

# PDS3000 Pedal Verb

Digital Reverb in a Pedal

(



## ■ Introduction

DigiTech's PEDALVERB, is a digital reverberation unit in DigiTech's dual pedal chassis. The PDS-3000 offers fifteen reverb effects including 5-"large" rooms, 3-"medium" rooms, and 2-"small" rooms, plus 2-gated reverberation effects, and 3-reverse reverberation effects, for a total of 15 reverberant effects, plus a unique infinite reverb effect - all in stereo. In each of the large and medium reverb effects, a unique reverb hold effect may be accessed with a touch of the foot pedal. The PDS-3000 PEDALVERB comes with its own A.C. power supply.

## How the PDS3000 PEDALVERB WORKS

The PDS 3000 PEDALVERB is a digital reverberation effect unit. Sounds input to the PEDALVERB are changed into digital "words" for manipulation by the processor in the unit. Sets of instructions for the processor comprise the algorithms that dictate how the processor handles the sounds fed to it. The algorithm is selected by the REVERB EFFECT SELECT SWITCH. After the sound data has been processed by the digital processor, the digital words are converted back into analog sound. It is this digitally altered sound that is the reverberant effect, and when it is mixed with the original sound, gives the impression that the sound now has a different environmental character.

## CONTROL DESCRIPTIONS

REVERB EFFECT SELECT: Selects the reverberant effect.

EFFECT

- 0. Mute
- 1. Large room reverb, 2 seconds decay
- Large room reverb, 3 seconds decay
- 3. Large room reverb, 5 seconds decay
- 4. Live large room reverb, 2 seconds decay
- 5. Live large room reverb, 3 seconds decay
- 6. Medium room reverb, 1.0 second decay
- 7. Medium room reverb, 1.2 seconds deca
- 8. Medium room reverb, 1.4 seconds decay
- 9. Small room reverb, 500 millisecond decay
- 10. Small room reverb, 800 millisecond decay
- 11. Gated reverb, 200 millisecond
- 12. Gated reverb, 350 millisecond
- 13. Reverse reverb, 250 millisecond
- Reverse reverb, 300 millisecond
- 15. Reverse reverb, 400 millisecond

MIX CONTROL: Is an additive control that adds the reverb effect to the dry signal. The dry signal is passed through at unity gain. Its level is unchanged by this control. At the 0% position the output contains only the dry signal. At the 100% position the output contains the maximum reverb effect signal plus the full dry signal. At the 12 O'clock position the output contains 50% reverb effect signal plus the full dry signal.

OUTPUT CONTROL: Sets the level of the output signal.

INPUT CONTROL: Sets the level of the input signal to unit.

REVERB HOLD FOOTSWITCH: This footswitch will give

an "INFINITE REVERBERATION EFFECT" in any of the large or medium reverberation effects. The reverberation effect will continue for as long as the footswitch is held down.

BYPASS FOOTSWITCH: This footswitch enables and disables the reverberation effect when pressed.

## INDICATOR LED'S

REVERB HOLD LED: Indicates when the INFINITE REVERBERATION EFFECT is enabled.

EFFECT LED: Indicates that the PEDALVERB is enabled when this LED is ON. When the EFFECT LED is off, the PEDALVERB is bypassed.

## JACKS

INPUT JACK: A 1/4-inch phone jack which accepts mono phone plugs for an unbalanced connection. The PEDALVERB will accept guitar level signals.

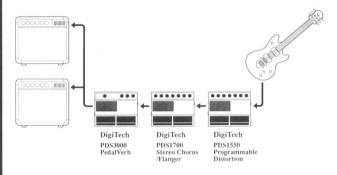
OUTPUT JACK: A 1/4-inch phone jack which accepts mono phone plugs for an unbalanced connection. The output level supplied by this jack is set with the OUTPUT LEVEL CONTROL. The MIX CONTROL adds the reverb effect to the DRY signal.

OUTPUT 2 JACK: A 1/4-inch phone jack which accepts mono phone plugs for an unbalanced connection. This jack is

used to provide a complementary stereo signal to that of the other OUTPUT JACK for a stereo effect. The output level supplied by this jack is also set by the OUTPUT LEVEL CONTROL. The MIX CONTROL adds the complementary reverb effect to the DRY signal for the stereo effect.

POWER JACK: This jack facilitates connection to the supplied A.C. power adapter.

The use of any other A.C. Power adapter other than the one provided with the PEDALVERB, is not recommended and will void the warranty.



Stereo setup using DigiTech pedals.

## APPLICATIONS

The PDS 3000 PEDALVERB is an excellent choice for adding varying reverberant effects for virtually any amplified musical sound, voice, or electronic instrument. Electronically amplified sounds or instruments often sound dull, lifeless, or unnatural because of the closeness of the microphone or pickup device not picking up the sound of the room or environment with the original sound. By adding a reverberant effect to the sound, an environment is added to the sound, making the sound fuller and giving it a more natural feel.

Reverbs attempt to simulate a natural sound of the reflection and wall absorption of different room environments, from a large concert hall to a small bath room. Some of the reverberant effects do not represent real-world environments but are used to add body to a sound.

Gated reverbs are especially useful for percussive sounds. Sometimes if the reverberant sound is allowed to "ring out" when used with, say a snare drum, the "ring outs" would begin to pile up and muddy the sound. In the recording studio the engineer will gate the reverb effect so that the reverberant effect has a full feel at the front but is shortened by the gating so that the ring out doesn't accumulate and muddy the sound.

Reverse reverberant effects were originally done by adding reverberation to a track of a multi-track tape that was run backwards, so that the reverberant effect swept up rather than decayed out. Digital reverbs can simulate this effect forward, real-time. This is a reverberant effect used for adding something a little special to a sound.

In addition, changing the MIX of the original sound to the reverb effect can change the overall sound. Turning the MIX control all the way to the left will give you only the original dry sound from the OUTPUT of the PEDALVERB. Turning the MIX control all the way to the right will give you the maximum reverberant effect plus the full dry signal from the OUTPUT of the PEDALVERB. Turning the MIX control any where in between the two extremes will allow you to add the amount of reverb effect you wish to the original dry sound. Experiment with the MIX control to find the amount of reverb effect you want in your sound.

Each of the reverberant effects in the PDS-3000, PEDALVERB has to be experimented with in order to find the sounds you like. DigiTech has taken great care to put the most popular and most used reverberant effect programs in the PEDALVERB in order to give you a very useful standalone digital reverberation unit in a very small package. The soft-touch footswitch pads are rugged enough to be stomped on, but are sensitive enough to be easily actuated by finger touch. The PEDALVERB can sit on the floor or on the top of a keyboard for an infinite number of creative reverb uses.

## ■ Notice to users

This equipment generates and uses radio frequency and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits of a Class B computing device in accordance with the specifications in Sub part J of Part 15 of F.C.C. Rules, which are designed to provide

reasonable protection against such interference in a residential installation. However, there is no such guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 1. Reorient the receiving antenna,
- Relocate the digital effects device with respect to the receiver,
- 3. Move the digital effects unit away from the receiver,
- Plug the digital effects unit into a different outlet so that the digital effects unit and the receiver are on different branch circuits.

If necessary, the user should consult the dealer or and experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the F.C.C. helpful:

How to Identify and Resolve Radio-TV Interference Problems

This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402. Stock Number: 004-000-00345-4.

### SPECIFICATIONS

#### POWER:

Supplied by the A. C. power adapter provided.

#### CONTROLS:

MIX, OUTPUT, INPUT, and REVERB SELECT SWITCH.

#### FOOTSWITCH CONTROLS:

REVERB HOLD, and EFFECT BYPASS.

#### BANDWIDTH:

Dry — 20 Hz to 40 kHz, Reverb — 20 Hz to 12 kHz.

#### NUMBER OF REVERB EFFECTS: 15;

five large room reverbs, three medium room reverbs, two small room reverbs, two gated reverb effects, and three reverse reverb effects.

#### SIGNAL TO NOISE RATIO:

Dry — greater than 90 dB, Reverb — greater than 85 dB.

#### INPUT IMPEDANCE:

470 kohms

#### **OUTPUT IMPEDANCE:**

4.7 kohms

#### WEIGHT:

2.3 lbs. (1.05 kg.)

#### **DIMENSIONS:**

5 inches x 6 inches x 1.9 inches (127 mm x 152 mm x 48 mm)

## ■ IN CASE OF DIFFICULTY

In the unlikely event that you experience difficulty with your PDS 3000 PEDALVERB, check that the A. C. adapter is making proper connections to the unit. Also check that your connectors and cords are in good repair and are making proper contact to the jacks on the PEDALVERB. Be sure that the unit is not being over driven by the input signal by adjusting the INPUT control, or is properly padded so as not to over drive the input. Check the MIX control to see that there is a proper mixture of reverb effect to original signal. Finally, check that there is sufficient output signal from the unit by adjusting the OUTPUT control.

Unauthorized repair of the PDS 3000 PEDALVERB by anyone other than the DigiTech factory voids the warranty. Contact your DigiTech dealer for return/repair procedures.

## ■ DIGITECH 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 material and workmanship under normal use and service.
- 3. DigiTech Electronics liability under this warranty is limited to repairing or replacing defective materials that show evidence of defect, provided the product is returned through the original dealer, where all parts and labor will be covered up to a period of one year. 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 date of purchase is considered to be the burden of the consumer.
- 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 foregoing is in lieu of all other warranties, expressed or implied, and DigiTech neither assumes nor authorizes any person to assume for it 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 performances of this warranty due to causes beyond their control.



#### DIGITECH

5639 South Riley Lane Salt Lake City, Utah 84107 Telephone (801) 268-8400 FAX (801) 262-4966

INTERNATIONAL DISTRIBUTION:

**DIGITECH INTERNATIONAL** 10 Cindy Drive Nashua, NH 03062 Telephone (603) 888-5230 FAX (603) 888-6750 Telex 501187

Copyright 1987 DOD Electronics Corporation DigiTech is a registered trade mark of the DOD Electronics Corporation

The specifications in this manual are subject to change without notice.