



DL-8

DELAY/LOOPER

OWNER'S MANUAL

 **HardWire**[®]
EXTREME PERFORMANCE PEDALS

DECLARATION OF CONFORMITY

Manufacturer's Name: Harman Music Group
Manufacturer's Address: 8760 S. Sandy Parkway
Sandy, Utah 84070, USA

declares that the product:

Product name: DL-8

Product option: All (requires Class II power adapter that conforms to the requirements of EN60065, EN60742, or equivalent.)

conforms to the following Product Specifications:

Safety: IEC 60065 -01+Amd I
EMC: EN 55022:2006
EN 55024:1998
FCC Part 15

Supplementary Information:

The product herewith complies with the requirements of the:

Low Voltage Directive 2006/95/EC
EMC Directive 2004/108/EC.
RoHS Directive 2002/95/EC
WEEE Directive 2002/96/EC

With regard to Directive 2005/32/EC and EC Regulation 1275/2008 of 17 December 2008, this product is designed, produced, and classified as Professional Audio Equipment and thus is exempt from this Directive.

With regard to Directive 2005/32/EC and EC Regulation 278/2009 of 6 April 2009, this regulation applies to Class A (single output) external power supplies. The external power supply used with this product is a multi-output power supply and thus is exempt from this Directive.

Roger Johnsen
Vice-President of Engineering
8760 S. Sandy Parkway
Sandy, Utah 84070, USA
Date: October 4, 2010

European Contact: Your local HardWire® Sales and Service Office or

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Sandy, Utah 84070 USA
Ph: (801) 566-8800
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If you want to dispose of this product, do not mix it with general household waste. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery, and recycling.

Private households in the 25 member states of the EU, in Switzerland and Norway may return their used electronic product free of charge to designated collection facilities or to a retailer (if you purchase a similar new one).

For countries not mentioned above, please contact your local authorities for a correct method of disposal.

By doing so you will ensure that your disposed product undergoes the necessary treatment, recovery, and recycling and thus prevent potential negative effects on the environment and human health.

ELECTROMAGNETIC COMPATIBILITY

This device complies with part 15 of the FCC Rules and the Product Specifications noted on the Declaration of Conformity. Operation is subject to the following two conditions:

- this device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

Operation of this unit within significant electromagnetic fields should be avoided.

- use only shielded interconnecting cables.

Warning

For your protection, read the following:

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Do not use this apparatus near water.
5. Clean only with dry cloth.
6. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
7. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
8. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
9. Unplug this apparatus during lightning storms or when unused for long periods of time.
10. No user serviceable parts inside. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
11. **WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
12. Refer to labels on the unit, including bottom cover, or other markings and pertinent information.

WARRANTY:

We at HardWire® are proud of our products and back-up each one with the following warranty:

Please register online at hardwirepedals.com within ten days of purchase to validate this warranty.

HardWire warrants this product, when used solely within the U.S., to be free from defects in materials and workmanship under normal use and service.

HardWire liability under this warranty is limited to repairing or replacing defective materials that show evidence of defect, provided the product is returned to HardWire WITH RETURN AUTHORIZATION, where all parts and labor will be covered up to a period of one year (this warranty is extended to a period of six years when the product has been properly registered through our website). A Return Authorization number may be obtained from HardWire by telephone. The company shall not be liable for any consequential damage as a result of the product's use in any circuit or assembly.

Proof-of-purchase is considered to be the burden of the consumer.

HardWire reserves the right to make changes in design, or make additions to, or improvements upon this product without incurring any obligation to install the same on products previously manufactured.

The consumer forfeits the benefits of this warranty if the product's main assembly is opened and tampered with by anyone other than a certified HardWire technician, or if the product is used with voltages outside of the range suggested by the manufacturer.

The foregoing is in lieu of all other warranties, expressed or implied, and HardWire neither assumes nor authorizes any person to assume any obligation or liability in connection with the sale of this product. In no event shall HardWire or its dealers be liable for special or consequential damages or from any delay in the performance of this warranty due to causes beyond their control.

NOTE: The information contained in this manual is subject to change at any time without notification. Some information contained in this manual may also be inaccurate due to undocumented changes in the product or operating system since this version of the manual was completed. The information contained in this version of the owner's manual supersedes all previous versions.

Congratulations!

You have just purchased a HardWire® digital effect pedal.

Unlike many analog pedals, the number of hours digital pedals can be powered with 9-Volt alkaline batteries is limited due to the constant draw which digital signal processors require. Until battery technology advances to meet the requirements of digital pedals, we suggest that a battery be used mainly for demonstration and practice purposes.

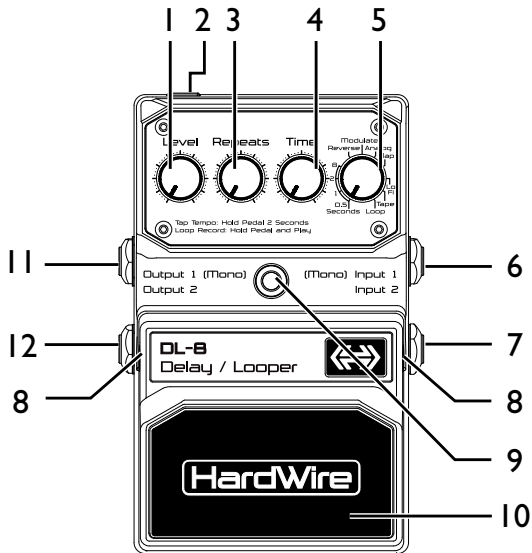
If you notice a change in the LED's brightness, or the pedal will not switch from Bypass to Effect, replace the battery with a new 9-Volt alkaline battery or visit your local HardWire® dealer to obtain the PS200R power adapter and unleash the pedal's full potential with unlimited power.

Introduction

More than a remarkable achievement, HardWire® represents a collection of significant improvements in effects pedals for guitar. HardWire pedals provide a suite of well-known effects, each with superior tone and control. But these pedals go above and beyond their peers to provide such distinguishing features as true bypass, high voltage operation, and true stereo processing making them essential additions to the signal chain of players who know about sound quality and demand the utmost in performance.

Included Items:

- HardWire DL-8 Delay/Looper
- HardWire StompLock™
- Foot Switch Glow Sticker
- Hook-and-loop Pedalboard Pad
- Online Warranty Registration Information Card



What Does This Do?

- 1. Level Knob** - Controls the delay level. Turn this knob clockwise to increase and counter-clockwise to decrease the delay level. When Reverse Delay is selected, dry signal is not heard and this knob controls the output level of the Reverse delay effect.
- 2. DC Adapter Jack** - Connect (an optional) Harman PS200R power supply to this jack. Use the proper supply for your area's mains line voltage.
- 3. Repeats Knob** - Controls the number of delay repeats. Turn this knob clockwise to increase and counter-clockwise to decrease the number of repeats. Turn this knob to the maximum position to engage the repeat-hold of the delay signal (except for MODULATED, ANALOG, LO FI, SLAPBACK, and TAPE types). This knob is disabled when LOOP is selected.
- 4. Time Knob** - Controls the amount of delay time specified by the

range selected with the TYPE knob. The knob's minimum position is the shortest delay time for the given range. The knob's maximum position is the longest delay time for the given range (see Type Knob section for exact ranges). You can increase the delay time past the knob's range by tapping in a longer time using the Tap Tempo delay feature (see Tap Tempo section). The Time knob is disabled while Tap Tempo is active, and when LOOP is selected.

5. Type Knob - Selects from a variety of delay types and delay time ranges.

0.5 Seconds - 10 to 500 ms (milliseconds)

1 Second - 500 ms to 1 second

2 Seconds - 1 to 2 seconds

8 Seconds - 2 to 8 seconds

REVERSE* - a delay where the repeats are played backward.

MODULATED* - delay with chorused repeats.

ANALOG* - a vintage bucket brigade analog delay.

SLAPBACK - 80 to 150 ms

LO FI* - a low-fidelity delay that has limited bandwidth.

TAPE* - a classic tube tape echo.

LOOP - create infinite stereo loops of up to 20 seconds in length.

* ANALOG Time knob range is 35 ms - 1 second. TAPE, MODULATED, and LO FI Time knob ranges are 100 ms - 1 second. REVERSE Time knob range is 500 ms - 4 seconds. To increase the time beyond the Time knob time range for all Delay types, use the Tap Tempo delay feature.

- 6. Input 1 (Mono)** - Connect your instrument, additional pedal, or an amp effects send to this jack. Signals are heard at both outputs when only the Input 1 (Mono) jack is used. This jack enables battery power to the pedal when connected. To prolong battery life, discon-

nect the cable from the Input 1 (Mono) jack when not in use. If the optional Harman PS200R power supply is used, cables can remain connected.

- 7. Input 2** - Connect a second input to this jack for stereo operation. Input 1 and 2 are processed separately through the stereo delay effect and then fed to Outputs 1 and 2 to keep true stereo separation between channels.
- 8. Foot Switch Release Pins** - These two pins are spring loaded hinges that hold the Foot Switch in place. See page 16 for information on accessing and changing the battery. See page 12 for more information on using and changing the Tails Switch settings.
- 9. Indicator LED** - Lights when the effect is turned on. When battery power is low (approximately 15 minutes before it dies), the Indicator LED begins to dim giving you advanced warning that very shortly you will need to replace the battery.

- 10. Foot Switch** - Turns the effect on and off. The Foot Switch is also used for tapping in the delay time when using the Tap Tempo delay feature and for arming the Loop recording when the LOOP type is selected.
- 11. Output 1 (Mono)** - Connect this output to the input of a single guitar amplifier, another pedal input, or amp effects return.
- 12. Output 2** - Connect this output to the input of a second guitar amplifier when a second amp is being used. When only the Input 1 (Mono) is connected and both Output 1 and Output 2 are used, all delays except for MODULATED, SLAPBACK, REVERSE and LOOP act as ping pong delays, meaning repeats alternate equally back and forth between Output 1 and Output 2.

Note: Use unbalanced mono instrument cables only.

Tap Tempo Delay

The HardWire Delay/Looper's Foot Switch can be used as a Tap Tempo switch for setting the delay time during a live performance.

To access Tap Tempo, do the following:

1. While the delay effect is bypassed, press and hold the Foot Switch for 3 seconds. The effect turns on and the Indicator LED lights solid RED. After 3 seconds of holding the Foot Switch, the Indicator LED begins flashing GREEN. The flashing GREEN LED indicates Tap Tempo mode is now active and the LED flashes at the current delay time's duration.
2. Tap the Foot Switch at least two times to set a new delay time. The last two pedal tap intervals set the delay time. The TIME knob is disabled when Tap Tempo is active, and the delay cannot be bypassed until the Tap Tempo is exited.

3. To exit Tap Tempo, press and hold the Foot Switch for 3 seconds until the Indicator LED stops flashing and lights solid RED again. Once Tap Tempo mode is exited, the tapped delay time remains active until either the delay type is changed or the TIME knob is used.

Loop Delay

The Loop Delay type is used to create an infinite stereo delay loop up to 20 seconds long. Once a loop is created, you can add overdub parts to it.

To use the Loop type, do the following:

1. Select LOOP using the Type knob.
2. Press and hold the Foot Switch. The Indicator LED begins flashing RED indicating the Loop is ready to begin recording.
3. While still holding down the Foot Switch, begin playing your instrument. The Indicator LED lights solid RED indicating the pedal is recording.
4. When you reach the end of your passage, release the Foot Switch. The Indicator LED lights solid GREEN and the passage you recorded plays back in an infinite loop.
5. To add overdubs, press and hold the Foot Switch at any time and begin playing. The Indicator LED lights solid YELLOW as long as the Foot

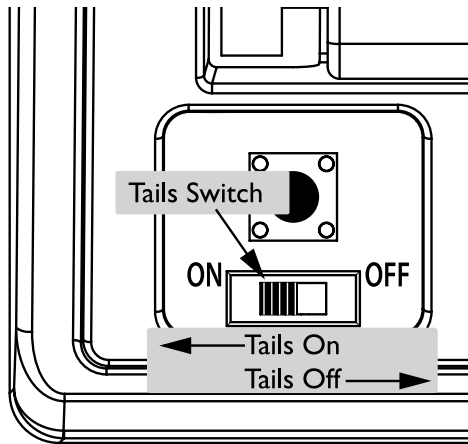
Switch is held down, indicating that anything played is being recorded and added to the loop.

6. To stop the loop, quickly press the Foot Switch. This puts the pedal into Bypass and the Indicator LED turns off. The loop stops playing and clears the memory.

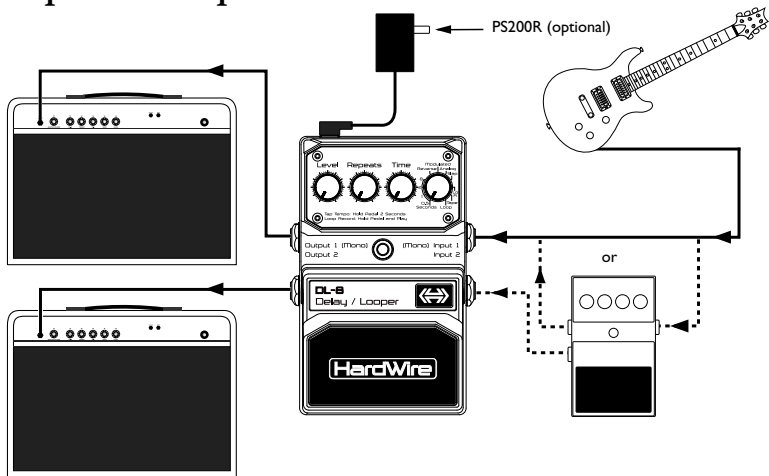
Tails Switch

The HardWire Delay/Looper features a switch that allows the delay repeats to continue being heard after the effect is bypassed. When the Tails Switch is set ON, the HardWire Delay/Looper does not utilize true hardware bypass. If you always want to use true hardware bypass, set the Tails Switch to OFF. When the Tails Switch is OFF, delay repeats are cut off immediately when the effect is bypassed.

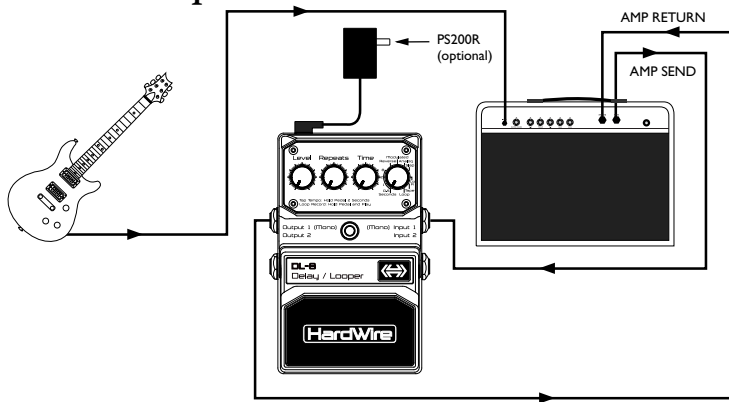
The Tails Switch is located under the pedal Foot Switch and is accessed by pressing in one of the Foot Switch Release Pins using the tip of a 1/4" guitar cable plug. Once the Foot Switch is removed, the switch is visible inside the chassis next to the button that turns the effect on and off. Slide the switch to the left to turn Tails ON and to the right to turn Tails OFF.



Amplifier Setup



Effects Setup



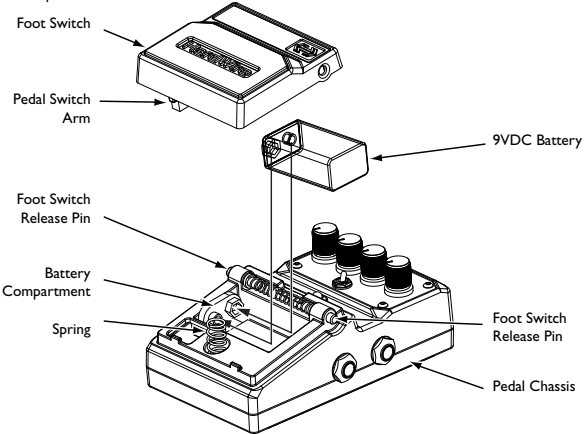
Note: if the amp effects loop has a mix control, set the mix to 100% full wet.

Battery Operation

In the event that battery power is completely depleted, HardWire pedals automatically switch into bypass. This eliminates the need to remove the pedal from your pedal chain if the battery is dead. To replace the battery, do the following:

1. Using the tip of a 1/4" guitar cable, push in one of the Release Pins in on either side of the Foot Switch, and remove it from the pedal chassis.
2. Remove the battery from the battery compartment and disconnect the battery cable.
3. Connect a new battery to the battery cable and put it back in the battery compartment. Make sure the battery cable does not interfere with the spring or pedal switch arm.
4. Place one hole of the Foot Switch over its corresponding pin.
5. Push the opposite pin in and lower the other side of the Foot Switch into place over the depressed pin. Release the pin. When the Foot

Switch is properly fastened, both Release Pins are flush with the outer side of the pedal.



HardWire Performance Accessories

The performance accessories make integrating a HardWire pedal into any pedal board a snap. The following accessories are included:

- Hook-and-loop Pedalboard Pad (designed to attach to the surfaces found on most commercial pedalboards)
- Foot Switch Glow Sticker (easily visible on dark stages)
- StompLock™ (keeps your settings where you want them)

Hook-and-loop Pedalboard Pad

To attach the Pedalboard Pad, do the following:

1. Peel off the existing rubber skid pad from the bottom of the pedal.
2. Peel the adhesive protector from the back of the Pedalboard Pad.
3. Apply the Pedalboard Pad to the bottom of the pedal.



Foot Switch Glow Sticker

To attach the Foot Switch Glow Sticker, do the following:

1. Peel the adhesive backing from the Foot Switch Glow Sticker.
2. Apply the Glow Sticker to the top of the Foot Switch.



StompLock

To place the StompLock over the pedal knobs, do the following:

1. Set the knobs to your preferred setting.
2. Gently push the StompLock over the top of the knobs.
3. To remove the StompLock, gently lift one side and then the other.



Specifications

Controls:	Level, Repeats, Time, Type, On/Off Pedal
Jacks:	Input 1 (Mono), Input 2, Output 1 (Mono), Output 2
Input Impedance:	>1 M Ω (stereo), >500 k Ω (mono) - effect on
Output Impedance:	1 k Ω - effect on
Input Impedance:	True hardwire bypass - effect off
Output Impedance:	True hardwire bypass - effect off
Power Supply:	9V Alkaline Dry Battery or Harman PS200R 9V DC power supply
Current Draw:	65 mA (typical at 9V DC)
Power Consumption:	575 mW (typical w/optional Harman PS200R power supply)
Dimensions:	5.25"(L) x 3.5"(W) x 2.15"(H)
Weight:	1.3 lbs.
Optional Power Supply:	PS200R-100 (100V~ 50/60Hz) PS200R-120 (120V~ 60Hz) PS200R-230 (230V~ 50Hz) PS200R-240 (240V~ 50Hz)



EXTREME PERFORMANCE PEDALS

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