





Owner's Manual





The symbols shown above are internationally accepted symbols that warn of potential hazards with electrical products. The lightning flash with arrowpoint in an equilateral triangle means that there are dangerous voltages present within the unit. The exclamation point in an equi

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.

lateral triangle indicates that it is necessary for the user to

# ELECTROMAGNETIC COMPATIBILITY

This unit conforms to 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 THESE INSTRUCTIONS:

KEEP THESE INSTRUCTIONS

HEED ALL WARNINGS

FOLLOW ALL INSTRUCTIONS

THE APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING LIQUID AND NO OBJECT FILLED WITH LIQUID, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

CLEAN ONLY WITH A DRY CLOTH.

DO NOT BLOCK ANY OF THE VENTILATION OPENINGS. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

DO NOT INSTALL NEAR ANY HEAT SOURCES SUCH AS RADIATORS, HEAT Registers, Stoves, or other apparatus (including amplifiers) That produce heat.

ONLY USE ATTACHMENTS/ACCESSORIES SPECIFIED BY THE MANUFACTURer.

UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.

Do not defeat the safety purpose of the polarized or grounding-type not a polarized by the safety bulled as two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit your putel, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Refer all servicing to 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.

MAINS DISCONNECT: The plug shall remain readily operable. For rackmount or installation where plug is not accessible, an all-pole mains switch with a contact separation of at least 3 mm in each pole be incorporated into the electrical installation of the rack or building.



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.

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Table of Contents	Boss® OC-2 Octaver		
Table of Contents	Delay		
Section One - Introduction	Reverb		
Getting AcquaintedI			
Included ItemsI			

Getting Acquainted	
Included Items	. І
About the RP500	. І
Pedalboard Mode	١.
Preset mode and Pedalboard Mode	
Bypass Mode	. І
Amp/Cabinet Bypass Mode	
Tuner Mode	. 2
Tone Library (Knob I)	. 2
Effects Library (Knob 2)	. 2
Effects Level (Knob 3)	. 2
Amp Gain/Effect Parameter (Knob 4)	. 2
Amp Level/Effect Parameter (Knob 5)	
Master Level (Knob 6)	. 3
X-Edit™ Editor/Librarian	. 3
Presets	. 3
Create Your Sound in Three Easy Steps	. 3
A Guided Tour of the RP500	. 4
Front Panel	. 4
Rear Panel	. 7
Getting Started	. 8
Making Connections	. 8
Amp/Cabinet Bypass	. 8
Mono Operation - Amplifier	. 8
Stereo Operation	. 8
Applying Power	l O

Section Two - Editing Functions
Editing/Creating PresetsII

Storing/Copying/Naming a Preset......12

Section	Three	- Effects	and	<b>Parameters</b>
Section	Inree	- Enects	and	Parameters

About the Effects	13
Effects Definitions	13
Pickup	13
Wah	13
Compressor	14
Distortion	14
Amplifier	15
Cabinet	16
EQ	17
Noise Gate/Auto Swell	17
Chorus/FX	18
Chorus	18
Flanger	18
Phaser	19
Vibrato	19
Rotary Speaker	19
VibroPan	
Unicord Uni-Vibe™	20
Tremolo/Panner	20
Envelope Filter	21
DOD FX25	21
AutoYa <sup>TM</sup>	21
Ya Ya ™	
SynthTalk™	22
Step Filter	22
Sample Hold	
DigiTech Whammy™	23
Pitch Shift	
Detune	23
Harmony Pitch Shifting (HPS)	24

Boss <sup>®</sup> OC-2 Octaver	2 <del>4</del>
Delay	24
Reverb	
Section Four - Other Functions	
CD/MP3 Input	26
Expression Pedal	
LFOs	
Wah Min/Max	26
Expression Update	27
Factory Reset	27
Expression Pedal Calibration	27
Section Five - Appendix	
Specifications	28
Tone Library	29
Effects Library	20



## **Warranty**

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

- The warranty registration card must be mailed within ten days after purchase date to validate this warranty.
- 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. 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.
- 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.

### **Declaration of Conformity**

Manufacturer's Name: DigiTech

Manufacturer's Address: 8760 S. Sandy Parkway

Sandy, Utah 84070, USA

declares that the product:

EN60065.

Product name: RP500

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 (7th ed. 2001)

EMC: EN 55013 (2001 + A1)

EN 55020 (1998)

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 - MI 8760 S. Sandy Parkway

Sandy, Utah 84070, USA Date: March 17, 2008

European Contact: Your local DigiTech Sales and Service Office or

Harman Music Group 8760 South Sandy Parkway Sandy, Utah 84070 USA Ph: (801) 568-8800

Fax: (801) 568-7583



## Section I - Introduction

Getting Acquainted

Congratulations on your purchase of the RP500. You now own a very powerful integrated effects switching system allowing you extra control over stompboxes, effects, amplifiers and cabinets. The RP500 combines the simplicity of a stompbox with the control of an effects switching system for control the way you want it. Armed with DigiTech®'s patented AudioDNA2® custom audio DSP chip, the RP500 gives you a huge selection of tones and effects, right at your fingertips. Easily dial up a sound using the Tone and Effects Library knobs. You will appreciate the tone and dynamic interaction of each of the amps, stompboxes, and effects with your system. Add USB support for computer recording and you have the RP500: the key to unlock your creative potential.

### Included Items

Before you get started, please make sure that the following items have been included:

- RP500
- Installer DVD: Cubase LE4 Recording Suite, X-Edit<sup>™</sup> Editor/Librarian Software, and RP500 Windows Drivers
- PS0913B Power Supply
- Warranty Card

The utmost care was taken while your RP500 was being manufactured. Everything should be included and in perfect working order. If anything is missing, contact the factory at once. Please help us become acquainted with you and your needs by sending us your completed warranty card or registering online at www.digitech.com. It is your safeguard should a problem arise with your RP500.

## About the RP500

### **Pedalboard Mode**

When you first apply power to the RP500, it powers up in Pedalboard mode. Pedalboard mode provides access to all of the presets within the RP500 via the **Up** and **Down Footswitches**. **Knob I** selects a tone from the Tone Library, **Knob 2** selects an effects chain from the Effects Library, **Knob 3** adjusts the Effects Level, **Knob 4** adjusts the Amp Gain, **Knob 5** adjusts the Amp Level, and **Knob 6** adjusts the Master Level (volume).

### Preset Mode and Pedalboard Mode

Since the RP500 has two different footswitch modes of operation (Preset Mode and Pedalboard Mode), presets can be selected in two different ways:

### **Pedalboard Mode**

Pedalboard mode is the default mode, where each numbered footswitch turns on and off the effect labeled above it. Use the **Up/Down Footswitches** to select presets in Pedalboard mode. When the Pedalboard button is on (lit), Pedalboard mode is active.

#### **Preset Mode**

In Preset mode, the numbered footswitches recall presets in the active bank. Use the **Up/ Down Footswitches** to select preset banks in Preset mode. When the Pedalboard button is off (not lit), Preset mode is active.

### Bypass Mode

The RP500 presets can be bypassed via an analog bypass circuit for a clean, unprocessed guitar signal. To bypass the RP500, press the **Bypass Footswitch**. The Display reads **BYPR55** indicating the preset is bypassed. Press any **Footswitch** to exit Bypass and return the RP500 to the last preset used.

Amp/Cabinet Bypass Mode

The RP500 has the unique feature of being able to turn off amp and cabinet modeling globally in all presets. This is extremely useful when you just want to add effects processing to your own core amplifier sound. The RP500 effectively becomes a straight multi-effects box at this point where only Wah, Compressor, Distortion, Equalizer, Noise Gate, Chorus/FX, Delay, and Reverb are being used.

To bypass amp/cabinet modeling in all presets, press the Amp/Cabinet Bypass button. When

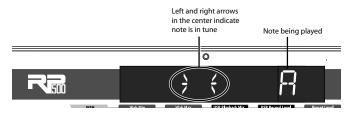


it is lit, amp/cabinet modeling is globally bypassed in all presets.

Amp/Cabinet Bypass can be used in either Preset or Pedalboard modes.

#### Tuner Mode

The Tuner in the RP500 allows you to quickly tune or check the tuning on your guitar. Enter Tuner mode by pressing and holding the **Bypass Footswitch** for 2 seconds. The Display briefly shows TUNER indicating that you are in Tuner mode. To begin tuning, play a note on your guitar (a harmonic at the 12th fret usually works best). The Numeric Display shows the note being played. Arrows on the right indicate the note is sharp and should be tuned down. Arrows on the left indicate the note is flat and should be tuned up. A left and a right arrow in the center indicate the note is in tune. The output is muted in Tuner mode. The Expression Pedal controls the guitar volume while tuning. Exit tuner mode by pressing any **Footswitch**.



In Tuner mode, you can change your tuning reference. The default factory setting is A=440 Hz (displayed as R=440). Rotating **Knob I** selects alternate dropped tunings and tuning references. Alternate tunings are  $R=R_1$ ,  $R=S_1$ ,  $R=S_2$ , and tuning references R=427-R=453. The display window briefly flashes the current tuning reference.

Tone Library (Knob 1)

In Pedalboard and Preset modes, this knob selects a variety of genre-based amp tone defaults ranging from Blues to Metal to Country. Behind the scenes, the Compressor, Distortion, Amp/Cabinet types, EQ, and Noise Gate are configured to create a specified tone with a single click of this knob. You can further refine the sound by editing the preset (see *Editing/Creating Presets* on page 11). Changing between different Tone Library defaults does not change the Chorus/FX, Delay or Reverb, letting you experiment with different amp styles quickly in the context of the current effect chain. When in Amp/Cabinet Bypass Mode, the amplifiers are defeated leaving distortion and overdrive stompboxes as the only means of distortion.

Effects Library (Knob 2)

In Pedalboard and Preset modes, this knob selects a variety of post-amplifier effect chains (Chorus, Chorus + Delay, Delay + Reverb, etc.). You can further refine the sound by editing the preset (see Editing/Creating Presets on page 11). Changing between different Effects Library defaults does not change the Compressor, Distortion, Amp/Cabinet types, EQ, and Noise Gate settings, letting you experiment with different effect chains quickly in the context of the current amp tone.

Effects Level (Knob 3)

In Pedalboard and Preset modes, this knob changes the relative level of the post-amp effects (Chorus/FX, Delay, and Reverb). This can be thought of as an effects mix control, where turning this knob clockwise increases the level of these effects and turning it counter-clockwise decreases the level of these effects.

Amp Gain/Effect Parameter (Knob 4)

This knob adjusts the Gain (distortion) for the selected Amp (not available for Acoustic) and is also used to adjust parameters of other effects in the matrix. The amplifier and cabinets cannot be adjusted when the Amp/Cabinet Bypass button is enabled.

Amp Level/Effect Parameter (Knob 5)

This knob adjusts the Level (volume) of the selected amp and is used to adjust other effect parameters in the matrix. Amp Level cannot be adjusted when the Amp/Cabinet Bypass button is enabled.



## Master Level (Knob 6)

This knob controls the overall output volume of all of the RP500's presets and is used to adjust other effect parameters in the matrix.

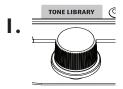
### X-Edit<sup>™</sup> Editor/Librarian

You can edit your RP500 with your computer, using the X-Edit<sup>™</sup> Editor/Librarian, found on the included DVD.

### **Presets**

Presets are named and numbered locations of programmed sounds which reside in the RP500. Presets are recalled with the Footswitches. The active effects in each preset are indicated by lighted LEDs in the Effect Matrix. The RP500 comes with 100 User presets (1-00) and 100 Factory presets (F1-F00). The User presets are locations where your creations may be stored. The Factory presets do not allow you to store any changes to them. From the factory, the 100 User presets are exact duplicates of the 100 Factory presets. This allows you to create your own presets without losing the sounds that came with the RP500.

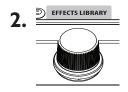
## Create Your Sound in Three Easy Steps



### Tone Library

Select one of 40 different tones from rock, metal, blues, country, and more. The tones consist of a combination of Compressor, Distortion Stompbox, Amplifier/Cabinet, EQ, and Noise Gate.

For a complete list of available tones, see page 29.



#### **Effects Library**

Select one of 40 diffferent effects chains. The effects consist of a combination of Chorus/FX, Delay, and Reverb.

For a complete list of available effects chains, see page 29.



### Effects Level

Adjust the overall level of the post-amp effects to your liking.

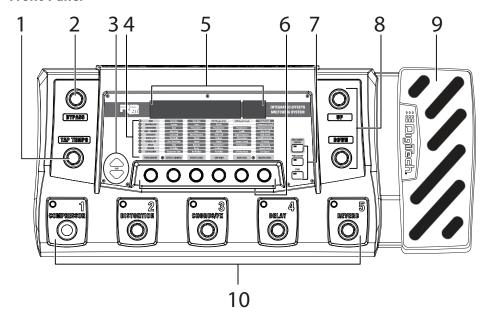
To make further edits, refer to page 11.

To store the preset, refer to page 12.



## A Guided Tour of the RP500

## Front Panel



### I.Tap Tempo Footswitch

This footswitch is used for setting the delay time in the current preset. By pressing this footswitch repeatedly you can set the delay to repeat in time with your music.

### 2. Bypass/Tuner Footswitch

This footswitch bypasses all of the RP500's effects sending an unprocessed signal out all of the outputs. Pressing and holding the Bypass footswitch accesses the RP500's chromatic tuner. The Displays will provide feedback for the tuning function (see page 2 for more info on using the Tuner).

### 3. Edit Up/Down Buttons

These buttons navigate up and down the rows of the matrix for editing presets.

### 4. Effects Matrix

The matrix provides information regarding the current preset and parameter edit functions. In Pedalboard and Preset modes, the LEDs running down the left side of the Matrix provide a visual indication of which effects are in use for the selected preset. While editing a preset, the LEDs light individually to indicate which Effect row is selected for editing.

## 5. Displays

The RP500 has two sets of displays. The 8 character alpha-numeric display shows preset names, bank names, and effects names while editing. The 2 character numeric display shows preset numbers and effects parameters while editing and shows the note being tuned when the Tuner is enabled.

#### 6. Knobs I-6 (From left to right)

These six knobs perform various functions, depending on which mode is currently active and what (if anything) is being edited. The functions are listed below:

### Tone Library (Knob I)

- 1. In Pedalboard and Preset modes, this knob selects from a library of preset amp tones.
- 2. When editing a preset, this knob changes the Amp or Effect for the selected row and



pressing the knob will turn the effect row on or off. When editing an Effect row, press this knob to turn the effect on or off. When editing the Amp/Cabinet row, pressing this knob will switch between editing the amp or the cabinet.

3. When the Expression row is selected, this knob selects the Expression, LFO 1, LFO 2, and Wah parameter links, and pressing this knob has the same effect as turning it.

### Effects Library (Knob 2)

- I. In Pedalboard and Preset modes, this knob selects from a library of preset effect chains.
- When editing a preset, this knob modifies the parameter listed in the column directly above it for the selected Effect row.
- 3. When the Expression row is selected, this knob selects which parameter is assigned to the Expression Pedal, LFO I or LFO2.

### Effects Level (Knob 3)

- I. In Pedalboard and Preset modes, this knob adjusts the overall level of post amp effects (Chorus/FX, Delay, and Reverb).
- 2. When editing a preset, this knob modifies the parameter listed in the column directly above it for the selected Effect row.
- 3. When the Expression row is selected, this knob selects the heel (minimum) value for the parameter or Wah linked to the Expression Pedal.

### Amp Gain (Knob 4)

- I. In Pedalboard and Preset modes, this knob adjusts the Amp Gain (distortion) for the selected Amp model.
- 2. When editing a preset, this knob modifies the parameter listed in the column directly above it for the selected Effect row. This knob also is used to adjust the RP/USB mix when the RP500 is connected to a computer and using recording software. Just select the Wah row to adjust this parameter when USB is connected to the RP500.
- 3. When the Expression row is selected, this knob selects the toe (maximum) value for the parameter or Wah linked to the Expression Pedal.

### Amp Level (Knob 5)

- In Pedalboard and Preset modes, this knob adjusts the Amp Level (volume) of the selected Amp model.
- 2. When editing a preset, this knob modifies the parameter listed in the column directly above it for the selected Effect row. This knob is also used to adjust the USB Record Level when the RP500 is connected to a computer and using recording software. Just select the Wah row to adjust this parameter when USB is connected to the RP500.
- When the Expression row is selected, this knob selects the LFO waveform. LFO I or LFO 2 must first be selected with Knob I for this parameter to be available.

#### Master Volume (Knob 6)

- I. In Pedalboard and Preset modes, this knob adjusts the output level of the RP500.
- When editing a preset, this knob modifies the parameter listed in the column directly above it for the selected Effect row.
- 3. When the Expression row is selected, this knob sets the LFO speed. LFO I or LFO 2 must first be selected with Knob I for this parameter to be available.

### 7. System Buttons

There are three system buttons: AMP/CABINET BYPASS, PEDALBOARD, and STORE.

- AMP/CABINET BYPASS When this button is lit, the internal amplifiers and cabinets are bypassed in all RP500 presets
- PEDALBOARD When this button is lit, the 5 numbered footswitches turn the effects labeled above them on and off. When this button is not lit, these footswitches select the five presets in the active bank.
- STORE Press this button to begin the store/copy procedure.



### 8. Up/Down Footswitches

These Up/Down footswitches select preset banks or they select individual presets when Pedalboard mode is active.

### 9. Expression Pedal

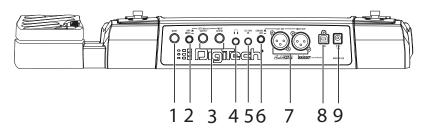
The Expression Pedal provides real-time control of the RP500's Volume, Wah, or any assigned effect parameter. Almost every parameter is available for Expression Pedal control. The Expression Pedal also turns on and controls the Wah effect when you apply extra pressure to the toe.

### 10. I-5 / Effects Footswitches

In Preset Mode, these 5 footswitches select between 5 different presets in the active bank. The footswitch LED will light to indicate which preset is active. In Pedalboard mode, these footswitches are used to turn Compressor, Distortion, Chorus/FX, Delay, and Reverb effects on and off. Effects that are on will have their footswitch LED lit.



### Rear Panel



### I. Input

High impedance 1/4" instrument input.

## 2.Amp/Mixer Switch

This switch optimizes the 1/4" Line Outputs for connecting to either a guitar amp system or directly into the inputs of a mixer.

## 3. I/4" Line Outputs

These 1/4" outputs can be plugged into a guitar amplifier or into inputs of a mixer or recording device. The front panel Master Level controls the level of these outputs.

### 4. Headphone Output

Connect headphones here. Output optimized for use with headphones having 60 Ohms of impedance or less.

### 5. CD/MP3 Input

Connect the headphone output of an MP3 or CD player using a stereo I/8" cable to this I/8" stereo TRS jack for rehearsing with your favorite pre-recorded material. Adjust the output level of your playback device and the RP500's Master Level knob for the proper volume balance.

### 6. Ground Lift Switch

This switch lifts pin I from the XLR Mixer Outputs from all ground references. This may be necessary to help solve troublesome ground loops that can cause hum in the system, especially when both XLR and I/4" outputs are used with a mixer and a guitar amplifier.

### 7. XLR Mixer Outputs

The XLR outputs are designed for connecting to a recording device or mixing console. These outputs always have speaker compensation active as they are intended to be sent into full a range audio system.

#### 8. USB Jack

The USB jack connects the RP500 to a computer and provides two purposes. First it is used to provide communication between the RP500 and the X-Edit editor librarian software. Second, it is used to stream four channels of audio (2 up / 2 back) to and from the computer when using the RP500 to record with the included Cubase LE4 recording software. Refer to the RP500 Software Installation Guide and Cubase LE4 online documentation on proper setup for this use.



# **Getting Started**

Making Connections

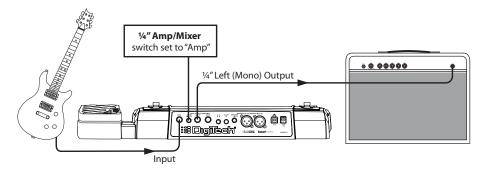
There are several different connection options available with the RP500. Before connecting the RP500, make sure that the power to your amplifier and the RP500 is turned off. There is no power switch on the RP500. To turn the RP500 on or off, connect or disconnect the included PS0913B power supply from the **Power Input** jack.

Amp/Cabinet Bypass

The RP500 lets you bypass its amp and cabinet tones so you can apply its effects to your own amp/cabinet tone. To bypass the RP500 amp and cabinet tones in all presets, enable the Amp/Cabinet Bypass button. To utilize the RP500 amp and cabinet tones, disable the Amp/Cabinet Bypass button.

Mono Operation - Amplifier

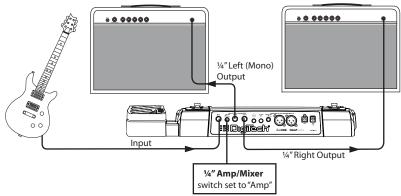
Connect your guitar to the **Input** of the RP500. Connect a single mono instrument cable from the **Left (Mono)** output of the RP500 to the instrument input or effect return on your amplifier. Set the ¼" **Amp/Mixer** switch to Amp. This setup usually uses the Amp/Cabinet Bypass.



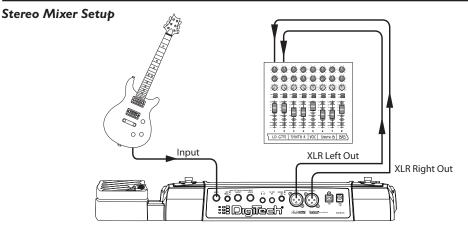
### Stereo Operation

For stereo operation connect the guitar to the **Input** of the RP500. Connect one cable to the RP500's **Left (Mono)** output, and another cable to the RP500's **Right** output. Connect one cable to the input of one amplifier, channel of a mixer, or power amp. Connect the second cable to a second amplifier, second channel of a mixer, or power amp. If connecting to a mixing console, set the pan controls of the mixer channels hard left and right in order to retain stereo separation. If connecting to a mixer, set the ¼" **Amp/Mixer** switch to Mixer. If connecting to two amplifiers, set the ¼" **Amp/Mixer** switch to Amp. This setup usually uses the Amp/Cabinet Bypass.

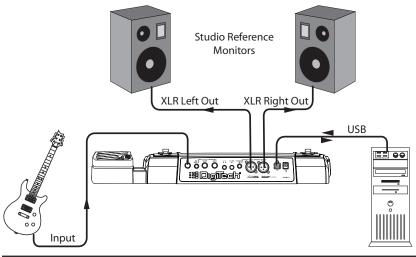
## Stereo Amp Setup

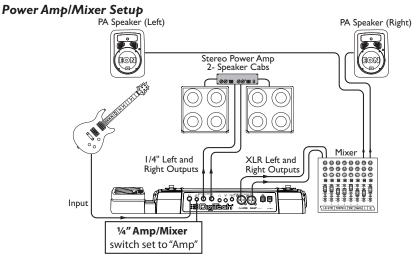






## **Computer Recording Setup**

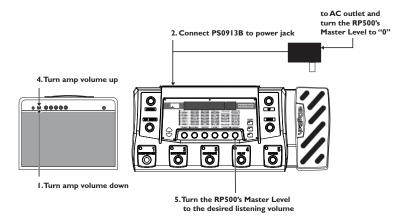






**Applying Power**Before applying power to anything, set your amp(s) to a clean tone and set the tone controls to a flat EQ response (on most amps, this should be set to 5 on EQ's to obtain the amp's natural voicing.). Then follow the steps listed below.

- 1. Turn the amp volume all the way down.
- 2. Connect the plug of the PS0913B power supply to the power jack on the rear panel of the RP500.
- 3. Connect the other end of the PS0913B power supply to an AC outlet. Turn the RP500's Master Level knob (Knob 6) down to "0".
- 4. Turn the power of your amplifier(s) to the on position and adjust the volume(s) to a normal playing level.
- 5. Gradually increase the RP500's Master Level knob to achieve the desired volume.



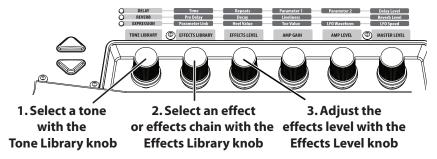


## **Section Two - Editing Functions**

## **Editing/Creating Presets**

The RP500 is designed to make preset editing and creation easy and intuitive. When creating your own sound, you must first start with an existing preset. Note that the preset you begin with doesn't have to be in the memory location you intend to have it reside, since you can store it to any User preset location during the store procedure.

The easiest way to start is by using the **Tone Library** and **Effects Library** knobs. The **Tone Library** knob will let you select from a variety of pre-programmed amp/distortion tones (see page 29) based on different musical styles. The **Effects Library** knob will then let you select from a palette of effects chains (see page 29), from simple delays to full multi-effect signals with modulation, delay and reverb. Use the **Effects Level Knob** to increase or decrease the overall Chorus/FX, Delay and Reverb levels if desired. Using these three controls should get you close to a sound you are after. From there you can then use the **Edit** buttons to navigate through the individual effects for some fine tune edits.



To edit and create a preset:

- I. Use the **Up** and **Down Footswitches** to select the preset you wish to edit.
- If you find a preset close to what you want, you can begin editing the effect parameters by pressing the Edit Up/Down buttons and selecting the Effect row you want to edit.
- 3. If you are trying to find something different from the existing presets, begin by using the **Tone Library**, **Effects Library** and **Effects Level** knobs to get close to a sound you want.
- 4. Press the **Edit Up/Down** buttons to begin selecting the individual Effects rows to edit their parameters
- 5. To bypass or enable an Effect row, press the **Tone Library** knob.
- 6. Use the **Knobs 2-6** to modify the effects' parameter settings.

**Note:** Anytime a stored value within a preset is changed, the **Store** button LED lights up. This indicates that you need to store the changes. Changing presets, or turning the power off before storing any changes, erases any changes made and the RP500 will revert to the stored values for the preset.

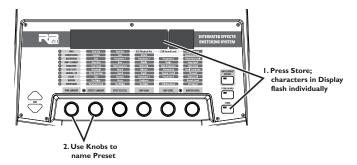
Also, if you are using the RP500 with the Amp/Cabinet Bypass button enabled (effects only), Tone Libraries that use amps only will not provide distortion or tone changes since amps and cabinets are globally disabled.



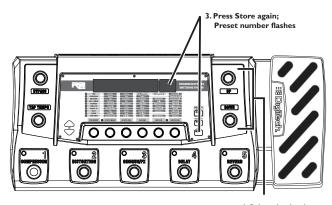
Storing/Copying/Naming a Preset

Once the preset has been modified to your liking, you may store your settings to any of the 100 User preset locations (presets 1-00). The following steps outline the procedure for storing changes to a preset or copying a preset to a different location:

- 1. Press the **Store** button once. The **Store** button LED blinks and the first character in the Display flashes, indicating that you can now name your custom creation.
- 2. Use **Knob I** to select the alpha-numeric character and **Knob 2** to select the next character location



- 3. Once the desired name is shown in the display, press the **Store** button again to enter the second stage of the storing process. The red Display begins to flash.
- 4. Select the User preset location where your new sound will reside using the Up and Down Footswitches. The displays show the preset name and User preset number about to be overwritten.



4. Select destination with UP and DOWN Footswitches

5. Press the **Store** button again to save the changes.

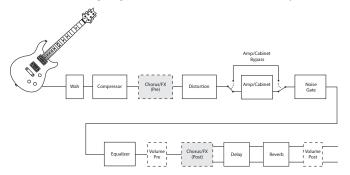
The procedure for copying one preset to another preset location is the same. Use the **Footswitches** to select the preset that you want to copy, then follow steps I-4 for storing a preset as described above. Press either **Edit** button at any time to abort the Store procedure.



## Section Three - Effects and Parameters

## About the Effects

The RP500 can be thought of as an assortment of "virtual" amplifiers and individual, high-tech stompboxes in a single programmable package. With stompboxes, the order in which they are connected affects the overall sound. The RP500 has placed the Amps and Effects in an order for optimum results. The following diagram shows the order in which they are connected.



**Effect Definitions** 

Each Amp and Effect within the RP500 can be programmed to suit your personal taste and application. Understanding how these components alter the sound, and how each parameter alters the effect, will help you achieve the sound you are looking for. The following overview of the RP500's effects outlines what each effect and parameter does.

#### Wah

Wah is an effect controlled by an Expression Pedal making the guitar sound as if it's saying "Wah."

Wahs - Knob I selects the Wah type. Values include: ERY WAH (Cry Wah is a traditional sounding Wah), ELY IEWAH based on a Vox® Clyde McCoy™ Wah), and FULLRANG (DigiTech® Full Range Wah sweeps the entire spectrum of audible frequencies). Press this knob to turn Wah on and off.

Wah Level - Knob 2 adjusts the Wah Level. Ranges from 0dB to +12dB.

## Compressor

A **Compressor** is used to increase sustain, tighten up guitars, and prevent the signal from clipping the input of other effects. It sets a maximum boundary for the strength of a signal.

**Comp - Knob I** selects one of three Compressors: #IBICOMP (DigiTech® Compressor), ES EOMP (Based on a Boss® CS-2 Compressor/Sustainer), or #YNOCOMP (Based on an MXR® Dynacomp). Press this knob to turn the selected Compressor on and off.

**Knobs 2-6** have the following functions for the various Compressors:

Compressor	Knob 2 (Sustain)	Knob 3 (Tone)	Knob 4 (Attack)	Knob 5	Knob 6 (Compressor Level)
DIGICOMP	Sustain	Tone	Attack		Level
CS COMP	Sustain		Attack		Level
]YNOCOMP	Sensitivity				Output



### Distortion

The RP500 includes the tones of many popular distortion stompboxes, each of which can be fully dialed in.

Distortion - Knob I selects a Distortion. Press this knob to turn the selected Distortion on and off.

NS NTST

Big Muff Pi®

SERERMER - Based on an Ibanez®TS-9 - Based on a Boss® DS-ITM 808 - Based on an Ibanez TS-808 Tube Distortion GRUNGE - DigiTech® Grunge® Screamer 5PARK IRV - Based on a Voodoo Lab Sparkle - Based on a Boss MT-2 Metal 70NE Zone® Drive GUY ODRV - Based on a Guyatone® Overdrive DEATH - DigiTech Death Metal™ GONKULTR - Based on a DOD Gonkulator OD-2 **JOJ 250** - Based on a DOD® 250 8TAVIA - Based on a Roger Mayer Octavia™ FUZZLATR - Based on a Demeter Fuzzulator Overdrive/Preamp REJLINE - DigiTech® Redline Overdrive ELASEFUZ - Based on a DOD Classic Fuzz FUZZYFRE - Based on an Arbiter® Fuzz Face™ ROJENT - Based on a Pro Co RAT™ MX DIST - Based on an MXR® Distortion + BIG PI - Based on an Electro-Harmonix®

Knobs 2-6 have the following functions for the various Distortions:

Distortion	Knob 2 (Gain)	Knob 3 (Param. I)	Knob 4 (Param. 2)	Knob 5 (Param. 3)	Knob 6 (Distor- tion Level)	P7 (X-Edit™ only)
SCRERMER	Drive	Tone			Level	
808	Overdrive	Tone			Level	
2686K JUSA	Gain	Tone	Clean		Volume	
GUY ODRV	Drive				Level	
DOD 250	Gain				Level	
REDLINE	Gain	Low	High		Level	
ROJENT	Distortion	Filter			Level	
M× DIST	Distortion				Output	
DS DIST	Gain	Tone			Level	
GRUNGE	Grunge	Butt	Face		Loud	
ZONE	Gain	Low	Mid	High	Level	Mid Freq
DERTH		Low	Mid	High	Level	
GONKUL TR	Gunk	Smear	Suck		Heave	
8TAVIA	Drive				Volume	
FUZZLATR	Fuzz	Tone	Loose/Tight		Volume	
CLASCFUZ	Fuzz	Tone			Volume	
FUZZYFRC	Fuzz				Volume	
BIG PI	Sustain	Tone			Volume	

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### **Amplifier**

The amplifiers are an assortment of popular vintage and modern amp tones. The amplifiers also include acoustic guitar simulations.

Amp - By default, Knob I selects one of the classic, modern, and DigiTech custom Amp types. Note that when you select an Amp, the default cabinet is automatically selected. You can, however, change the cabinet after selecting an Amp to achieve different tones. Press this knob and turn it to select a cabinet. Press this knob again to return to the Amp types and parameters.

57 CHRMP	Based on a '57 Fender® Tweed Champ®	2F JNO 100	Based on an '88 Soldano SLO- 100
STIELUXE	Based on a '57 Fender Tweed Deluxe	SUPERGRP GR-40	Based on a Laney Supergroup. Based on a Gibson® GA-40
NMZZREEZ	Based on a '59 Fender Tweed Bassman®	OR-120 PV 5150	Based on an Orange OJ120. Based on a Peavey® 5150 II®
853822WN	Based on a '62 Fender Brown Bassman	RG 100 JRZZ 120	Based on a Randall RG100 Based on a Roland JC120
65 TWIN	Based on a '65 Fender Blackface Twin Reverb®	SOLARIDO DIG SOLO	Based on a Sunn Solar 100S
65]LUXRV	Based on a '65 Fender Blackface Deluxe Reverb®	DIGMETAL DIGBRGHT	80s shred guitar. Heavy.
45 JTM 68 PLE×I	Based on a '65 Marshall® JTM-45 Based on a '68 Marshall 100 Watt	DIGCHUNK	Sparkle clean.  Beefy high gain with tight bottom end.
JUMPPANL	Super Lead (plexi) Based on a '68 Marshall Jump	DIGCLEAN DIG GAIN	Sparkle clean. Punchy high gain that cleans up.
MASTRVOL	Panel Based on a '77 Marshall Master	DIGBLUES DIG FUZZ	Tube combo at the sweet spot. Fuzz Face + Orange Amp
800 JCM	Volume Based on an '83 Marshall JCM800	]][25PANK	Cool rhythm tone with spanky top end.
2000 JCM 2000 JCM	Based on a '93 Marshall JCM900 Based on an '01 Marshall	5101 281 5101 CLN	DigiTech 2101 Clean Tube DigiTech 2101 Saturated Tube
RE 15	JCM2000 Based on a '62 Vox® AC15	DIGCRNCH DIGMNSTR	Based on a modified Plexi.  Maxed out gain.
RC30 TB	Based on a '63 Vox AC30 Top Boost	DIGTWEED	Based out gam. Based on a Tweed front Blackface power hybrid.
HIWRTTRG	Based on a '69 Hiwatt® Custom 100 DR103	DIGBLACK	Based on a '65 Blackface into a '58 Bassman.
MARK IIC	Based on an '81 Mesa Boogie® Mark II C	DIGSTONR DIGDKMTL	DigiTech stoner rock. DigiTech dark metal.
MARK IV	Based on a '94 Mesa Boogie® Mark IV	DIGTRANS	Based on a transistor amp - "Deacy" from Brian May.
DURLRECT	Based on an '01 Mesa Boogie Dual Rectifier	DIGBROWN DIG MOSH	Brown sound. DigiTech mosh.
TRIPRECT	Based on an '04 Mesa Boogie Triple Rectifier	JREAJ AC JUMBO AC	Dreadnaught acoustic
99LEGACY MATCHC30	Based on a 99 Legacy VL-100 Based on a '96 Matchless™ HC30	DIRECT	No amp

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Cabinet - Knob I also selects cabinets. Pressing this knob alternates between selecting amps and cabinets

CHAMPIX8-	Based on a 1x8 '57 Fender® Tweed Champ®	GRENYX12 -	Based on a 4x12 Marshall 1969 Slant w/ Celestion 25W
DLUXIXI2 -	Based on a 1x12 '57 Fender		Greenbacks
TVOL IVID	Tweed Deluxe®	FRNE4X12 -	Based on a 4x12 Hiwatt®
NXKNIXIG -	Based on a 1x12 '65 Fender Blackface Deluxe Reverb	בייטחדחם	Custom w/ Fane Speakers Based on a 4x12 '96 VHT®
BRITIXI2 -	Based on a 1x12 '62 Vox®	- ארישוטע	Slant w/ Celestion Vintage 30's
BN111776	AC15 w/20W Vox Speaker	VNTG4×12 -	Based on a 4x12 Johnson®
032N1×15-	Based on a '60 Gibson® GA-		Straight w/ Celestion Vintage
	40 Jensen Speaker		30's
RWHNS×15 -	Based on a 2x12 '57 Fender	HELIAXIS -	Based on a 4x12 Mesa/Boogie
TUTNOVIO	Blonde Bassman® Based on a 2x12 '65 Fender	201004713	Rectifier V30 speakers 4x12 DigiTech® Solo
IMTINE VIE -	Blackface Twin Reverb®		2x12 DigiTech Bright
BRIT2×12 -	Based on a 2x12 '63 Vox®		4x12 DigiTech Metal
	AC30 Top Boost w/ Jensen®		4x12 DigiTech Rock
	Blue Backs		4x12 DigiTech Alt Rock
7H775×15-	Based on a 2x12 '84 Roland®		4x12 DigiTech Vintage
DIVUNDME	Jazz Chorus Based on a 4x10 '59 Fender		4x12 DigiTech Chunk 4x12 DigiTech Spank
11111111111111111111111111111111111111	Tweed Bassman®		DigiTech Speaker Compensa-
CLA24×12 -	Based on a 4x12 Marshall®	22023	tion
	1969 Straight w/ Celestion® G12-T70	DIRECT -	No cabinet

**Amp Gain - Knob 2** adjusts the Gain (distortion) for the selected Amp (not available for Acoustic). The Gain parameter ranges from  $\square$  to  $\square \square$ .

Bass - Knob 3 adjusts the low frequencies of the amp's tone. Ranges from 1.0 to 10.

Middle - Knob 4 adjusts the mid frequencies of the amp's tone. Ranges from 1.0 to 10.

Treble - Knob 5 adjusts the high frequencies of the amp's tone. Ranges from 1.0 to 10.

Amp Level - Knob 6 adjusts the Level (volume) of the selected Amp. The Level parameter ranges from  ${\tt 0}$  to  ${\tt 99}$ .



### EQ

The RP500's EQ helps further shape your tone with Low, Mid, and High controls.

Knob I - Press Knob I to turn the EQ on and off.

**Low Level** - Knob 2 adjusts the Low EQ level. Ranges from -12dB to 12dB.

Mid Frequency - Knob 3 selects the frequency that the Mid parameter adjusts. Range Is from 300 Hz to 4000 Hz.

Mid Level - Knob 4 adjusts the Mid EQ level. Range is from -12dB to 12dB.

**High Frequency - Knob 5** adjusts the High EQ frequency. Range is from 2000 Hz to 8000 Hz

**High Level - Knob 6** adjusts the High EQ level. Range is from -12dB to 12dB.

**Low Frequency (X-Edit<sup>™</sup> only)** - This parameter selects the Low EQ frequency. Ranges from 60 Hz to 500 Hz.

**Low, Mid, and High Bandwidth (X-Edit only)** - This parameter selects the frequency bandwidth for each frequency band. Range is from Narrow to Wide.

#### Noise Gate/Auto Swell

A **Noise Gate** is designed to eliminate noise while you are not playing, or provide an auto volume swell effect.

**Gate Type - Knob I** selects between the DigiTech® noise gate or the volume swell effect. Values include: SATE (Selects the Noise Gate) and SHELL (Selects the Auto Swell effect.) Press this knob to turn the Noise Gate/Auto Swell on and off.

**Threshold (Noise Gate only) - Knob 2** sets the signal strength (Threshold) required to open or close the Noise Gate. Parameters range from  $\mathbb{G}$  (opens easily) to 99 (requiring strong signals to open).

**Attack Time - Knob 3** sets the attack time. Ranges from  $\mathcal G$  (shorter attack time) to 99 (longer attack time).

**Release - Knob 4** sets the Release parameter. Ranges from  $\square$  to  $\square$ 9.

**Attenuation - Knob 5** sets the Attenuation parameter. Ranges from  $\square$  to  $\square$  to

Swell Sensitivity (Auto Swell only) - Knob 6 sets the Swell Sensitivity parameter of the Auto Swell. Ranges from  $\square$  to  $\square$ 9.



### Chorus/FX

The Chorus/FX row in the RP500 is a multi-function module, allowing you to select Effect types such as Chorus, Flanger, Phaser, Vibrato, Rotary Speaker, Tremolo, Panner, Envelope Filter, Detune, Whammy<sup>TM</sup>, Pitch Shift, Detune, IPS, OC Octaver and more. When the Chorus/FX row is selected, **Knob I** is used to choose the Effect type. Press this knob to turn these Effects on and off. Only one of the effects in this row can be used at a time. After selecting the type of effect in this module, **Knobs 2-6** can then be used to adjust the individual parameters associated with the selected effect. The following list describes each Effect and its parameters in more detail:

#### Chorus

A Chorus adds a short delay to your signal. The delayed signal is modulated in and out of tune and then mixed back with the original signal to create a thicker sound. The RP500 includes the following Chorus Effects: £££HDRUS (based on the classic Boss® CE-2 Chorus), ₹££HDRUS (based on the TC Electronic Chorus), £HDRUS (DigiTech®'s Dual Chorus), £££5£HRS (DigiTech's Glistening Chorus) and MULTEHRS (DigiTech's famous Multi Chorus®).

Knobs 2-6 have the following functions for the various Chorus types:

Chorus	Knob 2 (Pre/Post Amp)	Knob 3 (Speed)	Knob 4 (Depth)	Knob 5 (Regenera- tion)	Knob 6 (FX Level)
CECHORUS	Pre/Post Amp	Speed	Depth		
TECHORUS	Pre/Post Amp	Speed	Width	-	Intensity
CHORUS	Pre/Post Amp	Speed	Depth	Waveform	Level
GLISCHRS	Pre/Post Amp	Speed	Depth	-	Level
MULTCHRS	Pre/Post Amp	Speed	Depth	Waveform	Level

## **Flanger**

A Flanger uses the same principle as a Chorus but uses a shorter delay time and adds regeneration (or repeats) to the modulating delay. This results in an exaggerated up and down sweeping motion to the effect. The RP500 includes the following Flanger Effects: FLRNGER (the DigiTech® Flanger), TRIGFLNG (the DigiTech Triggered Flanger), MX FLNGR (based on an MXR® Flanger), EH FLNGR (based on an Electro-Harmonix® Electric Mistress), and AI FLNGR (based on an A/DA Flanger).

**Knob**s **2-6** have the following functions for the various Flanger types:

Flanger	Knob 2 (Pre/Post Amp)	Knob 3 (Speed)	Knob 4 (Depth)	Knob 5 (Regenera- tion)	Knob 6 (FX Level)
FLANGER	Pre/Post Amp	Speed	Depth	Regen	Level
TRIGFLNG	Pre/Post Amp	Speed	Sensitivity	LFO Start	Level
MX FLNGR	Pre/Post Amp	Speed	Width	Regen	Manual
EH FLNGR	Pre/Post Amp	Rate	Range	Color	
A] FLNGR	Pre/Post Amp	Speed	Enhance	Range	Manual



#### Phaser

A phaser splits the incoming signal, and then changes the phasing of the signal. This signal is then taken in and out of phase and mixed back in with the original signal. As the phasing changes, different frequencies get canceled resulting in a warm sort of twisting sound. The RP500 includes the following Phaser types: PHBSER (the DigiTech Phaser), TRIBPHBS (the DigiTech Triggered Phaser), MX PHBSR (based on an MXR Phase 100), and EH PHBSR (based on an Electro-Harmonix Small Stone).

**Knob**s **2-6** have the following functions for the various Phaser Effects:

Phaser	Knob 2 (Pre/Post Amp)	Knob 3 (Speed)	Knob 4 (Depth)	Knob 5 (Regenera- tion)	Knob 6 (FX Level)
PHR2ER	Pre/Post Amp	Speed	Depth	Regen	Level
TRIGPHAS	Pre/Post Amp	Speed	Sensitivity	LFO Start	Level
WX 64826	Pre/Post Amp	Speed	Intensity		
EH PHRSR	Pre/Post Amp	Rate		Color	

## Vibrato (VIBRATO)

The DigiTech Vibrato effect modulates the pitch of the incoming signal at an even rate.

**Pre/Post Amp - Knob 2** determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

**Speed - Knob 3** adjusts the rate (Speed) at which the pitch modulates. Ranges from  $\square$  to  $\square$  to

**Depth - Knob 4** adjusts the intensity (Depth) of the modulating pitch. Ranges from  ${^{\square}}$  to

## Rotary Speaker (ROTARY)

The Rotary Speaker emulates a device that included a spinning horn and woofer. The rotation of these two speakers produced an interesting combination of the sound panning from side to side. This produced a slight pitch change due to the speed of the sound coming towards, and then going away from the listener.

**Pre/Post Amp - Knob 2** determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

**Speed - Knob 3** adjusts the rate (Speed) of the spinning speakers. Ranges from  $\square$  to  $\square \square$ .

Intensity - Knob 4 controls the intensity of the effect. Ranges from 0 to 99.

**Doppler - Knob 5** controls the Pitch Shift effect that is the ratio between the horn and the rotor positions. Ranges from  $\Box$  to  $\Box$ 9.

**Crossover - Knob 6** selects the crossover frequency between the horn and rotor. Ranges from  $\square$  (200 Hz) to  $\square$  (1600 Hz).



### VibroPan (VIBROPAN)

A vibrato is an effect that modulates the pitch of the incoming signal. This will take the whole signal slightly in and out of tune at a steady pace. The DigiTech® VibroPan also incorporates an automatic panner with the vibrato effect that creates a lush chorus-like sound.

**Pre/Post Amp - Knob 2** determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

**Speed - Knob 3** adjusts how fast the signal is being modulated.

Depth - Knob 4 adjusts the amount of pitch change.

**Vibrato/Pan- Knob 5** adjusts the amount of panning incorporated with the vibrato effect. When set at  $\mathbb{Z}$ , this effect is a standard vibrato. As the parameter is turned up, the phase difference of the vibrato signal sent to the two channels is changed until a full stereo image is obtained at 99.

Waveform - Knob 6 selects a waveform: TRIANGLE, SINE, or SQUARE.

## Unicord Uni-Vibe™ (UNOVIBE)

Based on the Unicord<sup>®</sup> Ùni-Vibe<sup>™</sup> pedal, Uni-Vibe adds a lush chorus or rotary speaker (vibrato) effect to your tone.

**Pre/Post Amp - Knob 2** determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

**Speed - Knob 3** adjusts the rate (Speed) of the chorus modulation or spinning speaker (vibrato) effect. Ranges from  $\square$  to  $\square$ 5.

**Intensity - Knob 4** controls the intensity of the effect. Ranges from  $\square$  to  $\square$ .

**Chorus/Vibrato - Knob 5** selects either the chorus or vibrato effect. Turn counterclockwise for Chorus, or clockwise for Vibrato.

**Volume - Knob 6** adjusts the volume of the effect.

#### Tremolo/Panner

A Tremolo effect modulates the volume of the signal at an even rate. The RP500 includes the following Tremolo types: TREMOLO (the DigiTech® Tremolo), SETRIREM (DigiTech Scattertrem (dual asynchronized tremolos)), OPTOTREM (based on the Fender® Opto Tremolo), BIRSTREM (based on the Vox® Bias Tremolo), and PRNNER (the DigiTech Panner).

**Pre/Post Amp - Knob 2** determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

Speed - Knob 3 adjusts the rate (Speed) at which the volume modulates. Ranges from  $\ensuremath{\mathbb{G}}$  to  $\ensuremath{\mathbb{G}}$ 

**Depth - Knob 4** adjusts the intensity (Depth) of the modulating volume. Ranges from  $\mathbb{Z}$  to 99.

**Waveform (DigiTech Tremolo and Panner only) - Knob 5** selects a waveform: TRIANGLE, SINE, or SQUARE.



**Envelope Filter** (ENVFILTR)

The DigiTech Envelope Filter is a dynamic Wah effect that alters your sound based upon how hard you play.

**Pre/Post Amp - Knob 2** determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

**Sensitivity - Knob 3** adjusts the sensitivity or the input signal required to trigger the Wah effect. Ranges from  $\mathcal Q$  to 99.

**Range - Knob 4** controls the range of the Envelope effect. Ranges from  $\square$  to  $\square$ 9.

## DOD FX25 (FX25 ENV)

This envelope filter is based on the DOD FX25.

**Pre/Post Amp - Knob 2** determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

**Blend - Knob 3** adjusts the balance between effect signal and dry signal.

**Sensitivity - Knob 4** adjusts the sensitivity or the input signal required to trigger the Wah effect. Ranges from  $\emptyset$  to 99.

**Range - Knob 5** controls the range of the envelope effect. Ranges from  $\square$  to  $\square$  to  $\square$ .

### AutoYa™ (AUTO YA)

An AutoYa<sup>TM</sup> combines the characteristics of a Wah and a Flanger together creating an almost human vowel characteristic as if the guitar were saying "Yah." The AutoYa automatically provides this animation to the sound at an even rate.

**Pre/Post Amp - Knob 2** determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

**Speed - Knob 3** adjusts the speed of the AutoYa sweep. Ranges from  $\square$  to  $\square$ 9.

**Intensity - Knob 4** adjusts the intensity of the AutoYa effect. Ranges from  $\square$  to  $\square$ 9.

**Range - Knob 5** adjusts the throaty quality of the AutoYa effect. Ranges from  $\square$  to  $\square$ .

## YaYa™ (YA YA)

The YaYa<sup>†M</sup> is another effect exclusive to DigiTech products. Like the AutoYa, it combines the characteristics of a wah and a flanger together providing a unique talk box type of effect, but is controlled by the Expression Pedal.

**Pre/Post Amp - Knob 2** determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

**Pedal - Knob 3** adjusts the Ya pedal position. Ranges from  $\square$  to  $\square$ 9.

Intensity - Knob 4 adjusts the intensity of the YaYa effect. Ranges from  $\square$  to 99.

Range - Knob 5 adjusts the throaty quality of the YaYa effect. Ranges from 0 to 49.



## SynthTalk™ (5YNTHTLK)

SýnthTalk™ is another effect exclusive to DigiTech®. It makes your guitar appear to speak based upon the dynamics of your playing style.

**Pre/Post Amp - Knob 2** determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

**Attack - Knob 3** adjusts the attack of the synthesized voice. Ranges from  $\emptyset$  to 99.

**Release** - **Knob 4** adjusts the release of the synthesized voice. Ranges  $\Box$  to  $\Box\Box$  (infinity).

**Vox - Knob 5** changes the characteristics of the various synth voices. Ranges from  $\emptyset$  to 99.

**Sensitivity - Knob 6** adjusts the sensitivity of the input signal required to trigger the SynthTalk effect. Ranges from  $\emptyset$  to 99.

**Balance** (X-Edit<sup>TM</sup> only) - adjusts the left to right balance of the wet signal, Ranges from LEFT 99 to RT6HT 99.

## **Step Filter** (STEPFLTR)

The DigiTech Step Filter is like an automatic "random wah" with a square waveform.

**Pre/Post Amp - Knob 2** determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

**Speed - Knob 3** adjusts the speed of the Wah effect. Ranges from  $\square$  to  $\square$ 9.

**Intensity - Knob 4** controls the intensity of the Wah effect. Ranges from  $\square$  to  $\square$ 9.

## Sample Hold (SMPLHOL II)

The DigiTech Sample Hold randomly shifts the pitch of the note you're playing, creating an "electronic" or "robotic" sound.

**Pre/Post Amp - Knob 2** determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

**Speed - Knob 3** adjusts the speed of the Sample Hold effect. Ranges from  $\square$  to  $\square$ 9.

**Intensity - Knob 4** controls the intensity of the Sample Hold effect. Ranges from  ${\Bbb Q}$  to  ${\Bbb Q}{\Bbb Q}$ 



 $\begin{array}{l} \textbf{DigiTech Whammy}^{@} \ (\text{WHRMMY}) \\ \textbf{The DigiTech Whammy}^{@} \ is \ an \ effect \ that \ uses \ an \ Expression \ Pedal \ to \ bend \ the \ pitch \ of \ the \ \\ \end{array}$ incoming signal, or add a bendable harmony with the original signal. As the Pedal is moved, the note bends either up or down. When DigiTech Whammy is selected, it is automatically placed before the internal amplifiers as shown in the block diagram on page 13.

Pre/Post Amp - Knob 2 determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

Shift Amount - Knob 3 selects the interval and direction of the pitch bend. Choices are as follows:

Whammy <sup>™</sup> (no Dry Signal)		Harmony Bends (Dry Signal Added)		
I OCT UP	(I octave above)	EŪRM (ENM	(a minor third to a Major third)	
2 OCT UP	(2 octaves above)	5N3); M8U3	(a second above to a Major third	
SND IOMN	(a second below)		above)	
KEN SNI	(a second below reversed pedal action)	3R]]-; 4TH	(a third above to a fourth above)	
MMOE HTP	(a fourth below)		(a fourth above to a fifth above)	
I OET DN	(an octave below)	STHOCTUP	(a fifth above to an octave above)	
2 OCT IN	(2 octaves below)	H OCT UP	(one octave above)	
DIVEBOMB	(Dive Bomb)	H OCT IN	(one octave down)	
		OCTUP) IN	(octave up/down)	

**Pedal Position - Knob 5** provides a manual control of the Whammy pedal position. Ranges from  $\Omega$  to 99.

Mix - Knob 6 adjusts the Whammy mix. Ranges from 0 to 99.

## Pitch Shift (PITCH)

A Pitch Shifter copies the incoming signal, then shifts the pitch of the copy to a different note. The shifted note is then mixed back with the original signal, sounding as if two guitars were playing different notes.

Pre/Post Amp - Knob 2 determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

Shift Amount - Knob 3 selects the interval of the shifted pitch. Ranges from -24 (2) octaves below) to 24 (2 octaves above).

**Mix - Knob 6** controls the mix level of the shifted pitch. Ranges from 0 to 99.

## **Detune** (**JETUNE**)

A Detuner makes a copy of your incoming signal, takes the copied signal slightly out of tune from the original, then mixes the two signals together. The result is a doubling type of effect as if two guitars were playing the same part together.

Pre/Post Amp - Knob 2 determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

Shift Amount - Knob 3 adjusts the amount of detune shift. Ranges from -24 to 24

**Level - Knob 6** controls the mix of the detuned note. Ranges from  $\square$  to  $\square$  to  $\square$ .



Harmony Pitch Shifting (HARMONY)

Harmony Pitch Shifting makes a copy of the incoming signal, and then changes the pitch of the copied note to a diatonically correct interval specified by the Amount parameter. A Harmony Pitch Shifter sharpens or flattens the shifted pitch in order to keep the specified interval within the selected key and scale creating a true harmony.

**Pre/Post Amp - Knob 2** determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

**Shift Amount - Knob 3** selects the *amount* or *harmony interval* for the Harmony Pitch Shifter. Interval choices include:

OCT	M	(octave down)	ZN]	UP	(a second above)
778	$\mathbb{I}$	(a seventh below)	3R]]	UP	(a third above)
6TH	$\mathbb{I}$	(a sixth below)	YTH	UP	(a fourth above)
STH	$\mathbb{I}$	(a fifth below)	STH	UP	(a fifth above)
ЧTН	$\mathbb{I}$	(a fourth below)	6TH	UP	(a sixth abové)
3R]]	$\mathbb{I}$	(a third below)	778	UP	(a seventh above)
5N]	Μ	(a second below)	OC T	Пb	(an octave above)

**Key - Knob 4** selects the musical key that the HPS uses. Key choices range from the Key of E (KE $^{\times}$  E) through the Key of E, (KE $^{\times}$  E $^{\flat}$ ).

Scale - Knob 5 selects the scale the HPS will use. Scale choices include: Major (MRJDR), Minor (MINDR), Dorian (IDRIAN), Mixolydian (MIXDLYIN), Lydian (LYIIAN), and Harmonic Minor (HARMINR).

**Level - Knob 6** adjusts the HPS Level of all the pitch-altering effects in this module. Ranges from  $\square$  to  $\square \square$ .

## Boss® OC-2 Octaver™ (□[TRVER)

Based on the Boss® OC-2 Octaver<sup>TM</sup>, this adds two signals to your original guitar signal. The first is one octave below your guitar, and the second is two octaves below your guitar. Each additional signal has its own volume control.

**Pre/Post Amp - Knob 2** determines where the effect appears in the effects chain. Turn counter-clockwise for Pre (appears before the Distortion effect), or clockwise for Post (appears after the Noise Gate effect).

Octave I - Knob 3 adjusts the the volume of the signal I octave below the input signal. Ranges from  $\square$  to  $\square \square$ .

**Octave 2 - Knob 4** controls the volume of the signal 2 octaves below the input signal. Ranges  $\Im$  to  $\Im$ 9.

**Dry Level - Knob 6** controls the volume of the dry signal. Ranges from  $\square$  to  $\square$ .

## Delay

Delay is an effect that records a portion of the incoming signal, and then plays it back a short time later. The recording can repeat just once or several times.

**Delay - Knob I** selects one of the 7 different Delay types. Values include: ANALOG (DigiTech® Analog Delay), IM IELAY (Based on the Boss DM-2 Analog Delay), IIGITAL (DigiTech Digital Delay), MOIULATE (DigiTech Modulated Delay), PINGPONG (DigiTech Pong Delay), TAPE (DigiTech Tape Delay), ELHOPLEX (Based on the Maestro™ EP-2 Echoplex® Tape Echo), and REVERSE (DigiTech Reverse Delay). Press this knob to turn the Delays on and off.



Knobs 2-6 have the following functions for the various Delay Effects:

Delay	Knob 2 (Time)	Knob 3 (Repeats)	Knob 4 (Param. I)	Knob 5 (Param. 2)	Knob 6 (Delay Level)
RNRL OG	Time	Repeats			Delay Level
DM DELRY	Repeat Rate	Echo	Intensity		
DIGITAL	Time	Repeats	Ducker Threshold	Ducker Level	Delay Level
MOJULATE	Time	Repeats	Depth		Delay Level
PINGPONG	Time	Repeats	Ducker Threshold	Ducker Level	Delay Level
TRPE	Time	Repeats	Wow	Flutter	Delay Level
ECHOPLEX	Time	Repeats			Volume
REVERSE	Time	Repeats			Delay Mix

**Note**: The **Repeats** parameter (Knob 3) ranges from 0 to Repeat Hold ( $H\Box L \Box$ ) for all delays except the Echoplex® and DM-2. Repeat Hold is one click past 99, and acts as an infinite repeat.

### Reverb

Using reverb in recorded program material gives the listener a sense that the material is being performed in an actual room or hall. It is this similarity to actual acoustic spaces that makes reverberation a useful tool in recorded music. The RP500 features genuine Lexicon® reverbs, whose rich, lush effects have been heard in countless songs, soundtracks, and live performances for decades.

### **Reverb Types**

**Knob I** selects the Reverb Effect or acoustic space. Press this knob to turn the Reverb on and off. The following types are available:

TWNSPRNG - Based on a Fender® LEX ROOM - Lexicon Room Twin Reverb LEX HALL - Lexicon Hall LEXAMBNC - Lexicon® Ambience LEXSTUBO - Lexicon Studio - Lexicon Room EMT240 Plate

**Knobs 2-6** have the following functions for the various Reverb Effects:

Reverb	Knob 2 (Pre Delay)	Knob 3 (Decay)	Knob 4 (Liveliness)	Knob 6 (Reverb Level)
TWNSPRNG				Reverb
LEXAMBNE	Pre Delay	Decay	Liveliness	Reverb Level
LE×STUDO	Pre Delay	Decay	Liveliness	Reverb Level
LEX ROOM	Pre Delay	Decay	Liveliness	Reverb Level
LEX HALL	Pre Delay	Decay	Liveliness	Reverb Level
EMTPLRTE	Pre Delay	Decay	Liveliness	Reverb Level



## Section Four - Other Functions

CD/MP3 Input

The CD/MP3 Input allows you to connect an MP3 or CD player to the RP500 and jam with your favorite artists. The signal from your MP3 or CD player is output through the left, right, and headphone outputs of the RP500. To use the Aux Input, connect the headphone output of your MP3 or CD player to the **CD/MP3 Input** on the rear panel of the RP500 using an I/8" stereo cable, and press play on your MP3 or CD player. Use the playing device's volume control and the RP500's **Master Level** knob to balance the levels.

## Expression Pedal

The Expression Pedal on the RP500 can be linked to control the RP500's Volume, Wah, Whammy™, YaYa™, or almost any of the RP500's other parameters in real time with your foot. When a parameter has been linked to the Expression Pedal, a minimum (heel) and maximum (toe) value can also be specified. Apply extra pressure to the toe of the Expression Pedal to activate the V-switch, and the Expression Pedal switches between the linked parameter and the Wah. The procedure for linking a parameter to the Expression Pedal is as follows:

I. Press either **Edit** button until the Expression row has been selected (indicated by the LED lighting on the Expression row).

2. Rotate **Knob I** until EXP PEIL appears in the Display.

- 3. Rotate **Knob 2** until the desired parameter to be linked appears in the Display. 4. Rotate **Knob 3** to select the minimum (heel) value the assigned parameter will reach with the Expression Pedal in the toe up position.
- 5. Rotate **Knob 4** to select the maximum (toe) value the assigned parameter will reach with the Expression Pedal in the toe down position.
- 6. Store your Expression Pedal assignment to your preset. See page 12 for more information on the storing procedure.

### **LFOs**

The RP500 includes two assignable low frequency oscillators (LFO I and LFO 2) which can be assigned to any of the same parameters available for assignment to the **Expression Pedal**. A low frequency oscillator will automatically vary the value of the assigned parameter at a steady rate. A minimum and maximum value each LFO will reach may be also be assigned. For instance, if the Amp Gain was assigned to LFO I, and the minimum value was set at I and the maximum value was set at 99, the RP500 would automatically sweep the amount of distortion from a clean sound to a distorted sound. Individual LFO speeds are also available for assignment. In the previous example, the LFO speed would determine the length of time it took the LFO to sweep from the clean to the distorted sound. The procedure for assigning the LFOs in the RP500 is as follows:

- Press the **Edit** button until the Expression row has been selected (indicated by the LED lighting on the Expression row).
- 2. Rotate **Knob I** to select one of the two LFO links, LFO I (LF 1) or LFO 2 (LF 2).

3. Rotate **Knob 2** to select the parameter you want linked to the LFO I or LFO 2.

- 4. Rotate **Knob 5** to select which waveform you want the LFO to use, Triangle (TRIANGLE), Sine (SINE), or Square (SUHARE).
- 5. Rotate Knob 6 to select the speed you want the parameter to be controlled at.

#### Wah Min/Max

The Wah effect's minimum and maximum values can be edited via the Expression row. The procedure is as follows:

- Press the Edit button until the Expression row has been selected (indicated by the LED lighting on the Expression row).
- 2. Rotate Knob I to select WAH PEIL.
- 3. Rotate **Knob 3** to adjust the Wah effect's minimum value.
- 4. Rotate **Knob 4** to adjust the Wah effect's maximum value.



Expression Update

The RP500's Expression pedal has the option to update its position each time a preset change is made. The default behavior for the Expression pedal is to only update its position on a preset change when the Volume Pre or Volume Post parameter is linked within a preset. This lets the Expression pedal behave like a real volume pedal between preset changes. When Expression Update is enabled (ON), the Expression pedal will update its position regardless of the parameter linked, giving it more of an "analog" feel like a real expression pedal would behave.

To enable the Expression Update function, follow these steps:

- Press the Edit button until the Expression row has been selected (indicated by the LED lighting on the Expression row).
- 2. Rotate Knob I to select E×PUP∃RT. The default setting is for Expression Update is □F.
- 3. Press **Knob I** to enable or disable Expression Update.

Expression Update is a global function that affects the behavior for all presets. You do not need to save this change to each preset.

**Factory Reset** 

This function resets the RP500 to its original factory settings. This procedure erases all custom User presets, and recalibrates the Expression Pedal.

ATTENTION: Performing this function will erase all user-programmed data. All such data will be lost forever! Be sure you want to erase the memory and start fresh before continuing with this procedure.

The procedure for performing a Factory Reset is as follows:

- 1. Press and hold the **Store** button while powering up the RP500.
- 2. When the display prompts you with FALT RST, release the **Store** button, which is now flashing
- 3. Press and hold the flashing **Store** button for 3 seconds until RESTORE appears in the display and release. The Restore procedure takes several seconds to complete; during the procedure, the display will count up. After the Restore procedure is complete, the Expression Pedal calibration procedure will begin.

**Expression Pedal Calibration** 

The Expression Pedal on the RP500 needs to be recalibrated for use after a factory reset has been performed. This calibration procedure is automatically entered after a factory reset procedure. (You can also initiate the calibration procedure by pressing and holding the BYPASS footswitch for approximately 5 seconds.) In the event the Pedal's calibration fails, or if the Pedal does not function properly, it can be re-calibrated using the Pedal Calibration procedure. This will not erase the User presets. The procedure for Calibrating the Expression Pedal is as follows:

- 1. Press and hold the **Bypass Footswitch** until PE IRLEAL appears in the display (IYPASS, TUNER, and EXIT will be displayed before PEIRLEAL is accessed, after about 5 seconds.)
- 2. When the Display prompts you with TDE DOWN, rock the Expression Pedal forward (toe down) and press Footswitch 5 (Reverb).
- 3. When the Display prompts you with TDE UP, rock the Expression Pedal back (toe up) and press Footswitch 5 (Reverb).
- 4. The Display now prompts you to calibrate the V-Switch sensitivity (V SWITCHXXX), where XXX is the current V-Switch threshold. Rock the Expression Pedal forward and press firmly on the toe once to turn the V-Switch on (WAH DN), and again to turn the V-Switch off (WAH DFF).
- 5. If the V-Switch is too sensitive, press the **Up Footswitch** to raise the threshold (range is 0-199). The **Down Footswitch** decreases sensitivity. Keep testing the V-Switch sensitivity and adjust the threshold until it only engages when you want it to (too sensitive a setting will lead to the V-Switch falsely triggering on or off when using the Expression Pedal).
- 6. When the V-Switch sensitivity is set to your satisfaction, press **Footswitch 5 (Reverb)** to exit.

Note: If the Display shows ERRDR, an error has occurred and steps 2 through 5 should be repeated.



## **Section Five - Appendix**

## **Specifications**

**General Specifications** 

A/D/A Converter: 24-bit high performance audio

Sampling Frequency: 44.1 kHz

DSP Section: AudioDNA2™ DSP Processor

Simultaneous Effects: 10

Preset Memory: 100 User Presets (I-00) / 100 Factory Presets (FI-F00)

Dimensions: 19.5" Length x 8.625" Width x 2.75" Height

Unit Weight: 6.6 lbs.

**Analog Input Connections:** 

Guitar Input: I/4" Unbalanced (TS)

Input Impedance: 500k Ohms CD/MP3 Input: 1/8" Stereo (TRS)

### **Analog Output Connections:**

I/4" Outputs

Left/Right Outputs: 1/4" Impedance Unbalanced

Left/Right Output Impedance: 500 Ohms per side

Maximum Output: +10 dBu

XLR Outputs

Left/Right Outputs: Balanced
Left/Right Output Impedance: I kohm per side

Maximum Output: +16 dBu

Headphones: 1/8" Stereo (TRS) – 13.6mW per channel @ 50 Ohms

**Digital Connections:** 

Universal Serial Bus (USB): Type B, supports USB1.1 Full Speed (12 Mbps Bandwidth USB 2.0 compatible)

RP500 USB Recording Specifications: Sample Rate: 44.1 kHz

Bit depth: supports 16-bit or 24-bit (depends on setup in Recording Software)

**Power Requirements:** 

US and Canada: 120 VAC, 60 Hz Adapter: PS0913B-120

Japan: 100 VAC, 50/60 Hz Adapter: PS0913B -100

Europe: 230 VAC, 50 Hz Adapter: PS0913B -230

UK: 240 VAC, 50 Hz Adapter: PS0913B -240

Minimum Windows® PC Computer System Requirements:

Vista Home/Premium, XP Home/Professional (SP 2 installed, .NET Framework 2.0\* installed)

800 MHz processor speed (1.2 GHz recommended)

512MB RAM (IGB recommended)

### **Minimum Mac Computer System Requirements:**

OS 10.4.x, 10.5

PowerPC or Intel® G4, G5 processor 800 MHz (1.2 GHz

recommended)

512MB RAM (IGB recommended)

<sup>\* .</sup>NET 2.0 will be installed during installation of X-Edit software if required on XP systems



## **Tone Library**

**OVERDRIVE** COUNTRY 2 DISTORTION WARM DRIVE **HOT RAT** CRUNCH **TEXAS TONE SUSTAINER FUZZOH ROCKABILLY OVEREASY** SOLO I **DIRTY TUBES** SOLO 2 ROCK I **ROCK WAH** ROCK 2 **CHUNKY** BLUES I **SMOOTH** BLUES 2 **HEAVY** METAL I CLEAN I METAL 2 CLEAN 2

**BRITISH 2** AMERICAN I **AMERICAN 2 TUBE DRIVE** SCOOPED **PUNCHY BRIGHT CLEAN BIG PUNCH** SUPER GAIN **GRINDER BAD BOY LEGACY LEAD** 

## **Effects Library**

COUNTRY I

CUSTOM/CHORUS PHASER **FLANGER** PITCH **TREMOLO ROTARY ENVELOPE FILTER DIGITAL DELAY** ANALOG DELAY PONG DELAY MODULATED DELAY TAPE DELAY

HALL REVERB PLATE REVERB SPRING REVERB CHORUS-DELAY FLANGER-DELAY PHASER-DELAY PHASER-MOD DELAY PHASER-REVERB DIGITAL DELAY-REVERB

BRITISH I

CHORUS-REVERB PONG DELAY-HALL RE-**VERB** TAPE DELAY-SPRING RE-

**VERB** 

CHORUS-DLEAY-REVERB DELAY-SPRING REVERB

MOD DELAY-PLATE REVERB ROTARY-DELAY **ENVELOPE-REVERB** VIBRO-DELAY ROTARY-DELAY-SPRING SLOW SWEEP VIBROPAN VIBE-DELAY OCTAVE ROOM A MAJOR

TREMOLO-TAPE DELAY

PITCH-DELAY

TRIPLET DELAY

**SPACIOUS** 





DigiTech® 8760 South Sandy Parkway Sandy, Utah 84070 PH (801) 566-8800 FAX (801) 566-7005 http://www.digitech.com

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