

# WHAMMY RICOCHET™

Owner's Manual



 **Digitech**<sup>®</sup>  
by HARMAN

# WARRANTY

We at DigiTech® are very proud of our products and back-up each one we sell with the following warranty:

1. Please register online at [digitech.com](http://digitech.com) within ten days of purchase to validate this warranty. This warranty is valid only in the United States.
2. DigiTech warrants this product, when purchased new from an authorized U.S. DigiTech dealer and used solely within the U.S., to be free from defects in materials and workmanship under normal use and service. This warranty is valid to the original purchaser only and is non-transferable.
3. DigiTech liability under this warranty is limited to repairing or replacing defective materials that show evidence of defect, provided the product is returned to DigiTech WITH RETURN AUTHORIZATION, where all parts and labor will be covered up to a period of one year. A Return Authorization number may be obtained by contacting DigiTech. The company shall not be liable for any consequential damage as a result of the product's use in any circuit or assembly.
4. Proof-of-purchase is considered to be the responsibility of the consumer. A copy of the original purchase receipt must be provided for any warranty service.
5. DigiTech 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.
6. 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 DigiTech technician or, if the product is used with AC voltages outside of the range suggested by the manufacturer.
7. The foregoing is in lieu of all other warranties, expressed or implied, and DigiTech neither assumes nor authorizes any person to assume any obligation or liability in connection with the sale of this product. In no event shall DigiTech 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 since this version of the manual was completed. The information contained in this version of the owner's manual supersedes all previous versions.

## TECHNICAL SUPPORT & SERVICE

If you require technical support, contact DigiTech Technical Support. Be prepared to accurately describe the problem. Know the serial number of your device – this is printed on a sticker attached to the chassis. If you have not already taken the time to register your product, please do so now at [digitech.com](http://digitech.com).

Before you return a product to the factory for service, we recommend you refer to this manual. Make sure you have correctly followed installation steps and operating procedures. For further technical assistance or service, please contact our Technical Support Department at (801) 566-8800 or visit [digitech.com](http://digitech.com). If you need to return a product to the factory for service, you **MUST** first contact Technical Support to obtain a Return Authorization Number.

### **NO RETURNED PRODUCTS WILL BE ACCEPTED AT THE FACTORY WITHOUT A RETURN AUTHORIZATION NUMBER.**

Please refer to the Warranty information, which extends to the first end-user. After expiration of the warranty, a reasonable charge will be made for parts, labor, and packing if you choose to use the factory service facility. In all cases, you are responsible for transportation charges to the factory. If the product is still under warranty, DigiTech will pay the return shipping.

Use the original packing material if it is available. Mark the package with the name of the shipper and with these words in red: DELICATE INSTRUMENT, FRAGILE! Insure the package properly. Ship prepaid, not collect. Do not ship parcel post.

# INTRODUCTION

Thanks for choosing the DigiTech® Whammy™ Ricochet effect pedal. The Whammy Ricochet takes the popular Whammy pitch shifting effect and places it in a pedal with a small form factor. Instead of using a treadle to manipulate pitch bending rate, such as those found on traditional Whammy pedals, the Whammy Ricochet bends the pitch of the incoming note at a rate determined by the SHIFT and RETURN controls. And thanks to a true bypass design, your tone remains unaffected when the effect is bypassed.

The Whammy effect can be turned on or off using the Footswitch, which can operate as a momentary or latching switch. The TRAJECTORY LED ladder lights in sequential order to provide a visual indication of pitch shifting rate and direction. The incoming note can be pitch shifted up or down by the following intervals:

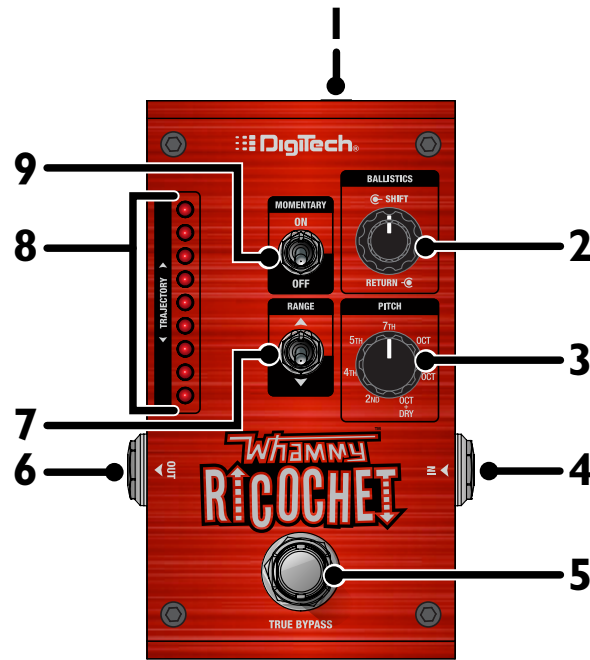
- 2ND
- 4TH
- 5TH
- 7TH
- OCTAVE
- 2 OCTAVES
- OCTAVE + DRY

To use the Whammy Ricochet pedal, select the desired pitch shifting interval with the PITCH control then select the pitch direction with the RANGE switch. Set the Footswitch for momentary or latched operation using the MOMENTARY switch. To audition the rise and fall rate of the pitch shifting effect, turn the effect on/off using the Footswitch; adjust the SHIFT and RETURN controls so that the pitch effect bends to and from the selected interval at the desired rate.

# FEATURES

- Pitch Shifting of up to 2 Octaves Up or Down
- Ballistics Controls with Trajectory LED Meter
- Switchable Classic & Chords Modes
- Selectable Momentary or Latched Footswitch Operation
- True Bypass
- Compact Design
- Solid Construction

# USER INTERFACE



## 1. Power Connector

Connect the specified HARMAN power adapter (sold separately) to this jack. Be sure to use the proper power adapter for your area's mains line voltage. See **"Specifications" on page 7** for power adapter model information. The Ricochet can only be powered using the external power adapter. When powering the Ricochet with a multi-pedal power adapter, ensure the power connection provides a minimum of 300mA of current.

## 2. Ballistics Knobs

This concentric pot consists of two knobs, SHIFT and RETURN. The SHIFT knob sets the rate at which the incoming note will be pitch shifted to the selected interval when the effect is enabled. The RETURN knob sets the rate at which the incoming note will return to its normal pitch when the effect is bypassed.

## 3. Pitch Knob

Sets the interval of the pitch shifted note. Pitch will be shifted up or down depending on the position of the RANGE switch.

## 4. Input Jack

Connect your instrument to this jack.

## 5. Effect Footswitch

Turns the effect on or off. This Footswitch can be configured for momentary or latched operation using the MOMENTARY switch.

## 6. Output Jack

Connect this jack to the input of an amp or the input of the next pedal on your pedalboard.

## 7. Range Switch

Selects whether the pitch of the incoming signal will be shifted up or down.

## 8. Trajectory LED Ladder

These LEDs light in sequential order to provide a visual indication of pitch shifting direction and rate. For example, the LEDs will light from top to bottom when the incoming note is shifted down. Conversely, the LEDs will light from bottom to top when the incoming note is shifted up. When the effect is bypassed, these LEDs will cycle in the direction selected by the RANGE switch at 2 second intervals.

## 9. Momentary Switch

Sets the operation of the Footswitch. When set to the “ON” position, the Whammy effect will only be enabled as long as the Footswitch is held down. When set to the “OFF” position, the Whammy effect will toggle between enabled and bypassed modes each time the Footswitch is pressed.

**NOTE:** When the MOMENTARY switch is set to the “ON” position, the Whammy Ricochet will use a buffered bypass signal path. When the MOMENTARY switch is set to the “OFF” position, the Whammy Ricochet provides a hard-wired bypass signal path.

When the MOMENTARY switch is set to the “OFF” position and the pitch effect is turned on with the Footswitch, setting the MOMENTARY switch to the “ON” position will make the effect always be on and the Footswitch will now momentarily toggle the effect off. To restore having a bypassed state when the Footswitch is not pressed for momentary operation, set the MOMENTARY switch in the “OFF” position and use the Footswitch to bypass the effect before you set the MOMENTARY switch back to the “ON” position.

## CLASSIC & CHORDS MODES

The Whammy Ricochet provides two modes of operation: Classic mode (the classic Whammy algorithm) and Chords mode (the modern algorithm from the Whammy DT). The Classic mode is ideal for single note soloing while the Chords mode is best suited for bending of full chords. The default mode out of the box is Chords. The mode can be changed while the effect is on or off.

To change between Classic and Chords modes, follow these steps:

1. Set the **MOMENTARY** switch to the **OFF** position.
2. Press and hold the **FOOTSWITCH** for at least 3 seconds. The default mode out of the box is Chords and the top 6 **TRAJECTORY** LEDs will light.
3. While still holding the **FOOTSWITCH**, move the **RANGE** switch to either the down position to change to Classic mode (single **TRAJECTORY** LED lit) or move it to the up position to change to Chords mode (top 6 **TRAJECTORY** LEDs lit). If the **FOOTSWITCH** is released before changing modes, the effect will just remain enabled with no change to the mode.
4. Once the mode change is selected, release the **FOOTSWITCH**. The pedal will return to normal operation and the effect will be enabled in the selected mode.

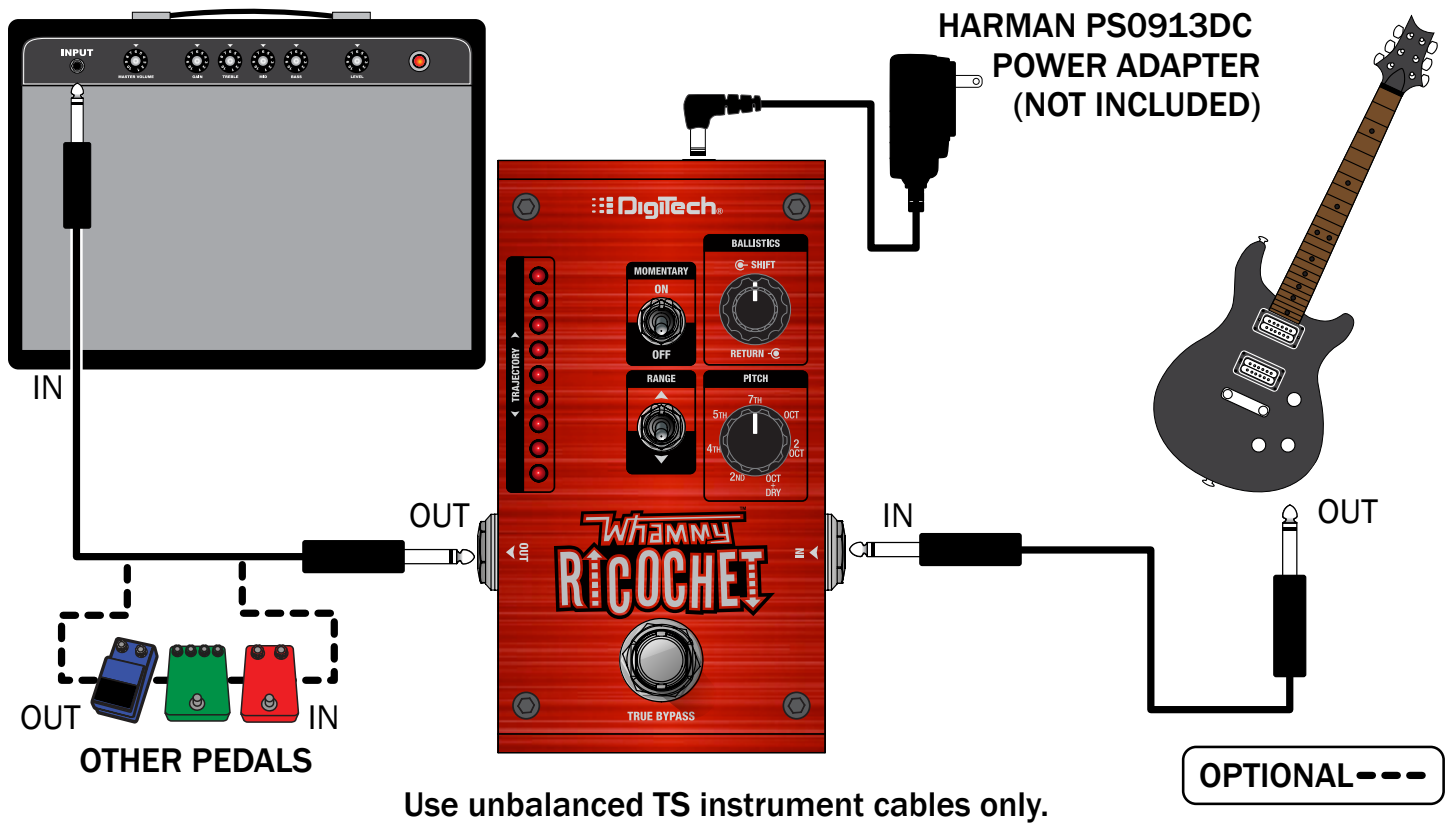
**NOTE:** The selected mode will be retained after disconnecting power from the pedal.

# MAKING CONNECTIONS/APPLYING POWER

To connect the Whammy Ricochet pedal to your rig:

1. Turn down the amplifier's master volume control.
2. Make all audio connections to the Whammy Ricochet as shown below.
3. Connect the recommended HARMAN PS0913DC power adapter (not included) to the POWER input connector and connect the other end to an available AC outlet.
4. Strum your guitar and gradually increase your amplifier's master volume control until the desired level is achieved.

## CONNECTION DIAGRAM

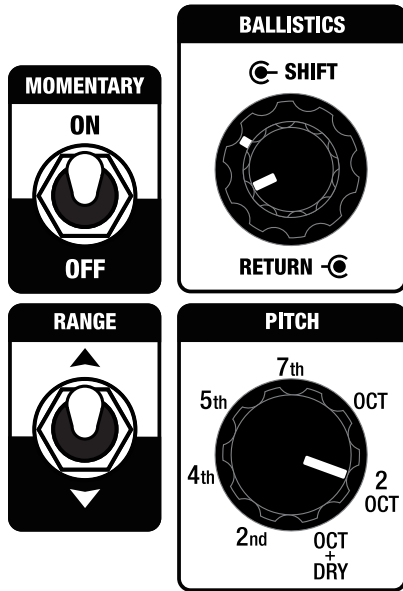


**NOTE:** The Whammy Ricochet should be the first pedal in your effects chain. Placing any effect in front of it may impact its pitch shifting performance.

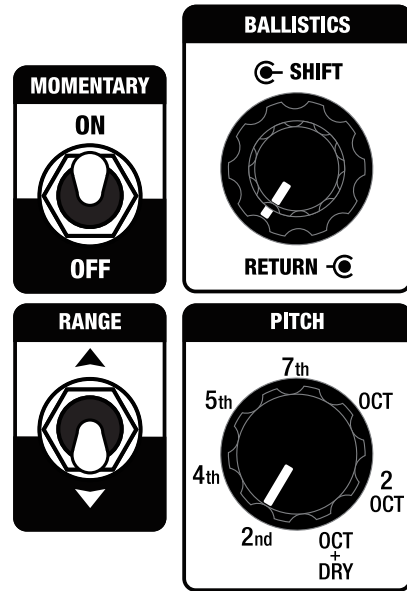
# EXAMPLE SETTINGS

Try these settings to get started.

## Killing in the Name Of (Classic)



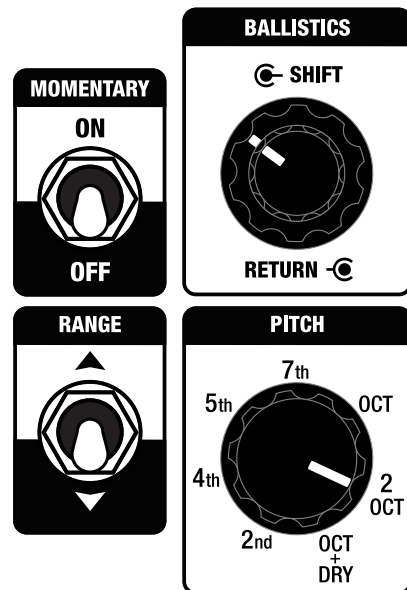
## Whole Step Stabs (Chords)



## 7 String (Chords)



## Dive Bombs (Classic)





# SPECIFICATIONS

## Electronic

|                        |  |
|------------------------|--|
| Sample Rate:           | 44.1 kHz in classic mode, 22 kHz in chords mode          |
| Frequency Response:    | 20 Hz–16 kHz (classic mode), 20 Hz–11 kHz (chords mode)  |
| Signal to Noise Ratio: | > -106dB (A weighted); ref = max level, 22 kHz bandwidth |
| THD:                   | 0.004% @ 1 kHz; ref = 1 dBu w/ unity gain                |
| A/D/A Conversion:      | 24-bit   |

## Input

|                  |  |
|------------------|--|
| Input Type:      | 1/4" Unbalanced TS   |
| Max Input Level: | +5 dBu   |
| Input Impedance: | 1 M $\Omega$ (Effect enabled or effect bypassed w/ Momentary switch on)<br>True Bypass (Effect bypassed w/ Momentary switch off) |

## Output

|                   |  |
|-------------------|--|
| Output Type:      | 1/4" Unbalanced TS   |
| Max Output Level: | +10 dBu  |
| Output Impedance: | 1 k $\Omega$ (Effect enabled or effect bypassed w/ Momentary switch on)<br>True Bypass (Effect bypassed w/ Momentary switch off) |

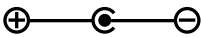
## Physical

|             |                                    |
|-------------|------------------------------------|
| Dimensions: | 4.75" (L) x 2.875" (W) x 1.75" (H) |
| Weight:     | 0.36 lbs.                          |

## Power

|                     |   |
|---------------------|---|
| Power Consumption:  | 2.1 Watts (235 mA typical @ 9VDC)       |
| Power Requirements: | 9VDC External Adapter (sold separately) |

## Recommended Power Adapter (Not Included)

|                         |  |
|-------------------------|--|
| Power Adapter Model:    | PS0913DC-01 (US, JA, EU)<br>PS0913DC-02 (AU, UK)<br>PS0913DC-04 (US, JA, EU, AU, UK) |
| Power Adapter Polarity: |   |
| Power Adapter Output:   | 9VDC 1.3 A   |

Specifications are subject to change without notice.



**PHONE:** (801) 566-8800

**WEB:** [digitech.com](http://digitech.com)

**SUPPORT:** [digitech.com/en-US/support](http://digitech.com/en-US/support)

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