cloudburst

ambient reverb

USER MANUAL

USB
TRS MIDI

strymon®

Contents

Knobs and Switches

Front Panel Controls

LED INDICATOR

Lights RED when the effect is engaged. Use the **FOOTSWITCH** to engage and disengage the effect. Also indicates Power Up Mode features. (See page 8.)

DECAY

Controls the decay time of the reverberated signal from very short to over 50 seconds. Lower settings reduce the size of the reverberated space.

PRE-DELAY

Sets the amount of time before the reverberated signal appears, an essential control in creating an accurate and pleasing reverb. For most natural results, use lower **MIX** settings when using higher **PRE-DELAY**.

FOOTSWITCH

Engages and disengages the effect. The RED LED on at the top of the pedal indicates that the effect is engaged.

NOTE: Press and hold the footswitch to configure Expression Pedal parameter assignments. Please see page 15.
You can optionally configure an external footswitch for **FREEZE** or **INFINITE** mode functions. (See page 18.)

Knobs and Switches

Front Panel Controls

ENSEMBLE

Analyzes the input signal and generates a harmonically rich pad reminiscent of a string section:

off: (left position) no ensemble effect

mp: (middle position, *mezzo piano*, meaning "medium soft") a medium amount of ensemble for a subtle enhancement

forte: (right position, "strong" or "loud") maximum amount of ensemble effect creating a lush soundscape

MIX

Controls the reverb mix from full dry at minimum to full wet with no dry signal at maximum. A 50/50 mix occurs at approximately 3 o'clock on the knob. (See page 8 for Dry Signal selection.)

TONE

Adjusts the high-end content of the reverb. Lower settings create darker, warmer reverberation. Higher settings are bright and crisp.

MOD

Adds a wide range of modulation to the reverberated signal. Modulation is off at the minimum setting.
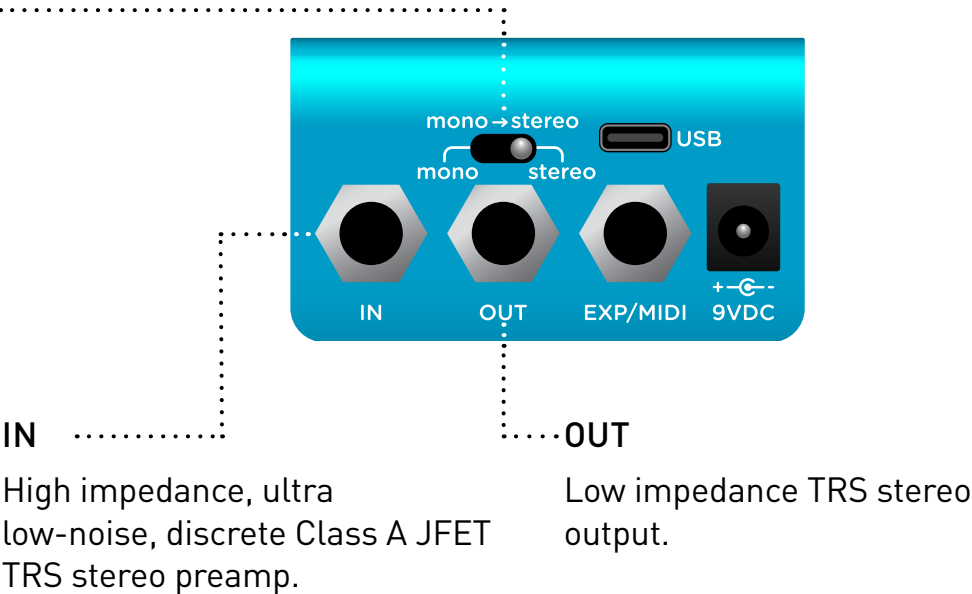
TIP! You can customize the intensity of the **ENSEMBLE** *mp* switch setting. See page 13.

Rear Panel I/O and Control

I/O MODE SELECTOR

mono: (left position) use with a mono input signal, such as a guitar. Output is mono. Defaults to True Bypass.

mono → stereo: (middle position) use with a mono input signal. Output is stereo. Bypass mode is Buffered Bypass.

stereo: (right position) use with a stereo input signal. Output is stereo. Bypass mode is Buffered Bypass.

Stereo I/O requires a TRS adapter or cable. (See the following examples.)

IN

High impedance, ultra low-noise, discrete Class A JFET TRS stereo preamp.

OUT

Low impedance TRS stereo output.

Mono and Stereo I/O Cable Connections

The cloudburst **In** and **Out** jacks can accept either TS or TRS type 1/4" cables for mono or stereo connections, respectively:


Tip   Sleeve

Tip | Sleeve
Ring
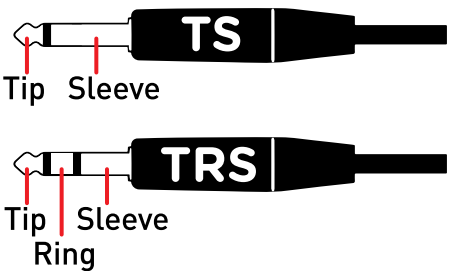
NOTE: With a TRS stereo connection, the **Tip** carries the **left** signal and the **Ring** carries the **right** signal.

Mono In - Mono Out: To connect cloudburst in a mono signal chain, use TS cables for both cloudburst's **IN** and **OUT**. Set the **I/O Selector** switch to **mono**.

To preceding pedal's mono output

To next pedal's mono input
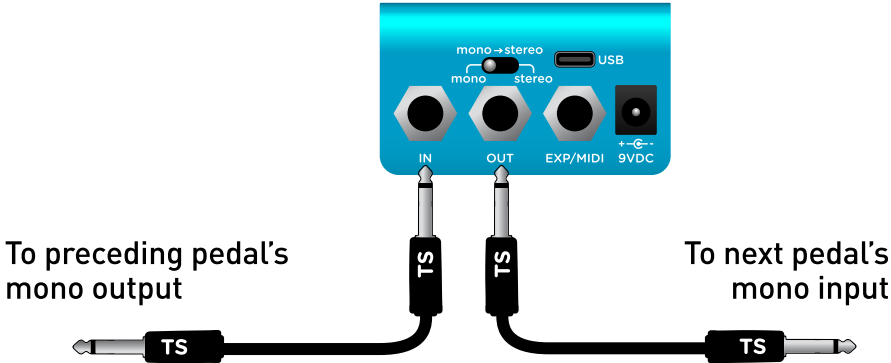
Mono In - Stereo Out: To feed a mono signal into cloudburst, use a TS cable to cloudburst's **IN**. Connect a TRS + dual TS cable to cloudburst's **OUT** to route cloudburst's stereo signal to a stereo pedal. Set the **I/O Selector** switch to **mono → stereo**.

To preceding pedal's mono output

To next pedal's stereo inputs*
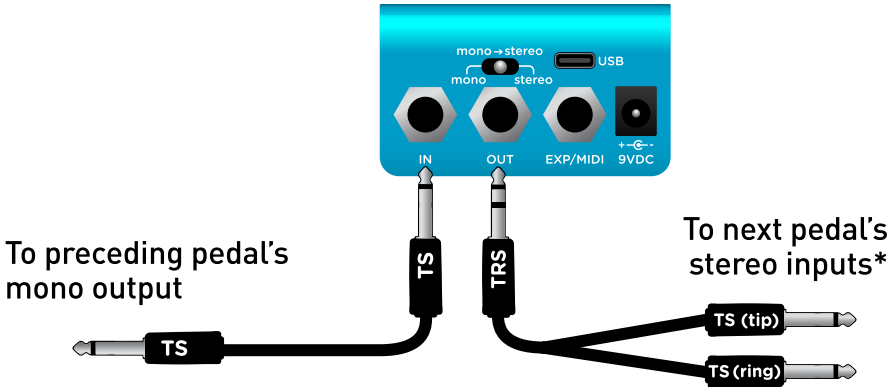
Stereo In - Stereo Out: To connect cloudburst in a stereo signal chain, use TRS + dual TS cables into both cloudburst's **IN** and **OUT**. Set the **I/O Selector** switch to **stereo**.

To previous pedal's stereo outputs*

To next pedal's stereo inputs*
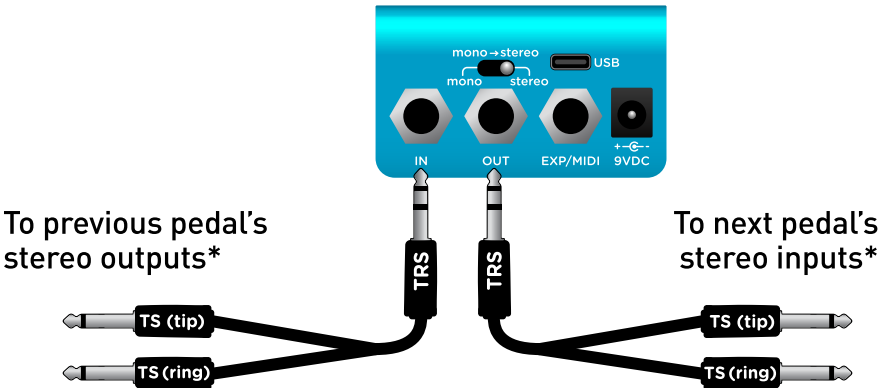
*NOTE: Alternatively, you can use a TRS - TRS cable when connecting a pedal with a TRS stereo input (such as connecting to the TRS stereo input of an El Capistan tape delay).

Rear Panel I/O and Control (continued)
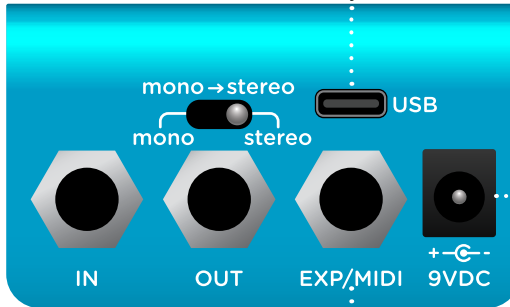
USB-C

Computer connection for MIDI I/O and firmware updates.

9VDC

Only use an adapter with the following rating:

- 9VDC, center negative
- 250mA minimum

(Adapter sold separately.)

mono → stereo

mono   stereo

USB

IN   OUT   EXP/MIDI   9VDC

EXP/MIDI

Multifunction communication jack for external control of cloudburst's features and functions. Can be set to operate in one of the following modes. (See "Configuring the EXP/MIDI Jack" on page 11 for details.)

Expression Pedal Mode (see page 15).

Favorite Mode (see page 16).

Freeze Mode (see page 18).

Infinite Mode (see page 18).

MIDI Mode (see "Configuring MultiSwitch Plus" on page 20 or "Saving Presets in MIDI Mode" on page 29).

Power Up Modes

Bypass Mode for Mono I/O

With the rear **I/O Mode Selector** set to mono, the cloudburst pedal is set for True Bypass as the default. Setting cloudburst to Buffered Bypass Mode preserves the high frequency response of your instrument's signal through your pedal chain and long cable runs.

NOTE: With the rear **I/O Mode Selector** set to **mono → stereo** or **stereo**, the bypass mode is automatically set to Buffered Bypass.

1 Press and hold the footswitch for at least 2 seconds while powering up cloudburst. Once the LED flashes, release the footswitch.

2 Toggle the **ENSEMBLE** (BYPASS MODE) switch to choose between True or Buffered Bypass Modes. The LED will change color to indicate the current status as you toggle the switch.

- **True Bypass:** set the switch to the **off** (left) position. The LED lights GREEN (default).
- **Buffered Bypass:** set the switch to the *forte* (right) position. The LED lights RED.

3 Press the **FOOTSWITCH** to store the Bypass Mode and begin using cloudburst.

NOTE: The Bypass Mode setting persists across power cycles.

Power Up Modes

Spillover Mode

Setting cloudburst to Spillover Mode allows the wet reverb signal of the currently selected preset to "spill" into bypass—or into the next loaded preset if you're using a Multiswitch Plus or MIDI for preset switching.

> **NOTE:** Because of the buffer architecture, the current preset must be active for at least 5 seconds before Spillover between presets will be operational. Spillover is available immediately when bypassing the effect.

1 Press and hold the footswitch for at least 2 seconds while powering up cloudburst. Once the LED flashes, release the footswitch.

2 Turn the **MOD** (SPILLOVER MODE) knob to set Spillover Mode on or off. The LED will change color to indicate the current status as you turn the knob.

- **Spillover Mode Off**: AMBER (default, minimum)
- **Spillover Mode On**: PURPLE (maximum)

> **NOTE:** When Spillover is set to **On**, Bypass Mode is set to Buffered Bypass.

3 Press the footswitch to store the Spillover Mode setting and begin using cloudburst.

> **NOTE:** The Spillover Mode setting persists across power cycles and is not saved per preset.

Power Up Modes

Dry Signal

The Dry Signal can be set in one of three different ways.

- **Digital Mode** uses the converted dry signal and allows the **MIX** knob to dial out the dry signal when turned past the 3 o'clock position.

- **Analog Mode** keeps the dry signal in analog.

- **Kill Dry Mode** mutes the analog dry path signal, allowing the **MIX** knob to strictly control the "wet" effect output level. This is often preferable if using cloudburst within an amp's parallel effects loop or a mixer's aux or effects send.

1 Press and hold the footswitch for at least 2 seconds while powering up cloudburst. Once the LED flashes, release the footswitch.

2 Turn the **TONE** (DRY SIGNAL) knob to select one of the three Dry Signal options. The LED will change color to indicate the current status as you turn the knob.

- **Digital Mode**: GREEN (default, minimum)
- **Analog Mode**: RED (12 o'clock)
- **Kill Dry Mode**: BLUE (maximum)

3 Press the footswitch to store the Dry Signal setting and begin using cloudburst.

Power Up Modes

Configuring the EXP/MIDI Jack

1 Press and hold the footswitch for at least 2 seconds while powering up cloudburst. Once the LED flashes, release the footswitch.

2 Turn the **MIX** (EXP/MIDI JACK) knob to select the function of the rear panel's **EXP/MIDI** jack. The LED will change color to indicate the current status as you turn the knob.

- **Expression Pedal Mode:** GREEN (default, minimum) - Using a standard TRS expression pedal, allows continuous control over any of the knobs. (See page 15 for details.)

- **Favorite Mode:** AMBER (11 o'clock) - Using a Strymon MiniSwitch, allows you to recall a Favorite setting. (See page 16 for details.)

- **Freeze Mode:** RED (12 o'clock) - Using a Strymon MiniSwitch, allows for infinitely sustained reverberation of the current input signal *without* new notes played being added to the reverb. (See page 18 for details.)

- **Infinite Mode:** PURPLE (2 o'clock) - Using a Strymon MiniSwitch allows for infinitely sustained reverberation of the current input signal *with* new notes played also being added to the reverb. (See page 18 for details.)

Configuring the EXP/MIDI Jack (continued)

- **MIDI Mode: BLUE** - Allows for the use of a Strymon MultiSwitch Plus or an external MIDI controller:

  - **MultiSwitch Plus** - A MultiSwitch Plus device can be set to PRESET Mode to access three presets or to CUSTOM Mode, where its switches control PRESET 1 - PRESET 2 - HOLD (HOLD can be toggled between INFINITE and FREEZE). See "Configuring MultiSwitch Plus" on page 20)

  - **MIDI** - Full MIDI functionality is available by sending MIDI Program Change messages via 1/4" TRS MIDI connection using a Strymon Conduit or MIDI EXP cable. Up to 300 presets are available via MIDI. Also, see "Saving Presets in MIDI Mode" on page 29.)

3 Press the footswitch to store the EXP/MIDI Jack Mode and begin using cloudburst.

NOTE: The EXP/MIDI jack setting persists across power cycles and is not saved per preset.

Ensemble *mp* Level Adjust Mode

As a special "secondary function," you can enter this mode where the **ENSEMBLE** *mp* switch position's level can be adjusted for your preferred intensity.

1 Once cloudburst is powered on, set the **ENSEMBLE** switch to the *mp* (middle) position.

2 Press and hold the footswitch for 1 second and release it. You'll see the LED flash **RED** once and then enter the *mp* **LEVEL ADJUST MODE**.

NOTE: Be sure to hold the footswitch for only **1 second**—holding the footswitch for 3 seconds will enter cloudburst's Save Mode instead.

3 Turn the **MIX** (*mp* **LEVEL ADJUST**) knob clockwise to set the *mp* level from Off to Maximum. The LED will change color to indicate the current status, from **BLUE** at minimum (Off), to **GREEN** (On and Low), and gradually from **GREEN** to **AMBER** (Low to Maximum).

(The *mp* Level Adjust parameter can also be accessed via MIDI CC 17 while in *mp* **LEVEL ADJUST MODE**.)

Ensemble *mp* Level Adjust Mode (continued)

4 Press the footswitch again to save the setting and exit the mode.

Your configured level is now recalled whenever you set the
ENSEMBLE switch to the *mp* position. (The **ENSEMBLE off** and
*forte* positions remain unchanged.)

NOTE: Your **ENSEMBLE** *mp* level setting is saved per Favorite setting or
MIDI preset.

External Control

Expression Pedal Setup

Use a TRS expression pedal to remotely control the knobs of cloudburst. By default, cloudburst is configured so that an Expression pedal controls the **MIX** knob.

1 Configure the **EXP/MIDI** jack for Expression Mode. (See page 11 for configuration instructions.)

2 Connect an expression pedal to the **EXP/MIDI** jack of cloudburst using a TRS cable.
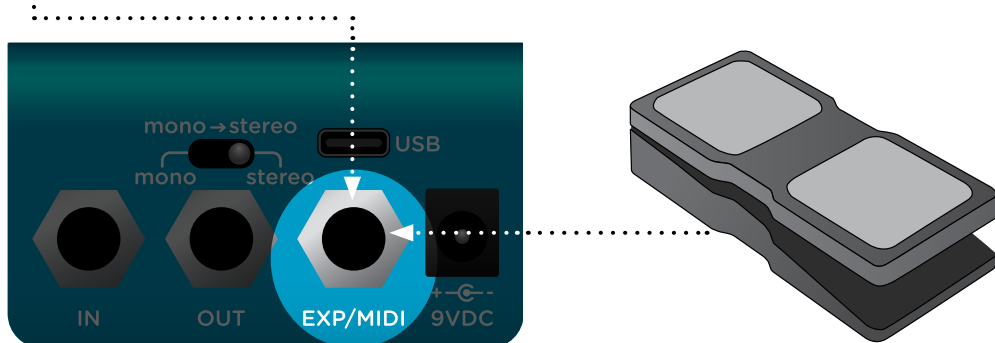
3 Press and hold the footswitch for at least 2 seconds, until the LED blinks GREEN.

4 Rock your expression pedal to the HEEL position. The GREEN LED will stop blinking and remain lit.

5 Set the knob(s) you would like to control to the desired settings for the HEEL position of the expression pedal.

6 Rock the expression pedal to the TOE position. The LED will turn RED.

7 Set the knob(s) you would like to control to the desired settings for the TOE position of the expression pedal.

8 Press and release the cloudburst footswitch to exit and store your expression pedal setup.

NOTE: Your expression pedal assignment is saved per Favorite setting or MIDI preset.

NOTE: If cloudburst is set to respond to MIDI EXPRESSION and the EXP/MIDI jack is set to MIDI Mode, you can send MIDI CC# 100 with values 0 (heel) to 127 (toe) to perform the expression pedal setup.

External Control

Favorite Switch Setup and Compare Mode

Connect MiniSwitch or other external latching footswitch to store and recall your Favorite setting.

> **NOTE:** Your Strymon MiniSwitch's internal jumper switch must be set to the factory-default **FAV/BOOST Mode** setting for Favorite Switch functionality. If you've changed the setting of this jumper switch, you'll need to change it back to **FAV/BOOST Mode**—see page 18.

1 Configure the **EXP/MIDI** jack for Favorite Mode. (See page 11 for more info.)

2 Connect your MiniSwitch (or, optionally, an external latching switch with a TRS cable) to the **EXP/MIDI** jack.
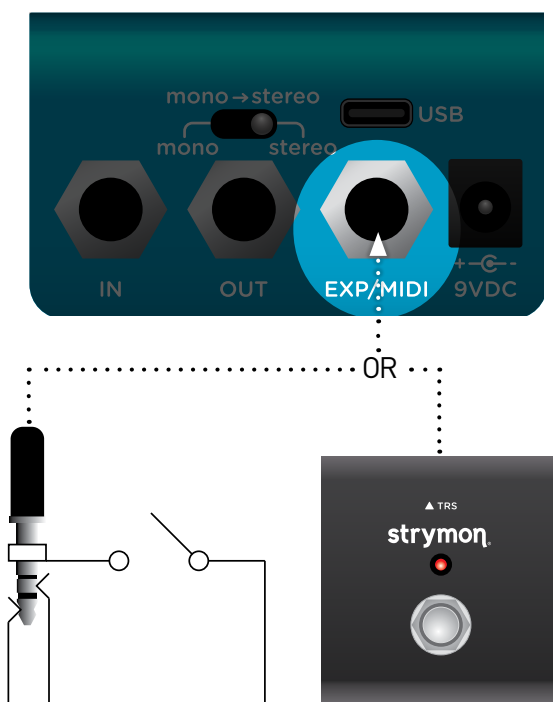
3 Dial in your desired sound.

4 To save your sound as the new Favorite setting, press and hold the cloudburst footswitch for at least 2 seconds, until the LED blinks GREEN. Then, press and hold the cloudburst footswitch until the LED lights BLUE to save the Favorite setting.

Step on the external footswitch to toggle between your current and Favorite settings on cloudburst.

Favorite Switch Setup and Compare Mode (continued)

Compare Mode

With the Favorite or MIDI preset recalled, as a knob or switch is adjusted, the LED flashes GREEN when the current knob or toggle switch position matches the setting of the preset.

> **NOTE:** Power Up Mode settings are applied globally and not stored individually per preset.

> **NOTE:** Saving presets works differently when using MIDI. (See page 24 for details.)

> **NOTE:** The Favorite setting is stored at MIDI Program Change location 0.

External Control

Freeze or Infinite Mode Switch Setup

You can use your Strymon MiniSwitch or an external, non-latching (momentary) type switch to access the cloudburst Freeze or Infinite modes.

The Strymon MiniSwitch includes an internal jumper switch that must be changed from its factory **FAV/BOOST Mode** setting to work for the cloudburst Freeze or Infinite momentary switch functionality. Follow these steps to configure the MiniSwitch's jumper switch and cloudburst's **EXP/MIDI** jack for Freeze or Infinite functionality.

1 Unscrew the four screws on the bottom of the MiniSwitch chassis.

2 Once opened, locate the small jumper underneath the circuit board and switch it from the center and left pins (**FAV/BOOST Mode**) to the center and right pins (**TAP Mode**).

Close-up view of the MiniSwitch circuit board jumper switch
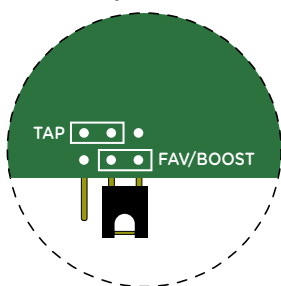
FAV/BOOST Mode

For cloudburst's Favorite Switch mode—place the jumper on the two RIGHT pins. (This is how MiniSwitch is configured from the factory.)
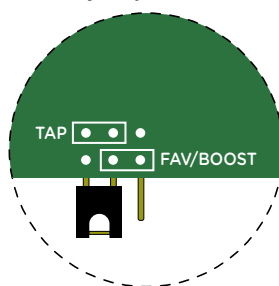
TAP Mode

For cloudburst's Freeze or Infinite Switch modes—place the jumper on the two LEFT pins.

3 Once the jumper configuration is complete, secure the cover back on your MiniSwitch.

4 Configure cloudburst's **EXP/MIDI** jack for the Freeze or Infinite mode as desired. (See page 11 for more info.)

5 Connect your MiniSwitch (or, optionally, a momentary switch with a TRS cable) to the **EXP/MIDI** jack.

Freeze or Infinite Mode Switch Setup - continued
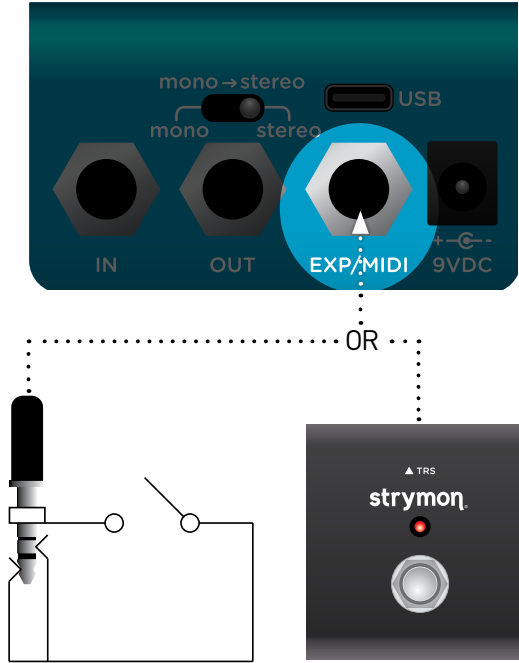
6 **For Freeze Mode:** Play a note or chord, then press and hold the footswitch to capture and sustain the reverb applied to your signal indefinitely while holding the external footswitch. As you play new notes/chords while still holding the external footswitch, you'll hear them on top of your "frozen" signal *without* being added to the reverb. Release the external footswitch to disengage Freeze mode.

For Infinite Mode: Press and hold the footswitch to hear reverb applied indefinitely to *all* input signals while holding the external footswitch. Release the external footswitch to disengage Infinite mode.

External Control

Configuring MultiSwitch Plus

Configure cloudburst and a Strymon MultiSwitch Plus (sold separately) for additional external control.

1 Press and hold the cloudburst footswitch while connecting power to the pedal. Hold for at least 2 seconds, until the LED stops blinking.

2 Turn the **DECAY** knob all the way counter-clockwise to set the **MIDI CHANNEL** to Channel 1. The LED should be GREEN.

3 Turn the **PRE-DELAY** knob to select the following **MIDI OUT** option:

- **Send MIDI CC and Other Data:** GREEN
- **Send Other Data:** AMBER

4 Turn the **MIX** knob all the way clockwise to set the **EXP/MIDI** jack to MIDI Mode. The LED should be BLUE.

5 Press the cloudburst footswitch to exit and store the **MIDI CHANNEL**, the **MIDI OUTPUT** setting, and the **EXP/MIDI** Jack Mode.

Configuring MultiSwitch Plus for cloudburst

Configure MultiSwitch Plus for either **PRESET Mode** for PRESET 1-2-3 selection or **CUSTOM Mode** for PRESET 1 - PRESET 2 - HOLD (momentary FREEZE or INFINITE) control.

1 Connect a TRS cable to cloudburst's **EXP/MIDI** jack.
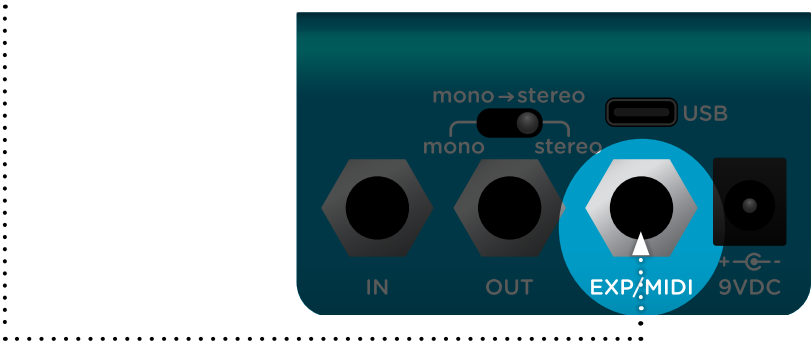
2 **For PRESET Mode** - Press and hold the **A** footswitch on MultiSwitch Plus while connecting the other end of the TRS cable to any one of the three jacks to set it to Preset Mode.

OR

For CUSTOM Mode -Press and hold the **C** footswitch on MultiSwitch Plus while connecting the other end of the TRS cable into one of the three jacks. The three LEDs on MultiSwitch Plus will blink GREEN when you release the C footswitch.

External Control

Using MultiSwitch Plus in PRESET Mode

Selecting and saving cloudburst presets using MultiSwitch Plus.

Preset 1   Preset 2   Preset 3

NOTE: Footswitches **A**, **B**, and **C** on MultiSwitch Plus correspond to MIDI Program Changes 1, 2, and 3.

1 Step on a switch that is not illuminated to recall the corresponding preset.

2 Step on an illuminated switch to bypass cloudburst.

Saving cloudburst Presets with MultiSwitch Plus:

1 Dial in the sound that you would like to save as your preset on cloudburst.

2 Press and hold the cloudburst footswitch for at least 2 seconds, until the LED blinks GREEN.

3 Press the **A**, **B**, or **C** MultiSwitch Plus footswitch to save the current state of the pedal to the desired location.

Using MultiSwitch Plus in CUSTOM Mode

Controlling cloudburst features using MultiSwitch Plus.

PRESET 1   PRESET 2   HOLD
                                (FREEZE or INFINITE)

1 Tap on footswitch **A** when not illuminated to recall Preset 1. Tap when illuminated to bypass cloudburst.

2 Tap on footswitch **B** when not illuminated to recall Preset 1. Tap when illuminated to bypass cloudburst.

3 Use footswitch **C** to HOLD the reverb effect:

- By default, the HOLD function is configured for FREEZE, while footswitch **C** is held (momentary switch behavior).

- When configured for INFINITE, footswitch **C** toggles INFINITE mode on/off (latching switch behavior).

- To toggle the HOLD function between FREEZE and INFINITE, press and hold the MultiSwitch Plus **A+C** footswitches for 1 second.

MIDI Functionality

Configuring cloudburst to Use MIDI

Using MIDI unlocks a set of tools that can be used to load any of cloudburst's 300 preset locations using a suitable MIDI controller or interface connected to the cloudburst EXP/MIDI jack. This requires a Strymon MIDI EXP cable or a MIDI controller/interface, such as Strymon Conduit, with at least one quarter-inch output.

NOTE: When using a Strymon MIDI EXP Cable, the MIDI OUT Mode must be set to Off. (See page 28 for details.)

Please see strymon.net/support/cloudburst for a list of compatible devices.
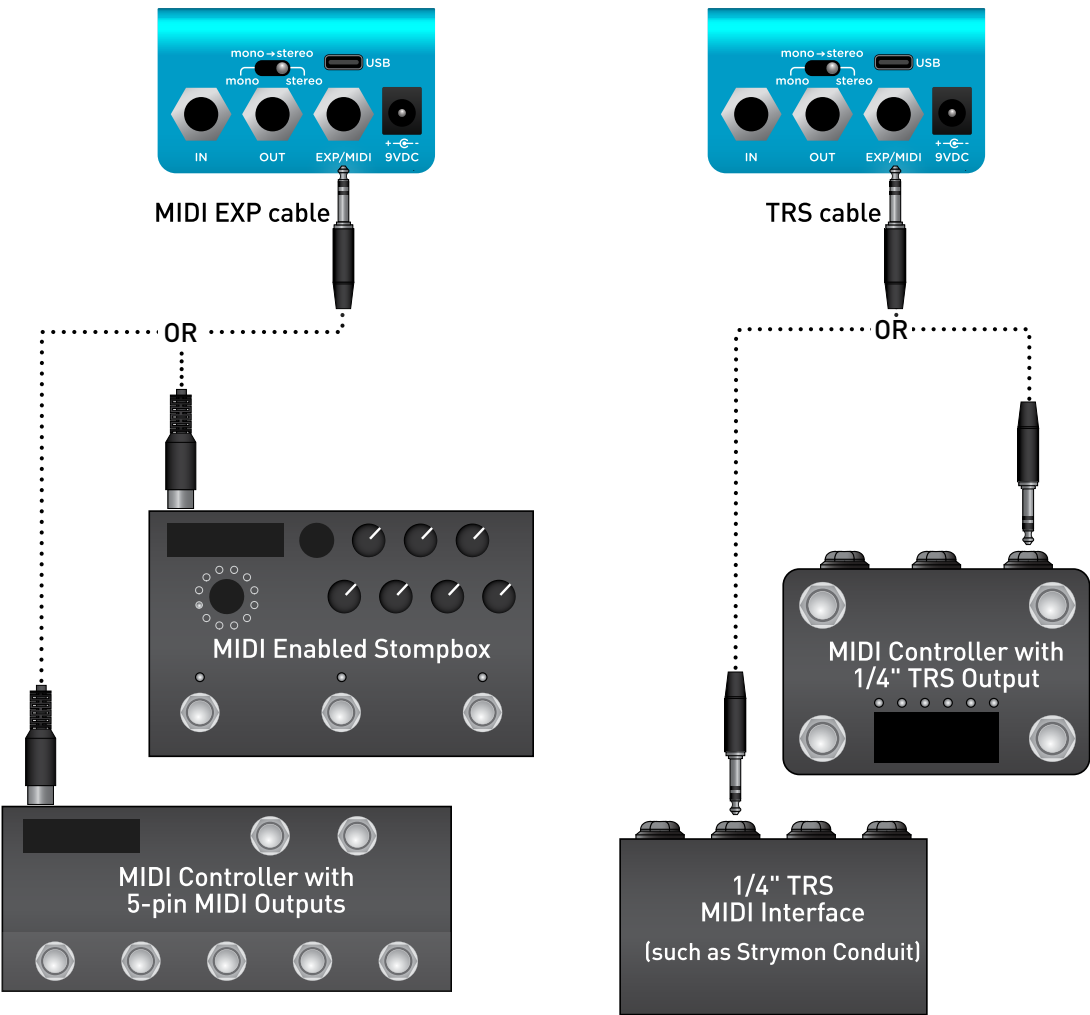
Configuring cloudburst to Use MIDI (continued)

STEP 1 – SET EXP/MIDI JACK TO MIDI MODE

1 Press and hold the footswitch for at least 2 seconds while powering up cloudburst. Once the LED flashes, release the footswitch.

2 Turn the **MIX** (EXP/MIDI JACK) knob clockwise until the LED is BLUE (maximum) to select MIDI Mode.

NOTE: MIDI data is received on the **TIP** of the TRS connection of the **EXP/ MIDI** jack.

Configuring cloudburst to Use MIDI (continued)

STEP 2 – SET MIDI CHANNEL

3 Turn the **DECAY** (MIDI CHANNEL) knob to set the MIDI communication channel. The LED indicates status. Your knob selections are as follows:

- **Channel 1**: GREEN (default, minimum)
- **Channel 2:** AMBER (10 o'clock)
- **Channel 3:** RED (12 o'clock)
- **Channel 4-16:** BLUE (maximum) - set by next received MIDI Program Change message, requires 1/4" MIDI connection

   Once the LED turns BLUE, it will blink until the pedal receives a MIDI Program Change message. Once a message is received, the pedal will be set to the MIDI channel that carried the message and exits the Power Up Mode to allow you to begin using cloudburst. (If you've successfully configured MIDI Channel 4-16, you can skip item ❹ on the next page.)

STEP 2 – SET MIDI CHANNEL (CONTINUED)

④ Press the footswitch to exit and store your MIDI Channel setting and begin using cloudburst.

NOTE: A simple way to check that communication is working is to send CC #102 with a value of 127 when the footswitch is bypassed. This will enable the footswitch (and the LED will light RED) if MIDI is properly connected and configured.

NOTE: If you are only sending data to cloudburst using the Strymon MIDI EXP cable, the MIDI OUT Mode must be set to **OFF**. (See page 28 for details on configuring the MIDI OUT Mode.)

NOTE: MIDI Channel assignment is not saved per Favorite setting or MIDI preset.

Configuring cloudburst to Use MIDI (continued)

STEP 3 – SET MIDI OUT MODE

1 Press and hold the footswitch for at least 2 seconds while powering up cloudburst. Once the LED flashes, release the footswitch.

2 Turn the **PRE-DELAY** (MIDI OUT) knob to select what kind of MIDI data is sent from cloudburst to other MIDI devices. The LED will flash momentarily to indicate your selection.

- **OFF:** RED (default, minimum) - No MIDI messages are sent out of cloudburst.

- **THRU:** BLUE (11 o'clock) - Incoming MIDI messages are sent to the MIDI Out without any additional MIDI messages generated by cloudburst.

- **SEND CC, OTHER:** GREEN (1 o'clock) - MIDI CC and Sysex messages generated by cloudburst are sent to the MIDI Out.

- **SEND OTHER:** AMBER (maximum) - Sysex messages generated by cloudburst are sent to the MIDI Out.

3 Press the footswitch to store the MIDI Out Mode and exit.

NOTE: MIDI data is sent from the **RING** of the TRS connection of the **EXP/ MIDI** jack.

MIDI Functionality (continued)

Saving Presets in MIDI Mode

When in MIDI Mode, the currently loaded settings can be saved to any of cloudburst's 300 preset locations at any time.

1 To enter Save Mode, press and hold the footswitch for at least 2 seconds, until the LED blinks GREEN to indicate that cloudburst is waiting to receive a MIDI Program Change message.

2 To save the current state of the pedal to the currently loaded preset location, press and hold the footswitch for at least 2 seconds, until the LED lights BLUE.

OR

To save the current state of the pedal to any preset location, send the unit a MIDI Program Change on cloudburst's currently selected MIDI channel. For example:

• Send MIDI Program Change #10 to save the preset to the corresponding memory location on the pedal.

• To recall this preset, send MIDI Program Change #10 from your MIDI controller or sequencer.

MIDI Specifications

MIDI Program Changes

Your cloudburst pedal 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

MIDI PROGRAM CHANGE 0	Favorite setting (accessible via MiniSwitch) See page 16 for details.
MIDI PROGRAM CHANGE 1	MultiSwitch Plus - footswitch 1
MIDI PROGRAM CHANGE 2	MultiSwitch Plus - footswitch 2
MIDI PROGRAM CHANGE 3	MultiSwitch Plus - footswitch 3
MIDI PROGRAM CHANGE 127	Manual Mode ("knobs")

NOTE: Some MIDI applications and controllers start with MIDI Program Change 1 instead of 0. In these setups, increment the MIDI Program Change locations above by one.

The cloudburst pedal 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.

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 Program Change 127 within *any* MIDI Bank 0, 1, or 2 will put cloudburst into Manual Mode. In this mode, cloudburst will be set to the current knob and switch settings. No preset data can be stored at this preset location.

MIDI Specifications (continued)

MIDI CCs

CC#	PARAMETER	RANGE	ENUMERATION
0	Bank Select	0-2	(0=Bank 1, 1=Bank 2, 3=Bank 3)
11	Ensemble	1-3	(1=off, 2=mp, 3=forte)
12	Decay	0-127	
13	Pre-Delay	0-127	
14	Tone	0-127	
15	Mod	0-127	
16	Mix	0-127	
17	Ensemble mp Level Adjust	0-127	
27	Footswitch	0, 127	(0=release, 1-127=press)
60	MIDI Expression Off/On	0, 127	(0=off, 1-127=on)
97	Freeze	0, 127	(0=release, 1-127=hold)
98	Infinite	0, 127	(0=release, 1-127=hold)
100	Expression Pedal	0-127	(0=heel, 127=toe)
102	Bypass/Engage	0, 127	(0=bypass, 1-127=engage)

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

NOTE: Some MIDI applications and controllers start their MIDI enumeration with 1 instead of 0. In these setups, increment the numbers above by one.

Factory Reset

Performing a Factory Reset restores the pedal to its factory default Power Up functions, and replaces all stored presets with their factory default settings.

1 Press and hold the footswitch for at least 2 seconds while powering up cloudburst. Once the LED flashes, release the footswitch.

2 Press and hold the footswitch again and while still holding it down, sweep the **PRE-DELAY** (FACTORY RESET) knob from minimum to maximum and back two times. The LED will change colors at the extremes of the knob range and flash RED to indicate when the reset is taking place.

- TURN 1, from minimum to maximum: AMBER
- TURN 2, from maximum to minimum: RED
- TURN 3, from minimum to maximum: AMBER
- TURN 4, from maximum to minimum **and release the footswitch immediately:** The LED flashes RED, cloudburst resets and restarts

Factory Reset (continued)

FACTORY DEFAULT SETTINGS	
Bypass Mode:	True Bypass
Spillover Mode:	Off
Dry Signal:	Digital
EXP/MIDI Jack:	Assigned to Expression Mode and configured to control the **MIX** knob
MIDI Channel:	1
MIDI OUT Mode:	Off
MIDI Expression:	On

Features

- Hand crafted, computationally intense reverb
- Tone and Pre-Delay controls for flexible reverb tone shaping
- Adjustable modulation for moderate to intensely modulated reverb sounds
- Analog dry path option for a zero-latency dry signal that is never converted to digital
- Ensemble effect for lush orchestral-inspired harmonic enhancement
- Dry Kill mode to optionally mute the dry signal, providing control for the wet signal only
- Stereo input and stereo output (requires "TRS to dual TS" adapter or cable for each jack)
- True Bypass (electromechanical relay switching)
- Expression pedal input allows the connection of a TRS expression pedal, MiniSwitch, MultiSwitch Plus, or TRS MIDI connection
- Separate Freeze and Infinite modes for creating continuously sustaining sounds
- High impedance and ultra-low noise discrete Class A JFET TRS stereo preamp input
- Full-featured MIDI capability (Continuous Controller, Program Change, and 300 presets)
- USB-C jack for performing firmware updates and connection to the Strymon Nixie editor software
- +10dBu maximum input level easily handles instrument and line level signals
- High performance 520MHz ARM Superscalar processor
- 32-bit floating point processing
- Super low noise, high performance A/D and D/A converters
- Strong and lightweight anodized aluminum chassis
- Designed and built in the USA

Specifications

|	
Input Impedance:	1 Meg Ohm
Output Impedance:	100 Ohm
A/D & D/A:	24-bit 96kHz
Max Input Level	+10 dBu
Signal/Noise	116 dB typical
Bypass Switching	True Bypass (electromechanical relay switching)
Dimensions	4.5" deep x 2.7" wide x 2.2" tall

Power Adapter Requirements

Use an adapter with the following rating: 9VDC, center negative, 250mA minimum. (Adapter sold separately.)
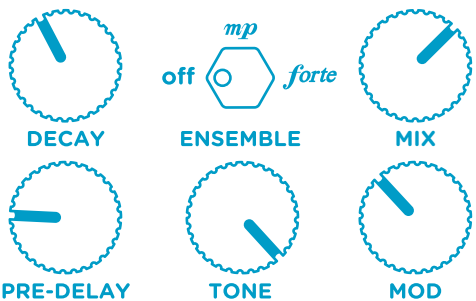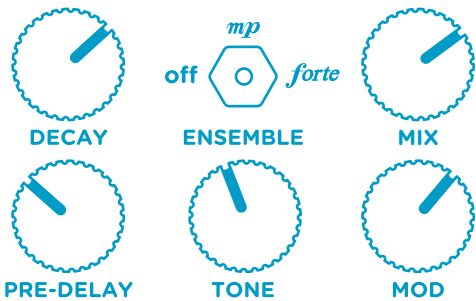
Appendix 1: Sample Settings

Sample Settings

——— Airstream ———

DECAY	ENSEMBLE	MIX
PRE-DELAY	TONE	MOD
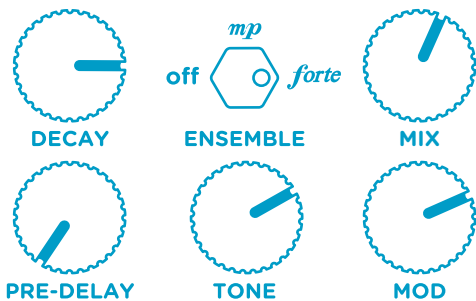
MIDI Program Change 0
MiniSwitch Favorite

——— Beautifier ———

DECAY	ENSEMBLE	MIX
PRE-DELAY	TONE	MOD

MIDI Program Change 1
MultiSwitch Plus A

——— Pad Thai ———

DECAY	ENSEMBLE	MIX
PRE-DELAY	TONE	MOD

MIDI Program Change 2
MultiSwitch Plus B

——— Thick Slap ———

DECAY	ENSEMBLE	MIX
PRE-DELAY	TONE	MOD
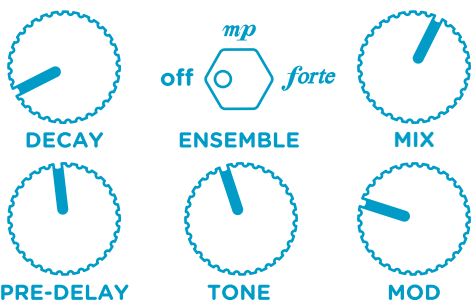
MIDI Program Change 3
MultiSwitch Plus C

Appendix 2: Power Up Modes Quick Reference

Power Up Modes - Quick Reference

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 footswitch for at least 2 seconds while powering up cloudburst. Once the LED flashes, release the footswitch.

2 Adjust the desired functions with the controls noted below.

3 Press the footswitch to store your changes and exit Power Up Mode.

POWER UP MODE	OPTIONS
BYPASS MODE FOR MONO I/O See page 8 for an illustrated description.	Set the **ENSEMBLE** switch - status shown on the LED • **True Bypass:** switch in the **off** (left) position - LED GREEN (default) • **Buffered Bypass:** switch in the *forte* (right) position - LED RED
SPILLOVER MODE See page 9 for an illustrated description.	Turn the **MOD** knob - status shown momentarily on the LED • **Off:** AMBER (default, minimum knob position) • **ON:** PURPLE (maximum knob position)
DRY SIGNAL See page 10 for an illustrated description.	Turn the **TONE** knob - status shown momentarily on the LED • **Digital:** GREEN (default, minimum knob position) • **Analog:** RED (12 o'clock knob position) • **Kill Dry:** BLUE (maximum knob position)
EXP/MIDI JACK MODE See page 11 for an illustrated description.	Turn **MIX** knob - status shown on the LED • **Expression:** GREEN (default, minimum knob position)* • **Favorite:** AMBER (11 o'clock knob position) • **Freeze:** RED (12 o'clock knob position) • **Infinite:** PURPLE (2 o'clock knob position) • **MIDI:** BLUE (maximum knob position)
MIDI CHANNEL See page 26 for an illustrated description.	Turn **DECAY** knob - status shown on the LED • **1:** GREEN (default, minimum knob position) • **2:** AMBER (10 o'clock knob position) • **3:** RED (12 o'clock knob position) • **4-16:** BLUE (maximum knob position) - channel set by next received MIDI Program Change message

*NOTE: Also see "Expression Pedal Setup" on page 15 to configure your pedal functionality per preset.

Power Up Modes - Quick Reference (continued)

POWER UP MODE	OPTIONS
MIDI OUT MODE See page 28 for an illustrated description.	Turn **PRE-DELAY** knob - status shown momentarily on the LED • **OFF:** RED (default, minimum knob position) • **THRU:** BLUE (11 o'clock knob position) • **ON CC, OTHER:** GREEN (1 o'clock knob position) • **ON OTHER:** AMBER (maximum knob position)
FACTORY RESET See page 32 for an illustrated description.	While holding down the footswitch, turn the **PRE-DELAY** knob from 0% to 100% and back two times - status shown on the LED

Strymon Non-Transferable Limited Warranty

Warranty

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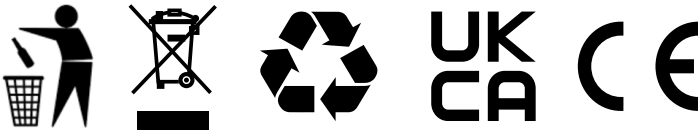
For International Customers: Contact the Strymon dealer from which the product was purchased from in order to arrange warranty repair service.

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

Safety and Compliance Information

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

1) Reorient or relocate the receiving antenna.
2) Increase the separation between the equipment and receiver.
3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4) Consult the dealer or an experienced radio/TV technician for help.