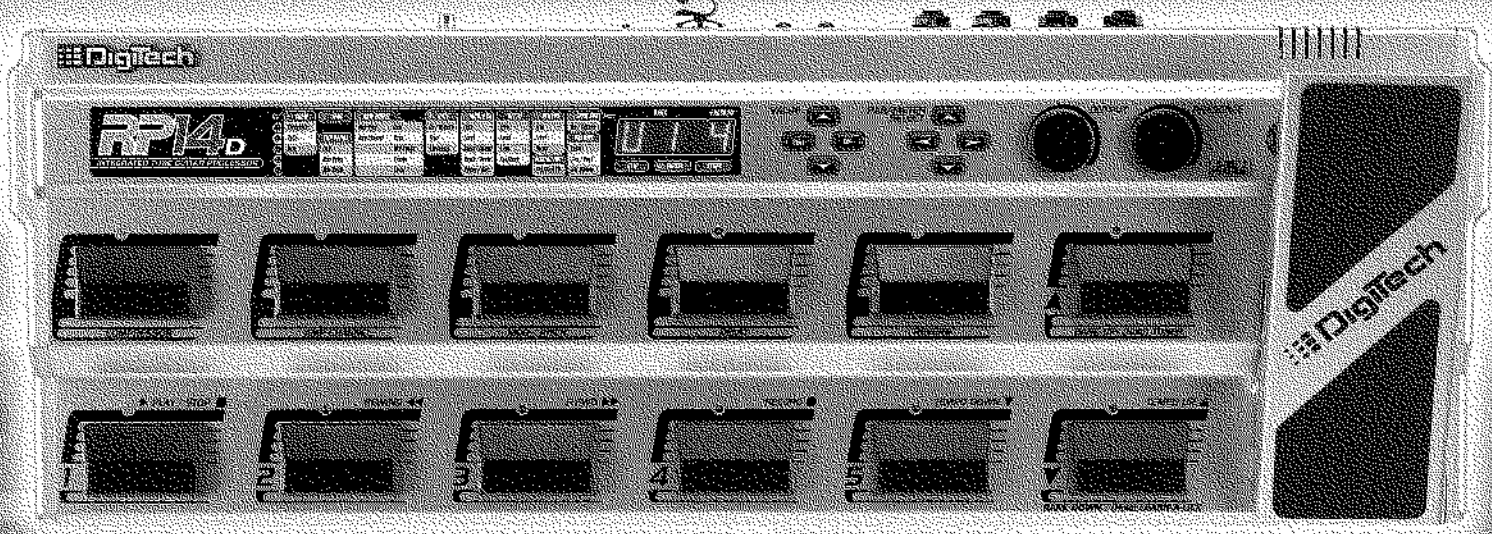
RP14D

INTEGRATED TUBE GUITAR PROCESSOR



USER'S GUIDE

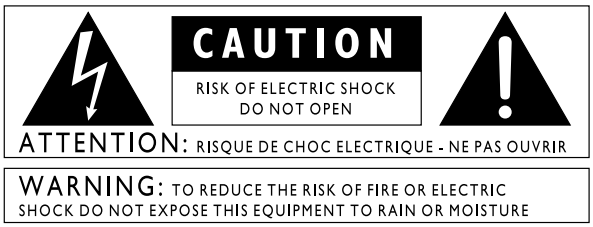
DigiTech

8760 South Sandy Parkway, Sandy, Utah, USA

Visit us on the World Wide Web at: www.digitech.com

A Harman International Company

IMPORTANT SAFETY INSTRUCTIONS



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 equilateral triangle indicates that it is necessary for the user to refer to the owner's manual.

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

U.K. MAINS PLUG WARNING

A moulded mains plug that has been cut off from the cord is unsafe. Discard the mains plug at a suitable disposal facility. **NEVER UNDER ANY CIRCUMSTANCES SHOULD YOU INSERT A DAMAGED OR CUT MAINS PLUG INTO A 13 AMP POWER SOCKET.** Do not use the mains plug without the fuse cover in place. Replacement fuse covers can be obtained from your local retailer. Replacement fuses are 13 amps and MUST be ASTA approved to BS1362.

SAFETY INSTRUCTIONS

NOTICE FOR CUSTOMERS IF YOUR UNIT IS EQUIPPED WITH A POWER CORD.

WARNING: THIS APPLIANCE MUST BE EARTHED.

The cores in the mains lead are coloured in accordance with the following code:

GREEN and YELLOW - Earth BLUE - Neutral BROWN - Live

As colours of the cores in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The core which is coloured green and yellow must be connected to the terminal in the plug marked with the letter E, or with the earth symbol, or coloured green, or green and yellow.
- The core which is coloured blue must be connected to the terminal marked N or coloured black.
- The core which is coloured brown must be connected to the terminal marked L or coloured red.

This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. If the attachment plug needs to be changed, refer servicing to qualified service personnel who should refer to the table below. The green/yellow wire shall be connected directly to the unit's chassis.

CONDUCTOR		WIRE COLOR	
L	Line	Brown	Black
N	Neutral	Blue	White
⏚	Earth Grnd.	Green/Yel.	Green

WARNING: If the ground is defeated, certain fault conditions in the unit or in the system to which it is connected can result in full line voltage between chassis and earth ground. Severe injury or death can then result if the chassis and earth ground are touched simultaneously.

WARNING

FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING:

KEEP THESE INSTRUCTIONS

HEED ALL WARNINGS

FOLLOW ALL INSTRUCTIONS

CLEAN ONLY WITH A DAMP CLOTH

DO NOT BLOCK ANY OF THE VENTILATION OPENINGS, INSTALL IN ACCORDANCE WITH THE MANUFACTURERS 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

WATER AND MOISTURE: Appliance should not be used near water (e.g. near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

POWER SOURCES: The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

GROUNDING OR POLARIZATION: Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

POWER CORD PROTECTION: Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

SERVICING: To reduce the risk of fire or electric shock, the user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

FOR UNITS EQUIPPED WITH EXTERNALLY ACCESSIBLE FUSE RECEPTACLE: Replace fuse with same type and rating only.

MULTIPLE VOLTAGE INPUT: This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. Connect this equipment only to the power source indicated on the equipment rear panel. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel or equivalent.

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.

LITHIUM BATTERY WARNING

CAUTION!
This product may contain a lithium battery. There is danger of explosion if the battery is incorrectly replaced. Replace only with an Eveready CR 2032 or equivalent. Make sure the battery is installed with the correct polarity. Discard used batteries according to manufacturer's instructions.

ADVARSEL!
Lithiumbatteri - Eksplosjonsfare. Ved utskifting benyttes kun batteri som anbefalt av apparatfabrikanten. Brukt batteri returneres apparatleverandøren.

ADVARSEL!
Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri av samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

VAROITUS!
Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

VARNING!
Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

DECLARATION OF CONFORMITY

Manufacturer's Name: ***Digitech Electronics***
Manufacturer's Address: 8760 S. Sandy Parkway
Sandy, Utah 84070, USA

declares that the product:

Product Name: ***RP14D***
Product Options: All (requires a Class II power adapter that conforms to the requirements of EN60065, EN60742, or equivalent.)

conforms to the following Product Specifications:

Safety: EN 60065 (1993)
IEC 65 (1985) with Amendments 1, 2 & 3

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

Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC and EMC Directive 89/336/EEC as amended by Directive 93/68/EEC.

Digitech
President of Digitech
8760 S. Sandy Parkway
Sandy, Utah 84070, USA
Tel: 801-566-8800
Fax: 801-566-7005

Effective May 31, 1999

European Contact: Your Local Digitech Sales and Service Office or

International Sales Office
8760 S. Sandy Parkway
Sandy, Utah 84070, USA
Tel. 801-568-7638
Fax 801-568-7642

Warranty

We at ***Digitech*** are very proud of our products and back-up each one we sell 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. 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.

Table of Contents

Section-1 Introduction

Congratulations on your purchase of the Digitech RP14D!

The DigiTech RP14D is the perfect sound shaping tool for the serious guitarist. The RP14D's Amp Modeling utilizes the warmth and dynamic response that only a real 12AX7 tube can provide and is complimented by a library of the best effects available. The simple user interface lets you quickly create Programs and assign functions to the built in expression pedal.

Included Items

Your RP14D was carefully assembled and packaged at the factory. Before you proceed any further, make sure the following items are included:

- **(1) User's Guide**
- **(1) RP14D Preamp Processor**
- **(1) DigiTech Warranty Card**
- **(1) PS0920 Power Supply**

Please take a moment to fill out the warranty registration card, and be sure to save all packing materials. The warranty is your safeguard in the unlikely event that the unit requires servicing, and the packing materials should be used to return the unit.

Once again, thank you for your purchase, and enjoy your RP14D.

Product Features:

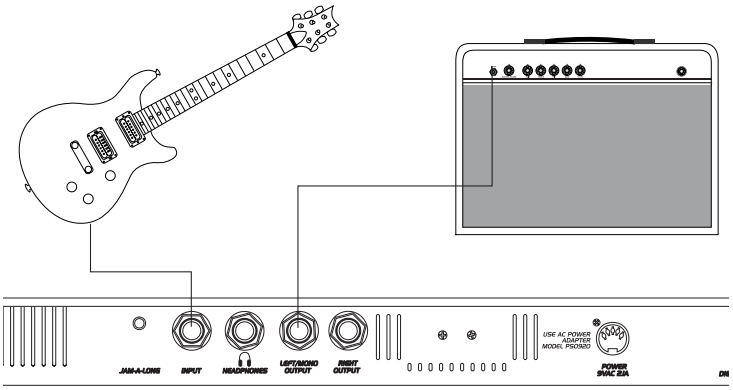
- **Integrated Amp Modeling Utilizing a 12AX7 Tube Preamp**
- **50 User/50 Factory Dual Channel Presets**
- **Full Band Width Effects (20 Hz-20 kHz)**
- **Learn-A-Lick**
- **Jam-A-Long**
- **Analog Wah**
- **24 Bit A/D/A Converters**
- **S-DISC II Processing**
- **Speaker Cabinet Simulator**
- **Built-in Expression Pedal for Real Time Control of Parameters**
- **S/PDIF Digital Output**
- **Chromatic Tuner**
- **Volume Pedal Update**

Quick Start

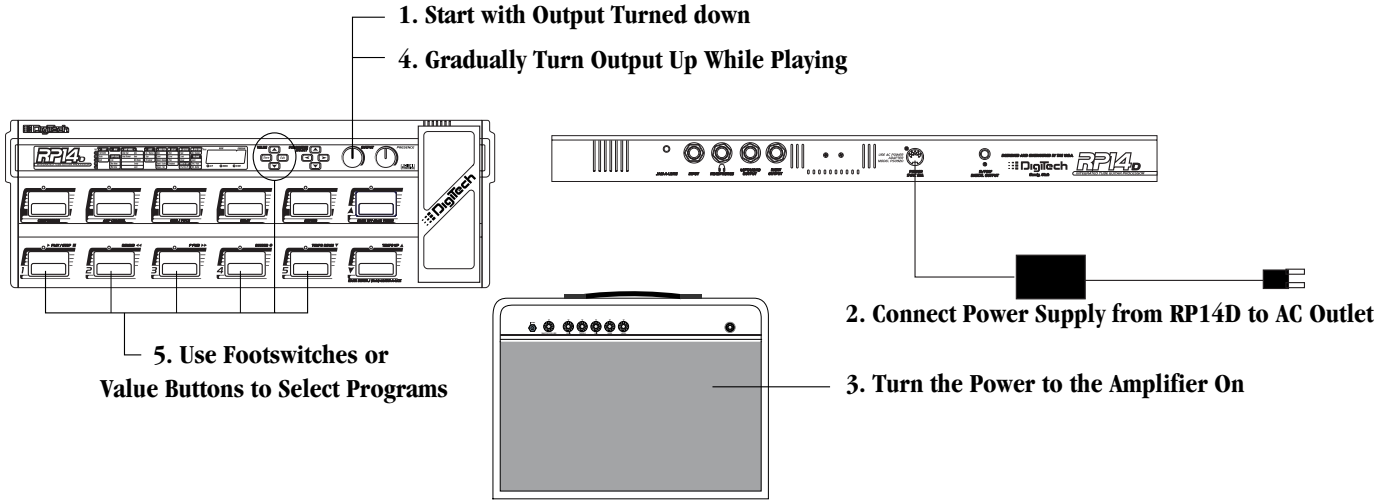
The RP14D comes with 50 pre-Programmed factory Programs, and 50 user Programs. From the factory, the user Programs are exact duplicates of the factory Programs. This allows you to experiment without running the risk of losing any of the original sounds contained in the RP14D.

For those of you who prefer to burn now and read later, we've included this Quick Start section to get you up and running.

Making Connections:
Connect your instrument to the input jack on the rear panel. Connect from the Left Output (for mono operation), or the Left and Right Outputs (for stereo operation) to the input(s)of your amplifier(s) or power amp.



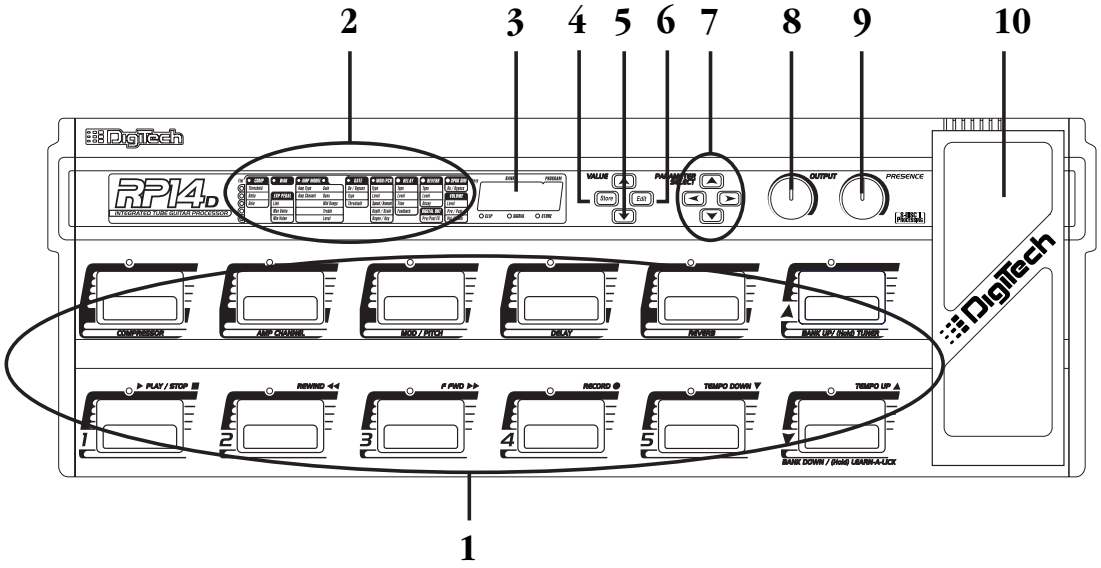
Apply Power:
Turn the Output knob on the front panel of the RP14D all the way down (fully counter clockwise). Connect the plug of the PS0920 power supply to the power jack on the RP14D. Connect the other end of the PS0920 power supply to an AC outlet. Turn the power of your amplifier(s) to the on position and adjust the volume(s). Gradually increase the RP14D Output knob to achieve the desired volume.



Select Program:
Use the 1-5 Footswitches or the Value Up and Down buttons to select different Programs. Once you have found Programs that suit your taste, you can alter the sounds to your specific needs. By pressing the Edit button and then using the Parameter Left and Right buttons, you can access any of the effects contained within the selected Program. The Parameter Up and Down buttons will select the specified parameters related to each effect. Use the LED Matrix to choose the parameter you wish to edit. Follow the rows and columns across and down to the point where the vertical and horizontal LEDs intersect. That will show you the parameter you are about to edit. Once a parameter has been selected, you may increase or decrease the parameter value with the Value Up and Down buttons to your liking. Remember that you are not at risk of losing any sounds so, don't be afraid to experiment.

A Guided Tour of the RP14D

The Front Panel



1. Footswitches - The footswitches are used to select Programs, change Banks, access the Tuner, turn individual effects on and off, change Amp Channels, select functions in Learn-A-Lick mode, or bypass the RP14D.

2 Matrix - The matrix provides all information regarding the current Program, parameter edit functions, and tuning status. While in program mode, the horizontal LEDs of the Matrix will provide a visual indication of which effects are in use for the current program. While in Edit mode, the horizontal LEDs will indicate which effect is being edited, and the vertical LEDs will indicate the effects parameter that has been selected. Following the horizontal and vertical LEDs across the matrix to the point where they intersect will indicate which parameter is selected. The Parameter buttons will select different effects or parameters which will be represented by the corresponding LEDs lighting. In Tuner mode, the horizontal LEDs indicate whether you are sharp, flat, or in tune. In Learn-A-Lick mode, the horizontal LEDs provide a timing reference for record and playback.

3. Numeric Display - The Numeric Display performs several different functions depending on the mode that has been selected. In Program mode, the Numeric Display will show the currently selected Bank and Program number and momentarily flash the active Amp Model when the Amp Channel is switched. In Edit mode, the Numeric Display will show the value of the currently selected parameter. In Tuner mode, the Numeric Display will show the note played.

4. Store Button- The Store button is used to save your custom edits to the user Programs.

5. Value Up/Down Buttons - The Value Up and Down buttons serve a dual purpose. In Program mode, they will advance and decrement through all factory and user Programs. In Edit mode, they will increase or decrease the value of the currently selected parameter.

6. Edit Button - This button will take you in and out of the Edit mode.

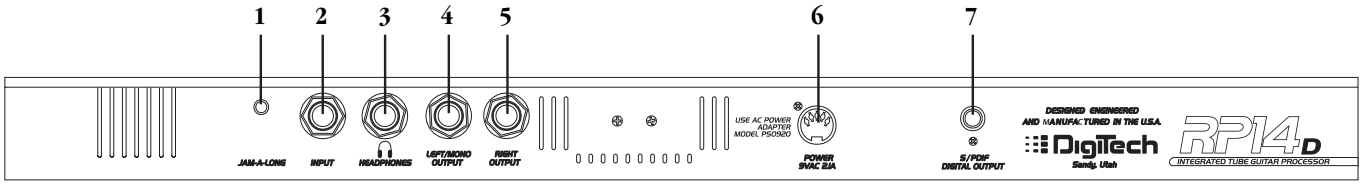
7. Parameter Select Buttons - The Parameter buttons are used to select the effects, and parameters to edit. The Left and Right Parameter buttons are used to select the Effect which will be represented by the horizontal LED. The Up and Down Parameter buttons are used to select the Parameter of the selected Effect. Simply follow the horizontal and vertical LEDs across the Matrix to the point where they intersect. This will be the parameter you are about to edit.

8. Output Level - This knob controls the level of signal coming out of the RP14D.

9. Presence - This knob adjusts a global high end boost to the all Programs.

10. Expression Pedal - The Expression Pedal is used for real time control of parameters during performance. This pedal may control Volume in one Program, Wah in another Program, or control the Delay Level in yet another Program. Individual boundaries may be set up for the minimum and maximum parameter values that will be accessed by the Expression Pedal. See page 11 for more on making expression pedal assignments.

Rear Panel



1. Jam-A-Long Jack - This is where you connect a tape or CD player in order to jam along with the music, or for the purpose of recording a lick into the Learn-A-Lick phrase recorder. See page 9 for more on using the Jam-A-long and Learn-A-Lick function.

2. Input Jack - This is where signal enters the RP14D. Connect your instrument to this jack.

3. Headphone Output - Connect stereo headphones to this jack. Do not connect a mono jack here as doing so may damage the output driver.

4. Left/Mono Output - If the RP14D is to be used in a mono application, connect from this jack to the input of your amplifier. If the RP14D is used in a stereo application, connect this output to the left input of a stereo power amp.

5. Right Output - Use this jack in conjunction with the Left/Mono Output for stereo applications. Connect from this output to the input of a second amplifier, or the right input of a stereo power amp.

6. Power Input - This connector is used to power the RP14D. Use only the DigiTech PS0920 power supply provided.

7. S/PDIF Output - This is the digital output from the RP14D. The signal at this output is in a digital format, and is to be connected to a digital S/PDIF input such as those found on digital recording devices.

Getting Started

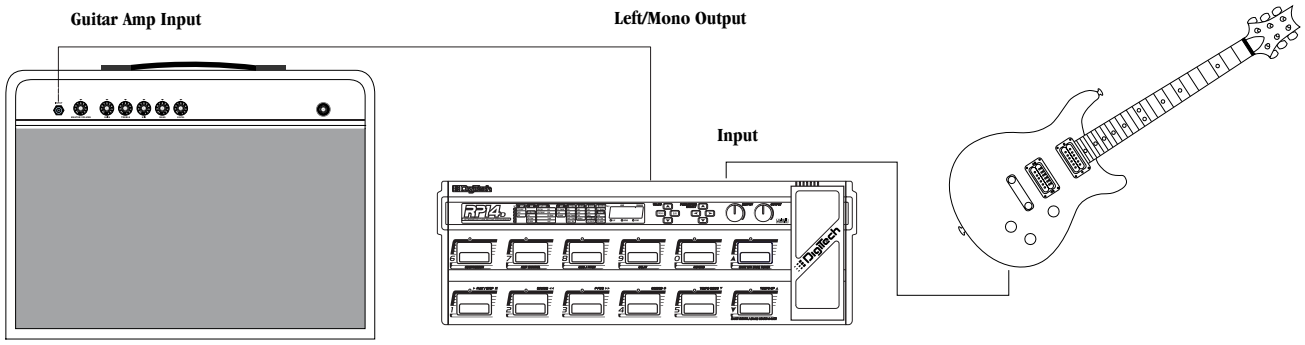
Making Connections

Before connecting the RP14D, make sure that the power to your amplifier is turned off, and that the power to the RP14D is disconnected. There is no power switch on the RP14D. To turn the RP14D on, simply plug the power supply in to an AC outlet. To turn the RP14D off, unplug the power supply from the AC outlet.

There are several different amplification options available when using the RP14D. You may run mono into an amp or power amp, stereo into two amps or a stereo power amp, direct into a mixing console, or a combination of amp(s) and mixing console. The following diagrams show the connections for some of these options.

Mono Operation

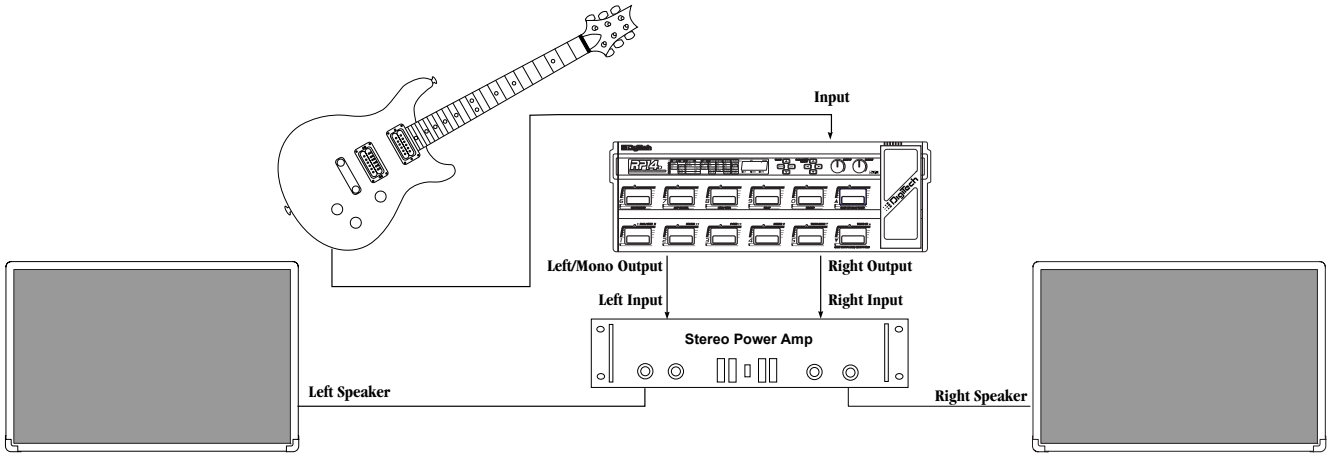
Connect your guitar to the input of the RP14D. Connect the Left/Mono output of the RP14D to the instrument input on your amplifier, or to the line input of a power amp.



Stereo Operation

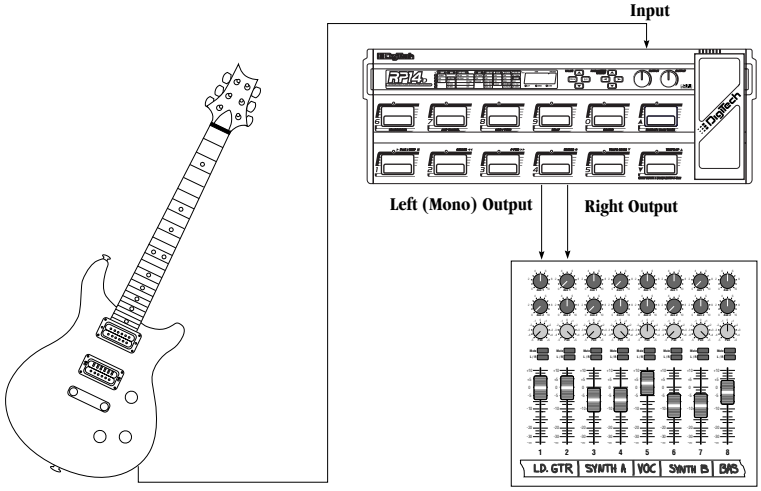
For stereo operation connect the guitar to the input of the RP14D. Connect from the RP14D's Left/Mono output to the input of one amplifier or channel of a power amp. Connect from the Right output of the RP14D to a second amplifier, or to a second channel of a power amp.

NOTE: The RP14D is a preamp. Running The RP14D signal into the input of a combo guitar amplifier will preamplify the signal again adding noise and possibly feedback. When using a guitar amp, it is best to connect the guitar to the input of the RP14D and the output of the RP14D to the effect return of the amplifier.



Direct to a Mixing Console

The RP14D can be connected directly to the inputs of a house PA system, or to a recording console. Connect the guitar to the input of the RP14D, and from the outputs of the RP14D to the channel inputs of the mixing console. Be sure to engage the RP14D's Speaker Simulator in this application. See page 21 for more on selecting the Speaker Simulator.



S/PDIF Digital Output

The RP14D includes a digital S/PDIF output enabling you to eliminate multiple analog to digital, and digital to analog conversions when recording digitally. Simply connect from the S/PDIF output of the RP14D to the S/PDIF input on your digital mixer or recorder. You must have S/PDIF inputs on the receiving device in order to use this output. You may use the analog and digital outputs of the RP14D simultaneously.

ATTENTION: Do not connect the S/PDIF output to analog auxiliary, CD, phono, or tape inputs on consumer electronic devices. It is not compatible with these inputs.

Applying Power

Once the audio connections have been made, turn the Output Level all the way down (counterclockwise). Connect the 4 pin connector of the power adapter to the power jack on the back of the RP14D and the other end to an AC outlet. Turn the power to your amplifier(s) on. Set the amp(s) to a clean tone setting and set the tone controls to a flat EQ response (on most amps, this would be 0 or 5 on the tone controls). Turn the Output Level of the RP14D up to achieve the desired volume level.

About the RP14D

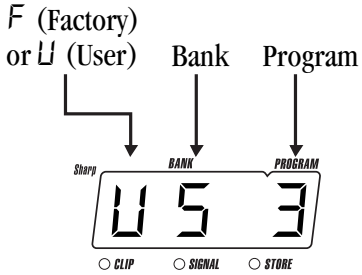
Program Mode

When you first apply power to the RP14D, it will power up in Program mode. Program mode is the mode used while you are performing. While in Program mode, the Numeric Display will show the currently selected Program and the horizontal LEDs on the Matrix will indicate the Effects which are active in the Program. Using the bottom row of footswitches selects different Programs, the top row will turn effects on and off within the Program, and the expression pedal will control the parameter assigned to it. The Bank Up switch will advance Banks or access the Tuner if held down, and the Bank Down switch will decrement Banks or access the Learn-A-Lick mode if held down.

The Programs

Programs are numbered locations of sounds that have been programmed into the RP14D. Programs can be recalled with the footswitches or the Value Up and Down buttons. The RP14D comes with 50 factory and 50 user Programs available. The factory Programs will not allow you to store any changes to them. The user Programs are locations where your creations may be stored. You will notice that the 50 user Programs are exact duplicates of the 50 factory Programs. This allows you to make your own Programs without worrying about losing any of the sounds that the RP14D came with.

When you select a Program, the number of the Program will be shown in the Display. The first digit in the Display will either be a U or an F to indicate whether the Program is a User Program or a Factory Program. The second digit of the Display will represent the current Bank number between 1 and 10, and the third digit will represent the program number (between 1 and 5) within that Bank .



The Footswitches

The RP14D has 12 footswitches which perform different functions. These functions are permanently assigned and cannot be changed. Footswitches 1-5 will select Programs 1-5 in every Bank. The top row of footswitches will will turn effects on or off within a Program, or change Amp Channels. Depending on which effects are active in the current Program, these switches may have one or more LEDs lit, indicating the status of these effects. The Channel Footswitch will light either green or red indicating which Amp Channel is selected. The Bank Up and Bank Down switches on the far right (next to the expression pedal) will advance or decrement banks. Pressing and holding the Bank Up switch will access and exit the Tuner mode. Pressing and holding the Bank Down switch will access and exit the Learn-A-Lick Mode.

The Expression Pedal

As you go through the different Programs that came in the RP14D, you will find that the expression pedal has different functions. This pedal can be assigned to control any one of 13 different parameters in the RP14D. Rocking the pedal back and forth will change the value of the parameter that the pedal has been assigned to control. You can assign minimum and maximum values (stop points) for each parameter that you control with the pedal. For more on assigning the expression pedal, see page 11.

The Bypass Mode

The RP14D can be bypassed for a clean, unprocessed, straight guitar tone. To bypass the RP14D, press the active 1 - 5 footswitch (the Footswitch which has a lit LED above it). This disengages all Modeling and effects. The Display will flash between bYPS and the current Bank and Preset number. The Footswitch LED will also flash indicating Program Bypass. Pressing this switch again will exit Bypass and return to the last program used. Pressing any other Program Footswitch will exit bypass and load the program assigned to the Footswitch that was pressed.

Section Two - Editing Functions

Creating Programs

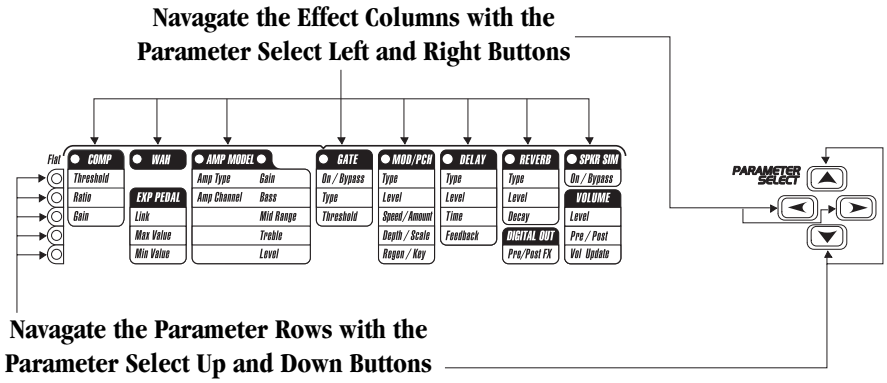
Creating your own signature sound with the RP14D is easy and intuitive. The RP14D lets you create your own Programs, or fine tune existing Programs to suit your needs. Editing and creating is a very simple process that doesn't require a lot of time dedicated to learning the menus. Once a Program has been edited to your liking, you may store those settings to any of the 50 User Program locations. Remember that the User Programs are duplicates of the Factory Programs so, you are not at risk of losing any of the sounds that the RP14D came with.

Editing a Program

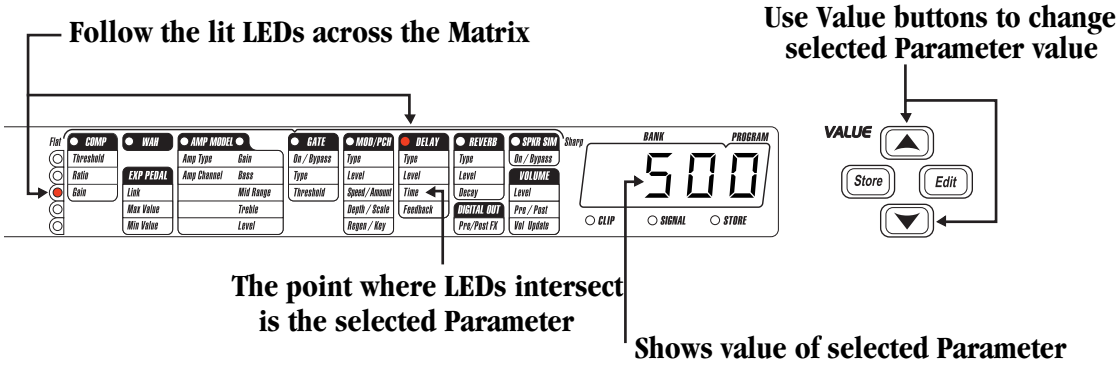
When creating or editing a sound, you must first start by choosing a Program. The Program number does not necessarily need to be the location which you intend to have it reside, as you can save your creation to any User Program number during the store process. You do have to start with one of the User or Factory Programs. It is not possible to start with a completely empty Program. Pick a Program which will be your starting point by using the Value Up and Value Down buttons. Once you have found a Program that you wish to edit, press the Edit button once. This will take you into the editing mode. Pressing the Edit button again will exit Edit mode.

The Matrix

The Matrix is your guide to creating your sound as it shows you which effect and which parameter of that effect has been selected for editing. In the editing mode, one LED will light in the vertical row of LEDs, and one will light in the horizontal row of LEDs of the Effect Matrix. The Left and Right Parameter Select buttons are used to select the Effect that you want to Edit. The currently selected Effect will be represented by a lit LED over the selected Effect column. The Parameter Select Up and Down buttons are used to access the Parameter of the currently selected Effect. This will be represented by the lit LED in the vertical row of LEDs on the left side of the Matrix.



Simply follow the two LEDs across the matrix to the point where they intersect to determine the parameter that you are about to edit. The Numeric Display will show the value of the currently selected effect parameter. The Value Up and Value Down buttons will increase or decrease the value of the parameter that has been selected and you will hear the change in real time. When changing Parameter values, the Store LED will light indicating the value shown is not the stored value for the parameter in the current program. If you return to the original value, the Store LED will go off. If you exit Edit mode after changing the Parameters and then return to Edit mode, the last viewed Parameter will be displayed.



Storing/Copying a Program

Once you have modified the Parameters and Effects to your liking, you can store them to a user Program location. When editing a Program, the Store LED will light indicating that you have changed a Parameter and need to store the changes. The following steps outline the procedure for storing a preset:

1. Press the Store button once and the first seven segment LED in the Display window will flash U. This is asking you to select a User Bank and Program location that you want to store your sound to.
2. Select the User Bank and Program location using the Value Up and Down buttons.
3. Press the Store button again to save the changes.

The procedure for copying one program to another program location is almost the same. Simply use the Value Up and Down buttons to select the Program that you want to copy, then follow the steps listed above.

Tuner Mode

Allows you to quickly tune or check the tuning on your guitar. Enter Tuner mode by pressing and holding the Bank Up footswitch. The Display will briefly show tunr followed by - - - - to indicate 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 display window will show the note being played and the horizontal Parameter Matrix LEDs will light. Once the green LED directly over the Gate effect column is lit, the note will be in tune. LEDs to the left of the green center LED indicate the note is flat and should be tuned up. LEDs to the right indicate the note is sharp and should be tuned down.

In Tuner mode, you can change your tuning reference by using the Value Up and Down buttons. The default factory setting is : A=440 Hz. The tuning reference control ranges from 427 Hz to 453 Hz, which is the equivalent of ± 50 cents (1/2 semitone) in either direction form 440 Hz. When you scroll down from 427 Hz, you will also find alternate dropped tunings. Alternate tunings are A = Ab (415), A = G (392), and A = Gb (369). The display window will briefly flash the currently selected tuning preference.

Exit tuner mode by pressing any of the footswitches.

Learn-A-Lick Mode

The Learn-A-Lick function allows you to record a 12 second passage of music and play it back as slow as 1/4 speed with no change in pitch. This is very useful for picking out the notes of a fast solo passage.
There are 6 functions for Learn-A-Lick. They are:

- Play / Stop
- Rewind
- Fast Forward
- Record
- Tempo Up
- Tempo Down

Using Learn-A-Lick

1. Connect the output of your CD or tape player headphone output to the Jam-A-Long input jack on the rear panel using an 1/8" stereo connector. Set the level of the CD/tape player to a desired listening level.
2. Cue up to the passage you want to record and hit pause on the CD or tape player.
3. Press and hold the Bank Down Footswitch to enter Learn-A-Lick mode. The display will read: LAL.
4. Release the pause button on your playback device and press the number 4 (Record) Footswitch when you are ready to begin recording the passage. The display will read: rEC and recording will begin. The vertical LEDs provide a time elapsed reference by lighting one at a time while recording. When recording is completed, the phrase will be set to an auto-loop playback mode. Stop or press pause on the CD or Tape player.
5. Pressing the Tempo Down Footswitch will slow the playback down to 1/4 speed in 1/8th speed intervals.
6. Pressing the Tempo Up Footswitch will increase the playback speed to normal speed at 1/8th speed intervals.
7. Pressing the Rewind Footswitch steps back through the loop at 1/2 second intervals.
8. Pressing the F Fwd Footswitch steps forward through the loop at 1/2 second intervals.
9. The Expression Pedal will control output level of the recorded phrase.
10. To record a new passage, press the Record Footswitch again.
11. To exit the Learn-A-Lick mode, press and hold the Bank Down Footswitch.

Section Three - Effects and Parameters

About the Parameter Matrix

The Parameter Matrix displays all the Effects and Parameters found in the RP14D. The Parameters are arranged in horizontal rows and the Effects are in vertical columns. Use the Parameter Select keys to navigate the matrix. The Effects and their Parameters are as follows:

Compressor

Parameters	Displayed Values
Threshold	-60 . . . 0
Ratio	1.5 1 . . .oo 1
Gain	0 30

The RP14D's Compression can be used to increase sustain, tighten up guitars, and add texture. A Compressor sets boundaries for a signals strength. When a signal exceeds the set boundary, the compressor squeezes the signal back into the set boundary. As the signal fades to a point where it no longer exceeds the boundary, the compressor gives back the decibels that had been compressed, which expands the signal strength giving increased sustain. The LED above the Compressor footswitch will change from red to yellow indicating when the threshold has been exceeded and compression is taking place. Parameters of the RP14D compressor are as follows:

Threshold This parameter tells the Compressor when to start compressing. It is the signal strength required before the compression kicks in. Parameter ranges from -60 dB to 0 dB. Low Threshold settings (larger negative numbers) will activate the Compressor with weaker signals. Higher settings will require a stronger signal to activate compression.

Ratio Controls the amount of compression applied to the signal once the Threshold has been exceeded. A Ratio of 2:1 means that when an incoming signal exceeds the threshold by 2 dB, the compressor will only allow the output signal to increase by 1 dB. Higher settings yield a tighter, more focused sound and increased sustain, while lower settings allow better dynamics. Ranges from 1.5:1 to infinity:1.

Gain This is the output volume from the Compressor. Ranges from 0 dB to 30 dB in 1 dB increments. This parameter should be used to balance the level of the Compressor in order to achieve unity gain. It is possible to clip other effects in the RP14D by setting the Compressor Gain too high.

Wah Wah

The RP14D offers a classic analog Wah Wah effect. The Wah is controlled by the Expression Pedal.

On / Off The on/off function of the Wah is controlled through a switch under the toe of the Expression Pedal. Engaging this switch will over ride the Expression Pedal assignment making the Expression Pedal act as a Wah. The Wah LED in the matrix indicates the current status of the Wah effect. Upon disengaging this switch, the Expression Pedal will revert back to controlling the assigned Parameter for the current Program.

Expression Pedal

Parameters	*Displayed Values*
Link	See Chart Below
Max Value	Parameter dependent
Min Value	Parameter dependent

The RP14D's Expression Pedal allows you to control various Parameters in real time during performance. To assign a parameter to be controlled by the Expression Pedal, you must first enter the Edit mode. Use the Parameter Right or Left buttons to select the second column from the left. Then use the Parameter Up or Down buttons to select the Link Parameter (third LED down from the top). At this point the Display will show OFF, or one of the Parameter abbreviations. The Parameters and their abbreviations available for Expression control in the RP14D are listed below. Use the Value Up or Down buttons to select the Parameter you wish to control. You can then set minimum and maximum values which are stop points for the top and bottom positions on the Expression Pedal. Only the Parameters associated with the currently loaded Modulation/Pitch effect will be displayed while assigning the Expression Pedal. If no link is assigned, the RP14D will default to a volume assignment.

Link This is where you choose the Parameter that you wish to control with the Expression Pedal. The parameters available for Expression Pedal assignment are as follows:

Parameters	*Display Value*
Amp Gain	GAin
Modulation Level	odul
Modulation Speed	SPEd
Modulation Depth	dPth
Mod Regeneration	rEGn
Amount	An-it
Harmony Scale	SCAL
Harmony Key	HEY
Whammy	bEnd
Delay Level	dLYL
Delay Feedback	FEEd
Reverb Level	rEbL
Volume	UoL

Max Value Sets the maximum value that the parameter assigned to the Expression Pedal will reach when the Pedal is in the forward position. Range varies according to the parameter selected.

Min Value Sets the minimum value that the parameter assigned to the Expression Pedal will reach when the Pedal is in the back position. Range varies according to the parameter selected.

Note: Engaging the Wah with the toe switch under the Expression Pedal will override the Expression Pedal assignment and replace the controlled Parameter with the Wah function until it is disengaged.

Amp Model Column One

Parameters	*Displayed Values*
Amp Type	CLn . . . AC4 (see list below)
Amp Channel	Grn - rEd

Amp Model Column Two

Parameters	*Displayed Values*
*Gain **	1.0 . . . 11.0
Bass	0 . . . 10
Mid Range	0 . . . 10
Treble	0 . . . 10
Level	0 100

The RP14D has several extremely flexible Amp and acoustic Guitar Models. These Models are capable of producing emulations of popular tube amps and effects pedals giving you the smoothest of the blues tones to the full shred gain of a cranked up stack, as well as acoustic guitar simulations. The Models include two channels (red and green). Separate Models, Gain, EQ, and Level settings can be assigned to each. You can then toggle between Amp Channels using the Channel footswitch. The LED above the Channel footswitch will light either red or green indicating which channel is active. The Amp Model Effect occupies two columns on the Matrix. The first press of the Edit button will automatically default the RP14D to the first Amp Model column. Using the Value Up or Down buttons will select the Type of Amp Model that you want. The Left and Right Parameter Select buttons provide access to the two Amp Model columns, and the Up and Down Parameter Select buttons are used to select the Parameters of the Amp Models.

Note: For the best results with the acoustic simulators, the neck pick up is recommended.

The following parameters can be found in the two Amp Model columns:

Column One

Amp Type Selects the type of Amp Model used. The Models in the RP14D are:

StAc - a modern American Stack
rEct - a Dual Rectifier
HIGn - a high gain distortion
Fuzz - a full frequency fuzz pedal
brit - a modern British Stack
bout - a modern Class A combo
bLuE - an authentic blues tube tone
tu in - a classic American Twin combo
CLSA - a British Class A combo
CLn - no distortion, but active EQ
AC 1, AC3 - acoustic guitar simulations for humbuckers.
AC2, AC4 - acoustic guitar simulations for single coil.

Amp Channel Selects between the two channels, Grn (green) and rEd (red).

Column Two

Gain Controls the amount of distortion produced by the RP14D. High settings produce greater distortion drive for effortless soloing, while low settings offer better nuance and dynamic control. Ranges from 1 to 11.0. The Gain control parameter is not available in the Acoustic or Clean preamp types.

***Note: These Parameters can be assigned to the Expression Pedal. See page 11 for more information on Expression Pedal assignments.**

Bass, Mid Range, Treble The Amp Model offers a three band equalizer. The Equalizer is much like the tone controls on a conventional amplifier. The Bass, Mid, and Treble allow you to boost and cut the tonal response for Channel A and B individually. Ranges are from 1 to 10.

Level Allows you to set independent Amp Volumes for the green and red Channels individually. This is useful for balancing volumes between clean and distorted Channels, or setting one Channel up as a solo boost.

Gate

Parameters	***Displayed Values***
On/Bypass	On-byP
Type	GAtE, A5 1 . . . .A5 7
Threshold	1 8

The RP14D's Noise Gate is designed to eliminate noise while you are not playing. It looks at the strength of the incoming signal and if the signal exceeds the value set by the Threshold parameter, the gate will open and allow the signal to pass. If your signal level drops below the Threshold, the gate will close and allow nothing through until the Threshold is exceeded again. The Type parameter allows you to select between a normal Noise Gate, or act as an automatic volume swell effect taking up to 2 seconds for the volume to fade in.

On / Bypass Turns the Gate on or off.

Type Selects between a normal Noise Gate, or an automatic volume swell effect. Ranges are gate (immediate signal), and A 1 to A 7 in auto swell settings. A 1 being a quick swell and A 7 being a long swell (2 seconds).

Threshold Sets the signal strength level at which the Noise Gate will open or close. Ranges are 1 (lowest) to 8 (highest).

Mod/Pitch

Parameters	***Displayed Values***											
Type	Chor	FLAn	PHAS	U ibr	trE	PAn	dEtn	Ptch	bEnd	HAr	A_yA	yAyA
Level *	0 . . . 100	0 . . . 100	0 . . . 100	0 . . . 100	0 . . . 100	0 . . . 100	0 . . . 100	0 . . . 100	0 . . . 100	0 . . . 100	0 . . . 100	0 . . . 100

The Mod/Pitch module is the RP14D's multi-function module, allowing you to select effects such as; Chorus, Flanger, Phaser, Vibrato, Tremolo, Panner, Detune, Pitch Shift, Whammy™, Harmony, Auto Ya, and YaYa effects. Only one of these effects can be used at a time. After choosing the type of effect from this module, you can then adjust the individual parameters of the selected effect.

Type Allows you to select a specific type of modulation/pitch effect. The Types are; Chorus, Flanger, Phaser, Vibrato, Tremolo, Panner, Detune, Pitch Shift, Whammy™ (Bend), Harmony, Auto Ya, and YaYa.

Level Controls the overall mix level of the Mod or Pitch Shifting Effect. Ranges from 0 to 100.

***Note: These Parameters can be assigned to the Expression Pedal. See page 11 for more information on Expression Pedal assignments.**

Chor *(Chorus)*

Parameters	*Displayed Values*
*Speed **	0 . . . 100
*Depth **	0 . . . 100

The RP14D offers a chorus that is unique in both character and sound. A Chorus adds a short delay to your signal and modulates the delay time which takes the delayed signal slightly in and out of tune. The delayed signal is then mixed back with the original signal to create a thicker texture as if two guitars were playing the same part. This RP14D's chorus offers exceptionally rich chorusing using dual voices. Chorus Parameters are as follows:

Speed Controls the rate that the Chorus modulates at. Ranges from 0 to 100.

Depth Sets the amount of intensity in the Chorus. Ranges from 0 to 100.

FLAn *(Flanger)*

Parameters	*Displayed Values*
*Speed **	0 . . . 100
Depth	1 . . . 16
*Regeneration **	-99 . . .0 . . .99

The RP14D offers an exceptionally rich studio-quality flanger. A Flanger uses the same principle as a Chorus does with a modulating delay. The difference being that a Flanger 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. Flange Parameters are as follows:

Speed Controls the rate that the Flange modulates at. Ranges from 0 to 100.

Depth Sets the intensity in the Flange effect. Ranges from 1 to 16.

Regeneration This Parameter sets the amount of regeneration which is perceived as the up and down motion of the Flange. Variable in positive and negative phasing from -99 to 99.

PHAS *(Phaser)*

Parameters	*Displayed Values*
*Speed **	0 . . . 100
*Depth **	0 . . . 100
*Regeneration **	0 . . .99

***Note: These Parameters can be assigned to the Expression Pedal. See page 11 for more information on Expression Pedal assignments.**

The RP14D's adjustable Phase Shifting effect is reminiscent of the classic Phasers used in mid-70's keyboard and guitar sounds. 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 RP14D breathes new life into this classic effect by adding regeneration.

Speed Controls the rate of the Phaser sweep. Ranges from 0 to 100

Depth Sets the intensity or amount of Phase change in the split signal. Ranges from 0 to 100.

Regeneration Controls the amount of phased sound fed back to the input of the Module. High regeneration settings produce dramatic and interesting unnatural sounds. Ranges from 0 to 99.

U ibr *(Vibrato)*

Parameters	*Displayed Values*
*Speed **	0 . . . 100
*Depth **	0 . . . 100

Vibrato was one of the first real effects, and appeared mostly on early guitar amplifiers. A Vibrato effect modulates the pitch of the incoming signal at a steady, even rate. The incoming signal will go slightly in and out of tune as the pitch modulates.

Speed Controls the rate of frequency modulation. Ranges from 0 to 100.

Depth Adjusts the intensity of the Vibrato effect. Ranges from 0 to 100.

trE *(Tremolo)*

Parameters	*Displayed Values*
*Speed **	0 . . . 100
*Depth **	0 . . . 100

Another effect pioneer appearing on early guitar amplifiers was the Tremolo. A Tremolo effect modulates the volume of the incoming signal at a steady, even rate. The incoming signal will go back and forth between getting louder and softer. It is kind of like having a motor on your guitars volume knob which opens and closes the volume at an even rate.

Speed Controls the rate of volume modulation. Ranges from 0 to 100.

Depth Adjusts the intensity of the Tremolo effect. Ranges from 0 to 100.

***Note: These Parameters can be assigned to the Expression Pedal. See page 11 for more information on Expression Pedal assignments.**

PAn *(Auto Panning)*

Parameters	*Displayed Values*
*Speed **	0 . . . 100
*Depth **	0 . . . 100

An auto panner is a modern relative of the tremolo that modulates the sound from left to right at a given rate. Parameters are as follows:

Speed Controls the Panning speed (speed of modulation). Ranges from 0 to 100

Depth Adjusts the intensity of the Panning effect. Ranges from 0 to 100.

dEtn *(Detuner)*

Parameters	*Displayed Values*
*Amount **	-30 30

A Detuner will make a copy of your incoming signal, and take the copied signal slightly out of tune from the original. This results in a non modulated Chorus type of effect. Parameters are as follows:

Amount Adjusts the quantity of detuning applied. Ranges from -30 to +30 cents (100 cents = one semi-tone).

Ptch *(Pitch Shifting)*

Parameters	*Displayed Values*
*Amount **	-24 . . .0 . . .24

The RP14D's Pitch Shifter will make a copy of your incoming signal, and then shift the pitch of the copy to a different note. As you play one note the pitch shifter is simultaneously playing a note higher, or lower with you. The RP14D is capable of shifting the signal from 0 to 24 semi-tones (2 octaves) above or below the pitch of the input signal.

Amount Sets the interval between the original note and the pitch shifted note. Variable from -24 to 24 semi-tones.

bEnd *(Pitch Bending/Whammy)*

Parameters	*Displayed Values*
Amount	See Abreviation Chart on following page

The RP14D's pitch bending effect allows you to smoothly bend between two program pitch intervals using the Expression Pedal. As the Expression Pedal's Position is modified, the pitch of the original note will change in intervals according to the selection of the Amount. The Expression Pedal will automatically link to the bend parameter when this effect is selected.

***Note: These Parameters can be assigned to the Expression Pedal. See page 11 for more information on Expression Pedal assignments.**

Amount Selects the bend range of the Whammy™ Module. There are 16 ranges available in the Whammy Module. They are as follows:

Whammy	***Harmony***
0c 1u= Up 1 Octave	0d0u=Down 1 Octave - Up 1 Octave
0c2u=Up 2 Octaves	4-3d=Down 4th - Down 3rd
2ndr =Down 2nd Reversed	5-6u=Up 5th - Up 6th
2ndd=Down 2nd	4-5u=Up 4th - Up 5th
4thd=Down 4th	3-3u=Up m3rd - Up Maj 3rd
0c 1d=Down 1 Octave	2-3u=Up 2nd - Up 3rd
0c2d=Down 2 Octaves	4d5u=Down 4th - Up 5th
0c6d=Down 6 Octaves	5u0u=Up 5th - Up Octave

HAr *(Harmony)*

Parameters	***Displayed Values***
Amount *	Octd . . . Octu
Scale *	1 . . . 14
Key *	C . . . b

The RP14D also includes an intelligent Harmony Pitch Shifter. The difference between a Pitch Shifter and an intelligent Pitch Shifter is that the Pitch Shifter stays parallel to your note at the specified interval, and an intelligent Pitch Shifter knows which notes to make sharp or flat in order to keep the shifted pitches within the specified key and scale. The intelligent Harmony module lets you select the key, scale and amount of shifting in the signal and all shifted notes will remain diatonically correct. The parameters are as follows:

Amount Amount lets you select the interval of the shifted pitch. This Ranges from one Octave down to one Octave Up.

Scale This parameter lets you select the scale that is being used in the Harmony effect. There are fourteen different scales and they are numbered as follows:

1. **Major**
2. **Minor**
3. **Harmonic Minor**
4. **Melodic Minor**
5. **Dorian**
6. **Mixolydian**
7. **Lydian**
8. **Lydian Augmented**
9. **Major Pentatonic**
10. **Minor Pentatonic**
11. **Blues**
12. **Whole Tone**
13. **Half-Whole Diminished**
14. **Whole-Half Diminished**

Key This parameter lets you select the key signature for the harmonies. This ranges from C to B.

***Note: These Parameters can be assigned to the Expression Pedal. See page 11 for more information on Expression Pedal assignments.**

The following is a list of harmony notes relative to their assigned interval and scales:

Interval	Major	Minor	Harm.Minor	Mel.Minor	Dorian	Mixolydian	Lydian
Oct ↑	C	C	C	C	C	C	C
7th ↑	B	B♭	B	B	B♭	B♭	B
6th ↑	A	A♭	A	A	A	A	A
5th ↑	G	G	G	G	G	G	G
4th ↑	F	F	F	F	F	F	F#
3rd ↑	E	E♭	E♭	E♭	E♭	E	E
2nd ↑	D	D	D	D	D	D	D
Ref	C	C	C	C	C	C	C
2nd ↓	B	B♭	B	B	B♭	B♭	B
3rd ↓	A	A♭	A♭	A	A	A	A
4th ↓	G	G	G	G	G	G	G
5th ↓	F	F	F	F	F	F	F#
6th ↓	E	E♭	E♭	E♭	E♭	E	E
7th ↓	D	D	D	D	D	D	D
Oct ↓	C	C	C	C	C	C	C

Int.	Lydian Aug.	Int.	Major Pent.	Int.	Minor Pent.	Int.	Blues	Int.	Whole Tone	Int.	Hlf-Whl Dim.	Int.	Whl-Hlf Dim.
										Oct ↑	C	Oct ↑	C
Oct ↑	C									7th ↑	B♭	6th ↑	B
7th ↑	B					Oct ↑	C	Oct ↑	C	6th ↑	A	5th ↑	A
6th ↑	A	Oct ↑	C	Oct ↑	C	7th ↑	B♭	7th ↑	A#	5th ↑	G	6th ↑	G#
#5th ↑	G#	6th ↑	A	♭7th ↑	B♭	5th ↑	G	#5th ↑	G#	#4th ↑	F#	5th ↑	F#
#4th ↑	F#	5th ↑	G	5th ↑	G	5th ↑	F#	#4th ↑	F#	3rd ↑	E	4th ↑	F
3rd ↑	E	3rd ↑	E	4th ↑	F	4th ↑	F	3rd ↑	E	#2nd ↑	E♭	3rd ↑	E♭
2nd ↑	D	2nd ↑	D	3rd ↑	E♭	3rd ↑	E♭	2nd ↑	D	2nd ↑	D♭	2nd ↑	D
Ref	C	Ref	C	Ref	C	Ref	C	Ref	C	Ref	C	Ref	C
2nd ↓	B	3rd ↓	A	2nd ↓	B♭	2nd ↓	B	2nd ↓	A#	2nd ↓	B♭	2nd ↓	B
3rd ↓	A	4th ↓	G	4th ↓	G	4th ↓	G	3rd ↓	G#	3rd ↓	A	3rd ↓	A
3rd ↓	G#	6th ↓	E	5th ↓	F	♭5th ↓	F#	5th ↓	F#	4th ↓	G	3rd ↓	G#
♭5th ↓	F#	7th ↓	D	6th ↓	E♭	5th ↓	F	6th ↓	E	5th ↓	F#	5th ↓	F#
♭6th ↓	E	Oct ↓	C	Oct ↓	C	6th ↓	E♭	7th ↓	D	6th ↓	E♭	5th ↓	F
♭7th ↓	D					Oct ↓	C	Oct ↓	C	6th ↓	E	6th ↓	E♭
Oct ↓	C									7th ↓	D♭	7th ↓	D
										Oct ↓	C	Oct ↓	C

YAYA *(YaYa)*

Parameters	*Displayed Values*
***Amount** **	0 . . . 100
***Depth** **	0 . . . 100
***Regeneration** **	0 40

A YaYa is an effect exclusive to DigiTech products. It combines the characteristics of a wah and a flanger together providing a unique talk box type of effect. The YaYa parameters are as follow:

Amount — Determines the quantity of sweep in the YaYa effect. Assigning this parameter to the Expression Pedal will render the best results for this effect. Ranges from 0 to 100.

Depth — Controls the intensity of the YaYa effect. Ranges from 0 to 100.

Regeneration — Controls the throaty quality of the YaYa. Ranges from 0 to 40.

***Note: These Parameters can be assigned to the Expression Pedal. See page 11 for more information on Expression Pedal assignments.**

A YA *(Auto Ya)*

Parameters	*Displayed Values*
Speed *	0 . . . 100
Depth *	0 . . . 100
Regeneration *	0 40

An Auto Ya is like the YaYa in sound in as much as it combines the characteristics of a wah and a flanger together. The difference is that the Auto Ya provides animation to the sound automatically. The Auto Ya parameters are as follow:

Speed Determines the rate of sweep in the YaYa effect. Ranges from 0 to 100.

Depth Controls the intensity of the YaYa effect. Ranges from 0 to 100.

Regeneration Controls the throaty quality of the YaYa. Ranges from 0 to 40.

Delay

Parameters	*Displayed Values*
Type	d.9 dPn9 tAPE tPn9
Level *	0 . . . 100
Time	0 . . .3500
Feedback *	0 . . .99 rPth

Delay is an effect that will record a portion of the incoming signal, and then play it back a short time later. It can repeat the recording several times, or just once. This type of effect is also referred to as an echo because it basically echoes the original signal. Delay Parameters are as follows:

Type Determines the type of delay. The RP14D's Delay employs four types of Delay circuits: d.9 (Digital Delay with clear concise repeats), dPn9 (Digital Ping Pong Delay with clear concise repeats which alternate between the left and right outputs), tAPE (Tape Delay typical of the old tape delays with deterioration of each repeat), and tPn9 (Tape Ping Pong with deteriorating repeats which bounce from side to side).

Level Controls the volume level of the delay. Ranges from 0 to 100.

Time Sets the time interval between repeats. The available delay time ranges are 0 (no delay) to 3.5 seconds.

Feedback Controls the number of repeats for the Delay. Ranges from 0 to 99, and rPth (repeat hold).

***Note: These Parameters can be assigned to the Expression Pedal. See page 11 for more information on Expression Pedal assignments.**

Reverb

Parameters	*Displayed Values*
Type	CLub . . .SPrn
*Level **	0 . . .100
Decay Time	1 . . .10

Ambience, or reverberation, is produced when sound energy is reflected off room surfaces and objects. 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. Reverb Parameters and their functions are as follows:

Type Allows you to choose your ambience or setting you want to use. There are ten available type settings:

CLub=Club
Stud=Studio
bAth=Bathroom
PLAt=Plate
Soun=Sound Stage
gArg=Garage
HALL=Hall
Chur=Church
ArEn=Arena
SPrn=Spring

Level Controls the amount of reverb signal to be mixed in with the dry signal. Ranges from 0 to 100.

Decay Time The amount of time it takes for the Reverb to fade to inaudibility. Ranges from 1 to 10.

Digital Out

Parameters	*Displayed Values*
Pre/Post FX	PrE - POSt

The RP14D includes a digital output which allows you to connect directly into a digital recording device or digital mixer without multiple analog to digital, and digital to analog conversions. This maintains the integrity of your signal. The RP14D's pre/post feature lets you select where the digital output takes its signal from.

Pre/Post FX You can take the signal before or after the effects. The PrE setting taps the signal right after the Noise Gate and Speaker Simulator. There would be no Mod/Pitch, Delay, or Reverb effects added to the signal delivered to the digital output, but these effects will be heard at the analog outputs. The POSt setting takes the signal from the end of all effects and delivers it to the digital output.

***Note: These Parameters can be assigned to the Expression Pedal. See page 11 for more information on Expression Pedal assignments.**

Speaker Simulator

Parameters	*Displayed Values*
On/Bypass	On-byP

The RP14D's Speaker Simulator circuitry allows you to use it in both recording and live situations without lugging heavy amps and/or cabinets around. Just connect the RP14D's outputs to a mixing console and engage the Speaker Simulator. No miking hassles, no heavy equipment, just full on miked cabinet sound.

On / Bypass Turns the Speaker Simulator on or off.

Note: When headphones are plugged in, the Speaker Simulator is engaged globally on all programs. The Display will read SLbL**. This will affect the sound at the left and right main outputs.**

Volume

Parameters	*Displayed Values*
*Level **	0 - 100
Pre/Post	PrE-POSt
Volume Update	On OFF

The RP14D's Master Volume controls the overall volume level of the selected program. The level can be controlled with the Expression Pedal for balancing levels in real-time during live performance. It is also useful to lower the overall digital effects level if clipping occurs.

Level Controls the overall volume level of the Program. Variable from 0 to 100.

Pre/Post Selects whether the Volume is controlled before or after the digital effects. This Parameter is useful when the Expression Pedal is assigned to control volume as setting this to pre allows delays and reverbs to be heard after the volume is pulled back. Setting this Parameter to post affects all volume.

Volume Update This parameter gives you the option of having the volume updated to the Expression Pedal's current position in all programs that have the Expression Pedal linked to volume, much like a real volume pedal would. Selecting On will update the volume in any programs that have the Expression Pedal linked to Volume to the current Expression Pedal position. Selecting OFF will load all programs with their saved volume regardless of the Expression Pedal's position.

***Note: These Parameters can be assigned to the Expression Pedal. See page 11 for more information on Expression Pedal assignments.**

Section Four - Tutorial

A Guided Example

Suppose you wanted to create your own dual channel program which used no compression, the ripping distortion of a British Stack Amp with boosted lows in the EQ on the red channel, the warm sounds of an American Combo in the Green Channel, a Noise Gate that opens quickly, a classic Phaser sound with the Expression Pedal controlling the Phaser Speed, no Delay, and a little bit of a Hall reverb. The following steps will guide you through the procedure for creating just such a Program in the RP14D.

Choose a Program

The first step in creating a Program is selecting a Program to be your starting point. You can start with any program number that you want, but for this example let's start with User Program U32. From the Program mode, use the Value Up or Down buttons to select Program U32.

Turn the Compressor Off

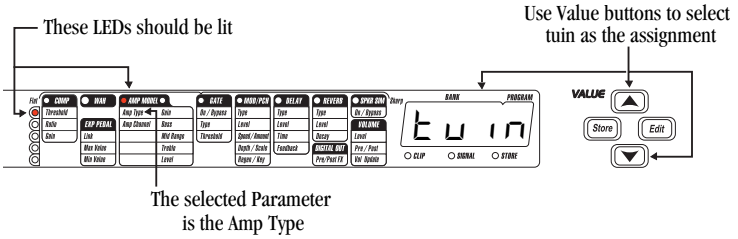
In our example Program we didn't want to use compression so we need to turn the compressor off. If the LED above the Compressor footswitch is on, it indicates that the compressor is on. Press the Compressor footswitch so that the LED goes out. The Compressor will then be disengaged.

Enter the Edit Mode

The next step to creating our example Program is to enter the Edit mode. To do this, press the Edit button once. At this point the LED in the Amp Model Column One (to the left side of the words Amp Model) and the top vertical LED will light on the Matrix. If you follow the grid across on the Matrix, you will see that this represents the Type of Amp Model. The Numeric Display will now show the currently selected Amp or Guitar Model instead of Program 32, but you are still in Program 32.

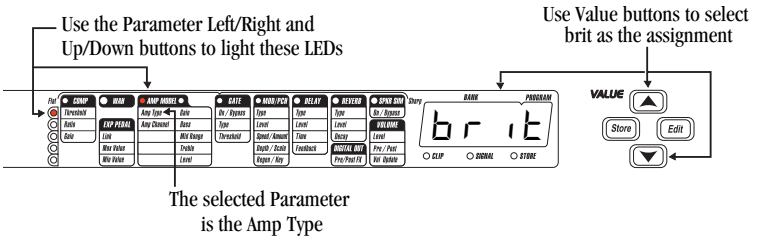
Select the Green Channel Amp Model

We wanted our green channel's Amp Model to be a clean American Combo. If the LED above the Channel Footswitch is lit red, press the Channel Footswitch once which will turn it green. If the Channel Footswitch LED is already green, proceed with selecting the Amp Model. Use the Value Up or Down buttons until the Numeric Display shows tu in (which is the American Combo) as the type.



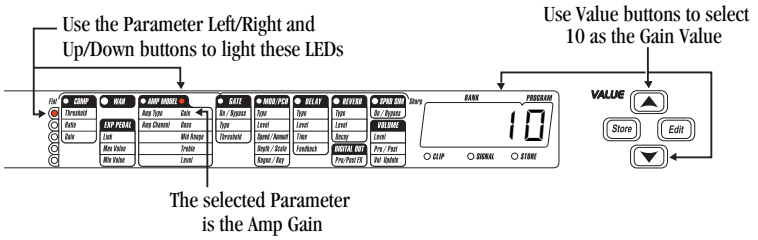
Select the Red Channel Amp Model

We wanted our red channel's Amp Model to be a heavily distorted British Stack. Pressing the Parameter Down button will take you to the Channel selection. Use the Value Up or Down button to Select rEd, or just press the Channel Footswitch again which will turn the LED red. To select the Amp Model, use the Parameter Left or Right, and the Up or Down buttons to make sure the LED in the Amp Model Column One in the horizontal row of LEDs, and the top vertical LED are both on representing the Type of Amp Model. Then use the Value Up or Down buttons until the Display shows br it as the type.

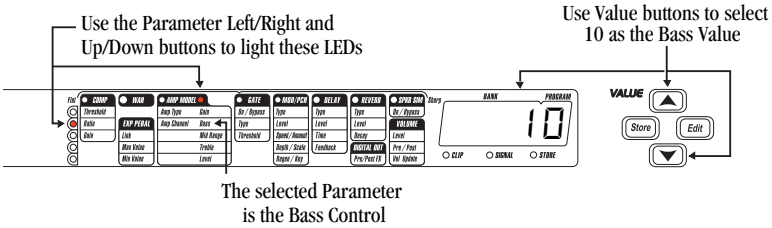


Adjust the Gain, EQ, and Level

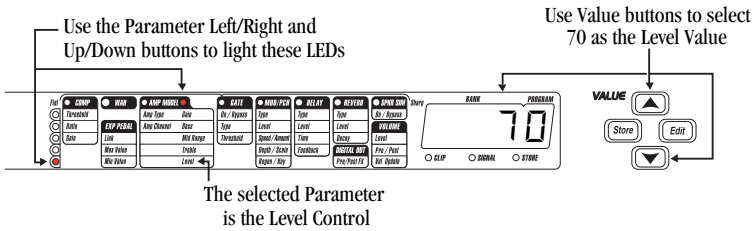
At this point, you should still be on Amp Model Column One (the LED to the left of the words **AMP MODEL** is on). Press the Parameter Right button once and the Amp Model Column Two LED will light (to the right of the words Amp Mod). Use the Parameter Up or Down buttons until the top vertical LED is on. Following the grid across the Matrix to where the two lit LEDs meet indicates that this is the Amp's Gain Parameter. Use the Value Up button to increase the gain until it is heavily distorted. Try setting this Parameter to 10.0 or 11.0.



When you select a particular amp type in the Model section of the RP14D, the EQ settings automatically default to give you the settings of the selected amp type. However you can boost or cut these to suit your taste and in our example Program we wanted some heavy bass. Press the Parameter Down button again and by following the grid across you will find that this is the Bass Parameter. Use the Value Up or Down button to set this Parameter to about 10. The final step for the Amp Model is the level of the red Channel.

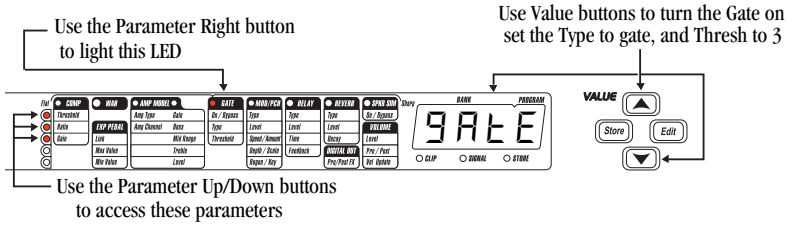


To get to the Level Parameter, press the Parameter Down button three more time so that the bottom vertical LED is on. You can then use the Value buttons to set the Volume Level of the Distortion. Try setting this to about 70. You are now finished editing the Amp Model selection.



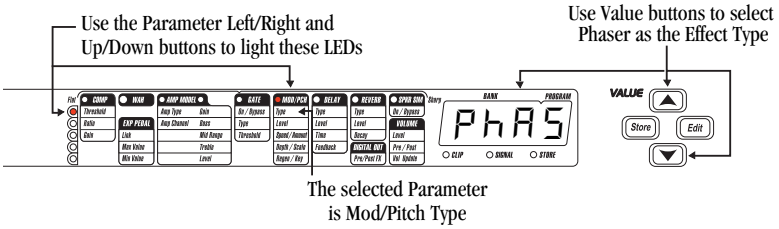
Adjust the Noise Gate

Now we need to set our Noise Gate Parameters. Press the Parameter Right button to select the Noise Gate column and use the Parameter Up or Down buttons to select the Noise Gates on/bypass parameter. Use the Value Up button to turn the Gate on. Then press the Parameter Down button to light the vertical LED second from the top. Following the Grid across the Matrix will indicate that this is reflecting the Gate Type Parameter. Since we wanted the gate to open immediately rather than fading in, use the Value Down button to set this to GATE. Pressing the Parameter Down button again will take us to the Gate Threshold. Use the Value Up or Down buttons to set this value to -6 which will allow weaker signals to open the Gate. If this value is too low, adjust it up until the gate closes when you are not playing.

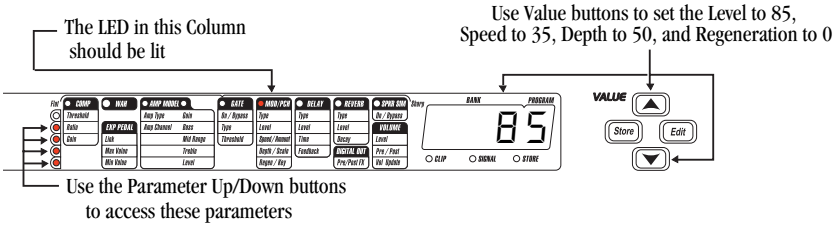


Select the Phaser

Next we wanted a classic Phaser Effect in our custom Program. Press the Parameter Right button again and the horizontal LED in the Mod/Pitch column should light. Use the Parameter Up or Down buttons to light the top vertical LED which corresponds to the Type of Modulation or Pitch Shifting Effect that we want. Use the Value Up or Down buttons until the Display reads PhAS which is the abbreviation for Phaser.



Then press the Parameter Down button once to light the vertical LED second from the top. Following the grid across the Matrix will show you that you are now on the Level Parameter of the Phaser. Use the Value Up or Down buttons to set the Level to about 85. Pressing the Parameter Down button again and following the grid across the matrix reveals that we are now on the Speed Parameter. We want a medium setting for the Speed so Use the Value buttons to set this to 35. To get to the Depth Parameter, press the Parameter Down button again. Then using the Value buttons set the Depth to about 50. Since we wanted a Classic sounding Phaser we will not want any Regeneration added to the Phaser. Press the Parameter Down button again and make sure that the Regeneration Parameter is set to 0.

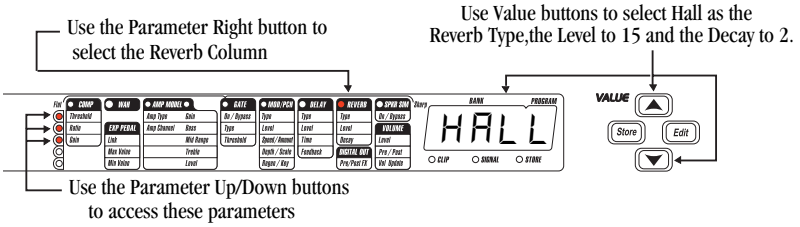


Turn the Delay Off

In our example Program we wanted the Delay to be bypassed. If the LED above the Delay Footswitch is on, it is indicating that the Delay is on. To disengage the Delay, press the Delay Footswitch so the LED is off.

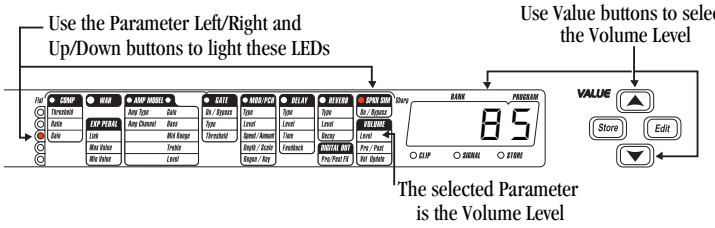
Adjust the Reverb

In our example Program we also wanted a little bit of Hall Reverb to provide some ambience. Press the Parameter Right button again so that the LED in the Reverb column is on. Use the Parameter Up or Down buttons until the top vertical LED lights. Following the Grid across the Matrix we see that this corresponds to the Reverb Type. Press the Value Up or Down buttons until the Display shows HALL as the Type. Press the Parameter Down button once to access the Reverb Level Parameter. Use the Value buttons to set the Level to about 15. Press the Parameter Down button again and you will be on the Reverb Decay Parameter. Use the Value buttons to set this to about 2.



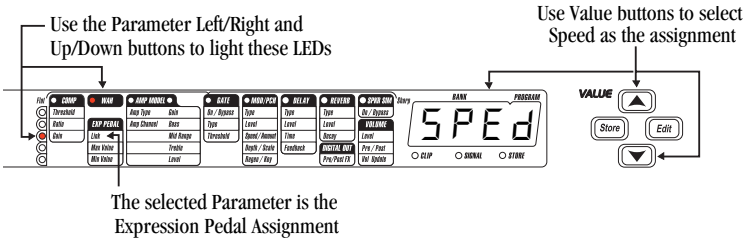
Set the Master Volume

The last column on the right side of the matrix includes the Speaker Simulator and Master Volume Parameters. Press the Parameter Right button again so that the LED in this column lights. Use the Parameter Up or Down buttons to light the top vertical LED which represents the Speaker Simulator on/off Parameter. If you intend to connect the RP14D directly into a mixing console, you should turn this on. If you are going into an amp, it is a matter of personal taste whether to turn it on or off. You decide which sounds best for your application. Next press the Parameter Down button which will skip the second vertical LED down (because there is no Parameter there) and the third LED down should light. This is the Master Volume Parameter. Use the Value buttons to set the overall Volume that you desire for the Program. Since the Pre/Post, and Update Parameters only affect the Program when the Expression Pedal is assigned to control Volume, and we will assign the Expression Pedal to be Phaser Speed, it is not necessary to edit these parameters.



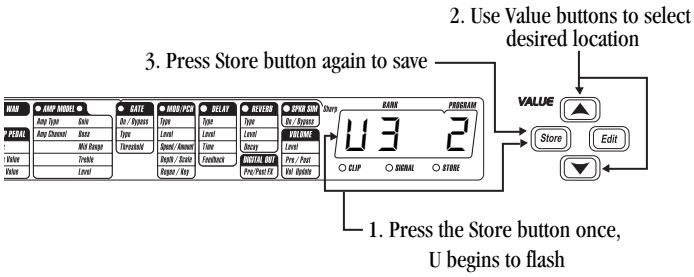
Assign Speed to the Expression Pedal

The Expression Pedal assignments are all made in the second column from the left, under the Wah status LED. Press the Parameter Left or Right button until the horizontal LED in the Wah column lights. Use the Parameter Up or Down buttons to light the vertical LED third down from the top. Following the grid across the Matrix to where the two LEDs intersect reveals that we are on the Link Parameter for the Expression Pedal. Use the Value Up or Down buttons until the display reads SPEd as the assignment. You can then set stop points for the range of the Phaser Speed in the minimum and maximum values, but for our example we will leave these set to the full range.



Store the Program

The last step that we need to do is to store our changes to a User Program. If we changed Programs or turned the RP14D off without storing these settings, it would forget what we had done and revert back to the original Program. Press the Store button once. A U begins flashing in the Display, which is asking us to select the User Bank and Program number that we wish to save our changes to. Use the Value buttons to select the User location that you want to store the changes to and press the Store button again.



Congratulations! You have successfully created a Program.

Section Five - Appendix

Reinitializing the RP14D

This option allows you to restore the contents of the RP14D's memory to the original factory condition and calibrate the expression pedal.

ATTENTION: Performing this function will destroy all user-programmed data. All such data will be lost forever!

To restore the factory Programs and calibrate the expression pedal, the procedure is as follows:

1. Plug in the RP14D while holding down the Parameter Select Up button.
2. When rESt appears in the display window, release the Parameter Select Up button and press the Value Up button once. The RP14D will reset to factory condition.
3. The display will now prompt you to re-calibrate the expression pedal by reading: PEdL CAL
4. When the display reads: toE uP , rock the pedal back to the toe up position and press any one of the flashing footswitches.
5. When the display reads: toE dn , rock the pedal forward to the toe down position and press any one of the flashing footswitches.

The expression pedal will now be calibrated and the RP14D will return to program mode.

Recalibrating the Expression Pedal

If the Expression Pedal should fail to work, you can re-calibrate it by disconnecting the power, press and hold the Parameter Down button and re-apply power. Release the button and repeat steps 3-5 as shown in the "Re-initializing the RP14D " section above.

Program List

The following is a list of all the factory Programs in the RP14D.

Bank 1: Showcase

11 Big British Stack
12 Clean w/Chorus
13 Get Your YaYa
14 Acoustic Delay
15 Wah Stack

Bank 2: Heavy

21 Crunchverb
22 Flange Attack
23 Double Death Detune
24 Big Fuzzy
25Power Ballad/Solo

Bank 3: Amp Tones

31 Rectified
32 British Invasion
33 American Combos
34 Dream Channels
35 Clean/Crunch

Bank 4: Blues

41 Classic Blue
42 The Slider
43 Roto Organ
44 Comp Clean/Solo
45 Texas Style

Bank 5: Country

51 Dual Lean (A Mixolydian)
52 Dirty Lil' Slap
53 Pedal Steel
54 Folky Acoustic
55 Smooth Lead

Bank 6: Alternative

61 Mosh Mellow
62 Pedal Phase
63 Diver
64 Brilliant Acoustic
65 Vibrato Swell

Bank 7: Vintage

71 Surfarama
72 TransAnalog
73 Cool Phase
74 Rockabilly
75 Fuzzilla

Bank 8: Jazz/Fusion

81 Standard Jazz Combo
82 Jazz Chorus
83 Fusion Solo
84 4ths>5ths Swell
85 Pedal Leslie

Bank 9: Studio

91 Funky VibroWah
92 Crunchy/Crunchiest
93 Synth Volume Swell
94 Juicy Solo
95 Comp Clean Delay

Bank 10: Special

101 12 String Acoustic
102 Whammy Strikes Again
103 Sound on Sound
104 Auto Ya
105 Warped Record

Specifications

A/D Converter: 24 bit
D/A Converter: 24 bit
Sample Rate: 44.1 kHz.

DSP Section:
Architecture: Static-Dynamic Instruction Set Computer (S-DISC™)
Digital Signal Path Width: 24 bits (144.5 dB)
Internal Data Path Width: 48 bits (289 dB)
Dynamic Delay Memory: 256k x 24 bits (3.5 seconds)
Static Delay Memory: 256 24-bit registers (6.55 milliseconds)
Data ALU Processing: 11.3 MIPS
Address ALU Processing: 16.9 MIPS
Multiplier Size: 24 bits x 24 bits

Tube Type:
(1) 12AX7

Input Section:
Connector: 1/4" Unbalanced TRS
Nominal Level: -8 dBu
Maximum Level: +10 dBu
Impedance: 470 kohms
Jam-A-Long: 1/8" Stereo TRS

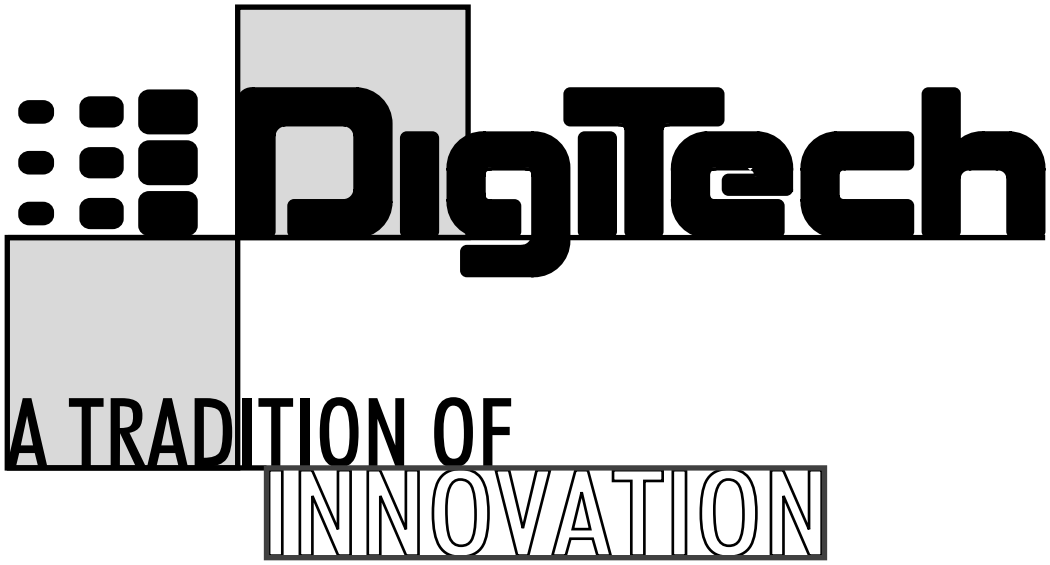
Output Section:
Connector: 1/4" TRS
Nominal Level: +4 dBu
Maximum Level: +18 dBu
Impedance: 50 ohms
Headphone: 1/8" Stereo TRS
S/PDIF: RCA

General:
S/N ratio: Greater than 97 dB (A-weighted); ref = max signal, 22 kHz measurement bandwidth
Total Harmonic Distortion: Less than 0.005% (1 kHz.); ref = 1 dBu with unity gain
Memory Capacity: Factory: 50 Programs User: 50 Programs

Power Requirements (PS0920 Power Ratings):

Power Input (from outlet)	**Power Output (to RP14D)**
US and Canada: 120 V AC, 60 Hz, 34 Watts	9 VAC @ 2.1 Amps
Japan: 100 V AC, 50/60 Hz	9 VAC @ 2.1 Amps
Europe: 230 V AC, 50 Hz, 35 Watts	9 VAC @ 3 Amps
UK: 240 V AC, 50 Hz, 28 Watts	9 VAC @ 2.2 Amps

Power Consumption: 18.9 Watts
Dimensions: 24.25" (L)x 8.5" (D) x 2.75"(H)
Weight: 7.1 lbs.



8760 S. Sandy Parkway
Sandy, Utah 84070

Telephone 801-566-8800
Fax 801-566-7005

International Distribution
8760 S. Sandy Parkway
Sandy, Utah 84070, USA
Telephone 801-568-7638
Fax 801-568-7642

Printed in the USA 6/99
Manufactured in the USA

RP14D 18-6326-A

Please Visit DigiTech on the World Wide Web at:
http://www.digitech.com