

# *El Capistan*

dTape Echo

USER MANUAL



strymon®

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## Knobs and Switches

### Front Panel Controls

#### TAPE HEAD

Changes the selected tape machine/head configuration. See [“In Depth: Tape Heads” on page 5](#) for details.

#### TIME

Controls the delay time according to the selected **TAPE HEAD** type. In **fixed** and **multi** this will change the tape speed. In **single** this will move the record head to change the delay time.

#### TAPE AGE

Controls the bandwidth of the tape, just as it would change over time in a physical tape delay machine. As regular tapes wear out, their bandwidth becomes limited. The **TAPE AGE** control recreates this wear effect. Set to minimum for a fresh, full-bandwidth tape. As the knob is turned clockwise, the tape will get progressively darker.

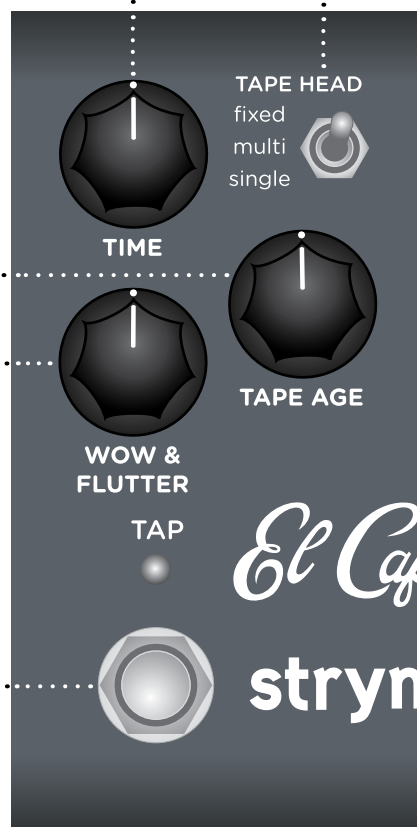
#### WOW & FLUTTER

Controls the amount of mechanically related tape speed fluctuations. This also results in natural tape style modulation. Turn the knob fully counter clockwise for a perfectly tuned, cleaned, and serviced tape machine. Turn the knob fully clockwise to hear the sound of a tape machine in need of service. In between the extreme settings, a natural modulation is achieved.

#### TAP

Tapping the footswitch in quarter notes will set the delay time. The **TAP LED** will flash **RED** to indicate the tempo.

**TIP:** Hold the **TAP** footswitch for infinite repeats. Release the footswitch to return to normal operation.



## Knobs and Switches

### Front Panel Controls (cont.)

#### MODE

Changes the operation mode for each associated tape machine. See [“In Depth: Tape Heads” on page 5](#) for detailed info.

#### MIX

Controls the balance of dry and wet signals, from 100% dry at minimum to 100% wet at maximum. The mix occurs entirely in analog. 50/50 mix is at the 3 o'clock position.

#### REPEATS

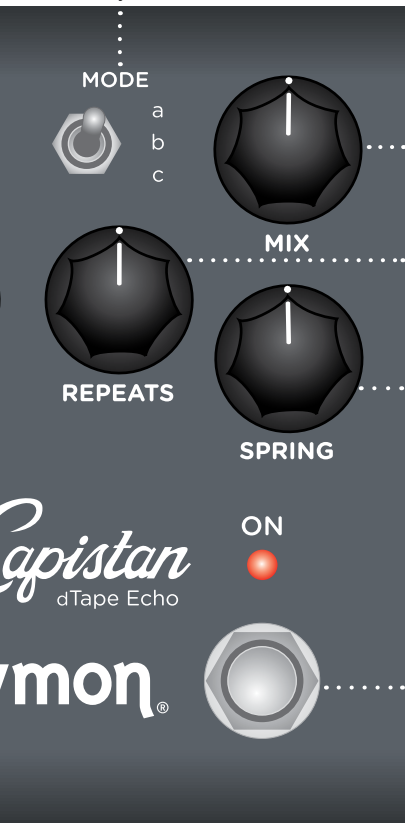
Varies the number of repeats, from one to saturated oscillation.

#### SPRING

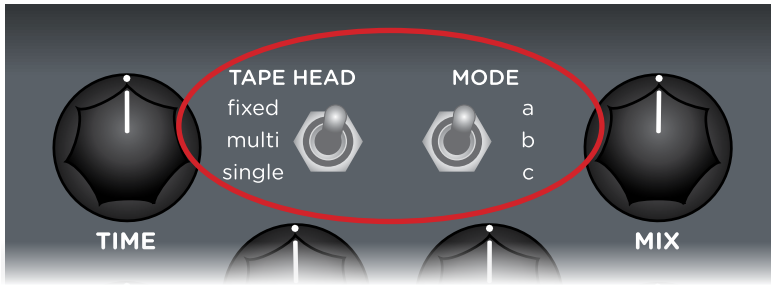
Controls the level of the integrated spring reverb.

#### ON

Engages and bypasses the delay and reverb. **RED** LED on indicates that the effect is engaged. Bypass mode is true bypass by default. See [page 16](#) for details.



## In Depth: Tape Heads

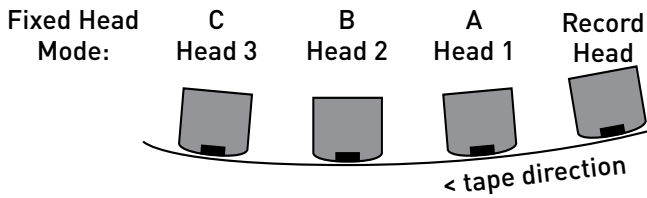


The TAPE HEAD and MODE options

### FIXED TAPE HEAD

The **TIME** knob varies the tape speed while the playback head is fixed in position.

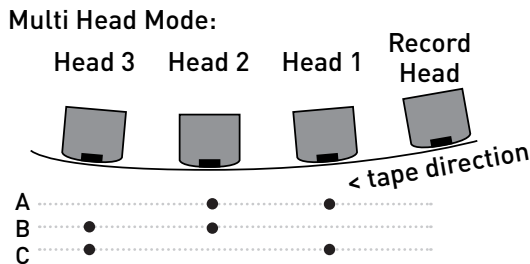
- **Mode A: Head 1** - short delay with 1/16th note tap tempo
- **Mode B: Head 2** - medium delay with dotted 1/8th tap tempo
- **Mode C: Head 3** - long delay with 1/4 note tap tempo



### MULTI TAPE HEAD

Two of three playback heads are selected at once. The **TIME** knob varies tape speed.

- **Mode A: Heads 1 & 2** selected
- **Mode B: Heads 2 & 3** selected
- **Mode C: Heads 1 & 3** selected

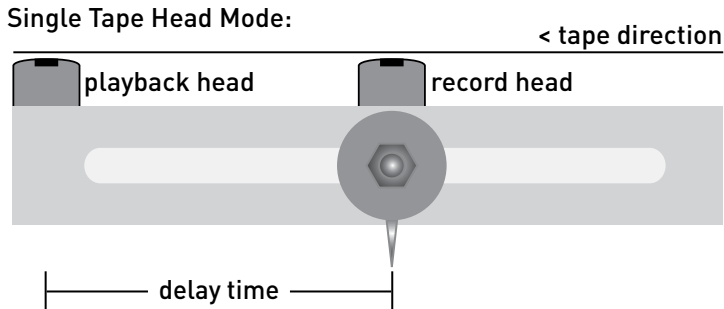


## In Depth: Tape Heads (cont.)

### SINGLE TAPE HEAD

The tape speed is fixed while the **TIME** knob varies the position of a sliding record head.

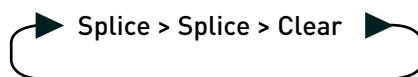
- **Mode A:** Tape motor at double speed
- **Mode B:** Tape motor at normal speed



- **Mode C:** Sound on Sound mode

**Sound on Sound: Single tape head - mode C** will play the entire tape loop upon entering the mode. Whatever one has recorded in **mode A** or **B** will still exist in **mode C**. Record is always active. Two tape speeds are available: double speed with the **TIME** knob left of 12 o'clock and normal speed with the **TIME** knob right of 12 o'clock.

Pressing the **TAP** footswitch once will set the first tape splice point. A second **TAP** press will set the second tape splice point. A third press of the **TAP** footswitch will perform a bulk erase of the tape.

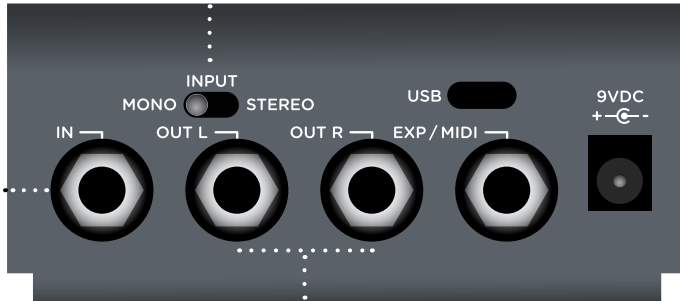


## Rear Panel I/O and Control

### AUDIO INPUT SELECTOR

**MONO:** Use with a mono input signal, such as a guitar. Output is stereo. Use **OUT L** for mono connection.

**STEREO:** Use with a stereo input signal. Output is stereo.



**IN** .....

High impedance, ultra low-noise, discrete Class A JFET preamp input. Use a TRS stereo adapter/cable for stereo input.

.....**OUTPUTS**

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

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

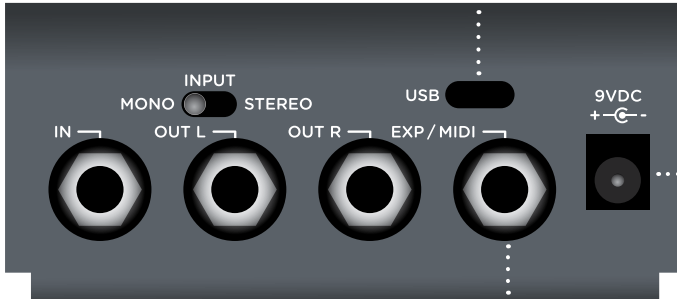
### USB

Computer connection for MIDI control as well as for performing firmware updates.

### 9VDC

Use the included power supply or an adapter with the following rating:

- 9VDC, center negative
- 300mA minimum



### EXP / MIDI

Multifunction communication jack for external control of El Capistan's features and functions. Can be set to operate in one of the following modes. (See [“Configuring the EXP/MIDI Jack” on page 18](#) for details.)

**Expression Pedal mode** (see [page 20](#)).

**Favorite mode** (see [page 21](#)).

**Tap mode** (see [page 23](#)).

**MIDI mode** (see [“Configuring MultiSwitch Plus” on page 24](#) or [“Saving Presets in MIDI Mode” on page 31](#)).



## Live Edit Functions

Use the following steps to enter Live Edit mode and access the secondary functions of the controls. Any of the following secondary functions can be edited while in Live Edit mode.

### Low End Contour

Controls the low frequency shaping of the echo repeats. Set to minimum for extended low frequency bandwidth. Set to maximum for extremely high-passed, magnetic drum style repeats.

- 1 Press and hold the **ON** footswitch to enter Live Edit mode. Once both LEDs flash, release the footswitch.



- 2 Turn the **TAPE AGE (LOW END CONTOUR)** knob to smoothly adjust the low end (default is 12 o'clock). The **ON** LED indicates your setting:
  - Enhanced low end: **GREEN**
  - Less low end: **AMBER**
- 3 Press the **ON** footswitch to exit and store your Low End Contour setting.

**NOTE:** The Low End Contour setting is saved per Favorite setting or MIDI preset.

## Live Edit Functions

### Tape Crinkle

Adjusts the amount and severity of tape irregularities, including friction, creases, splices, and contaminants. Tape Crinkle characteristics track accordingly to tape speed. Set to minimum for a fresh, clean tape. Set to maximum for a tape that has been mangled and chewed for years.

- 1 Press and hold the **ON** footswitch to enter Live Edit mode. Once both LEDs flash, release the footswitch.



- 2 Turn the **WOW & FLUTTER (TAPE CRINKLE)** knob to smoothly adjust the condition of the tape (default is 12 o'clock). The **TAP** LED indicates your setting:
  - Fresh tape: **GREEN**
  - Mangled tape: **AMBER**
- 3 Press the **ON** footswitch to exit and store your Tape Crinkle setting.

**NOTE:** The Tape Crinkle setting is saved per Favorite setting or MIDI preset.

## Live Edit Functions

### Tape Bias

Adjusts the tape machine bias, from under-biased to over-biased. Higher bias levels result in reduced echo volume and limited headroom with dirty sounding repeats. Lower bias settings result in the cleanest echoes with the most headroom.

- 1 Press and hold the **ON** footswitch to enter Live Edit mode. Once both LEDs flash, release the footswitch.



- 2 Turn the **REPEATS (TAPE BIAS)** knob to adjust the bias (default is 12 o'clock). Both the **TAP** and **ON** LEDs light momentarily to indicate your setting:

- Under-biased: **GREEN**
- Over-biased: **AMBER**

**TIP:** For an optimally biased tape machine, set to the 9 o'clock position. For an under-biased tape machine with extra high frequency response, set to minimum.

- 3 Press the **ON** footswitch to exit and store your Tape Bias setting.

**NOTE:** The Tape Bias setting is saved per Favorite setting or MIDI preset.

## Live Edit Functions

### Boost/Cut

Boosts or cuts the volume by 3dB when the pedal is engaged.

- 1 Press and hold the **ON** footswitch to enter Live Edit mode. Once both LEDs flash, release the footswitch.



- 2 Turn the **MIX (BOOST/CUT)** knob to smoothly adjust the amount of output level cut or boost. Unity gain is at the 12 o'clock position (default). Both the **TAP** and **ON** LEDs light momentarily to indicate your setting:
  - -3dB: **GREEN**
  - +3dB: **AMBER**
- 3 Press the **ON** footswitch to exit and store your Boost/Cut setting.

**NOTE:** The Boost/Cut setting is saved per Favorite setting or MIDI preset.

## Live Edit Functions

### MIDI Clock Sync

Selects whether El Capistan's echo repeats will sync to incoming MIDI Clock messages.

- 1 Press and hold the **ON** footswitch. Once both LEDs flash, release the footswitch.



- 2 Set the position of the **MODE (MIDI CLOCK SYNC)** switch to select whether El Capistan will sync to incoming MIDI Clock messages. Both LEDs will momentarily change color to indicate the current status as you set the switch.
  - Set the switch down to **c** for **Off** (default): both LEDs light **RED** - El Capistan will not respond to MIDI Clock.
  - Set the switch up to **a** for **On**: both LEDs light **BLUE** - El Capistan will respond to MIDI Clock.

**NOTE:** When synced to MIDI Clock, the LEDs will light **PINK**, and the **TIME** knob will act as a multiplier or divider of the incoming clock tempo for the **multi** and **single** **TAPE HEAD** modes only. The sync'd **TIME** mult/div settings from left to right are: x4 (min), x3, x2, x1 (at 12 o'clock noon), 1/2, 1/3, 1/4 (max).

For the **fixed** **TAPE HEAD** mode, the MIDI Clock tap divisions follow the same tap settings of the **MODE** switch: **a** = 16th note, **b** = dotted 8th, **c** = quarter note.

- 3 Press the **ON** footswitch to exit and store your MIDI Clock setting.

**NOTE:** The MIDI Clock setting is saved per Favorite setting or MIDI preset.

## Live Edit Functions

### Respond/Ignore MIDI Expression

When set to MIDI mode, this setting determines whether El Capistan will respond to MIDI Expression CC# 100, values 0 (heel) to 127 (toe), to control the knob settings in the same manner as a TRS Expression pedal.

- 1 Press and hold the **ON** footswitch. Once both LEDs flash, release the footswitch.



- 2 Set the position of the **TAPE HEAD (MIDI EXP)** switch to select whether El Capistan will respond to MIDI Expression CC #100. Both LEDs will momentarily change color to indicate the current status as you set the switch.
  - Set the switch up to **fixed** for **On** (default): Both LEDs light **BLUE** - El Capistan will respond to MIDI Expression.
  - Set the switch down to **single** for **Off**: both LEDs light **RED** - El Capistan will not respond to MIDI Expression.
- 3 Press the **ON** footswitch to exit and store your MIDI Expression setting.

**NOTE:** The MIDI Expression setting is saved per Favorite setting or MIDI preset.

## Power Up Modes

### Input Level

Selects the input level that is routed to the effect processing.

- 1 Press and hold the **ON** footswitch while powering up El Capistan. Once both LEDs flash, release the footswitch.



- 2 Turn the **TIME (INPUT LEVEL)** knob to select the Input Level mode. The **TAP** LED will change color to indicate the current status as you turn the knob.
  - **Instrument: GREEN** (default) - Input headroom is set for an instrument level source, such as a guitar or a bass.
  - **Line: RED** - Input level is set for a line level source, such as a keyboard or synthesizer. 10dB of headroom is added.
- 3 Press either footswitch to store the Input Level mode and begin using El Capistan.

**NOTE:** The Input Level setting persists across power cycles and is not saved per preset.

## Power Up Modes

### Bypass Mode

Setting El Capistan to Buffered Bypass mode preserves the high frequency response of your instrument's signal through your pedal chain and long cable runs.

- 1 Press and hold the **ON** footswitch while powering up El Capistan. Once both LEDs flash, release the footswitch.



- 2 Turn the **MIX (BYPASS MODE)** knob to choose between True Bypass or Buffered Bypass modes. The **ON** LED will change color to indicate the current status as you turn the knob.
  - True Bypass: **GREEN** (default)
  - Buffered Bypass: **RED**
- 3 Press either footswitch to store the Bypass mode and begin using El Capistan.

**NOTE:** The Bypass mode setting persists across power cycles and is not saved per preset.



## Power Up Modes

### Spillover Mode

Setting El Capistan to Spillover mode allows the echo repeats of the currently selected preset to “spill” into bypass or the next loaded preset.

**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 **ON** footswitch while powering up El Capistan. Once both LEDs flash, release the footswitch.



- 2 Turn the **TAPES AGE (SPILLOVER MODE)** knob to turn Spillover mode on or off. Both LEDs will change color to indicate the current status as you turn the knob.
  - Spillover mode Off: **AMBER** (default)
  - Spillover mode On: **PURPLE**
- 3 Press either footswitch to store the Spillover mode setting and begin using El Capistan.

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

## Power Up Modes

### Configuring the EXP/MIDI Jack

- 1 Press and hold the **TAP** footswitch while powering up El Capistan. Once both LEDs flash, release the footswitch.



- 2 Turn the **MIX (EXP/MIDI JACK)** knob to select the function of the rear panel's **EXP/MIDI** jack. The **ON** LED will change color to indicate the current status as you turn the knob.
  - **Expression Pedal mode: GREEN** (default) - Allows continuous control over any of the knobs in any direction with a standard TRS expression pedal. (See [page 20](#) for details.)
  - **Favorite mode: AMBER** - Allows you to recall a Favorite setting using a Strymon MiniSwitch. (See [page 21](#) for details.)
  - **Tap mode: RED** - Allows you to set the master delay time via tap tempo using a Strymon MiniSwitch. (See [page 23](#) for details.)
  - **MIDI mode: BLUE** - Allows for the selection of three presets using a Strymon MultiSwitch Plus. 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. (See ["Configuring MultiSwitch Plus" on page 24](#) or ["Saving Presets in MIDI Mode" on page 31](#).)

### Configuring the EXP/MIDI Jack (cont.)



- 3 Press either footswitch to store the EXP/MIDI jack mode and begin using El Capistan.

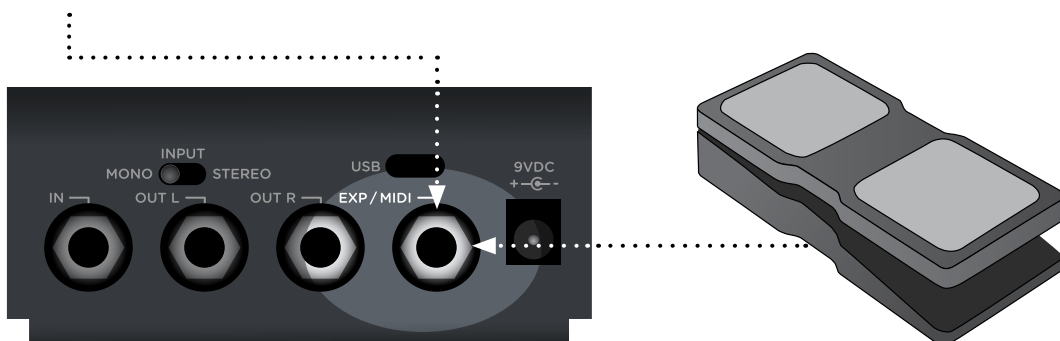
**NOTE:** The EXP/MIDI jack mode setting persists across power cycles and is not saved per preset.

## External Control

### Expression Pedal Setup

Use a TRS expression pedal to control the knobs of El Capistan .

- 1 Configure the **EXP/MIDI** jack for Expression mode. (See [page 17](#) for configuration instructions.)
- 2 Connect an expression pedal to the **EXP/MIDI** jack of El Capistan using a TRS cable.



- 3 Press and hold both footswitches until both LEDs blink **GREEN**.
- 4 Rock the expression pedal to the **HEEL** position. Only the **TAP** LED will blink **GREEN**.
- 5 Set the knob(s) you would like to control to the desired settings for the **HEEL** position of the expression pedal. Only the **TAP** LED will turn **RED**.
- 6 Rock the expression pedal to the **TOE** position. Only the **ON** LED will blink **GREEN**.
- 7 Set the knob(s) you would like to control to the desired settings for the **TOE** position of the expression pedal. Only the **ON** LED will turn **RED**.
- 8 Press either footswitch to exit and store your expression pedal setup.

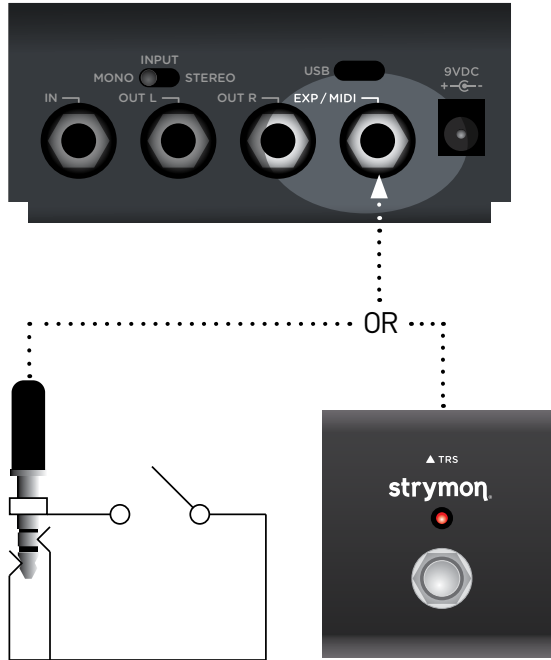
**NOTE:** Your expression pedal assignment is saved per Favorite setting or MIDI preset.

**NOTE:** If El Capistan 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 a MiniSwitch or other external latching footswitch with a TRS cable to store and recall your Favorite setting.



- 1 Configure the **EXP/MIDI** jack for Favorite mode. (See [page 17](#) for more info.)
- 2 Connect an external 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 both footswitches until their LEDs blink **GREEN**. Then, press and hold the **TAP** footswitch until the **TAP** LED momentarily flashes **BLUE** to save the Favorite setting.

Step on the external footswitch to toggle between your Favorite setting and the current setting on El Capistan.

## Favorite Switch Setup and Compare Mode (cont.)

### COMPARE MODE

With a Favorite or MIDI preset recalled, as a knob or switch is adjusted, both LEDs flash **GREEN** when the current knob or toggle switch position matches the setting of the preset.

**NOTE:** Along with the knobs and toggle switches on the face of the pedal, all Live Edit settings and the bypass state of the pedal are stored with the Favorite and MIDI presets. Power Up modes are not stored with the presets.

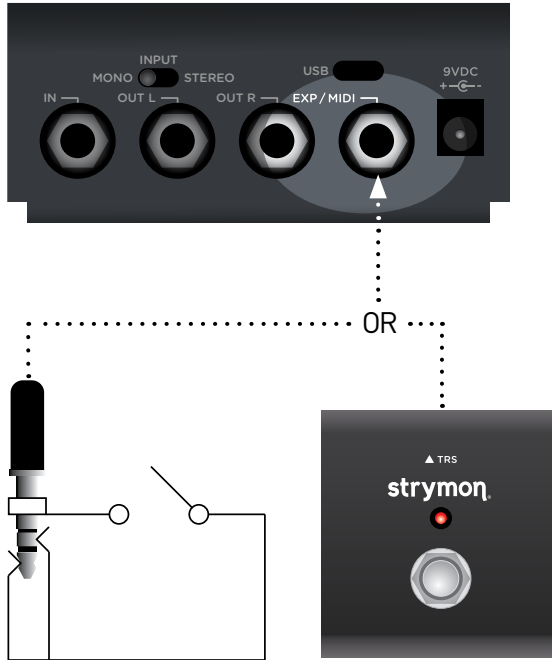
**NOTE:** Saving presets works differently when using MIDI, (See [page 26](#) for details).

**NOTE:** The Favorite setting is stored at MIDI program change location 0.

## External Control

### Tap Mode

Connect a MiniSwitch or other external momentary footswitch with a TRS cable to tap in a delay time.



- 1 Configure the **EXP/MIDI** jack for Tap mode. (See [page 17](#) for more info.)
- 2 Connect an external switch with a TRS cable to the **EXP/MIDI** jack.
- 3 Tap in a tempo in quarter notes to set the delay time.

**NOTE:** When in Tap mode, press and hold the external switch to engage infinite repeats. Release the footswitch to return to normal operation.

## External Control

### Configuring MultiSwitch Plus

Configure El Capistan and MultiSwitch Plus for remote access to three additional presets.

- 1 Press and hold the **TAP** footswitch while connecting power to the pedal. Hold until both LEDs stop blinking.
- 2 Turn the **TIME** knob all the way counter-clockwise to set the MIDI channel to Channel 1. The **TAP** LED should be **GREEN**.
- 3 Turn the **TAPE AGE** knob to select the preferred **MIDI OUTPUT** options:
  - Send MIDI CC, PC, and Other Data: **WHITE**
  - Send MIDI CC and Other Data: **GREEN**
  - Send MIDI PC and Other Data: **PURPLE**
  - Send Other Data: **AMBER**
- 4 Turn the **MIX** knob all the way clockwise to set the **EXP/MIDI** jack to MIDI mode. The **ON** LED should be **BLUE**.
- 5 Press either footswitch to exit and store the MIDI channel, the **MIDI OUTPUT** setting, and the **EXP/MIDI** jack mode.
- 6 Connect a TRS cable to the **EXP/MIDI** jack on El Capistan.



- 7 Press and hold the **A** footswitch on MultiSwitch Plus while connecting the TRS cable to any one of the three jacks to set it to Preset mode.





## External Control

### Using MultiSwitch Plus

Selecting and saving El Capistan presets using MultiSwitch Plus.



**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 El Capistan.

### Saving El Capistan Presets with MultiSwitch Plus:

- 1 Dial in the sound that you would like to save as your preset on El Capistan.
- 2 Press and hold both footswitches on El Capistan until both LEDs blink **GREEN**.
- 3 Press the A, B, or C footswitch on MultiSwitch Plus to save the current state of the pedal to the desired location.

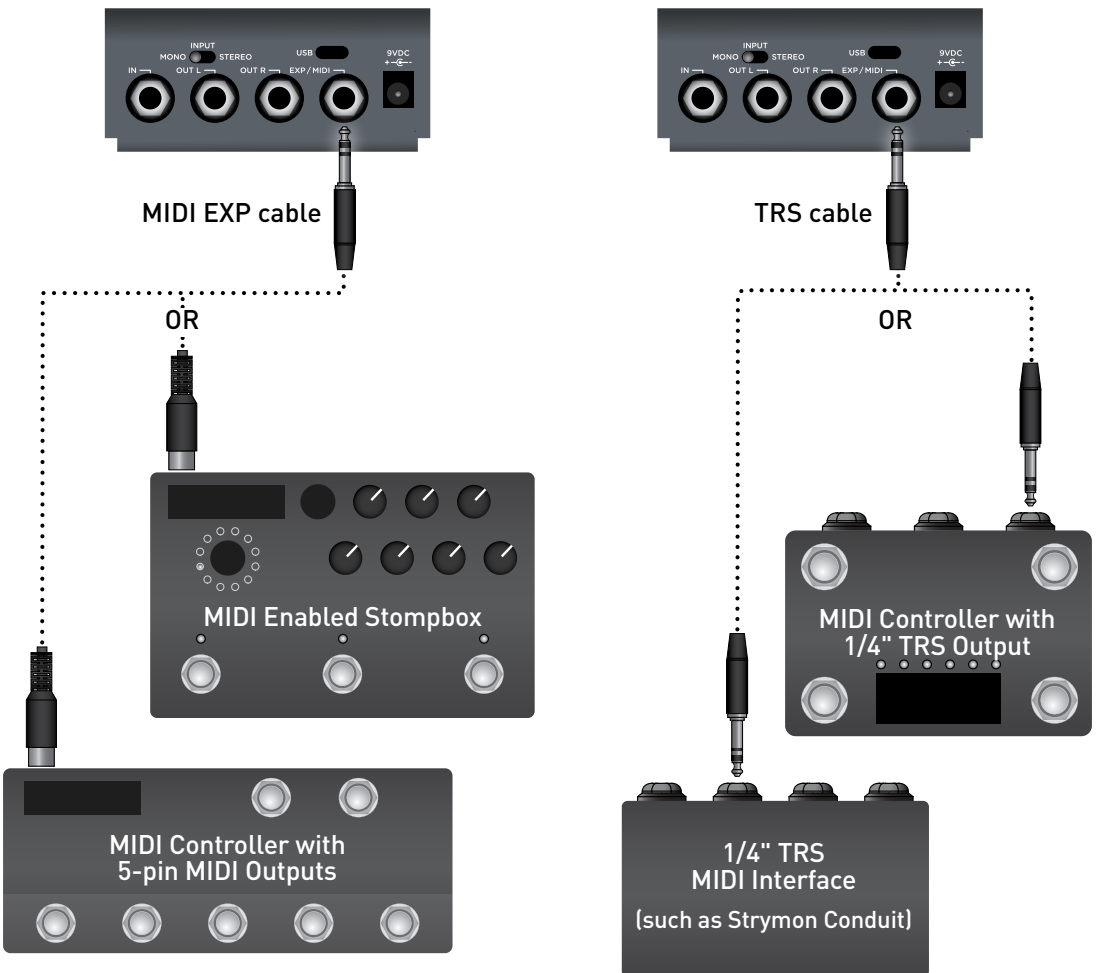
## MIDI Functionality

### Configuring El Capistan to Use MIDI

Using MIDI unlocks a set of tools that can be used to load any of El Capistan's 300 preset locations using a suitable MIDI controller or interface connected to the El Capistan 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 30](#) for details.)

Please see [strymon.net/support/elcapistan-v2](http://strymon.net/support/elcapistan-v2) for a list of compatible devices.



## Configuring El Capistan to Use MIDI (cont.)

### STEP 1 – SET EXP/MIDI JACK TO MIDI MODE

- 1 Press and hold the **TAP** footswitch while connecting power to the pedal. Once both LEDs flash, release the footswitch.



- 2 Turn the **MIX** knob clockwise until the **ON** LED is **BLUE** to select MIDI mode.

## Configuring El Capistan to Use MIDI (cont.)

### STEP 2 – SET MIDI CHANNEL



**3** Turn the **TIME** knob to set the MIDI communication channel. **TAP** LED indicates status. Your **TIME** knob selections are as follows:

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

Once the **TAP** 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 exit the power-up mode to allow you to begin using El Capistan.

STEP 2 – SET MIDI CHANNEL (CONT.)



- 4 Press **either** footswitch to exit and store your MIDI Channel setting and begin using El Capistan.

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

**NOTE:** If you are only sending data to El Capistan using the Strymon MIDI EXP cable, the MIDI OUT mode must be set to **OFF**. (See [page 30](#) for details on configuring the MIDI OUT Mode.)

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

## Configuring El Capistan to Use MIDI (cont.)

### STEP 3 – SET MIDI OUT MODE

- 1 Press and hold the **TAP** footswitch while connecting power to the pedal. Once both LEDs flash, release the footswitch.



- 2 Turn the **TAPE AGE** knob to select what kind of MIDI data is sent from El Capistan to other MIDI devices. Both LEDs will flash momentarily to indicate status.
  - **OFF: RED** (default) - No MIDI messages are sent out of El Capistan.
  - **THRU: BLUE** - Incoming MIDI messages are sent to the MIDI Out without any additional MIDI messages generated by El Capistan.
  - **SEND CC, PC, OTHER: WHITE** - MIDI CC, PC, and SysEx messages generated by El Capistan are all sent to the MIDI Out.
  - **SEND CC, OTHER: GREEN** - MIDI CC and SysEx messages generated by El Capistan are sent to the MIDI Out.
  - **SEND PC, OTHER: PURPLE** - MIDI PC and SysEx messages generated by El Capistan are sent to the MIDI Out.
  - **SEND OTHER: AMBER** - SysEx messages generated by El Capistan are sent to the MIDI Out.
- 3 Press either footswitch to store the MIDI OUT mode and exit.

## MIDI Functionality (cont.)

### Saving Presets in MIDI Mode

When in MIDI mode, the currently loaded settings can be saved to any of El Capistan’s 300 preset locations at any time.

- 1 To enter Save mode, press and hold **both** footswitches. Both LEDs will blink **GREEN** to indicate that El Capistan 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 **TAP** footswitch 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 El Capistan’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.

**NOTE:** Press the **ON** footswitch to cancel the save operation.

## MIDI Specifications

### MIDI Program Changes

El Capistan 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**

- 0 Favorite setting (accessible via MiniSwitch)  
See [page 21](#) for details.
- 1 MultiSwitch Plus - footswitch 1
- 2 MultiSwitch Plus - footswitch 2
- 3 MultiSwitch Plus - footswitch 3
- 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.

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



## MIDI Specifications (cont.)

EL CAPISTAN USB - MIDI CC NUMBERS			
CC#	PARAMETER	RANGE	ENUMERATION
0	Bank Select	0-2	(0=Bank 1, 1=Bank 2, 2=Bank 3)
11	Tape Head	1-3	(1=fixed, 2=multi, 3= single)
12	Time	0-127	
13	Wow & Flutter	0-127	
14	Tape Age	0-127	
15	Mode	1-3	(1=a, 2=b, 3=c)
16	Mix	0-127	
17	Spring	0-127	
18	Repeats	0-127	
19	Low End Contour	0-127	
20	Tape Bias	0-127	
21	Tape Crinkle	0-127	
22	Boost/Cut	0-127	
27	Footswitch A	0, 127	(0=release, 1-127=press)
28	Footswitch B	0, 127	(0=release, 1-127=press)
60	MIDI Expression Off/On	0, 127	(0=off, 1-127=on)
63	MIDI Clock Off/On	0, 127	(0=off, 1-127=on)
93	Remote Tap	Any	
97	Infinite Repeats	0, 127	(0=release, 1-127=hold)
100	Expression Pedal	0-127	(0=heel, 127=toe)
102	Bypass/On	0, 127	(0=bypass, 1-127=on)

**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 modes and secondary functions, and replaces all stored presets with their factory default locations.

- ① Press and hold the **ON** footswitch while connecting power to the pedal. Once both LEDs flash, release the footswitch.

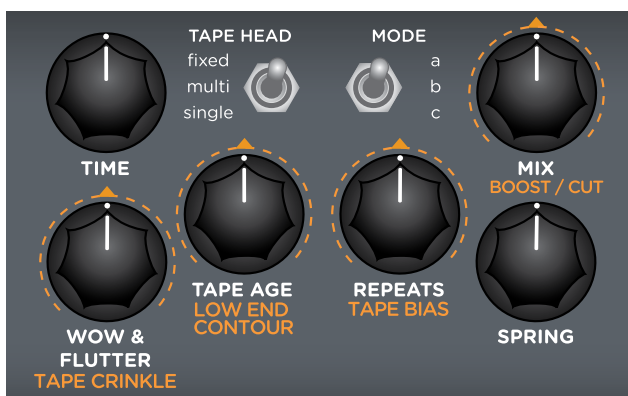


- ② Sweep the **WOW & FLUTTER** knob from 0-100% and back two times. Both LEDs will change colors at the extremes of the knob range and blink **RED** to indicate when the reset is taking place.

- TURN 1: **AMBER**
- TURN 2: **RED**
- TURN 3: **AMBER**
- TURN 4: Both LEDs flash **RED**, El Capistan resets and restarts.

## Factory Reset (cont.)

FACTORY DEFAULT SETTINGS	
EXP/MIDI Jack	Assigned to Expression mode and configured to control the <b>TIME</b> knob
Input Level	Instrument
Bypass Mode	True Bypass
MIDI Channel	1
MIDI OUT Mode	Off
MIDI Clock Sync	Off
MIDI Expression	On
Live Edit, Secondary Functions	<b>TAPE CRINKLE</b> = 12 o'clock <b>LOW END CONTOUR</b> = 12 o'clock <b>TAPE BIAS</b> = 12 o'clock <b>BOOST/CUT</b> = 12 o'clock, unity gain



Default Live Edit Settings

DELAY TIME RANGES	
Fixed Head A	50ms - 250ms
Fixed Head B	150ms - 750ms
Fixed Head C	300ms - 1.5s
Multi Head A	240ms - 1.2s (heads 1 & 2 selected)
Multi Head B	240ms - 1.2s (heads 2 & 3 selected)
Multi Head C	240ms - 1.2s (heads 1 & 3 selected)
Single Head A	25ms - 770ms
Single Head B	50ms - 1.5s
Single Head C (Sound on Sound)	<b>TIME</b> knob left of 12 o'clock (double speed): max SOS loop time 10s. <b>TIME</b> knob right of 12 o'clock (normal speed): max SOS loop time 20s

## Features

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- Hand crafted dTape algorithms for meticulous and nuanced recreations of tape echo systems
- Three tape machines in one: **fixed** (one fixed playback head), **multi** (multiple playback heads), and **single** (sliding record head)
- Three modes on each tape machine for extremely flexible echo options
- Independent Spring reverb
- Selectable between True Bypass or Buffered Bypass
- Sound on Sound mode with instant tape splice and bulk erase for tape-style looping
- +/- 3dB adjustable analog boost or cut when effect is engaged
- Ultra low noise, high performance A/D and D/A converters
- Analog dry path for a zero latency dry signal that is never converted to digital
- +10dBu maximum input level easily handles instrument and line signals
- Expression pedal input allows the connection of a TRS expression pedal, Strymon MiniSwitch, MultiSwitch Plus, or TRS MIDI connection
- Full featured MIDI, accessible via TRS, supporting MIDI CCs, MIDI clock sync, access to 300 preset locations (requires Strymon MIDI EXP cable or MIDI > TRS interface such as Strymon Conduit)
- USB-C jack for controlling via MIDI from a computer or for performing potential future firmware updates
- High performance 520MHz ARM Superscalar processor
- 32-bit floating point processing
- Stereo input (requires TRS adapter cable) and stereo output
- High impedance ultra-low noise discrete Class A JFET preamp inputs
- Low impedance stereo outputs
- Strong and lightweight anodized aluminum chassis
- Designed and built in the USA

## **Specifications**

<b>Input Impedance:</b>	1 Meg Ohm
<b>Output Impedance:</b>	100 Ohm
<b>A/D &amp; D/A:</b>	24-bit 96kHz
<b>Max Input Level</b>	+10 dBu
<b>Signal/Noise</b>	115 dB typical
<b>Bypass Switching</b>	True Bypass (electromechanical relay switching)
<b>Dimensions</b>	4.5" deep x 4" wide x 1.75" tall

## **Power Adapter Requirements**

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

# Appendix 1: Sample Settings

## Sample Settings

### TWANGER



MIDI Program Change 0  
MiniSwitch Favorite

### IN THE CANYON



MIDI Program Change 1  
MultiSwitch Plus A

### DREAMY MOD



MIDI Program Change 2  
MultiSwitch Plus B

### PULSING REPEATS



MIDI Program Change 3  
MultiSwitch Plus C

### OLDER SIBLING



MIDI Program Change 4

### LIVE EDIT FUNCTIONS

El Capistan provides a way to adjust several parameters that do not have a dedicated knob or switch. These are called **LIVE EDIT** functions and each are described in detail starting on [page 9](#). The sample settings on this page use the factory default values for these functions.

# 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.

### General Options

- 1 Press and hold the **ON** footswitch while powering up El Capistan. Once both LEDs flash, release the footswitch.
- 2 Adjust the desired functions with the knobs and buttons noted below.
- 3 Press either footswitch to store your changes and exit power up mode.

#### INPUT LEVEL

See [page 15](#) for an illustrated description.

Turn **TIME** knob - status shown on **TAP** LED

- **Instrument:** GREEN (default)
- **Line:** RED

#### BYPASS MODE

See [page 16](#) for an illustrated description.

Turn **MIX** knob - status shown on **ON** LED

- **True Bypass:** GREEN (default)
- **Buffered Bypass:** RED

#### SPILOVER MODE

See [page 17](#) for an illustrated description.

Turn **TAPE AGE** knob - status shown on **both** LEDs:

- **Spillover Off:** AMBER (default)
- **Spillover On:** PURPLE

#### FACTORY RESET

See [page 34](#) for an illustrated description.

Turn **WOW & FLUTTER** knob from 0% to 100% and back two times - status shown on **both** LEDs

## 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.

### MIDI & Jack Options

- 1 Press and hold the **TAP** footswitch while powering up El Capistan. Once both LEDs flash, release the footswitch.
- 2 Adjust the desired functions with the knobs and buttons noted below.
- 3 Press either footswitch to store your changes and exit power up mode.

---

#### EXP/MIDI JACK MODE    Turn **MIX** knob - status shown on **ON** LED

See [page 18](#) for an illustrated description.

- Expression: **GREEN** (default)
- Favorite: **AMBER**
- Tap: **RED**
- MIDI: **BLUE**

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#### MIDI CHANNEL

See [page 28](#) for an illustrated description.

Turn **TIME** knob - status shown on **TAP** LED

- 1: **GREEN** (default)
- 2: **AMBER**
- 3: **RED**
- 4-16: **BLUE** (channel set by next received MIDI Program Change message)

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#### MIDI OUT MODE

See [page 30](#) for an illustrated description.

Turn **TAPE AGE** knob - status shown momentarily on **both** LEDs

- OFF: **RED** (default)
  - THRU: **BLUE**
  - ON CC PC OTHER: **WHITE**
  - ON CC OTHER: **GREEN**
  - ON PC OTHER: **PURPLE**
  - ON OTHER: **AMBER**
-

# Appendix 3: Live Edit Controls Quick Reference

## Live Edit Controls Quick Reference

El Capistan provides a way to adjust several secondary functions that are available on several knobs (also, see [“Live Edit Functions” on page 9](#)). Live Edit Functions are saved per preset.

- 1 Press and hold the **ON** footswitch until both LEDs blink to enter Live Edit mode.
- 2 Release the footswitch and use the knobs as described below.
- 3 Press either footswitch to exit Live Edit mode.

### LOW END CONTOUR

See [page 9](#) for an illustrated description.

Turn the **TAPE AGE** knob—the **ON** LED changes color from **GREEN** (extended low-frequency bandwidth) to **AMBER** (extreme high passed) as the control is adjusted. (Default is 12 o'clock.)

### TAPE CRINKLE

See [page 10](#) for an illustrated description.

Turn the **WOW & FLUTTER** knob—the **TAP** LED changes color from **GREEN** (clean, fresh tape) to **AMBER** (old, mangled tape) as the control is adjusted. (Default is 12 o'clock.)

### TAPE BIAS

See [page 11](#) for an illustrated description.

Turn the **REPEATS** knob—**both** LEDs change color from **GREEN** (under-biased) to **AMBER** (over-biased) as the control is adjusted. (Default is 12 o'clock.)

### BOOST/CUT

See [page 12](#) for an illustrated description.

Turn the **MIX** knob—**both** LEDs change color from **GREEN** (-3dB to unity) to **AMBER** (unity to +3dB) as the control is adjusted. (Unity gain is at 12 o'clock, the default)

### MIDI CLOCK SYNC

See [page 13](#) for an illustrated description.

Set the **MODE** switch to the **c** or **a** position - status is momentarily shown on **both** LEDs

- **c** position: **OFF**, **RED** (default)
- **a** position: **ON**, **BLUE**

### MIDI EXPRESSION

See [page 14](#) for an illustrated description.

Set the **TAPE HEAD** switch to the **fixed** or **single** position - status is momentarily shown on **both** LEDs

- **fixed** position: **ON**, **BLUE** (default)
- **single** position: **OFF**, **RED**

## **Strymon Non-Transferable Limited Warranty**

### **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](http://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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