

USER MANUAL

# *El Capistan*

dTape Echo

**strymon**<sup>®</sup>

Front Panel

**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.

**REPEATS:** Varies the number of **repeats** from one to saturated oscillation.

**MIX:** Controls the balance of **dry signal** and **wet signal** from 100% dry at minimum to 100% wet at maximum. The **mix** occurs entirely in **analog**. Set to 3:00 to get a 50/50 mix.

**TAPE HEAD SWITCH:** Changes the selected tape machine / head configuration. See the **Tape Machines** section of the manual on page 3 for detailed info.

**MODE SWITCH:** Changes the mode for each associated tape machine. See the **Tape Machines** section of the manual on page 3 for detailed info.

**TAPE AGE:** Controls the bandwidth of the tape just as it would change over time in a traditional tape delay machine. As regular tapes wear out, their bandwidth becomes limited. The TAPE AGE control recreates this. 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 machine 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 tape modulation is achieved.

**TAP FOOTSWITCH:**  
Tap **quarter notes** to set the delay time. The **TAP LED** will flash to indicate the tempo. **TIP:** Holding the tap footswitch will result in **infinite repeats**.

**BYPASS FOOTSWITCH:**  
Engages and disengages effect. Bypass mode is **true bypass** by default. LED on indicates that the effect is engaged. **TIP:** Hold the bypass footswitch during power up to change the bypass mode to analog bypass with **trails** (delay persist).

Secondary Functions

**SPRING REVERB:** Controls the mix of the integrated spring reverb tank in any of the delay modes.

**TAPE BIAS:** Adjusts tape machine bias, from under-biased to over-biased. Higher bias levels result in reduced echo volume and limited headroom. Lower bias settings result in the cleanest echos with the most headroom. For an **optimally biased** tape machine set to **9:00**. For an under biased tape machine with extra high frequency response set to minimum.

**BOOST / CUT:** Controls the +/- 3dB boost or cut when the pedal is engaged (12:00 on the Mix knob is unity gain)

**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**.

**TAPE CRINKLE:** Controls 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.



Hold down **BYPASS** and **TAP** to access all **secondary functions** on the knobs

**In Depth: Tape Machines**

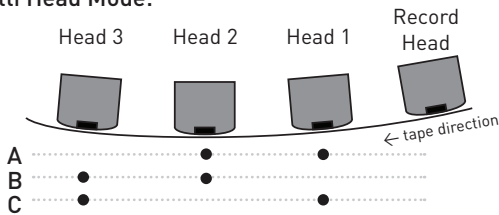
**Fixed Tape Head:** Time knob varies the **tape speed** while the playback head is fixed in position.

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:** 2 of 3 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.

**Multi Head Mode:**

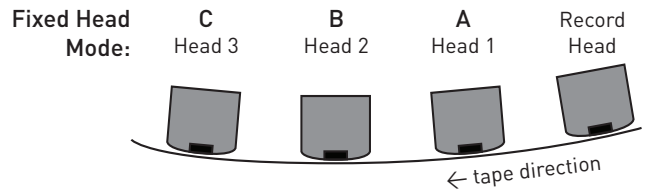


**Single Head:** The tape speed is fixed while the TIME knob varies the position of a sliding record head.

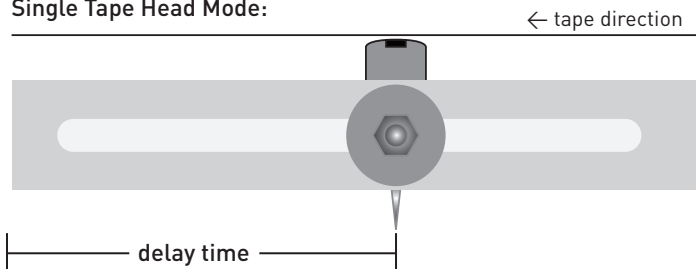
Mode A: Tape motor at **double** speed.  
 Mode B: Tape motor at **normal** speed.  
 Mode C: **Sound on Sound** mode.

**Sound on Sound:** Single tape head mode C will play the entire tape loop upon entering the mode. Whatever one has recorded in modes 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.

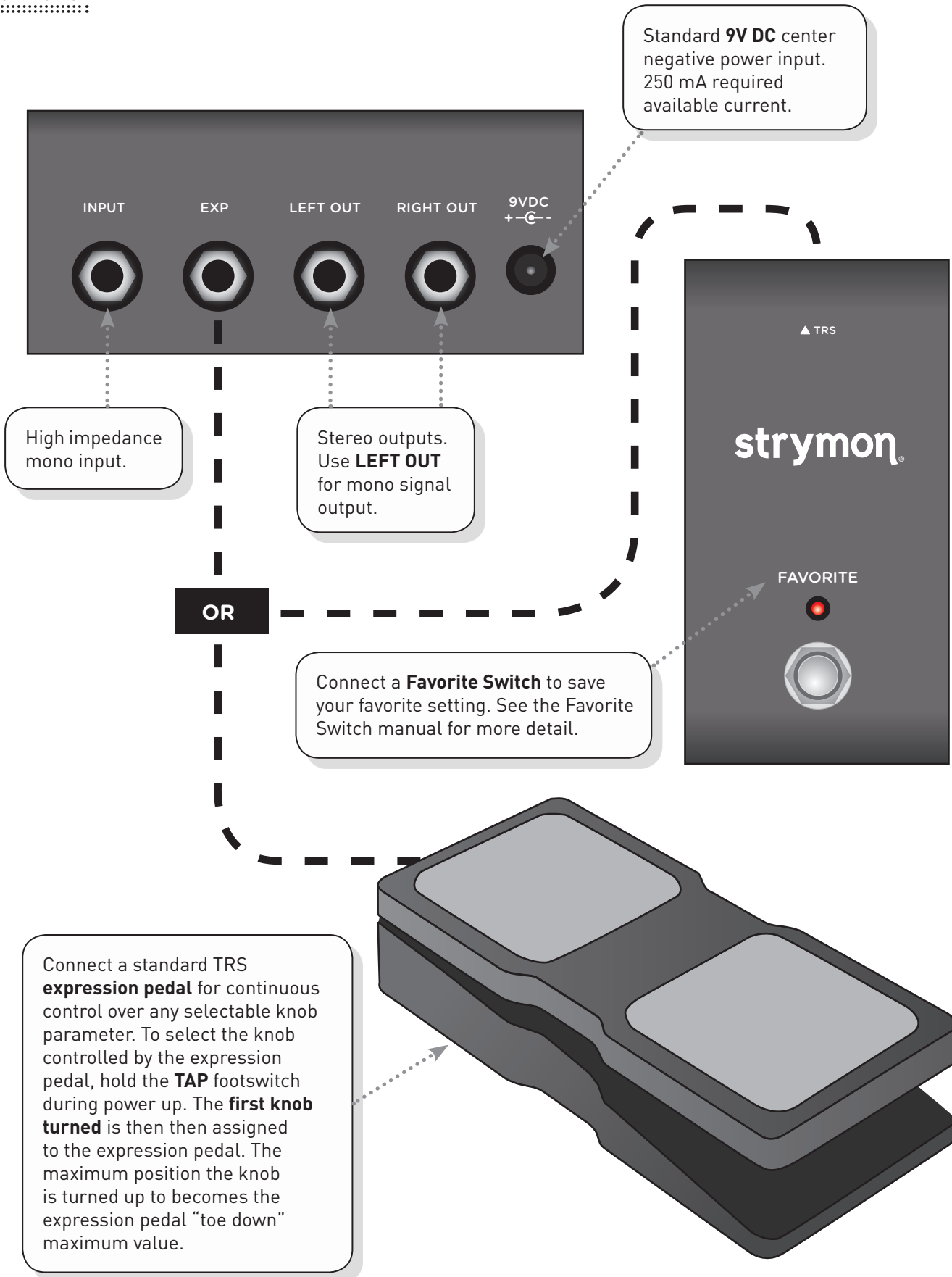
Press the TAP footswitch once to set the first tape splice point. The second TAP press sets the second tape splice point. The third press of the TAP footswitch will perform a **bulk erase** of the tape.



**Single Tape Head Mode:**



Rear Panel

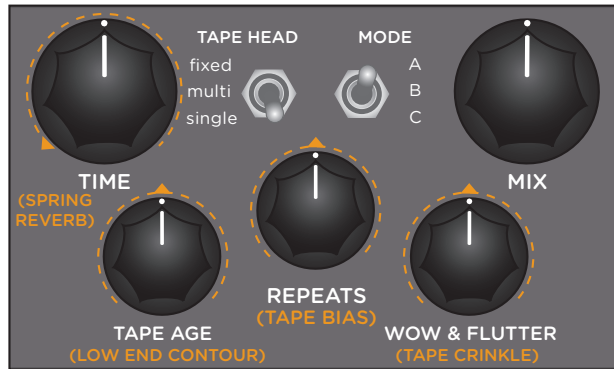


## Factory Settings

**Bypass Mode:** True Bypass

**Secondary functions:** Spring Reverb set to OFF, all other secondary functions set to 50%

**EXP input jack:** Assigned to use an expression pedal and vary the TIME knob



## 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)

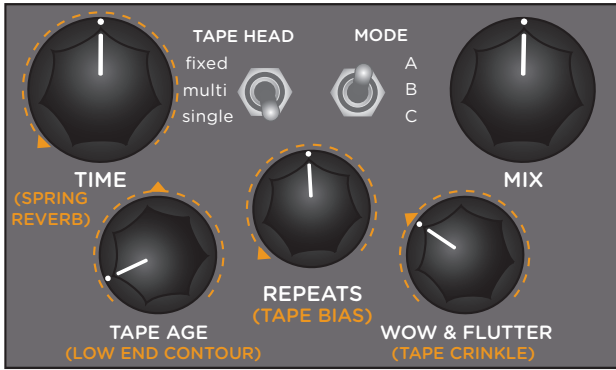
**Multi Head C:** 240ms - 1.2s (heads 1 & 3 selected)

**Single Head A:** 25ms - 770ms

**Single Head B:** 50ms - 1.5s

**Single Head C (sound on sound):** TIME knob *left* of 12 o'clock (double speed): max delay time 10s  
 TIME knob *right* of 12 o'clock (normal speed): max delay time 20s

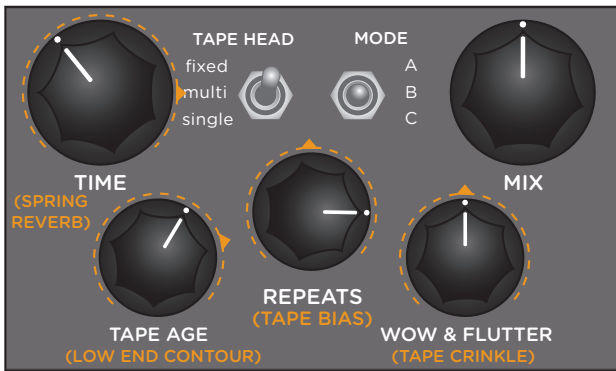
### Sample Settings



Bright Tape



Saturated Wash



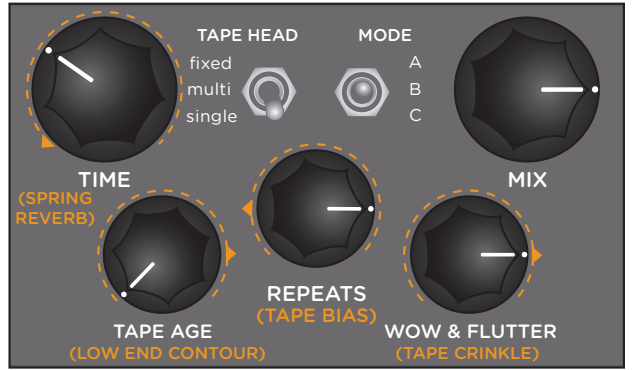
DUB



Worn Out Tape



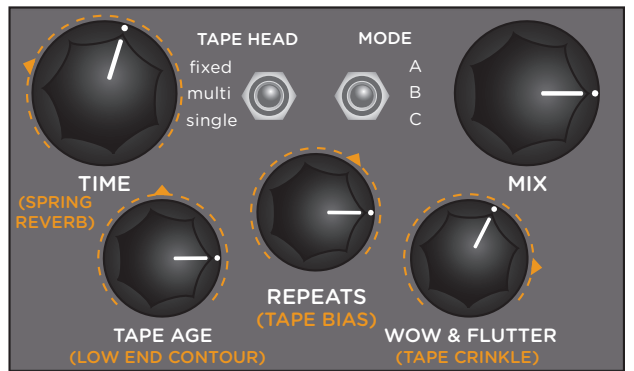
Dirty Slap



Wow & Flutter



Magnetic Drum Wash



Dirty Multi Head

**Features**  
 .....:

- Hand crafted dTape algorithms for meticulous and nuanced recreations of tape echo systems
- 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
- 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
- Sound on Sound mode with instant tape splice and bulk erase for tape-style looping
- Stereo Output
- Expression pedal input with selectable control over any knob parameter
- +/- 3dB adjustable analog boost or cut when effect is engaged
- Tap Tempo footswitch
- Rugged & Lightweight Anodized Aluminum Chassis
- No-Nonsense User Interface
- Bypass selectable between True Bypass or Analog Bypass with “trails”

**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
DSP performance	1596 MegaFLOPS
Bypass Switching	True Bypass (electromechanical relay switching) or Analog “trails” Bypass (selectable)
Dimensions	4.5” deep x 4” wide x 1.75” tall

**Power Supply**  
 .....:

Input Voltage	9VDC Center Negative
Required Current	250mA



## **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.