USER MANUAL

BigSky

strymon®

Front Panel Controls

VALUE: Turn for fine adjustment of Decay time when time is displayed. Scrolls through presets when bank or name is displayed. **Push** to access the **PARAMETER** menu, **hold** to access the **GLOBAL** menu.

DECAY: Controls the Decay time of the reverberated signal. The range can depend on the selected reverb machine.

PRE-DELAY: Adjusts the time between the dry signal and the onset of the reverb, from 0 to 1.5 seconds. For the Nonlinear and Magneto machines, this knob controls the amount of Feedback.

MIX: Controls the balance of your analog dry signal and your wet signal, from 100% dry at minimum to 100% wet at maximum. 50/50 mix occurs when the Mix knob is set to 3:00.

TYPE: Turn to select desired reverb machine. **Push** to toggle the display to show Decay time or the current bank. **Hold** to save current preset.
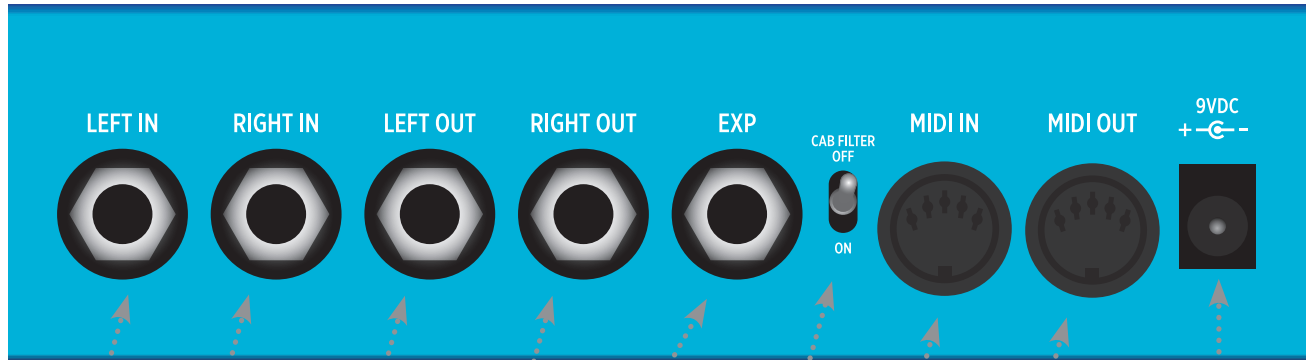
MOD: Adds modulation to the reverberated signal. Lower settings modulate the delay lines lightly for a subtle and natural movement, higher settings tastefully add stronger modulation.

TONE: Adjusts the high end content of the reverb. Lower settings create darker, warmer reverberation, higher settings are bright and crisp. Set at 12:00 for a nicely balanced top end.

PARAM 1 & 2: Assignable to parameters for the current reverb machine. To assign, choose the desired parameter, press and hold value encoder while turning a PARAM knob.

A, B, & C LEDS: Green if active. Amber if the preset has been edited. Off if bypassed.

A, B, & C FOOTSWITCHES: Press to engage or bypass preset of the current bank. Hold for Infinite Sustain or Freeze (selectable via PARAMETER menu). Press A & B to select a lower bank. Press B & C to select a higher bank.

Rear Panel

LEFT IN   RIGHT IN   LEFT OUT   RIGHT OUT   EXP   CAB FILTER OFF / ON   MIDI IN   MIDI OUT   9VDC + ⌿ −

INPUTS: High impedance inputs. Use **LEFT** input for mono.

OUTPUTS: Use **LEFT** output for mono.

EXP: Connect an expression pedal. See **EXP Connections**

CAB FILTER SWITCH: Set switch to **ON** for a sophisticated speaker response curve. See **Cab Filter.**

MIDI: Full featured MIDI input and output supporting CCs, Program changes, etc. See **MIDI Specification** section.

POWER: Never plug into voltage higher than 9V DC. Requires at least 300mA of available current. 9V DC center negative polarity.

In Depth: PARAM 1 & 2 controls

The **PARAM 1 & PARAM 2** knobs allow you quick access to any desired menu parameter of the currently active reverb machine. For example, DIFUSN on the Cloud machine can be assigned to one of the parameter knobs to allow for easier control over the reverb diffusion.
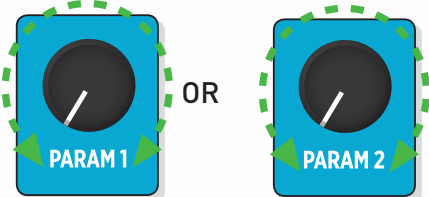

ASSIGNING A PARAMETER

STEP 1: Navigate to the desired parameter to be assigned.

STEP 2: Press and hold the value encoder.

VALUE
push (param)
hold (global)

STEP 3: While holding the value encoder. Turn either the PARAM 1 or PARAM 2 knob to assign a parameter.

OR

PARAM 1   PARAM 2

STEP 4: Turn the newly assigned PARAM knob to adjust your reverb machine parameter.

Reverb time ranges and Display

push the
TYPE encoder

to toggle the display between
BANK, NAME & TIME

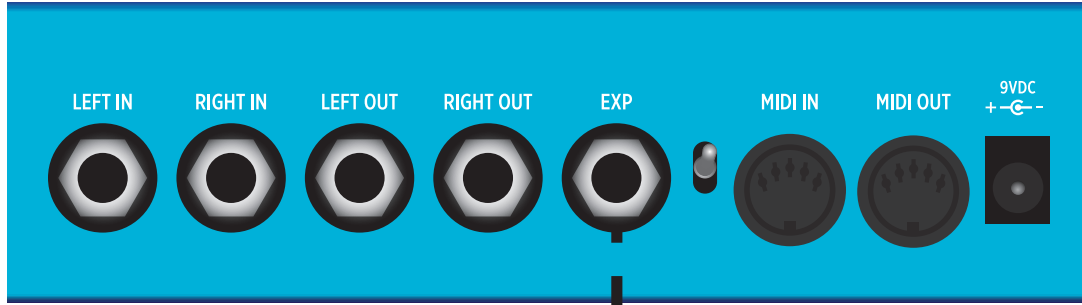The displayed Decay time is the RT60 value, which is the time it takes for the reverberated signal to decay to -60dB (1/1000th) of its initial value.

Hall, Plate, Swell, Bloom, Chorale, Shimmer	500mS — +20.00S
Spring	800mS — 10.00S
Cloud	1.00S — +50.00S
Magneto	200mS — 1.50mS
Nonlinear	50mS — 2.00S
Reflections	133mS — 400mS
Room	200mS — +20.00S

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EXP Connections

**LEFT IN** **RIGHT IN** **LEFT OUT** **RIGHT OUT** **EXP** **MIDI IN** **MIDI OUT** **9VDC**

Connect a **Strymon MiniSwitch** for remote control of Pre-Delay (or Decay time with the Magneto and Nonlinear machines). Use a standard TRS cable to connect the external switch. Set the **EXP MD** global setting to **TAP** to use external tap.

TRS

strymon

OR

Connect a standard TRS **expression pedal** for continuous control over any knob. To select the knob(s) controlled by the expression pedal, use the **EP SET** parameter in each preset. All knobs can be controlled simultaneously. See **Common Parameters** for set up instructions.
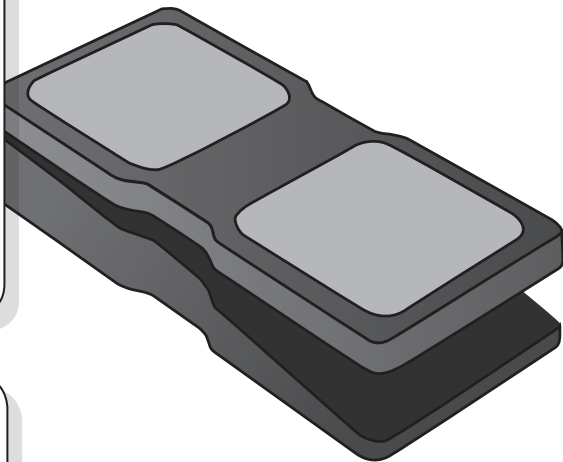
Connect a **Strymon MultiSwitch** for external tap, bank, or preset selection. Set the EXP MD global setting to either TAP, BANK, or PRESET.

Please refer to the MultiSwitch user manual for detailed setup information: **www.strymon. net/support/multiswitch**

▲ TRS

strymon **MULTI** switch
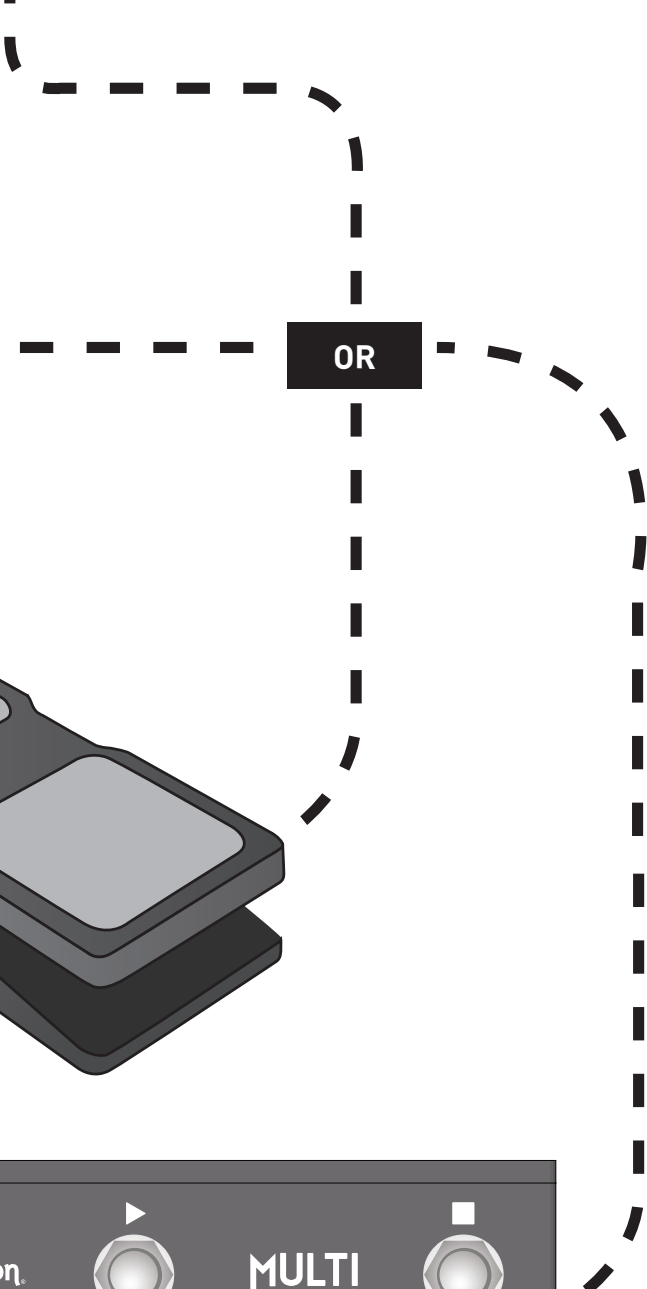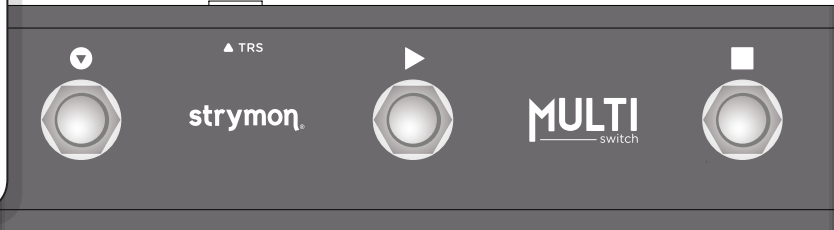
Banks and Presets

BigSky has **100** banks with A, B, and C presets in each bank. Banks are numbered 00 to 99 on the display.

Note: BigSky ships from the factory with the first 100 presets (00A-33A) duplicated from 33B-66B, and again from 66C-99C.

Saving Presets

Save a preset to the current location:

hold the
TYPE encoder

push the TYPE encoder
to **save** your settings
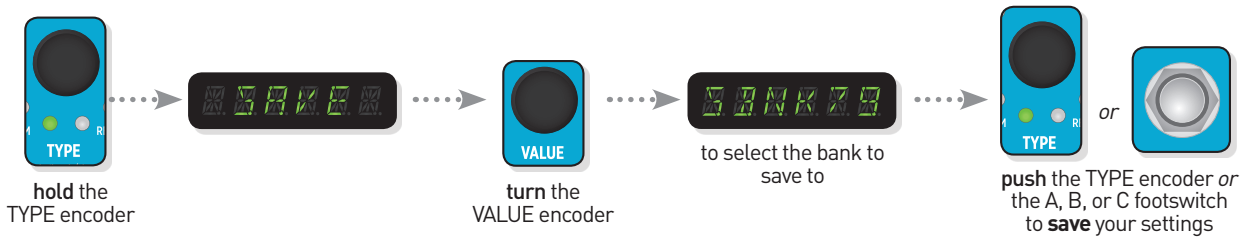
Save a preset to a new location:

hold the
TYPE encoder

turn the
VALUE encoder

to select the bank to
save to

or

push the TYPE encoder *or*
the A, B, or C footswitch
to **save** your settings

To cancel an in-progress save press the VALUE encoder.

Restoring Factory Presets

CAUTION: This procedure will erase any custom patches saved in your BigSky and restore them to factory

A   B   C

BANK DOWN   BANK UP

POWER UP BigSky while holding **A** & **C.**
Keep holding for 5 seconds after BigSky has powered up.

REINIT will be displayed
and all factory patches will
automatically be restored

Editing Parameters

While displaying BANK,
NAME or TIME

push the
VALUE encoder

to enter PARAMS
menu

turn the
VALUE encoder

to select the desired
PARAMETER

push the
VALUE encoder

and **turn** to edit
the selected
PARAMETER

Reverb Machines: Common Parameters

`PARAMS`

All Reverb Machines share a set of parameters. These parameters are saved with each preset and include:

Boost:

`BOOST.`

+/- 3dB of boost/cut. This can be useful for level matching in your effects chain, or can be used as an effect such as boosting a solo with reverb.

Persist:

`PRSIST`

Turns on reverb persist "trails" which will spill over when the effect is bypassed. Use this if it is desired for reverb decay to continue after the effect has been bypassed. Note that if persist is set to ON, the bypass mode will automatically be set to analog bypass.

Hold:

`HOLD.`

Sets the press-and-hold function for the selected preset switch. Select INFNTE to set as Infinite Sustain, allowing your reverbs to continue infinitely, with each new note you play adding to the reverb signal. Select FREEZE to set as Reverb Freeze, delivering infinite sustain, and allowing for new notes on top of the sustain without adding to the reverb.

Name:

`NAME.`

Allows editing the 16 character name of the current preset. Use the VALUE encoder to change the selected character. Use the TYPE encoder to select a character. Exit by pressing the VALUE encoder, then press and hold the TYPE encoder to **SAVE** the name permanently.
note: For the preset name to be displayed the NAMES global must be set to ON or SCROLL.

Expression Pedal ON/OFF: Enables or disables the expression pedal input for each preset.

`EP`

Expression Pedal Set: Enters the expression pedal setup for each preset. All knobs can be configured to be used with the expression pedal. To set up which knobs are controlled by the expression pedal, push the Value encoder when it displays "EP SET" and it will then display "HEEL". Turn the knob(s) to the position desired at heel down on the expression pedal. Then, turn the Value encoder right to display"TOE" and set the knobs to their desired values at the toe down position on the expression pedal. An expression pedal can control all of the knobs simultaneously.

`EP SET`

MIDI Clock ON/OFF: When set to ON, BigSky will respond to external MIDI clock from the MIDI input to control the PRE-DELAY on all reverb machines except for MAGNETO and NONLINEAR where it controls the DECAY time. This parameter is saved independently so that only presets with this parameter set to ON will respond to MIDI clock.

`MIDICL`

Reverb Machines: Room

[ROOM ●]

A versatile room algorithm that creates environments ranging from well-tuned studio ambience to larger night club acoustics. The Tone knob, Diffusion and Low End parameters adjust the damping and scattering effects of room materials, furniture, and people.

PARAMETERS:

Low End:

Affects the low frequency content and decay profile. As you turn it up, more low frequencies reverberate creating the impression of longer decay times and a room that is sparsely furnished.

[LO.END]———— **+ || -**

Size:

Choose Studio for a well-tuned intimate studio environment, or Club for a larger, livelier Night Club experience. The early reflections and reverb decay profile change accordingly.

[SIZE]————— **STUDIO**
                CLUB

Diffusion:

Softens the early reflections to create a thicker, more diffused reverb at the attack portion of the reverb. Sometimes this can be more easily 'felt' than heard depending on the input and specific settings.

[DIFUSN]———— **+ || -**

TIPS & TRICKS:

For realistic acoustic spaces, Pre-Delay can be kept at minimum, with Decay values in the 500mS to 2 second range. However, the Room algorithm is designed to be just as adept at long decay times. For great atmospheric reverbs, try Pre-Delay at noon, Decay at 12 seconds or more, and Mod at 1:00. Mix to taste.

The Mod control randomly modulates the reverb's delay lengths for the first half of the knob travel for subtle natural movement, and then adds modulation to the input of the reverb tank for the 2nd half of the knob travel for a more overt yet tasteful modulation experience.

Reverb Machines: Hall
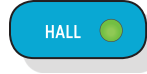
HALL ⬤

Diffused reflections and slower-building density are the hallmarks of this beautiful and versatile reverb. The Concert size is well-balanced, spacious and warm, while the Arena size is huge, enveloping and booming. The Mid parameter allows for precise EQ tailoring of the reverberated sound.

PARAMETERS:

Low End: Affects the low frequency content and decay profile. As you turn it up, more low frequencies reverberate creating a deeper reverberation indicative of fewer bass traps and other low-frequency-absorbing architectural details.

`LO END` ———————— - | +

Mid: Affects the midrange frequency content of the reverb. Turn up to emphasize the mid frequencies, or back to reduce the mids. Set half-way for a flat midrange response.

`MID` ———————— - | +

Size: Choose Concert for a well-balanced and warm Concert Hall auditorium, or Arena to capture the acoustics of the largest enclosed venues. The early reflection buildup and late reverb decay profile change accordingly.

`SIZE` ———— CONCERT
             ARENA
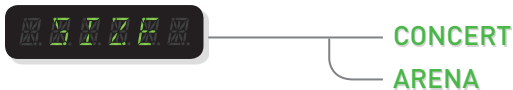
TIPS & TRICKS:

Adding some Pre-Delay can increase the sense of physical space and further separate the reverb from the dry signal.

For a balanced, versatile hall sound that will be complement just about any input source and style, try Concert with a decay of about 3.5 seconds, with the Tone at noon and Lo End parameter centered. Setting the Mod knob at 12:00 maximizes the random delay-length modulation, further increasing the warmth.

For realistic mega-structure reverb, choose Arena with a 10 second decay or longer and increase the Lo End parameter. Keep the Mix control below 12:00.

The Mod control randomly modulates the reverb's delay lengths for the first half of the knob travel for subtle natural movement, and then adds modulation to the input of the reverb tank for the 2nd half of the knob travel for a more overt yet beautifully tasteful modulation experience.

Reverb Machines: Plate

PLATE ●

The Plate machine is a rich, fast-building reverb that creates depth without early reflection cues to a specific environment. The Tone knob and Low End parameter are simple but powerful frequency shaping tools.

PARAMETERS:

Low End: Adjusts the low frequency content of the plate reverberation. Set lower for lighter, airy plate tones that won't color the dry signal, or increase for richer plate tones.

`LOW END` ———— - | +

Size: Selects from two plate sizes. The Small plate is representative of a 'home project' plate at 1 ½' x 2 ¼'. The Large plate is a traditional studio plate with dimensions of 4' x 6'.

`SIZE` ———— SMALL
   LARGE

TIPS & TRICKS:

The undamped Decay time of traditional large plate reverbs is about 5 seconds. Large baffles were positioned close to the plate to damp the vibrations for shorter reverbs as required. Try short decays around 1.5s with lower Mix values to add some subtle ambience to dry tracks. Long decay times can go beyond physical limitations to create clear ambient pads of reverb.

Plate reverbs were routinely run through a post EQ to tailor the low end to sit properly in the mix, and to reduce less pleasant high frequency ringing. The Low End parameter's wide range is voiced for maximum flexibility, while the Tone knob adjusts the high end from unfiltered full-bandwidth (max) to warm (noon) to dark and damped (min).

The Large plate's traditional size yields lush, smooth and transparent reverb that adds a bit of class to any track or instrument. The Small plate's size dictates a splashier, ringy characteristic with less low end efficiency - perfect for applications that call for something a bit less sophisticated.

The Mod control modulates the reverb's delay lengths with a special LFO that allows for lush modulation without warble.

Reverb Machines: Spring
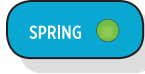
SPRING ●

The standalone spring tank became a staple of surf and spaghetti-western music that developed in the '60s. The Spring machine allows for complete customization from warm and mellow to splashy and dripping with its Tone and Mix Controls, Dwell parameter, and selectable number of springs.

PARAMETERS:

Low End: Adjusts the low frequency content of the spring tank. Higher values allow more low end reverberation.

`LO.END` ———————— - | +

Dwell: Adjusts the amount of drive in the spring tank preamp circuit. Select Clean for the cleanest spring tones. The Combo setting adds more gain as was typical in combo amps with onboard spring reverb. The Tube selection increases the gain further and increases the harmonic components entering the spring tank, like turning up the Dwell control in an outboard spring reverb unit. The Overdrive setting maximizes the preamp gain for maximum trashiness.

`DWELLS` —— CLEAN
—— COMBO
—— TUBE
—— OVERDRIVE
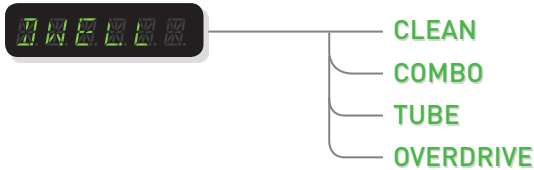
# of Springs: Allows selection of one, two, or three springs in the spring tank. Increasing the number of springs adds complexity due to the interaction of the different delay times of each individual spring.

`NUMSPR` —— 1
—— 2
—— 3

TIPS & TRICKS:

For traditional combo amp tones, use the 2-spring option with the Combo Dwell setting and decays of around 4.5 seconds. Many combo amps have a darker spring tone, so try rolling the Tone knob back to mellow out the reverb. Try lower settings on the Low End parameter to reduce the low frequency content as well.

For more sophisticated spring reverbs, try the 3-spring reverb with Clean Dwell settings and shorter decay times, around 3 seconds. Keep the Low End parameter at the half-way point and adjust the Tone knob to taste.

For maximum splash, crank the Tone knob to maximum and turn the Low End param to minimum. Turn up the Mix to 3:00 if you're bold.

Hot input signals will drive the spring harder. Reduce the Dwell setting if you experience too much spring distortion.

Most spring circuits attenuate the low end pretty heavily to avoid rumble and feedback issues. This represents the 1st half of the Low End parameter values in BigSky's spring reverb. Increasing the Low End settings can add some richness to the spring when using the Clean or Combo Dwell settings and lower Mix levels.
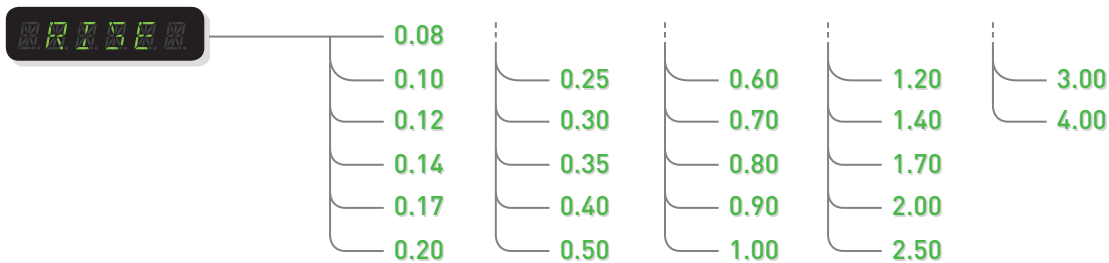
Reverb Machines: Swell

[SWELL ●]

The Swell machine brings in the reverb gradually behind the dry signal for subtle evolving textures, like having a volume pedal on the wet signal. Alternatively, you can choose to have the dry signal swelled into the reverb, for maximum ambience and atmosphere.

PARAMETERS:

Low End: Adjusts the low frequency content of the reverb. Higher values allow more low end reverberation.

` LO  END ` ———————— - | +

Rise Time: Adjusts the rise time of the swelled signal. Choose shorter times for single-line soloing or longer times for ambient chord work.

` RISE ` —————

0.08				
0.10	0.25	0.60	1.20	3.00
0.12	0.30	0.70	1.40	4.00
0.14	0.35	0.80	1.70	
0.17	0.40	0.90	2.00	
0.20	0.50	1.00	2.50	

Mode: Chooses the configuration of the Swell machine. The Swell Wet option swells in the wet signal behind your dry signal for a subtle evolving verb. The Swell Dry mode swells the dry signal in front of the reverb for awesome ambience or swelled solos.

` MODE ` ————— SWLWET
               SWLDRY

TIPS & TRICKS:

For a volume-knob effect for soloing, use the Swell Dry mode with a Rise time of 0.3 seconds or less.

For long ambient chords, try the Swell Dry mode with Rise Time greater than 1 second, decay times longer than 10 seconds, with high modulation settings.

Try using the Swell Wet mode with a short Rise Time, around 0.10 seconds, for a reverb that sits nicely behind the dry signal.

The Mod knob adds 4-phase modulation of the reverb's delay lines, lending a sense of movement and depth to the reverb signal.

Reverb Machines: Bloom

BLOOM

In the '90s, more diffusion blocks were added to reverbs to smooth out the sound. A side effect of this was the tendency of the reverbs to have a slowly building envelope that 'bloomed', resulting in big ambient reverbs that sit nicely with the dry signal even at high Mix levels. The Bloom reverb features a bloom generating section that feeds into a traditional reverb tank, and adds a unique Feedback parameter that expands the possibilities exponentially.

PARAMETERS:

Low End: Adjusts the low frequency content of the reverb. Higher values allow more low end reverberation.

LO.END   - | +
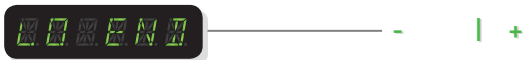
Length: Adjusts the length of the 'bloom' portion of the reverb. Higher levels will result in longer bloom times.

LENGTH |||||||||

Feedback: Adjusts the amount of feedback that is applied around the bloom portion of the reverb.

FDBK |||||||||

TIPS & TRICKS:

The Decay knob controls the tank's decay time, while the Length parameter controls the bloom length. High settings of the Length parameter and/or higher Feedback settings can result in reverbs that are much longer than the displayed tank decay time.

Experiment with short Decay times and higher Length values, and then longer Decay times with lower length values to get a feel for how these two portions of the reverb interact and complement each other.

The Mod knob controls two independent 16-phase oscillators for a total of 32 oscillator signals. The first 16-phase oscillator modulates the bloom-generating delay lines, while the 2nd 16-phase oscillator modulates the tank reverb delay lines. The result is sublime, big, and beautiful.

The Tone knob is a unique resonant filter that shapes the top end with synth-like voicing. Experiment by adjusting the Tone knob with long-decay reverbs.

High Feedback settings paired with high Modulation results in a gorgeous spectrum of sweeping resonant harmonics.

Reverb Machines: Cloud

CLOUD

A gorgeously big, ambient reverb that draws from techniques developed in the late '70s. Using processing power not dreamed of in those days, the Cloud reverb machine obscures the distinction between reality and fantasy.

PARAMETERS:

Low End: Adjusts the low frequency content of the Cloud reverb. Higher values allow more low frequency content.

LO END — - | +

Diffusion: Adds diffusors in front of and within the reverb generator. At minimum there is no diffusion effect, and the cloud effect is 'grainy', yet mesmerizing, on transient attacks. As Diffusion is increased, the reverb is smoothed and softened.

DIFFUSN — - | +

TIPS & TRICKS:

The cascaded input diffusion blocks create an expanded 'early' reverb. This results in a longer overall reverb time than the displayed tank decay time, most noticeable when the Decay knob is set to low values.

From min to 2:00, the Modulation knob adjusts the amount of modulation (developed by a quadrature oscillator at a frequency harmonious to the Cloud generator) that is applied to the input diffusor sections. Past 2:00, the frequency of the quadrature oscillators is increased.

The modulation scheme was developed to allow for high degrees of modulation without muddying up the sustaining reverberation tail.

The Cloud reverb can take any modest guitar or synth sound and turn it into a gorgeous ensemble.

Reverb Machines: Chorale

CHORALE

A vocal choir accompanies your music. Choose vowel ranges and intensities to customize your choir as it sings in venues that vary with the Decay knob. As the Modulation is increased, the choir becomes alive with multitude of voices.

PARAMETERS:

Vowel: Selects the vowel sound(s) that the choir will use to accompany you. The selections include traditional singing formants, AH, OH, OO and combinations of the two. Also included is a Random choice that will allow any formant to be sung.

VOWEL

— AAHHOO
— AAHH   — OOOHOH
— AAHHOH   — OOOO
— OH   — RANDOM
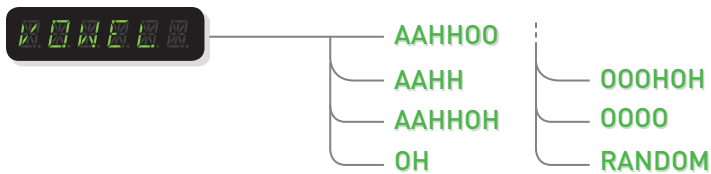
Resonance: Adjusts the intensity of the vowel sound by adjusting the vocal filter resonance (Q) values. Select Mild for subtle vocal qualities, or Medium for increased vocal intensity. The High setting produces the most resonant vowel sounds, and can be a bit spooky late at night.

RESO

— MILD
— MEDIUM
— HIGH

TIPS & TRICKS:

Adjust the Tone knob to add more 'breath' and high end articulation to the vocals.

The Mod knob is a very effective way to add realism to the chorale. As Mod is turned up, randomization is added to the chorale's pitch and timbre to create an increasing number of singers that have distinct voices.

Since many of the vocal formant frequencies are 'mid-range' frequencies, a mid-heavy guitar amp may overly re-enforce some of them at High Reso settings. In those cases, reduce the Reso setting to Medium or Mild.

Reverb Machines: Shimmer

[● SHIMMER]

Two tunable voices add pitch-shifted tones to the reverberated signal, for resplendent, unearthly ambience. The voices are carefully created from the reverberated signal itself to generate maximum radiance and beauty. The Amount and Mode parameters allow for a range of shimmer effects from laid-back and subtle to full-blown majestic splendor.

PARAMETERS:

Shift 1:   Selects the 1st voice interval, from an octave down to two octaves up.

-Octave			
-Major 7th	-Major 3rd	+Major 2nd	+Major 6th
-minor 7th	-minor 3rd	+minor 3rd	+minor 7th
-Major 6th	-Major 2nd	+Major 3rd	+Major 7th
-minor 6th	-minor 2nd	+Perfect 4th	+Octave
-Perfect 5th	-10 cents	+Tritone	+Octave & 5th
-Tritone	+10 cents	+Perfect 5th	+2 Octaves
-Perfect 4th	+minor 2nd	+minor 6th	

Shift 2:   Selects the 2nd voice interval, from an octave down to two octaves up. Can be set to Off if no 2nd voice is desired.

Off			
-Octave	-Perfect 4th	+minor 2nd	+minor 6th
-Major 7th	-Major 3rd	+Major 2nd	+Major 6th
-minor 7th	-minor 3rd	+minor 3rd	+minor 7th
-Major 6th	-Major 2nd	+Major 3rd	+Major 7th
-minor 6th	-minor 2nd	+Perfect 4th	+Octave
-Perfect 5th	-10 cents	+Tritone	+Octave & 5th
-Tritone	+10 cents	+Perfect 5th	+2 Octaves

Amount: Adjusts the level of the shifted voices in the reverberated signal from Off to full.

||||||||||

Mode: Selects input Shimmer with no regeneration, regenerating tank shimmer, or input shimmer plus regenerating tank shimmer.

- INPUT
- REGEN
- IN+REG

Low End: Adjusts the low frequency content of the Shimmer reverb. Higher values allow more low frequency content.

-   | +

TIPS & TRICKS:

The Amount parameter works in conjunction with the Mode parameter to produce the particular intensity of the shimmer effect. If Amount is set to Off, no shimmer effect is heard.

For deep octave down shifts, increase the Low End parameter to allow the lower octave frequencies to come through strongly.

The Modulation knob modulates the shimmer voices as well as the reverb tank's delay line lengths with a 4-phase oscillator. Increasing the modulation widens the shimmer experience and promotes a general sense of well-being.

Try +1 Oct and Oct.5th with lower amount levels for just a hint of shimmer.

Try Oct.5th and–P5 with 'Input' shimmer Mode for an other-wordly synth-pad.

Try -10cents and +10cents with 'Input' shimmer Mode and Modulation Off for a beautiful detuned reverb.

Reverb Machines: Magneto

MAGNETO

A new style of music emerged in the late '50s, featuring the guitar as the 'lead voice' enhanced by the reverberated wash of a multi-head echo. The Magneto machine sets up a multi-head echo with all heads on, while the PreDelay knob adds feedback. The Diffusion parameter adds a new dimension of ambience, smearing the response of the heads and blurring the line between delay and reverb.

PARAMETERS:

Low End:

Adjusts the low frequency response of the Magneto machine. Higher values allow more low frequency content. Lower values roll off the low end in a manner representative of many magnetic-media delay machines.

LO END — - | +

Diffusion:

Controls the effect of diffusors on the magnetic heads. At minimum there is no diffusion effect. As the Diffusion parameter is turned up, the heads are increasingly smeared, creating a reverberated quality to the repeats.

DIFUSN — - | +

Number of Heads: Selects from three, four or six heads.

HEADSX — 3
4
6

Spacing:

Even spacing puts the heads at the same distance from one another for equal delay times. Uneven spacing scatters the head which creates a more complex, less overtly rhythmic effect.

SPACNG — EVEN
UNEVEN

KNOB FUNCTIONS: In Magneto, two of the knobs assume different controls than the other reverb machines.

DECAY

DELAY TIME: Sets the Delay time of the last head.

PRE-DELAY

FEEDBACK: Adds feedback from the last head back to the input when Even Spacing is selected. With Uneven Spacing, the feedback is taken from the last two heads.

TIPS & TRICKS:

The last repeat occurs at the displayed decay time, so a 300ms decay time with 3 evenly spaced heads would have repeats at 100ms, 200ms, and 300ms. Switching to a 4-head machine results in delays at 75ms, 150ms, 225ms, and 300ms.

The age, condition, and alignment of the record and playback heads greatly influence on the tonality of magnetic media delays. As a result, they may bright or dark, high-passed or fuller in the low frequencies. The Tone knob and Low End parameters are wide-ranging to allow for a full spectrum of tones. As the Feedback (Pre-Delay knob) is increased, the EQ response is regenerative, leading to evolving soundscapes and ambient washes.

The Mod control acts as a Wow and Flutter generator, adding hypnotic movement and fullness to the sound.

Reverb Machines: Nonlinear

🟢 NONLINEAR

A variety of physics-defying reverb shapes are available for special effects and unique textures. Choose from three 'backwards' shapes (Swoosh, Reverse, and Ramp), or a Gate and more. Feedback control, Late Reverb, and Diffusion parameters allow for a vast array of time-warped possibilities.

PARAMETERS:

Low End: Adjusts the low frequency content of the nonlinear generator. Higher values allow more low-end frequencies to pass through.

`LO END`   − | +

Shape: Adjusts the shape of the nonlinear generator. Swoosh, Reverse, and Ramp all create 'backwards' effects with different slope profiles. Gate generates an even amplitude profile with an abrupt cut-off. Gauss creates a 'bell curve' profile, and Bounce creates an 'anti-bell' shape.

`SHAPE`

- SWOOSH
- REVERS
- RAMP
- GATE
- GAUSS
- BOUNCE
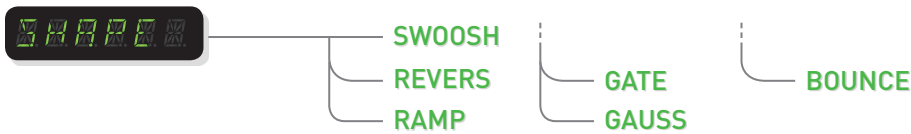
Diffusion: Controls the effect of diffusors on the nonlinear generator. At minimum there is no diffusion effect, and the nonlinear effect is 'grainy'. As Diffusion is increased, the effect is smeared and smoothed.

`DIFUSN`   − | +
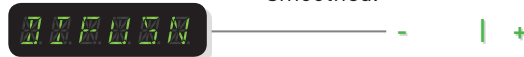
Late Decay: Adjusts the decay time of the late reverb. Higher settings produce longer decay times.
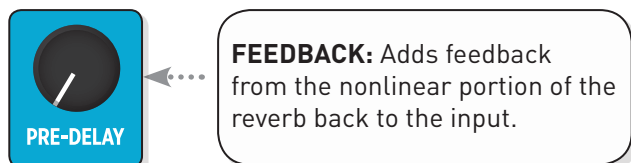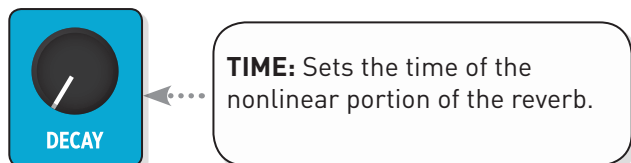
`LA DCY` ||||||||||

Late Level: Adjusts the level of the late reverb. Higher settings increase the level of the late reverb. At minimum, the late reverb is turned off.

`LA LVL` ||||||||||

Mod Speed: Adjusts the modulation LFO speeds for both the the non-linear delay tap lengths and the late reverb's delay lines.

`MODSPD` ||||||||||

KNOB FUNCTIONS: In Nonlinear, two of the knobs assume different controls than the other reverb machines.

DECAY

◀···· **TIME:** Sets the time of the nonlinear portion of the reverb.

PRE-DELAY

◀···· **FEEDBACK:** Adds feedback from the nonlinear portion of the reverb back to the input.

TIPS & TRICKS:

The Nonlinear generator feeds into the late reverb. The Pre-Delay knob adds feedback around the nonlinear generator before it enters the late reverb portion, producing repeating nonlinear shapes as you turn the knob clockwise.

The Diffusion parameter softens the Nonlinear portion, and is useful with longer Decay times. High Diffusion levels with short decay times can result in a 'metallic' sound. Reduce the Diffusion parameter in these cases if desired.

Short decay times and no feedback (Pre-Delay knob minimum) with the Gate shape gives an interesting level-independent take on the traditional 'gated reverb'.

Try high feedback levels (Pre-Delay knob) with some added Modulation to create trippy ambient textures.

Maximum feedback (Pre-Delay knob maximum) with the Gate shape will produce a nearly endless wash of 'multi-tapped' reverb. Try Decay at 800ms and Modulation at 10:00.

Try the Swoosh or Reverse shapes at very short decays (<100ms) for a great slapback effect. Try minimum Diffusion for best results.

The Mod control varies the nonlinear generator tap lengths, as well as the late reverb's delay lines for an expanded experience.

Reverb Machines: Reflections   `REFLECTIONS`

The Reflections machine is a psycho-acoustically accurate small-space reverb that allows you to move your amp anywhere in the room. The Reflections algorithm precisely calculates 250 reflections based on the source position within the chosen room shape. The psycho-acoustic modifiers adjust for human auditory perception to create unparalleled ambient-space realism to dry instrument or vocal tracks.

PARAMETERS:

Low End: Affects the low frequency decay profile. As you turn it up, more low frequencies reverberate creating the impression of longer decay times and a room that is sparsely furnished.

`LOW END` ———————— + || -

Location Y: Positions the amplifier towards the front (F) or back (B) of the room. The reflections are re-calculated accordingly with the movement of the amp. When the amp is in the front of the room (closest to you), the dry signal will dominate over the reflections, whereas moving the amp to the back will result in the reflections arriving at times and amplitudes similar to the direct sound, thus appearing more reverberant overall.

`LOC Y` ———————— F || B

Location X: Positions the amplifier towards the left (L) or right (R) of the room. The reflections are re-calculated accordingly with the movement of the amp, and the dry signal is panned through the stereo analog buffers to give proper imaging.

`LOC X` ———————— L || R

Shape: Selects the shape of the room that is producing the reflections. The Square shape is (you guessed it) square, while the Rectangle shape is short and wide with Golden Ratio dimensions (1.618:1), and the Oblong is long and narrow with Golden Ratio dimensions (1:1.618).

`SHAPE` ———————— SQUARE
             ———————— RECT
             ———————— OBLONG

TIPS & TRICKS:

The Decay knob adjusts the size of the room from 100 sq ft (10'x10 square, or 8'x13' rectangle and oblong) to 1000 sq ft (31'x31' square, or 24'x39' rectangle and oblong). As the room size increases, the decay increases accordingly.

Set Mix at 12:00 and Pre-Delay to 0 (minimum) for a natural room response.

Darker Tone settings would come about from carpeting, drapes and other absorptive elements on the reflecting surfaces. Brighter Tone settings create the sound of stone or tiled walls, with fewer absorbing materials in the room.

Reduce the Low End to give a more natural room or studio environment with furnishing/couches etc. Increase Low End for more of an 'empty space' reverberation.

The Mod control modulates the Pre-Delay time to create a randomized chorus effect against the dry signal.

Globals Menu

Global parameters affect BigSky regardless of what preset is currently active.

Bypass Set-Up: Changes the bypass mode between **True Bypass** and **Buffered Bypass**. In True Bypass, electromechanical relays are used to bypass BigSky so that no components are touching the input signal. In Buffered Bypass the bypassed signal runs through a high quality analog buffer.

TRUE BYPASS

BUFFERED BYPASS

MIDI Channel: Sets the MIDI Channel. Can be set to 1 - 16.

CH 1 - 16

MIDI Continuous Controllers: Turns MIDI CC messaging (continuous controllers) ON or OFF.

ON

OFF

MIDI Patch Change: Turns MIDI patch change messaging ON or OFF.

ON

OFF

MIDI Through: When set to THRU, MIDI messages that arrive at the MIDI input are sent to the MIDI output without ANY additional MIDI messages generated by BigSky. When set to MERGE, MIDI messages that arrive at the input and those that are generated by BigSky are merged together to be sent to the MIDI output. When set to OFF, only MIDI messages generated by the controls on BigSky are sent to the MIDI output.

THRU

MERGE

OFF

Bank Scroll: Sets the maximum bank number to scroll to.

BNK 1-99

EXP input mode: Configures the **EXP** input to use an **Expression Pedal**, an external **TAP** footswitch, a Strymon **MultiSwitch**

PEDAL - for use with Expression Pedal

TAP - for use with external TAP footswitch, or MultiSwitch for tap and preset select

BANK - for use with MultiSwitch to select preset banks

PRESET - for use with MultiSwitch to select presets

Please refer to the MultiSwitch user manual for detailed MultiSwitch setup information: **www.strymon.net/support/multiswitch**

Globals Menu (continued)

Dry Signal: Turns the dry signal on or off. This is useful in a parallel effects loop when an effect level is necessary.

`DRYSIG`
— NORMAL
— KILL - dry signal is muted allowing the MIX control to be used as an effect level

Spillover: Allows the wet delay signal of a currently selected preset to "spill" into the next selected preset. **IMPORTANT:** Because of the reverb buffer architecture, the current preset must be active for at least 5 seconds before spillover will be operational.

`SPLOVR`
— OFF
— ON

Preset Names: Enables or disables the display of preset names when displaying the current bank. If set to ON or SCROLL, when incrementing through banks with the VALUE ENCODER, the bank number will be displayed with 2 digits followed by the first 3 characters of the preset anme.

`NAMES`
— OFF - bank numbers are displayed instead of preset names
— ON - the first 6 characters of the preset name are displayed
— SCROLL - the preset name will scroll once completely through it's 16 characters then settle on the first 6 characters

Preset Dump: Allows presets to be sent via MIDI to another BigSky or to a MIDI recorder device. Presets can be dumped individually or all at one time. Select ALL to dump all presets, or scroll to select an individual preset to send.

`PR DMP`
— EXIT
— ALL
— PR 0A - 99C

NOTE: If any of the above options do not appear in the GLOBLS menu, you may need to update the firmware to the latest version. Visit the link below for instructions:

www.strymon.net/update

Cab Filter

BigSky provides a sophisticated Cab Filter for times when a guitar amp isn't used. If you're outputting to a full-range PA system, recording interface, or headphones, you can simply place BigSky last in your effects chain and engage the Cab Filter.

If outputting to a guitar amp, set the **CAB FILTER** switch to the OFF position.

LEFT IN   RIGHT IN   LEFT OUT   RIGHT OUT   EXP   CAB FILTER OFF / ON   MIDI IN   MIDI OUT   9VDC
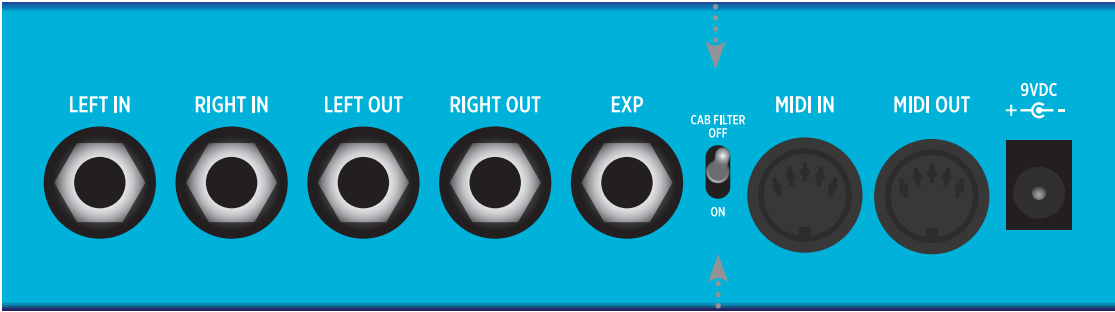
If outputting to a full-range PA system, recording interface, or headphones, place BigSky last in your effects chain and set the **CAB FILTER** switch to the ON position. This will engage our sophisticated speaker response curve. Your dirt pedals will sound amp-like, and your clean guitar will have a present yet rounded response even without an amp.

MIDI Specification

KNOBS:	CC#	Value Range
Type encoder	19	0-11
Value encoder	20	0-1
Decay	17	0-127
Pre-Delay	18	0-127
Mix	15	0-127
Tone	3	0-127
Param 1	9	0-127
Param 2	16	0-127
Mod	14	0-127

PARAMETERS:		
Boost	23	0-60
Persist Off/On	22	0-1
Freeze/Infinite	70	0-1
Expression Off/On	60	0-1
MIDI Clock Off/On	71	0-1
ROOM - Low End	61	0-20
ROOM - Size	59	0-1
ROOM - Diffusion	58	0-20
HALL - Low End	39	0-20
HALL - Size	40	0-1
HALL - Mid	42	0-20
PLATE - Low End	69	0-20
PLATE - Size	68	0-1
SPRING - Low End	64	0-20
SPRING - Dwell	63	0-3
SPRING - # Springs	62	0-2
SWELL - Low End	65	0-20
SWELL - Rise	66	0-22
SWELL - Mode	67	0-1
BLOOM - Low End	31	0-20
BLOOM - Length	32	0-17
BLOOM - Feedback	30	0-17
CLOUD - Low End	38	0-20
CLOUD - Diffusion	37	0-20
CHORALE - Vowel	33	0-6
CHORALE - Reso	34	0-2
SHIMMER - Shift 1	25	0-27
SHIMMER - Shift 2	26	0-28
SHIMMER - Amount	27	0-18
SHIMMER - Mode	28	0-2
SHIMMER - Low End	24	0-20
MAGNETO - Low End	55	0-20
MAGNETO - Diffusion	56	0-20
MAGNETO - Heads	57	0-2
MAGNETO - Spacing	54	0-1
NONLINEAR - Low End	44	0-20
NONLINEAR - Shape	46	0-5
NONLINEAR - Diffusion	45	0-20
NONLINEAR - Late Decay	47	0-17
NONLINEAR - Late Level	48	0-18
NONLINEAR - Mod Speed	43	0-17
REFLECTIONS - Low End	52	0-20
REFLECTIONS - Loc Y	50	0-6
REFLECTIONS - Loc X	49	0-6
REFLECTIONS - Shape	51	0-2

MIDI Patch changes:

BigSky presets are arranged in a grid of 100 numbered Banks (00-99) with 3 presets (A,B and C) within each Bank for a total of 300 presets.

Because MIDI Program Change messages have a maximum number of 128 (0-127), the presets are grouped into 3 MIDI Patch Banks:

MIDI BANK 0 = PRESETS 00A-42B
MIDI BANK 1 = PRESETS 42C-85A
MIDI BANK 2 = PRESETS 85B-99C

The presets are numbered sequentially within each bank:

PRESET 00A = MIDI program # 0
PRESET 00B = MIDI program # 1
PRESET 00C = MIDI program # 2
PRESET 01A = MIDI program # 3
PRESET 01B = MIDI program # 4 etc. up to #127...

BigSky always powers up in MIDI Patch Bank 0, so if you plan to stay within the first 127 presets (00A-42B), simply send a standard MIDI Program Change message to load a preset.

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.

Other MIDI CC numbers:

	CC#	Value Range
A footswitch	80	down=0 up=127
B footswitch	82	down=0 up=127
C footswitch	81	down=0 up=127
Press/Hold switch	97	off=0 on=127
Remote TAP	93	any
Expression Pedal	100	0-127
Bypass	102	byp=0 eng=127
MIDI Patch Bank	0	0-2

-Send a 0 value to access presets 00A - 42B
-Send a 1 value to access presets 42C - 85A
-Send a 2 value to access presets 85B - 99C

Features

- 12 hand crafted reverb machine algorithms for meticulous and nuanced reverb sounds
- Ultra Low Noise, high performance A/D and D/A Converters
- Premium analog front end and output section
- Analog dry path for a zero latency dry signal that is never converted to digital
- High Performance DSP
- 300 presets, selectable via encoder, MIDI or on the fly via footswitch
- Deep edit parameters on all reverb machines
- Stereo Input & Output
- Expression pedal input with selectable simultaneous control over multiple knob parameters
- Selectable Cab Filter for use with PA systems and direct recording
- +/- 3dB adjustable analog boost or cut configurable per preset
- Reverb persist "trails" selectable per preset
- Rugged & Lightweight Anodized Aluminum Chassis
- Intuitive, performance friendly User Interface
- Global bypass selectable between True Bypass or Analog Buffered Bypass on the fly via footswitch/MIDI

Specifications

Input Impedance	1Meg Ohm
Output Impedance	100 Ohm
Signal to Noise	115 dB typical
A/D & D/A	24-bit 96kHz
Frequency Response	20Hz to 20kHz
Max Input Level	+8dBu
Bypass Switching	True Bypass (electromechanical relay switching) or Analog Buffered Bypass (with selectable reverb persist "trails")
Dimensions	5" deep x 6.75" wide x 1.87" tall

Power Supply

Input Voltage	9VDC Center Negative
Required Current	300mA

Strymon Non-Transferrable Limited Warranty

Warranty
Strymon warrants the product to be free from defects in material and workmanship for a period of one (1) year from the original date of purchase. 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.

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, express 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 http://www.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.

Strymon® is a division of Damage Control®, LLC.