

# BASS WHAMMY

DigiTech  
by HARMAN



## Owner's Manual



These symbols are internationally accepted symbols that warn of potential hazards with electrical products. The lightning flash means that there are dangerous voltages present within the unit. The exclamation point indicates that it is necessary for the user to refer to the owner's manual.

These symbols warn that there are no user serviceable parts inside the unit. Do not open the unit. Do not attempt to service the unit yourself. Refer all servicing to qualified personnel. Opening the chassis for any reason will void the manufacturer's warranty. Do not get the unit wet. If liquid is spilled on the unit, shut it off immediately and take it to a dealer for service.

Disconnect the unit during storms to prevent damage.

## 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.



If you want to dispose 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 household in the 25 member states of the EU, in Switzerland and Norway may return their used electronic products 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.

## **Warning**

### **For your protection, please 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.

## **DECLARATION OF CONFORMITY**

Manufacturer's Name: DigiTech  
Manufacturer's Address: 8760 S. Sandy Parkway  
Sandy, Utah 84070, USA

declares that the product:

Product name: Bass Whammy  
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  
EC Regulation 278/2009

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.

Roger Johnsen  
Director, Engineering  
Signal Processing  
8760 S. Sandy Parkway  
Sandy, Utah 84070, USA  
Date: March 26, 2012

European Contact: Your local DigiTech Sales and Service Office or  
Harman Signal Processing  
8760 South Sandy Parkway  
Sandy, Utah  
84070 USA  
Ph: (801) 566-8800  
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## 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 [www.digitech.com](http://www.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 from DigiTech 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.
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 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** on the purchase of your new Bass Whammy™ Pedal. Designed specifically for bass, the Bass Whammy offers DigiTech's latest pitch shifting technology, classic Whammy pitch bending effects, and true bypass operation. The added Classic/Chords switch toggles between single note and chordal Whammy modes, providing rock solid pitch shifting effects.

The Bass Whammy interface features the same legacy Bass Whammy pitch bending options you're accustomed to along with some additional pitch bend settings from its guitar counterpart.

**Features:**

- Whammy Pitch Bending Effects
- Classic Whammy Interface
- Classic/Chords Switch
- True Bypass Operation
- MIDI In for Remote Control of Whammy Effects
- Included Power Supply

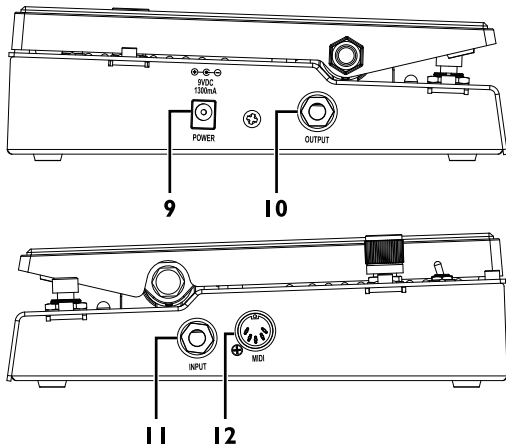
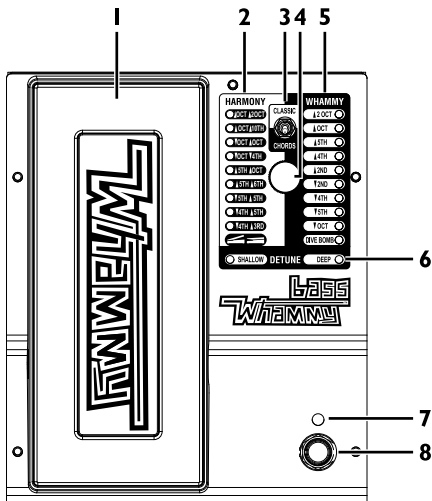
**Included Items:**

- Bass Whammy Pedal
- Power Supply
- Warranty Registration Information Card

If anything is missing, please contact the factory at once.

# Guided Tour

## Detailed Description



## **1. Expression Pedal**

This pedal is used to control the pitch bending amount of the selected Harmony, Whammy, or Detune effect. Rocking it forward (toe down) increases the amount of pitch bending while rocking it back (toe up) decreases the amount of pitch bending.

## **2. Harmony LEDs**

One of these LEDs will light when a Harmony effect is selected. Harmony effects have dry signal added to the effect signal.

## **3. Classic/Chords Switch**

This switch toggles between the classic Whammy algorithm (Classic) and modern chordal algorithm (Chords). The Classic setting is ideal for single note play while the Chords setting is best suited for bending of full chords.

## **4. Selector Knob**

This knob is used to select one of the Whammy, Harmony, or Detune effects.

## **5. Whammy LEDs**

One of these LEDs will light when a Whammy effect is selected. Whammy effects do not have dry signal added to the effect signal.

## **6. Detune LEDs**

One of these LEDs will light when a Detune effect is selected. The Expression Pedal controls the amount of Detune signal mixed with the dry signal.

## **7. Status LED**

This LED lights to indicate the effect is on. When the effect is bypassed, this LED will be off.

## **8. Effect On/Off Footswitch**

This switch turns the Whammy, Harmony, or Detune effect on and off.

## **9. Power Input**

Connect the power supply to this jack. Do not use any power supply other than the included power supply.

## **10. Output Jack**

Connect this jack to another pedal input or the input of an amplifier.

## **11. Instrument Input**

Connect your instrument to this jack.

## **12. MIDI Input**

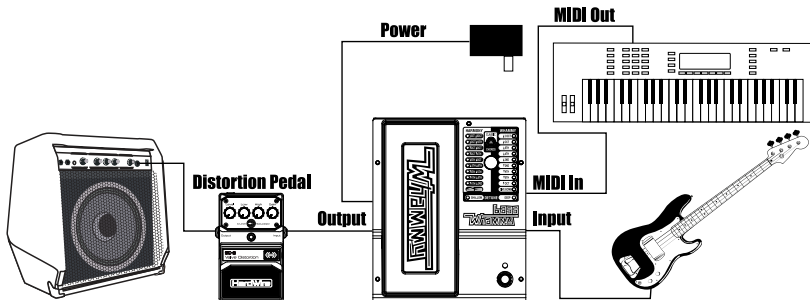
Connect an external MIDI device to this jack for the purpose of controlling the Bass Whammy remotely.



## Making Connections

The Bass Whammy pedal is extremely easy to set up and use. Follow these steps to get up and running.

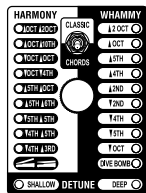
1. Connect your instrument to the Bass Whammy's **Input Jack**.
2. Connect from the Bass Whammy's **Output Jack** to your favorite distortion pedal or to your amplifier.
3. If using an external MIDI device for control, connect from the MIDI out of the MIDI device to the Bass Whammy's **MIDI Input**.
4. Connect the included power supply to an AC outlet and the other end to the Bass Whammy's **Power Input**.
5. Turn on your amp and adjust the volume to the desired level.
6. Use the **Effect On/Off Footswitch** to enable the effect, rotate the **Selector Knob** to select the desired effect, and rock the Expression pedal.



## Effects

### Whammy Effects

This group of effects will bend your incoming signal either up or down depending upon the effect setting you have chosen. As the Expression Pedal is rocked back and forth, the signal will bend from the original input pitch (toe up), to the pitch specified by the selected effect setting (toe down).

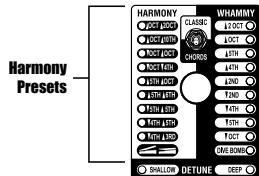


Bass  
Whammy  
Presets

- 2 OCT UP** – Bends your input note two octaves up.
- 1 OCT UP** – Bends your input note one octave up.
- 5TH UP** – Bends the input note 7 semitones (5th interval) up.
- 4TH UP** – Bends the input note 5 semitones (4th interval) up.
- 2ND UP** – Bends the input note 2 semitones (2nd interval) up.
- 2ND DN** – Bends the input note 2 semitones (2nd interval) down.
- 4TH DN** – Bends the input note 5 semitones (4th interval) down.
- 5TH DN** – Bends the input note 7 semitones (5th interval) down.
- 1 OCT DN** – Bends your input note one octave down.
- DIVE BOMB** – Bends your input note three octaves down.

## Harmony Effects

This group of effects add a harmony to your incoming signal. Both the harmony note and the input signal are mixed together as if two basses were playing simultaneously. As you rock the pedal back and forth, the harmony note bends between two intervals specified by the selected effect setting, but the input signal remains unchanged.



### **OCT UP/2 OCT UP-**

Bends the harmony between one octave above (toe up) and 2 octaves above (toe down) the input note.

### **OCT UP/10TH UP -**

Bends the harmony between an octave above (toe up) and a 10th above (toe down) below the input note.

### **OCT DN/OCT UP -**

Bends the harmony between an octave below (toe up) and a octave above (toe down) the input note.

### **OCT DN/4TH DN -**

Bends the harmony between an octave below (toe up) and a fourth below (toe down) the input note.

### **5TH UP/OCT UP -**

Bends the harmony between a fifth above (toe up) and an octave above (toe down) the input note.

### **5TH UP/6TH UP -**

Bends the harmony between a fifth above (toe up) and an sixth above (toe down) the input note.

### **5TH DN/5TH UP -**

Bends the harmony between a fifth below (toe up) and a fifth above (toe down) the input note.

### **4TH DN/5TH UP -**

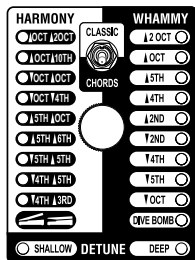
Bends the harmony between a fourth below (toe up) and a 5th above (toe down) the input note.

### **4TH DN/3RD UP -**

Bends the harmony between a fourth below (toe up) and a major third above (toe down) the input note.

## Detune Effects

This group of effects create a copy of your input signal, shift the pitch of the copied signal, then mix it back with the original signal. As the Expression Pedal is rocked back and forth, the level of this detuned signal is changed. With the pedal in the toe up position, only the original dry signal is heard. As the pedal is rocked forward, more of the detuned signal is mixed with the dry signal.



**Detune  
Presets**

**SHALLOW** – The copied signal is slightly detuned from the original pitch.

**DEEP** – The copied signal is substantially detuned from the original pitch.

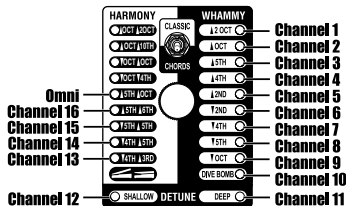
## MIDI Functions

The Bass Whammy features a MIDI input for receiving incoming MIDI data. MIDI messages can select a Whammy effect and set whether the effect is in an active or bypassed state. MIDI CC messages can then be used to control the Bass Whammy Expression Pedal position.

### MIDI Channel

The Bass Whammy can receive MIDI messages on any, or all MIDI channels. The following steps outline the procedure for accessing or changing the MIDI channel.

1. Disconnect the power from the Bass Whammy pedal.
2. Press and hold the **Effect On/Off Footswitch** while reconnecting the power. One of the **Effect LEDs** will begin to flash indicating the currently selected MIDI channel.
3. Using the reference chart below, rotate the **Selector Knob** to select the desired MIDI channel.
4. Press the **Effect On/Off Footswitch** again to exit the MIDI set up menu.



## MIDI Program Changes



The Bass Whammy uses MIDI Program Change commands for effect selection. Effects can be selected in either an active or bypassed state. The following illustrations show the MIDI Program Change mappings for Classic mode and Chords mode.

### Effects MIDI Program Change Mapping (Classic Mode)

When set to Classic mode, the following illustration outlines the Program Change commands recognized by the Bass Whammy and the corresponding effect setting and its status.

#### MIDI Program Change #

#### MIDI Program Change #

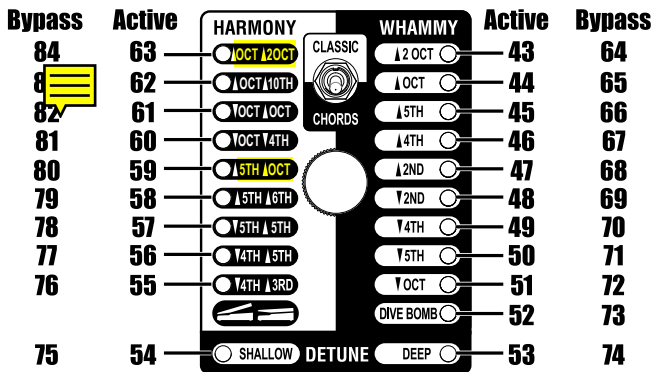
Bypass	Active	HARMONY	WHAMMY	Active	Bypass
42	21	<input type="radio"/> OCT <input type="radio"/> 2OCT	CLASSIC	<input type="radio"/> 2 OCT	22
41	20	<input type="radio"/> OCT <input type="radio"/> 10TH		<input type="radio"/> OCT	23
40	19	<input type="radio"/> OCT <input type="radio"/> OCT	CHORDS	<input type="radio"/> 5TH	24
39	18	<input type="radio"/> OCT <input type="radio"/> 4TH		<input type="radio"/> 4TH	25
38	17	<input type="radio"/> 5TH <input type="radio"/> OCT		<input type="radio"/> 2ND	26
37	16	<input type="radio"/> 5TH <input type="radio"/> 6TH		<input type="radio"/> 2ND	27
36	15	<input type="radio"/> 5TH <input type="radio"/> 5TH		<input type="radio"/> 4TH	28
35	14	<input type="radio"/> 4TH <input type="radio"/> 5TH		<input type="radio"/> 5TH	29
34	13	<input type="radio"/> 4TH <input type="radio"/> 3RD		<input type="radio"/> OCT	30
				<input type="radio"/> DIVE BOMB	31
33	12	<input type="radio"/> SHALLOW <input type="radio"/> DETUNE		<input type="radio"/> DEEP	32

## Effects MIDI Program Change Mapping (Chords Mode)

When set to Chords mode, the following illustration outlines the Program Change commands recognized by the Bass Whammy and the corresponding effect setting and its status.

### MIDI Program Change #

### MIDI Program Change #



## MIDI Continuous Control

Using MIDI continuous control commands, the Bass Whammy's Expression Pedal position can be remotely controlled. MIDI **CC11** adjusts the Expression Pedal position. A value of 0 on MIDI CC11 corresponds to a toe up position and a value of 127 corresponds to a toe down position.



## Calibrating the Expression Pedal

In the unlikely event that the Expression Pedal does not respond properly or that the note does not bend or return to the correct pitch, it may need to be re-calibrated. The following steps outline the procedure for Expression Pedal re-calibration:

1. Disconnect the power from the Bass Whammy pedal.
2. Press and hold the **Effect On/Off Footswitch** while reconnecting the power. This enables MIDI and Calibration Setup. Wait for one of the **Whammy, Detune, or Harmony LEDs** to begin flashing (indicating the currently selected MIDI channel) then release the footswitch.
3. Rock the **Expression Pedal** fully forward (toe down) and fully back (toe up) at least two times. The 4 **Harmony LEDs** will light back and forth (from OCT DN/4TH DN to OCT UP/2 OCT UP) as the pedal is rocked indicating the pedal is calibrating.
4. When finished, press the **Effect On/Off Footswitch** again to exit the MIDI and Calibration set up and return to normal operation.

## Specifications

<b>Instrument Input Type:</b>	1/4" Unbalanced TS
<b>Max Input Level:</b>	+5 dBu
<b>Input Impedance:</b>	1 M $\Omega$
<b>MIDI Input:</b>	5-Pin Din
<b>Output Type:</b>	1/4" Unbalanced TS
<b>Max Output Level:</b>	+10 dBu
<b>Output Impedance:</b>	1 k $\Omega$
<b>Sample Rate:</b>	44.1 kHz
<b>Frequency Response:</b>	20 Hz to 20 kHz
<b>Signal to Noise Ratio:</b>	> -105 dB (A weighted); ref = max level, 22 kHz bandwidth
<b>THD:</b>	0.004% @ 1 kHz; ref = 1 dBu w/ unity gain
<b>A/D Conversion:</b>	24 bit
<b>D/A Conversion:</b>	24 bit
<b>Power Consumption:</b>	2.4 Watts (< 265 mA @ 9 VDC)
<b>Power Requirements:</b>	9 VDC External Adapter
<b>Power Adapter:</b>	PS0913DC-01 (US, JA, EU) PS0913DC-02 (AU, UK) PS0913DC-04 (US, JA, EU, AU, UK)
<b>Dimensions:</b>	6.5" (W) x 7.75" (D) x 2.5" (H)
<b>Shipping Weight:</b>	3.6 lbs.





**DigiTech**

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

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