

USER MANUAL

DDG

dual digital delay

strymon.

Front Panel

TYPE Choose from three delay conversion process choices:

24/96 – Modern, clean, and pure delay with subtle dynamics processing.

adm – Early 80s adaptive delta modulation process, providing snappy, percussive delays.

12 bit – Mid 80s 12-bit conversion method yields slightly darker and warmer delays.

MOD

Sets the amount of modulation added to the delay lines.

TIME

Controls delay time for Delay 1. Acts as a master time control for both delays.

TIME 2

Sets the rhythmic subdivision between Delay 1 and Delay 2. Select triplet, eighth, golden ratio, dotted eighth, or dotted quarter.

MIX

Controls wet/dry mix for Delay 1. Full clockwise is 100% wet.

MIX 2

Controls wet/dry mix for Delay 2. Full clockwise is 100% wet.

REPEATS

Sets the amount of repeats for both delays.

TAP

Tap to set your master delay time. The TAP LED will flash to indicate your tempo. Hold to engage **Circular Repeats**.

BYPASS

Engages and bypasses the effect. LED on indicates that the effect is engaged.



Secondary Functions

DELAY 1 SUBDIVISION

Sets a Tap Tempo subdivision for Delay 1. Turn left for **Dotted Eighth** note, center for **Quarter** note, right for **Half** note.

Quarter note is default operation.

DELAY 2 REPEATS

Sets the **Delay 2 Repeats**. Turn fully right to **Track Repeats**, which ties Delay 1 and Delay 2 repeats together.

Track Repeats is default operation.

FILTER

Sets feedback filter response. Turn left for **High Cut**, center for **Flat** response, right for **Low Cut**.

Flat response is default operation.

SYNC/FREE MODE

Turn to right side of knob to engage **Free Mode**. Disables time sync and subdivisions between Delay 1 and Delay 2. Gives Time 2 knob a full delay range from 20ms to 1.6s.

Turn to left side of knob to engage **Sync Mode**. Enables time sync and subdivisions between Delay 1 and Delay 2.

Sync Mode is default operation.

CONFIG

Turn left for **Series**, center for **Ping Pong**, or right for **Parallel** configuration.

Series is default operation.

See page 4 for detailed Config information.



Press and hold both footswitches simultaneously while turning the desired knob to access the secondary functions.

Dual Delay Config

The secondary function for the MIX 2 knob sets the Dual Delay configuration. **Press and hold both TAP and BYPASS** footswitches while turning the MIX 2 knob to adjust. Turn left for **Series**, center for **Ping Pong**, or right for **Parallel** configuration.

● SERIES

In Series configuration, Delay 2 feeds Delay 1. This is equivalent to putting two single delay pedals in succession on your pedal board. A mono input feeds both left and right channels.

● PING PONG

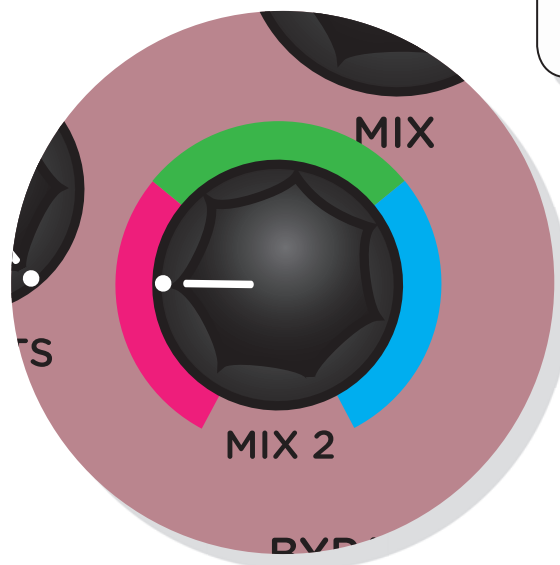
In Ping Pong Mode, the delays are configured in a series 'ping-pong' configuration. When using a mono output signal, this configuration is the same as the Series configuration.

In stereo, each delay acts as a ping-pong delay, and they interact when both Mix knobs are turned up.

● PARALLEL

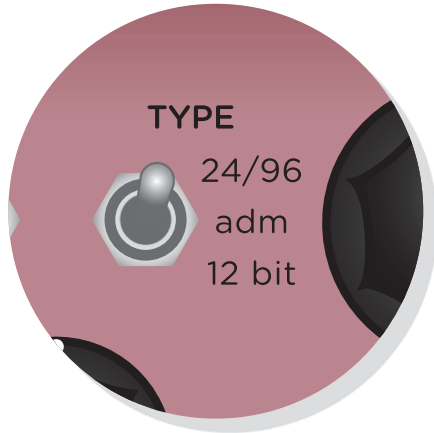
In Parallel configuration, the delays do not interact with each other, but produce their outputs 'side-by-side'.

In Stereo, Delay 1 outputs to the left channel, and Delay 2 outputs to the right channel. When the right output is not used, the wet signal sums to mono so that both parallel delays are heard from the left output.



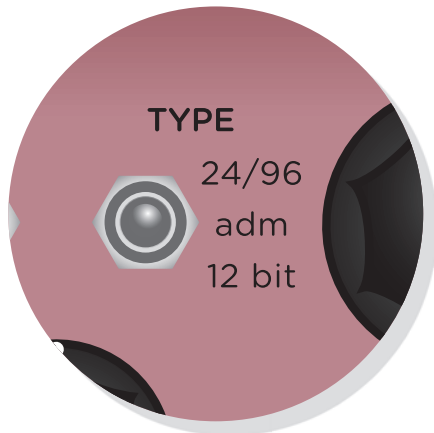
Voicings

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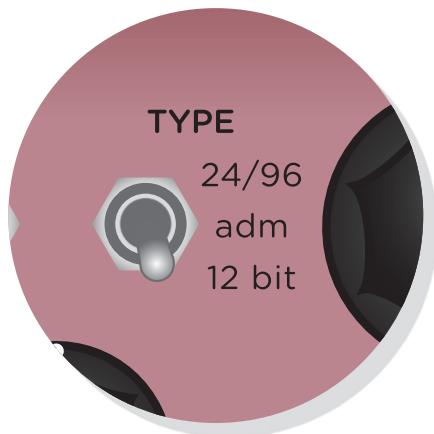
■ 24/96

A clean, high-resolution, high-bandwidth delay with a hint of dynamics that allow the delay to sit nicely with the analog dry signal. Twenty-four bit resolution and a 96kHz sampling rate ensure uncolored, artifact-free repeats.



■ ADM

A one bit, high sample rate A/D/A conversion technique that evolved from telecommunications voice coding. The conversion and supporting signal conditioning, limiting and pre-emphasis/de-emphasis create a percussive wide-band delay that adds more character when input dynamics increase.



■ 12 BIT

A 12-bit, 32kHz PCM conversion made possible by monolithic IC chips developed in the late '70s. Pre-emphasis/de-emphasis and companding combine with the converters to produce a warm delay with a dimensional sense.

Rear Panel



INPUT

High impedance input. Default configuration is mono input. Can be used as TRS stereo input by flipping internal jumper switch.

See page 10 for TRS stereo input information.

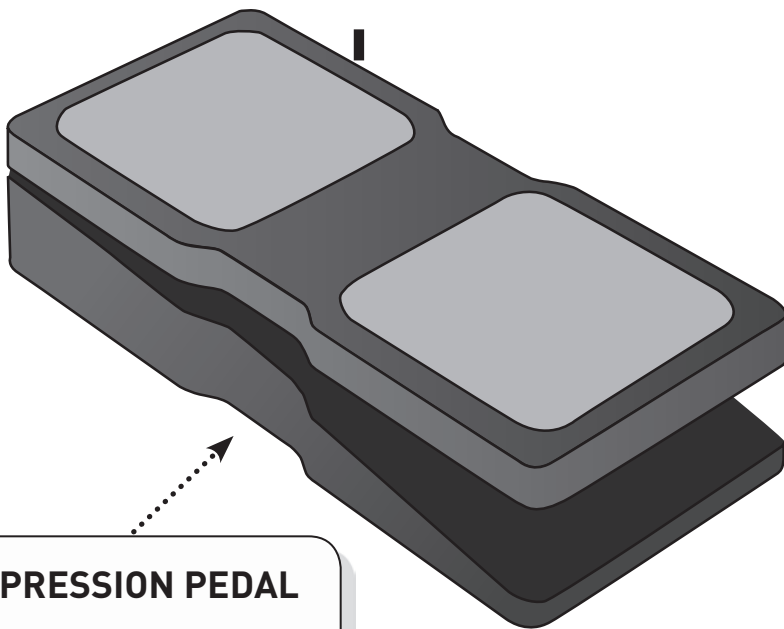
STEREO OUTPUTS

Use LEFT OUT for mono signal output. Use both outputs for stereo operation.

POWER

Maximum 9 volts DC center negative, with a minimum of 250mA current.

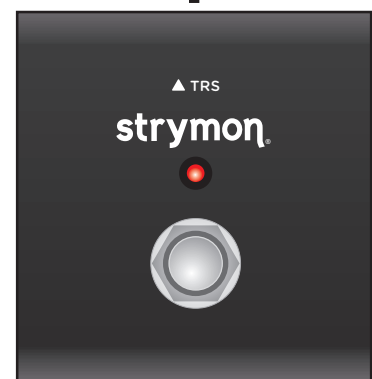
OR



EXPRESSION PEDAL

Connect a standard TRS expression pedal for continuous control over any one knob with your foot.

See page 7 for EXP jack setup.



TAP / FAVORITE SWITCH

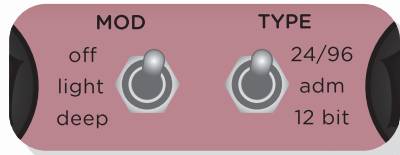
Connect an external tap switch to tap in your delay time. Or plug in a Favorite switch to save and recall a favorite preset.

See page 7 for EXP jack setup.

Expression Input Modes

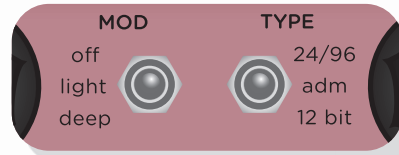
The EXP jack on your DIG is set up for Expression Pedal from the factory. To change the Expression Input mode, **hold down both TAP and BYPASS** footswitches while powering up. While holding down, move the toggle switches to one of the three positions shown below.

EXPRESSION PEDAL



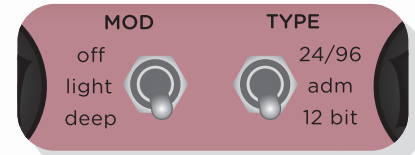
Power up with both toggle switches in the **UP position** while both holding footswitches to configure for use with an **expression pedal**. Connect a standard TRS expression pedal for control over any knob.

FAVORITE SWITCH



Power up with both toggle switches in the **MIDDLE position** while holding both footswitches to configure for use with a **FAVORITE switch**. To save a favorite setting, press and hold the Bypass switch.

EXTERNAL TAP



Power up with both toggle switches in the **DOWN position** while holding both footswitches to configure for use with an **external TAP switch**.

To **assign the knob** controlled by the expression pedal: Power down your pedal. Hold the TAP footswitch during power up, while turning the knob you'd like to assign. The maximum position the knob is turned up to becomes the expression pedal "toe down" maximum value.



HOLD BOTH AT POWER UP while changing toggle switch position to set Expression Input Mode

Bypass Modes

DIG is set up for True Bypass from the factory. To change to Analog Buffered Bypass mode with delay trails, **hold down the BYPASS switch** while powering up. Repeat this process to revert back to True Bypass.

TRUE BYPASS

Our True Bypass circuit is simply a mechanical relay to switch the input signal directly to the output, with absolutely no components attached.

BUFFERED BYPASS

Our high-quality Analog Buffered Bypass circuit features a 1Meg input impedance, keeping the character of your guitar pickup unaltered. The output impedance is 100 Ohms and can drive hundreds of feet of cable without coloring your sound. This mode also enables **delay trails**, allowing your delay to persist even after bypassing the effect.



HOLD BYPASS while powering up to change Bypass Mode

Kill Dry Mode

DIG can be set up to mute the dry signal, useful for Parallel effects loops. To change this operation, **hold down both TAP and BYPASS** footswitches while powering up. While holding down, turn the **TIME** knob to one of two ranges shown below.

● KILL DRY OFF

Set here to disable Kill Dry.
Kill Dry Off is standard operation.

● KILL DRY ON

Set here to enable Kill Dry. This will mute the dry signal, allowing the MIX and MIX 2 controls to be used as effect levels.



HOLD BOTH AT POWER UP while turning the TIME knob to change the Kill Dry mode.

Circular Repeats

Holding down the **TAP footswitch** enables Circular Repeats, where both delay lines maintain a static volume and repeat continuously until the TAP footswitch is disengaged. At this point, all previous settings will be restored.



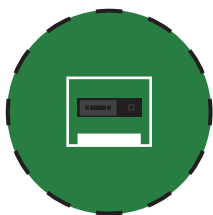
Press and hold to engage the Circular Repeats feature.

Release to return the controls to their previous settings.

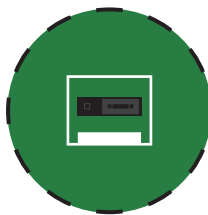
TRS Stereo Input

The 1/4" input can be set for either mono input or TRS stereo input. The pedal ships in mono input configuration from the factory. Here's how to change the input configuration:

Remove the back cover of your pedal. On the left side of the circuit board, you'll see a jumper that can be set in two positions. Place the jumper on the left 2 pins for TRS stereo input. Place the jumper on the right 2 pins for mono input.

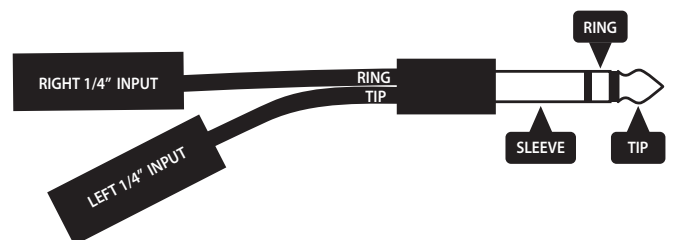


Stereo input



Mono input

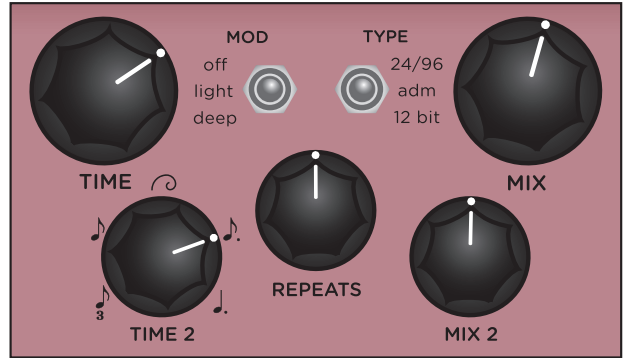
In order to use the TRS stereo input, you'll need a TRS stereo input adapter like the one shown below.



Sample Settings



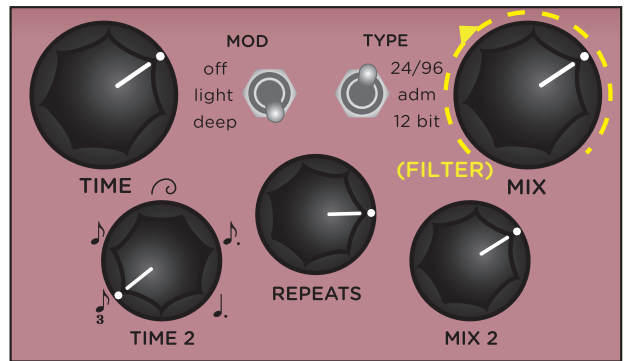
Cavernous



Dotted '80s



Flangetastic



Pure Triplets



Delicate 12 Bit



Single Lead

Features

■ SOUND DESIGN

- Two simultaneous, integrated delays, with unique digital rack delay voicings
- Five dual delay adjustment and tone shaping knobs: Time, Time 2, Mix, Mix 2, Repeats
- One modern and two classic digital delay voicings: 24/96, adm, 12 bit
- Five rhythmic subdivisions: Triplet, Eighth, Golden Ratio, Dotted Eighth, Dotted Quarter
- Three choices for delay line modulation: Off, Light, Deep
- Secondary functions for deep control: Delay 1 Subdivision, Sync/Free Mode, Filter, Config, Delay 2 Repeats
- Selectable Free Mode disables subdivisions and synchronization
- Press and hold Circular Repeats effect
- 20ms - 1.6s delay range (40ms - 3.2s with Half Note Delay 1 Subdivision)

■ INS, OUTS, & SWITCHES

- High impedance mono input, with selectable TRS stereo input
- Stereo output
- Three signal routing configurations: Series, Parallel, Ping Pong
- Selectable Kill Dry mode
- Tap tempo and Bypass footswitches
- Expression pedal input allows the connection of either an expression pedal (for selectable control over any knob parameter), external tap pedal (for remote control of tempo), or Favorite switch (to save a Favorite preset)

■ MORE

- +8dBu maximum input level easily handles instrument and line signals
- Premium analog front end and output section
- Analog dry path for a zero latency dry signal that is never converted to digital
- Super high performance SHARC DSP in a compact form factor
- 32-bit floating point processing
- Strong and lightweight anodized carnation pink aluminum chassis
- Designed and Built in the USA

Specifications

Input Impedance	1Meg Ohm
Output Impedance	100 Ohm
Signal to Noise	115 dB typical
A/D & D/A	24-bit 96kHz
Max Input Level	+8dBu
Frequency Response	20Hz to 20kHz
DSP performance	1596 MegaFLOPS
Bypass Switching	True Bypass (electromechanical relay switching) or high-quality, transparent Analog Buffered Bypass (selectable)
Dimensions	4.5" deep x 4" wide x 1.75" tall

Power Requirements

Input Voltage	Maximum 9V DC
Polarity	Center Negative
Required Current	Minimum 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.

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