



MEMORY LANE

INSTRUCTION MANUAL

ML STM32 - AUG 2025

THE LEGEND RETURNS

The redesigned Diamond Memory Lane captures the lush warmth of classic analog delays with the clarity, control, and consistency of modern digital design. Whether you're after ambient textures, rhythmic echoes, or subtle slapback, this pedal delivers beautifully voiced repeats that sit effortlessly behind your playing.

At the heart of the Memory Lane is our advanced digital Bucket Brigade Delay architecture. By blending analog companding, precision filtering, and a custom-voiced delay line, we've created a sound that's rich, dimensional, and unmistakably musical—with up to 2.4 seconds of delay time.

Powered by a modern STM32 ARM Cortex processor, this latest version offers improved headroom, lower noise floor, and new features that are optimized for the modern guitarist. All of this comes in a compact, pedalboard friendly enclosure with top-mounted jacks, buffered bypass with trails, and flexible 9-15VDC operation with over-voltage protection to provide years of reliable service.

With four distinct delay modes, the new Memory Lane is more versatile than ever. Whether you're crafting ambient washes or dialed-in rhythmic pulses, it's a delay designed to keep up with your creativity.



MEMORY LANE CONTROLS

OUTPUT JACK

Send audio to your amplifier or next pedal from here.

POWER INPUT

Connect your 2.1mm center negative 9-15VDC power source here.
Current Draw: 50 mA

INPUT JACK

Send audio from your instrument to here.

MIX KNOB

Set the amount of delayed signal.

DELAY KNOB

Adjust the delay time manually.

You can also use the tap tempo function to set the delay time.

TAP|MODE TOGGLE SWITCH

Click the switch UP to cycle through tap subdivisions.

Click the switch DOWN to cycle through delay modes.

BYPASS/MODE LED

Green - MLjr.

Yellow - Vintage

Red - Galloping 2 Head

Flashing Red - Ambient 3 Head

ON | OFF FOOTSWITCH

Turn the effect on and off. If the trails mode is enabled the delay will taper out even after the effect is turned off.

MIX

FBK

DELAY

MOD

TAP
MODE

 **Diamond**
MEMORY LANE

ON OFF TAP DBL

FEEDBACK KNOB

Set the amount of delayed signal fed back into the delay circuitry. This affects the number of delay repeats at the output.

MODULATION KNOB

Adjust the amount of modulation to create a chorus effect in the delayed signal. The modulation speed is based on the original Memory Lane Jr. and is not adjustable.

TAP DIV. LED

Quarter Note

Dotted Eighth Note

Half Note

DOUBLER || Cycle all colours.

TAP | DBL FOOTSWITCH

Tap to set the delay time using two or more taps. Continuing to tap will average recent taps for more accuracy.

Hold down the footswitch to engage doubler mode. This function can be set to momentary or latching (see advanced features).

The Diamond digital Bucket Brigade Delay

At the heart of the original, analog Memory Lane is a BBD and compandor. This new, compact Memory Lane is designed to capture the character of the original by implementing an embedded system that operates as a replacement for the BBD circuit and surrounding it with analog feedback, companding and anti-aliasing circuits similar to that of the original. A BBD operates by sampling the input, passing a copy in its series of capacitors bucket-to-bucket, and outputting the contents of the last capacitor, all clocked at a specific rate. This delay line operates the same but uses RAM to pass these copies and an internal clock to define the sampling rate. Our emulation has been pushed even closer with Warm mode's ability to capture the BBD's capacitive losses.

The analog circuitry aims to respond like the original Memory Lane with the Compandor adding a slight compression and softness, allowing the delay to sit perfectly in the mix, the Anti-Aliasing filters creating warmth, and the analog feedback network highlighting and emphasizing these features.

FEATURE SET - PRIMARY FUNCTIONS

Extended Delay Range - Better Audio Quality

The Memory Lane features the same industrial analog converters from the original Memory Lane Jr. but now includes a redesigned analog signal path and a modern processor that offers higher audio performance and more delay time. The delay range is now 50ms to 2.4s in all modes.

Four Distinct Modes. Endless Inspiration.

MLjr Mode: Classic fixed-sample rate delay with authentic muting behavior—true to the original Memory Lane Jr.

Vintage Mode: A warmer, darker delay with the saturated feel of analog tape and classic BBD units.

Galloping 2-Head Mode: Dual-head rhythmic pattern lifted straight from the Counter Point—perfect for dotted-eighth echoes.

Ambient 3-Head Mode: Also inspired by the Counter Point, a spacious, 3-head configuration for complex, cascading repeats and ambient layering.

The Galloping and Multi-Head modes offer slightly less output than the MLjr and Vintage modes to balance the feedback range and avoid unpleasant oscillation. As such, you may need to increase the Level and Feedback controls in these modes.

Tap Tempo Subdivisions.

Quarter Note - Green Led - What you tap is what you get mode. The interval between taps equals the delay time.

Dotted 8th Note - Yellow LED - Tapping on the beat at the desired tempo will result in echoes which will sound in a galloping, dotted 8th note rhythm.

Half Note - Red LED - This mode will double the tapped delay time for longer, slower repeats.

Voltage Protection

We have equipped the Memory Lane with both polarity and over-voltage protection circuits to avoid damage should the wrong power supply be plugged in. The Memory Lane supports 9-15V DC operation and draws 50mA at 9V. Anything over 16VDC will put the Memory Lane in protection mode - both Bypass and Tap Tempo LEDs will simultaneously flash red and there will be no audio function.

FEATURE SET – ADVANCED FUNCTIONS

Startup Routine

When initially powered up, the Bypass and Tap LED will blink back and forth to indicate that the system is booting up. You can access and modify Trails and Doubler operations while the LEDs are blinking. At the end of the boot sequence the LEDs will flash twice in a given color to indicate which options are selected.

Bypass Functions

The ON|OFF footswitch controls the bypass function. Memory Lane automatically remembers the bypass state so next time you power up your pedal board it will be in the same state you left it.

The trails function allows the delayed sound to continue fading out even after the pedal has been bypassed. With this mode disabled the delayed sound will cut off immediately when bypassed.

To change the trails function, hold down the ON|OFF footswitch while applying power to the Memory Lane. The tap LED will **flash green if trails is enabled**, or **red if disabled**.

Doubler Functions

Holding the TAP|DBL footswitch down engages the doubler mode which is used to temporarily double the delay time. The doubler function can be set to operate as a momentary or latching function, or can be disabled completely. The Tempo LED will cycle between red, green and yellow colours to indicate doubler mode.

If set to momentary the doubler function will operate as long as the footswitch is held down, doubling the delay time and will return to normal as soon as it is released. If set to latching mode holding the footswitch down will toggle it on, holding it again will turn it off. If set to disabled, the doubler function will not operate. Keep in mind that a short press will be interpreted as tap tempo so you must hold the footswitch for the doubler mode to activate.

To change the doubler momentary or latching function, hold down the tap footswitch while applying power to the Memory Lane. The ON|OFF LED will flash **green for momentary mode**, **red for latching mode**. Some might prefer a more simple operation without secondary footswitch functions. You can bypass the Doubler feature entirely by holding the Tap/Mode toggle switch in the up position during the startup routine. The Tap LED will **flash yellow to indicate the Doubler function bypass**.

Tempo Range

The range of delay times on the delay knob can be set to the full 2.4sec or limited to 1.2sec to allow finer control over shorter delay settings. This only applies to tempo set using the DLY knob, the full 2.4sec is available via Tap Tempo in either setting.

To adjust the range hold the mode switch while applying power to the Memory Lane. When the setting is changed both ON|OFF and TAP|DBL LEDs will blink together either **green for full** or **red for half range**.

WARRANTY COVERAGE

All Diamond product(s) purchased through the diamondpedals.com website or an authorized Diamond retailer comes with a three (3) year warranty against failure resulting from defective parts, and/or faulty workmanship. Cosmetic flaws or issues related to wear and tear are not covered.

The warranty applies only to the original purchaser of the product and is not transferable. Warranty coverage terminates three years after the date of purchase. While a product is under warranty, the product will be repaired free of charge. The owner of the product will be responsible for both shipping to and from Diamond Pedals HQ located in Montreal, Quebec, Canada. Warranty coverage will be automatically canceled should the product be tampered with, modified, damaged through misuse and/or abuse, repaired by an unauthorized third-party, or damaged through failure to follow our operating instructions.

USE OF AN IMPROPER POWER SUPPLY AUTOMATICALLY VOIDS THE WARRANTY.

PRODUCT SPECIFICATIONS

Input Impedance:	> 1 M Ω
Output Impedance:	< 10 K Ω
Delay Range:	25ms-2.4s
Switching:	Buffered Bypass
Power Requirement:	9-15VDC negative tip, 2.1mm Barrel Jack
Current Draw @ 9V:	50mA
Dimensions:	4.8 x 2.64 x 1.58"
Weight:	300g



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