material and workmanship for a period of two (2) years from the original date of purchase when bought new from an authorized dealer in the United States of America or Canada. If the product fails within the warranty period, Strymon will repair or, at our discretion, replace the product at no cost to the original purchaser. Please contact your dealer for information on warranty and service outside of the USA and Canada.

Exclusions

This warranty covers defects in manufacturing discovered while using this product as recommended by Strymon. This warranty does not cover loss or theft, nor does the coverage extend to damage caused by misuse, abuse, unauthorized modification, improper storage, lightning, or natural disasters.

Limits of Liability

In the case of malfunction, the purchaser's sole recourse shall be repair or replacement, as described in the preceding paragraphs. Strymon will not be held liable to any party for damages that result from the failure of this product. Damages excluded include, but are not limited to, the following: lost profits, lost savings, damage to other equipment, and incidental or consequential damages arising from the use, or inability to use this product. In no event will Strymon be liable for more than the amount of the purchase price, not to exceed the current retail price of the product. Strymon disclaims any other warranties, expressed or implied. By using the product, the user accepts all terms herein.

How to Obtain Service Under this Warranty

For North American customers: Contact Strymon through our website at strymon.net/support for Return Authorization and information. Proof of original ownership may be required in the form of a purchase receipt.

For International Customers: Contact the Strymon dealer from which the product was purchased from in order to arrange warranty repair service.

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