

**DigiTech**  
The Power to Create



# SYNTH WAH ENVELOPE FILTER

## DECLARATION OF CONFORMITY

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

declare that the product:

Product name: Synth Wah

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

conforms to the following Product Specifications:

Safety: IEC 60065 (1998)

EMC: EN 55013 (1990)  
EN 55020 (1991)

### Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 72/23/EEC and the EMC Directive 89/336/EEC as amended by Directive 93/68/EEC.

Vice-President of Engineering  
8760 S. Sandy Parkway  
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Date: May 30, 2002

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## 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.

**WARRANTY:** We at **DigiTech** are proud of our products and back-up each one with the following warranty:

1. The warranty registration card must be mailed within ten days after purchase date to validate this warranty.
2. DigiTech warrants this product, when used solely within the U.S., to be free from defects in materials and workmanship under normal use and service.
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 (this warranty is extended to a period of **six** years when the product has been properly registered by mail or through our website). 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 burden of the consumer.
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.

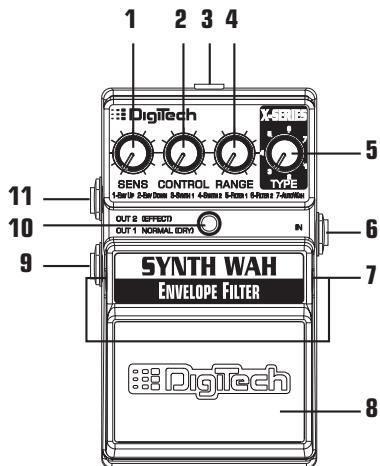
The Synth Wah is an exciting combination of seven different synth and wah effects including envelope filter, synth tones, filter generators, and auto wah. The Synth Wah can be run inline with your current pedals, or parallel with your guitar tone to create unique combinations of both guitar and synth sounds.

### **1. Sens Knob**

Controls the trigger sensitivity of the envelope, synth, and filter effects. Turn this knob clockwise to increase the sensitivity, and counter-clockwise to decrease the sensitivity. When **7-AUTO WAH** is selected, this knob controls the LFO speed of the wah sweep. Turn the knob clockwise for a faster sweep and counter-clockwise for a slower sweep.

### **2. Control Knob**

Controls different functions depending on which Synth Wah Type is selected. See **Effects Matrix** on following pages for detailed **Control** knob descriptions.



Type	SENS	CONTROL	RANGE
1- Env Up	Trigger Sensitivity	Wet/Dry Mix	Range
2- Env Down	Trigger Sensitivity	Wet/Dry Mix	Range
3- Synth 1	Trigger Sensitivity	Synth Attack	Cutoff Freq
4- Synth 2	Trigger Sensitivity	Synth Attack	Cutoff Freq
5- Filter 1	Trigger Sensitivity	Filter Attack	Freq Envelope
6- Filter 2	Trigger Sensitivity	Filter Attack	Freq Envelope
7- Auto Wah	Speed	Sweep Shape	Wah Range

**Effects Matrix**

### 3. AC Adapter Jack

Connect a DigiTech PS200R (9VDC) power supply to this jack. Use the proper supply for your area's Mains line voltage.

### 4. Range Knob

Controls different functions depending on which Synth Wah Type is selected. See **Effects Matrix** on this page for detailed Range knob descriptions.

## **5. Type Knob**

Selects one of the seven different envelope, synth, or filter types.

**1-ENV UP** - Classic envelope filter sound.

**2-ENV DOWN** - Envelope filter sound with a reversed sweep.

**3-SYNTH 1** - Monophonic synth tone generator with an opening filter envelope.

**4-SYNTH 2** - Monophonic synth tone generator with a closing filter envelope.

**5-FILTER 1** - Digitech's famous Synth Talk™ effect.

**6-FILTER 2** - Synth Talk™ effect with inverse filter envelope.

**7-AUTO WAH** - Classic wah pedal effect that emulates a continuous wah pedal sweep.

## **6. Input Jack**

Connect your instrument to this jack. Connecting a guitar cable to this jack supplies battery power even though the Indicator LED may not be lit. To prolong battery life, disconnect all cables when not in use.

## **7. Pedal Release Pins**

These two pins are spring-loaded hinges that hold the pedal in place. Push these pins in to release the pedal from the pedal chassis exposing the battery compartment. (See battery replacement diagram.)

## **8. Pedal**

Press the pedal to turn the effect on and off.

### **9. Out 1 Normal (Dry) Jack**

Use this output when only one amplifier or mixer channel is used. When both **Out 1 Normal (Dry)** and **Out 2 (Effect)** are connected, only dry, unprocessed guitar signal is present at **Out 1 Normal (Dry)** when the Synth Wah is on or bypassed.

### **10. Indicator LED**

This LED indicates when the effect is turned on. If the LED becomes dim or does not light when the cables are connected, the battery needs to be replaced.

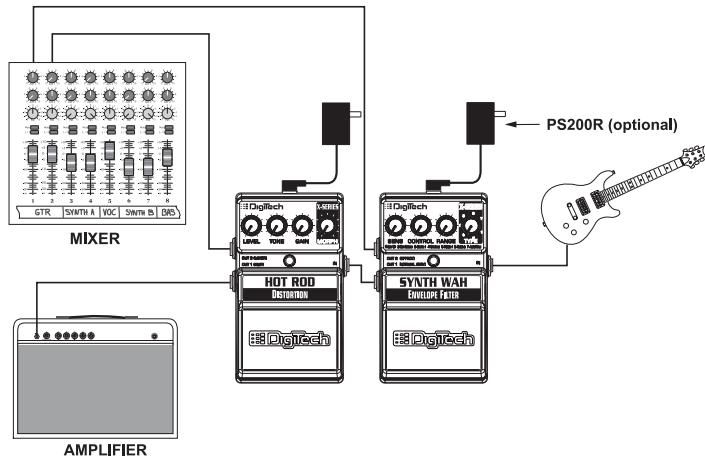
### **11. Out 2 (Effect) Jack**

Connect this output to a second amplifier or to a mixer channel for effect signal only. When **Out 2** is connected, only effect signal is present when the Synth Wah is turned on. Out 2 is muted when the Synth Wah is bypassed.

## Connections

The Synth Wah has a single input and a pair of outputs. When possible, the Synth Wah should be the first effect pedal in your effects chain. This insures proper triggering of the different effects. **Out 1 Normal (Dry)** is used when the Synth Wah is connected to a single amplifier or mixer input. When only **Out 1 Normal (Dry)** is used, effect signal is present when the Synth Wah is on. If bypassed, a dry unprocessed signal is present.

**Out 2 (Effect)** has effect signal only when the Synth Wah is on, and is muted when it is bypassed. When **Out 2 (Effect)** is used, **Out 1 Normal (Dry)** becomes a dry path only when the Synth Wah effect is on or bypassed. This allows you to mix dry guitar and synth effect separately into two different inputs. An ideal setup is to have **Out 1 Normal (Dry)** connected to your guitar amp and **Out 2 (Effect)** connected to a mixer channel. In this configuration, **Out 1 Normal (Dry)** sends a dry, unprocessed guitar signal to your amplifier and **Out 2 (Effect)** sends only the effect signal to a full range system. You can then mix guitar signal from your amp and synth effect signal from the mixer separately for dramatic guitar/synth applications.



## **CIT™ Cabinet Modeling**

The Synth Wah also has built-in CIT™ cabinet modeling that can be enabled on **Out 2 (Effect)**. CIT cabinet modeling simulates a 4x12 guitar speaker cabinet.

### **To Enable CIT™ Cabinet Modeling**

1. Press the **Pedal (8)** down.
2. Apply power by either connecting a guitar cable to the Synth Wah **Input (6)** or connect the PS200R power supply to the **AC adapter jack (3)**.

CIT cabinet modeling has to be enabled each time you apply power to the Synth Wah.

## Sample Settings

### 1. Funky Envelope



### 2. Slow Synth



### 3. Synth Bass



### 4. Synth Ya

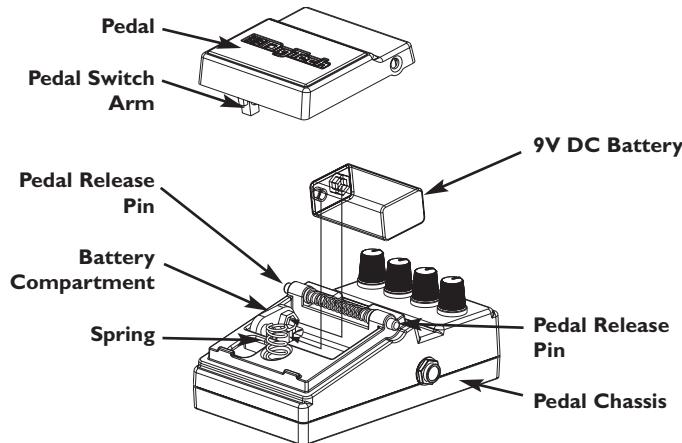


### 5. Auto Wah



### **Battery Replacement**

1. Using the tip of a 1/4" guitar cable, push one of the release pins in on either side of the pedal, and remove the pedal 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 pedal over its corresponding pin.
5. Push the opposite pin in and lower the other side of the pedal into place over the depressed pin. Release the pin. When the pedal is properly fastened, both release pins are flush with the outer side of the pedal.



**SPECIFICATIONS:**

- Controls - Sens, Control, Range, Type, On/Off Pedal
- Jacks - Input, Out 1 Normal (Dry), Out 2 (Effect)
- Input Impedance - 1 MOhms
- Output Impedance - 100 Ohms
- Power Supply - 9V Alkaline Dry Battery
- Power Consumption - 4.8Watts (w/optional PS200R power supply)
- Battery Life - Approximately 4 hours (with continuous usage)
- Dimensions - 4 15/16"(L) x 3 1/8"(W) x 2 1/8"(H)
- Weight - 1.38 lbs.
- Optional Power Supply
  - PS200R - 100 (100V ~ 50/60Hz)
  - PS200R - 120 (120V ~ 60Hz)
  - PS200R - 230 (230V ~ 50Hz)
  - PS200R - 240 (240V ~ 50Hz)

**DigiTech**

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**Synth Wah Envelope Filter  
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