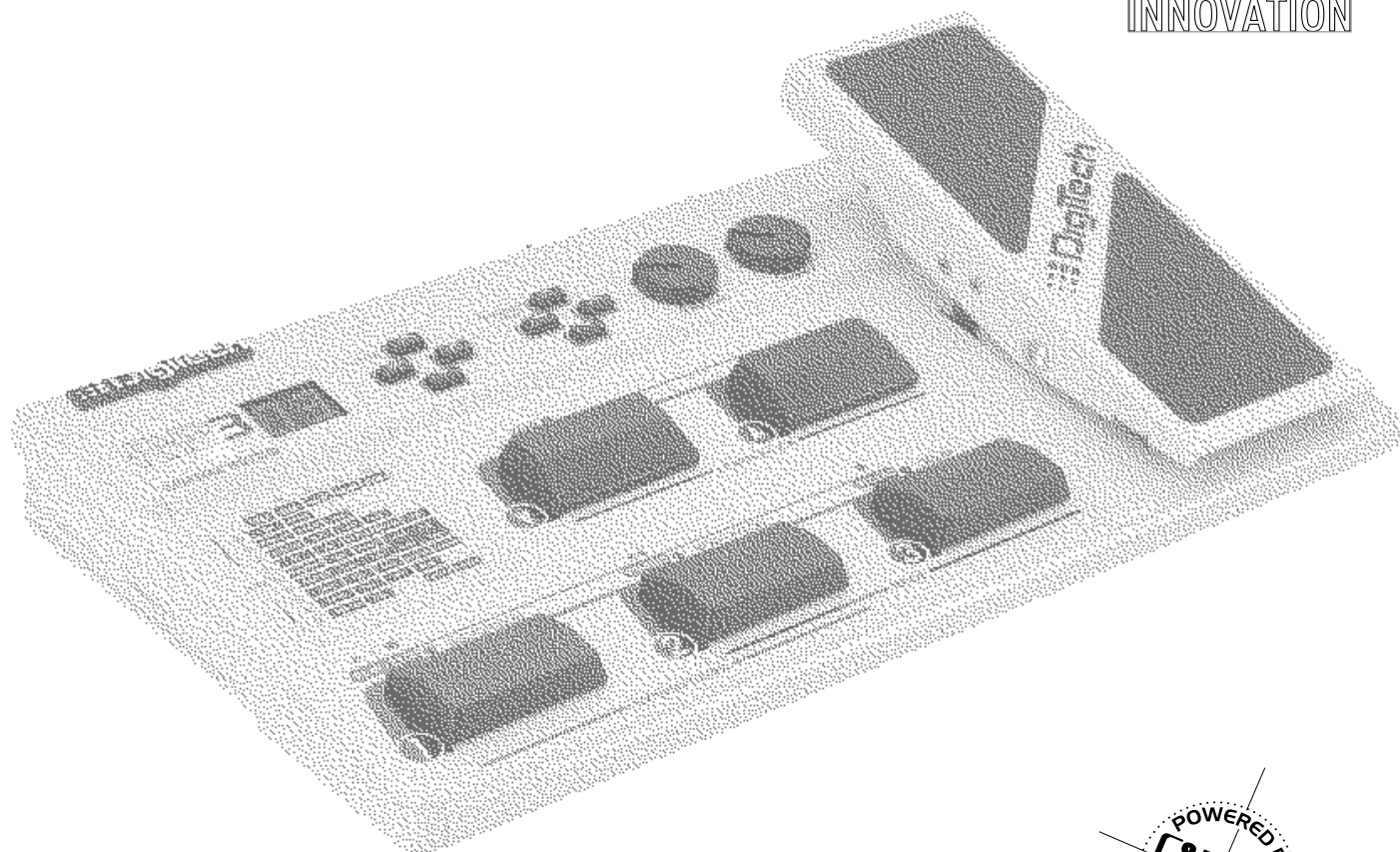


RPE3

Preamp/Multi-Effects Processor & Controller

DigitTech

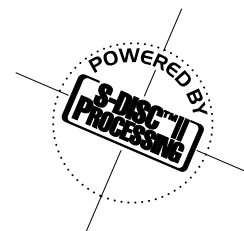
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User's Guide

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H A Harman International Company





CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



ATTENTION: RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE

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.

WARNING

FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING:

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.

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.

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.

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.

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 - Eksplosjonsfare ved feilagtig håndtering. Utskiftning må kun ske med batteri av samme fabrikat og type. Levér det brukte batteri tilbake til leverandøren.

VAROITUS!

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

WARNING!

Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparatillverkaren. 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: ***RP-3***
Product Options: All

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 February 1, 1998

European Contact: Your Local Digitech Sales and Service Office or

International Sales Office
3 Overlook Drive #4
Amherst, New Hampshire 03031, USA
Tel: 603.672.4244
Fax: 603.672.4246

Quick Start

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.

Connect Cables:

Connect guitar into the **Input jack** (located on the rear of the RP-3). Connect the Output(s) of the RP-3 to the Input of either the Guitar Amp, Power Amp or Mixing board.

Apply Power:

Note: It is recommended that the **<Output>** knob be turned down prior to powering up the RP-3.

Adjust Output:

Now adjust the **<Output >** level knob on the rear panel of the RP-3 to the desired output level.

Adjust Presence:

The **<Presence>** knob will act as a quick EQ. Use this knob to fine-tune your tone by turning clockwise (Brighter tone) or counter-clockwise (Darker tone).

Select Preset:

Begin playing your guitar, and choose any preset by either pressing the Value **<UP>** or the **<Down>** buttons or by pressing the **<UP>** and bank **<DOWN>** footswitches.

Jam-Along and Learn-A-Lick:

The RP-3 will let you mix a CD or Cassette tape signal with the signal of the RP-3 so that you can play along with the music, or use the Learn-A-Lick function for recording and playing back sections of music and play it back at varying speeds without changing pitch. Simply connect the CD or Cassette headphone output into the Jam-Along jack (located on the rear of the RP-3).

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Section-1 Introduction

Congratulations...

... you are now the proud owner of a Digitech RP-3 Guitar Preamp/Processor. The RP-3 offers you 2 distortion voicings along with a full palette of high quality digital effects that can accommodate any style of music. The RP-3 also features the Jam-Along jack for CD insert for playing along with your favorite band and the Learn-A-Lick mode that allows you to record the incoming music, then replay it down to 1/4 speed without changing pitch, making the RP-3 a truly unique and essential tool.

This owner's manual is your key to understanding the powerful world of the RP-3. Read it carefully. After you've had time to familiarize yourself with the unit, try experimenting with unusual effect combinations. You are certain to achieve sounds never thought possible before. Good luck, and thank you for choosing Digitech.

Your RP-3 was carefully assembled and packaged at the factory. Before you proceed any further, make sure the following items are included:

- *(1) Owner's Manual*
- *(1) Digitech RP-3 Guitar Preamp/Processor*
- *(1) Power Supply*
- *(1) Digitech warranty card*

Please save all packing materials. They were designed to protect the unit from damage during shipping. In the unlikely event that the unit requires service, use only the factory supplied carton to return the unit.

RP-3 Features:

- *2 Distortion Types*
- *Built-in Expression Pedal*
- *Full bandwidth effects (20-20kHz)*
- *24-bit signal path, 48-bit internal data path*
- *S-DISC II™ Processing*
- *Harmony Effects*
- *Jam-Along Jack*
- *Learn-A-Lick Mode*
- *Programmable Speaker Cabinet Emulator*
- *Chromatic tuner*

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

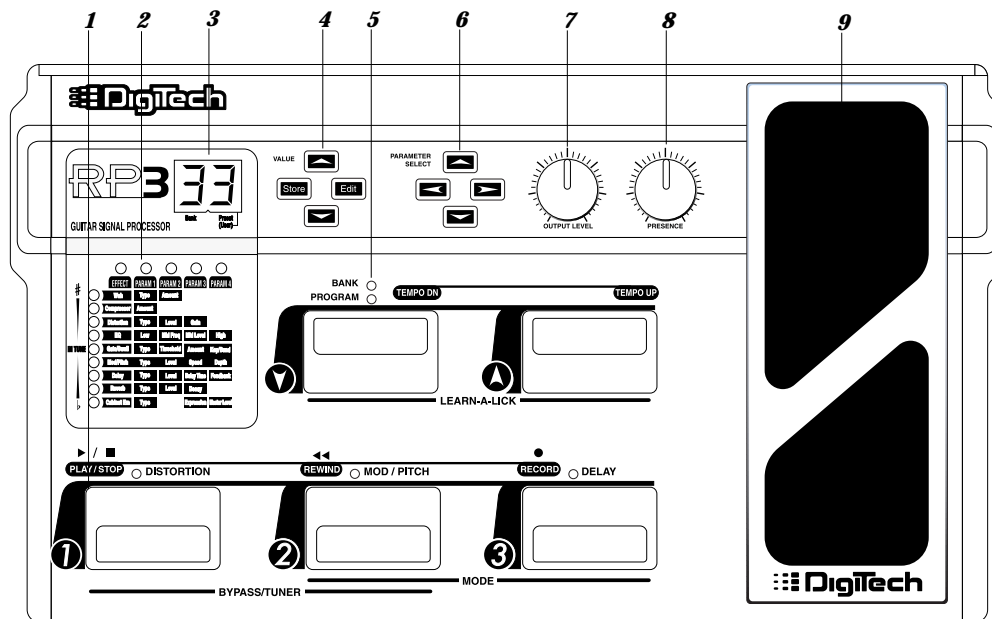
1. *The warranty registration card must be mailed within ten days after purchase date to validate this warranty.*
2. *Digitech warrants this product, when used solely within the U.S., to be free from defects in materials and workmanship under normal use and service.*
3. *Digitech liability under this 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.*

DigiTech™, S-DISCI™, Whammy™, and Silencer II™ are registered trademarks of the Harman Music Group Incorporated.

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.

A Quick Tour of the RP-3

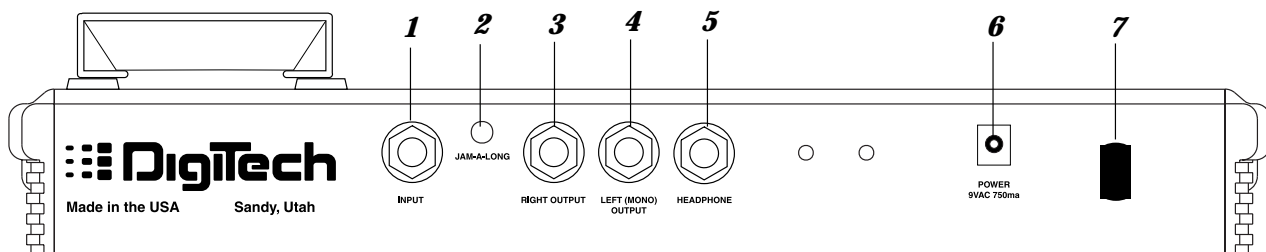
The Front Panel



- 1) **Pedalboard** - The RP-3's pedalboard consists of five footswitches. The two Mode footswitches (<2> and <3>), allow you to change from Program mode to Bank mode by pressing them simultaneously. When changing modes, the appropriate mode LED will light to indicate whether you are in Program mode or Bank Mode. In Program Mode, the <UP> and <DOWN> footswitches allow you to move through Programs, while the three main switches, labeled <1 - 3>, act as toggle On/Bypass switches for Distortion, Mod/Pitch, and Delay. In Bank mode, the <UP> and <DOWN> footswitches allow you to move through Banks, while the <1-3> footswitches are used to select Programs. If footswitches <1> and <2> are pressed simultaneously, Bypass Mode will be activated. If footswitches <1> and <2> are pressed and held simultaneously, Tuner mode will be activated. If the <UP> and <DOWN> footswitches are pressed simultaneously, Learn-A-Lick mode is activated.
- 2) **Parameter Matrix** - The Parameter Matrix consists of a group of vertical effect LEDs and a second group of horizontal parameter LEDs. The Effect LEDs are: Wah, Compressor, Distortion, Equalization, Gate/Swell, Mod/Pitch, Delay, Reverb, and Cabinet Emulator. This matrix shows you exactly what effects and parameters are in use or selected.
- 3) **Display Window** - The display window shows all current operating and programming information. The right decimal in the lower right hand corner of the display window indicates you are in a User (U) bank. The first number indicates the Bank number currently in use, and the second number indicates which Program number is currently in use. These numbers will change as you scroll through the available Programs.
- 4) **Value, Store and Edit Buttons** - The Value <UP> and <DOWN> buttons allow you to scroll through the RP-3's Programs, or change Parameter values in Edit mode. The <STORE> button allows you to store an edited Program in memory for later use. The <EDIT> button allows you to edit the User and Factory Programs.

- 5) **Mode LEDs** - Indicates whether the RP-3 is in Program or Bank mode.
- 6) **Parameter Select Buttons** -The <LEFT> and <RIGHT> Parameter buttons allow you to navigate the horizontal parameter LEDs of the Parameter matrix. The <UP> and <DOWN> Parameter buttons allow you to navigate the vertical effect LEDs of the Parameter matrix. These keys are only active in Edit mode.
- 7) **Output Level** - Controls the overall output level of the RP-3. Also controls the overall level of the headphones.
- 8) **Presence** - Enhances the high frequency content of the overall sound. This will affect all presets.
- 9) **Expression Pedal** - This volume-type pedal allows real time control over Parameters in the RP-3.

The Rear Panel

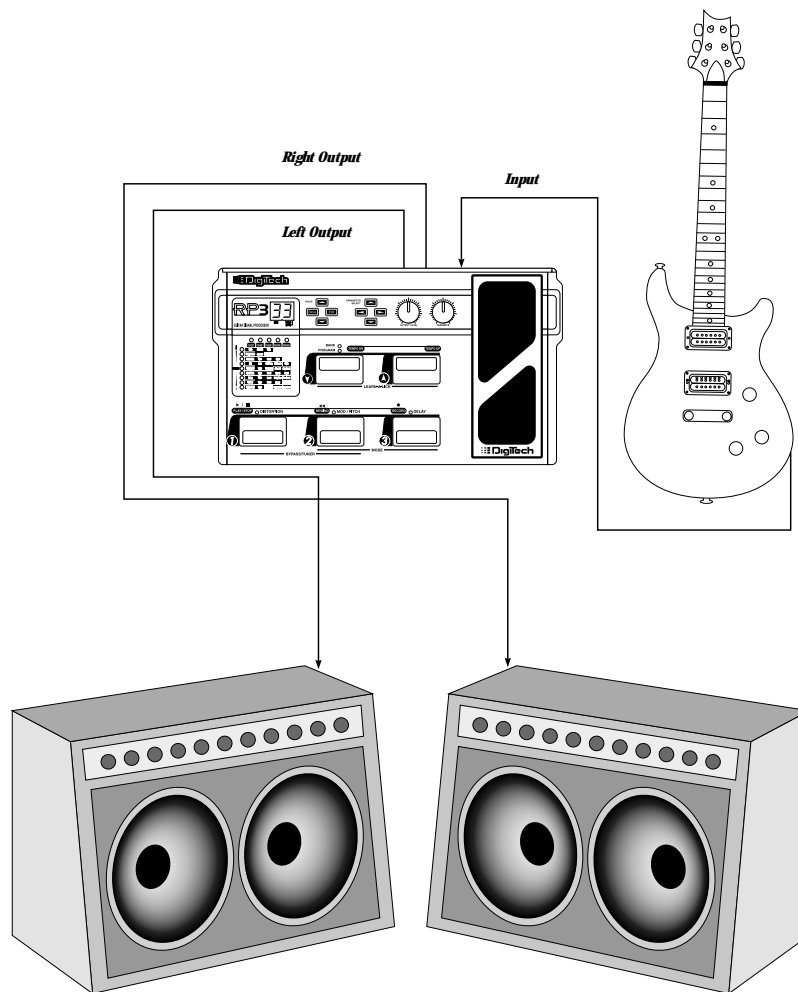


- 1) **Input** - Plug in your instrument here.
- 2) **Jam-A-Long Jack**- Connect a CD or Cassette player headphone output here for either Jam-A-Long or Learn-A-Lick use. Uses a standard 1/8" stereo plug.
- 3) **Right Main Output** - This is the RP-3's right main audio output. Use both left and right main outputs to take advantage of stereo effects.
- 4) **Left(Mono) Output** - This is the RP-3's left main audio output. This output should be used when using only one output.
- 5) **Headphone Output** - 1/4" stereo plug for headphones. The headphone level is controlled by the main output level knob.
- 6) **AC Line Input** - This is the AC power adapter receptacle. Use only the included PS 750 power supply.
- 7) **Strain Relief Clip** - This holding clip is used to secure included power supply cord.

Section-2 Setting Up

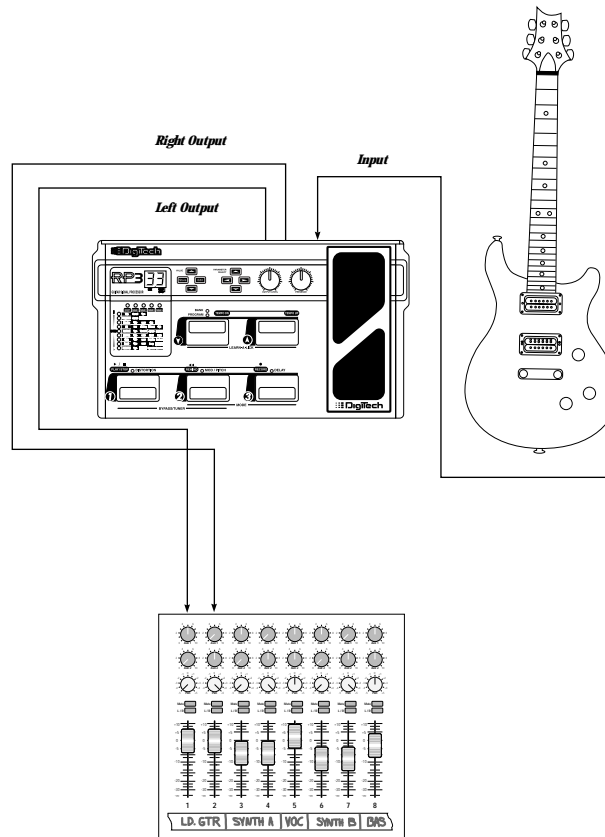
Making Connections

Your RP-3 can be connected in several different ways to meet the requirements of specific applications. The following diagrams offer some different ways your RP-3 can be connected.



RP-3 into two 2X12 Combo Amplifiers

For those of you out there that feel that “bigger is better”, this set-up should work quite nicely for you. First plug into the input of the RP-3. Connect both RP-3 outputs into the inputs of both of the amplifiers. Using a set-up such as this will let you produce guitar tones with lots of body. This is also a great set-up to produce lush and thick stereo effects.



Running Direct into a Mixer

The RP-3 provides you with a Cabinet Emulator for running direct to a mixing board.

A set-up such as this, will give you the ability to run directly to the mixing/recording board. To help ensure great recording tones, use the Speaker Cabinet emulator that is located in the RP-3. The first thing you will want to do when using this set-up is, first run into the Input of the RP-3. Then run out of both of the Outputs into 2 inputs on the mixing board and pan each channel hard left and hard right. Now to use the Cabinet emulator, simply press the **<Edit>** button and then use the Parameter select buttons to move you through the Effects matrix until you reach the Cabinet emulator effect. The Parameter select buttons and the Value buttons will help you fine-tune the Cabinet emulator.

Section 3 - Basic Operations

About the RP-3's Modes

The RP-3 offers several modes, allowing easy operation of the Effects and Parameters. The modes are as follows:

PROGRAM MODE

Allows you to scroll through the 30 Factory and 30 User Programs by using the Value <UP> and <DOWN> buttons as well as the <UP> and <DOWN> foot switches. Select Program mode from Bank mode by pressing the <2> and <3> foot switches simultaneously until the Program Mode LED lights and a P appears briefly in the display window. Foot switches <1-3> act as on/off toggle switches for the specified effects.

BANK MODE

Allows you to scroll quickly through Factory and User Banks by using the <UP> and <DOWN> foot switches. Select Bank mode by pressing the <2> and <3> foot switches simultaneously until the Bank LED lights and a b appears briefly in the display window. When you enter Bank mode, the Bank and Program numbers from the previous mode will be retained. When a program number is displayed in the display window, you can also use the Value <UP> and <DOWN> buttons to scroll through Programs and Banks.

When the <UP> and <DOWN> footswitches are used in Bank mode, you will scroll through Banks only. When you change a Bank using this method, the previous Program number is not displayed with the new Bank. The LEDs above foot switches <1-3> will begin flashing, indicating that you can choose a Program in the selected Bank by pressing one of the three foot switches. Once a program number has been selected, both the Bank and Program numbers will be displayed.

EDIT MODE

Allows you to modify effect Parameters in a program. Enter Edit mode by pressing the <Edit> button. The display window now shows the value of the Parameter indicated by the LEDs in the matrix. You can scroll through the Parameter matrix using the Parameter Select buttons. The Parameter Select <UP> and <DOWN> buttons allow you to scroll through the vertical effect LEDs, while the <LEFT> and <RIGHT> buttons allow you to scroll through the horizontal parameter LEDs.

After selecting a Parameter, you can change its value with the Value <UP> and <DOWN> buttons. When changing Parameter values, a decimal point will begin flashing in the lower right corner of the display when the value shown is not the stored value for the program. If you return to the original value, the decimal point will stop flashing. If you exit Edit mode after changing the Parameters and then return to Edit mode, the last viewed Parameter will be displayed.

STORE MODE

Once you have modified the Parameters and Effects, you can store them to a User Program location. When Effects or Parameters have changed in a Program, the decimal point in the lower right corner of the display will flash, indicating a change and you need to store the changes. Press the <Store> button once and the both of the seven segment LEDs in the display window will flash. Select the User bank and program location you want using the Value <UP> and <DOWN> buttons and press the <Store> button again to save the changes.

BYPASS MODE

Allows you to bypass the RP-3's Effects. Enter this mode by pressing footswitches <1 & 2> simultaneously and b^{b} will appear in the display window to indicate you are in Bypass mode. Exit this mode by pressing any of the footswitches. When you exit this mode, the RP-3 will default to the last mode you were in.

TUNER MODE

Allows you to tune your guitar. Enter Tuner mode by pressing and holding footswitches <1 & 2> simultaneously. Now t^{b} will appear briefly in the display window 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 will work best). The display window will show the note being played and the vertical effects matrix LEDs (tuning bar) will light. Once the green LED on the tuning bar is lit, the note is in tune. If the note is not in tune, 1 or 2 of the LEDs above or below the green IN TUNE LED will be lit. If LED's below are lit, the note is flat and should be tuned up. If the LEDs above are lit, the note is sharp and should be tuned down.

You can change your tuning preference by using the Value <UP> and <DOWN> buttons while in Tuner mode. The default factory setting is: 4^{b} A=440 Hz. The tuning reference control ranges from 2^{7} (427) Hz to 5^{3} (453) Hz, which is the equivalent of ± 50 cents (1/2 semitone) in either direction from 440 Hz.

When you scroll down from 2^{7} (427) Hz, you will also find alternate dropped tunings. Alternate tunings are A = Ab (f^{b}), A = G (3^{b}), and A = Gb (3^{b}). The display window will briefly flash the currently selected tuning preference.

Exit this mode by pressing any one of the footswitches. When you exit this mode, the RP-3 will default to the last mode you used.

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 3 functions for Learn-A-Lick. They include:

- Start / Stop
- Rewind
- Record

Using Learn-A-Lick

- Connect the headphone output of your CD or tape player to the Jam-a-long input jack on the rear panel using an 1/8" stereo plug. Set the level to a desired listening level using the CD or tape player volume control.
- Press the <UP> and <DOWN> footswitches simultaneously to enter Learn-a-lick mode.
- Cue up to the passage you want to record and hit pause on the CD or tape player.
- Release the pause button and press the <3> foot switch together when you are ready to begin recording the passage. The display will read: r^{E} and recording will begin. When recording is completed, the phrase is set into an auto-loop playback mode. Stop or press pause on the CD or Tape player.
- Pressing the <TEMPO DN> foot switch will slow the playback down to 1/4 speed in 1/8th speed intervals.
- Pressing the <TEMPO UP> foot switch will increase the playback speed to normal speed at 1/8th speed intervals.
- Pressing the <REWIND> foot switch steps back through the loop at 1 second intervals.
- The Expression pedal will control output level of auto loop.
- To re-record a passage, press the <RECORD> foot switch again.
- To exit the Learn-A-Lick mode, press the <UP> and <DOWN> footswitches simultaneously.

SECTION 4 - EFFECTS AND PARAMETERS

About the Parameter Matrix

The Parameter matrix displays all the effects and parameters available in the RP-3. The parameters are arranged in rows and columns. Use the Parameter select keys to navigate the matrix. The effects and their parameters are as follows:

Wah

Parameters	Displayed Values
On/Bypass	0 n - b 4
Type	1 . . . 7
Amount	0 . . . 99

The RP-3 offers a classic wah wah effect, which can be used with or without distortion for that classic wah-wah sound. The effect can be controlled with the expression pedal.

Wah Turns the Wah on and off.

Type The Wah types include; 1. being full-range and 2 through 7 move from darker to lighter tones.

Amount This parameter is a manual setting to control the wah effect. This parameter can be modified manually using the RP-3's parameter keys to perform the wah function. As the parameter is modified, the tone of the original note will change. Ranges 0 to 99.

Compressor

Parameters	Displayed Values
On/Bypass	0 n - b 4
Amount	L 0 - 1 . . . 96 - H 1

The RP-3's Compressor can be used to increase sustain and to tighten up guitars, and is particularly useful on clean sounds. Parameters of the RP-3 compressor are as follows:

Compressor Turns the Compressor on or off.

Amount Controls the amount of compression applied to the signal. Higher settings yield a tighter, more focused sound, while lower settings allow better dynamics. Ranges from 1-Lo to 96-Hi.

Distortion

Parameters	Displayed Values
On/Bypass	<i>On - bY</i>
Type	<i>Gr - od</i>
On/Bypass Level	<i>0 . . . 99</i>
Gain	<i>1.0 - 11</i>

The distortion section of the RP-3 has two extremely flexible distortion types, capable of producing the smoothest of blues tones to the full shred gain of a hot-rodded amp.

Distortion	Turns the Distortion on or off.
Type	Selects the type of distortion voicing used. <i>Gr</i> (Grunge) is an over the top high gain distortion which provides a high amount of sustain and <i>od</i> (Overdrive) is a low to medium gain distortion.
On/Bypass Level	Sets the output level of the Distortion when the effect is On or Bypassed. Ranges from 0 to 99. The On level is displayed when distortion is on and Bypass level is displayed when distortion is Off.
Gain	Controls the amount of distortion produced by the RP-3. High settings produce greater gain and drive for effortless soloing, while low settings offer better nuance and dynamic control. Ranges from 1.0 to 11.

Equalizer

Parameters	Displayed Values
On/Bypass	<i>On - bY</i>
Low Gain	<i>- 15 . . . 0 . . . 15</i>
Mid Freq	<i>0.1 . . . 16</i>
Mid Gain	<i>- 15 . . . 0 . . . 15</i>
High Gain	<i>- 15 . . . 0 . . . 15</i>

The RP-3 offers a Three-band equalizer. The center frequency of the Mid band is adjustable along with its gain (boost or cut).

Equalizer	Turns the Equalizer on or off.
Mid Frequency	Allows you to select the center frequency of the Mid band. Mid Band ranges from 0.1 to 16 (100 Hz to 16 kHz).
Gain Low, Mid, High	Allows you to boost and cut the frequency. Ranges are from -15 to 15.

Gate/Swell

Parameters	Displayed Values
On/Bypass	<i>On - b Y</i>
Type	<i>1 - 20</i>
Threshold	<i>L0 - H 1</i>

The RP-3's Silencer offers you a professional quality digital noise reduction effect.

- Gate/Swell** Turns the Gate on or off.
- Type** Controls how fast the Silencer™ gate opens after detecting a signal above the threshold. Large numbers yield longer swell times, while small numbers give a fast attack. Varies from 1-20 (2 seconds).
- Threshold** Sets the level at which the Silencer™ gate will open. Ranges are Lo and High.

Mod/Pitch

Parameters	Displayed Values							
On/Bypass	<i>On - b Y P</i>							
Type	<i>Ch</i>	<i>FL</i>	<i>PH</i>	<i>Tr</i>	<i>PA</i>	<i>Pt</i>	<i>bd</i>	<i>H 1 - H 6</i>
Level	<i>0 .. 99</i>	<i>0 .. 99</i>	<i>0 .. 99</i>	<i>0 .. 99</i>	<i>0 .. 99</i>	<i>0 .. 99</i>	<i>0 .. 99</i>	<i>0 .. 99</i>

The RP-3's multi-function Mod/Pitch module, will allow you to select effects such as; Chorus, Flanger, Phaser, Tremolo, Panner, Pitch Shift, Whammy™, and Harmony effect. The parameters of these effects are adjusted in this module.

- Mod/Pitch** Turns the Module on or off.
- Type** Allows you to select a specific type of modulation/pitch effect. The Types are; Chorus, Flanger, Phaser, Tremolo, Panning, Pitch Shifting, Whammy (Bend), and Harmony.
- Level** Controls the overall mix level of the mod or pitch shifting effect. Ranges from 0 to 99.

CH (Chorus)

Values	Displayed Values
Speed	0 . . . 99
Depth	1 . . . 99

The RP-3 offers a chorusing effect that is unique in both character and sound. This dual chorus offers exceptionally rich chorusing using multiple voices with different phasing characteristics. Chorus parameters are as follows:

Speed Controls the speed of the chorus sweep. Ranges from 0 to 99.

Depth This parameter sets the sweep depth (intensity) of the chorus. Ranges from 1 to 99.

FL (Flanger)

Values	Displayed Values
Speed	0 . . . 99
Depth	1 . . . 99

The RP-3 also offers exceptionally rich flanging. Flange parameters are as follows:

Speed Controls the speed of the flange sweep. Ranges from 0 to 99.

Depth/Regeneration Sets the depth amount and regeneration present in the flange effect. Ranges from 1 to 99.

PH (Phaser)

Values	Displayed Values
Speed	0 . . . 99
Depth	1 . . . 99

The RP-3's classic adjustable phase shifting effect is reminiscent of mid-70's keyboard and guitar sounds.

Speed Controls the speed of the phase sweep. Ranges from 0 to 99

Depth/Regeneration Sets the sweep depth (intensity) and regeneration of the phaser. Ranges from 1 to 99.

TR (Tremolo)

Values	Displayed Values
Speed	0 . . . 99
Depth	1 . . . 99

Tremolo was one of the first real effects, and appeared mostly on early guitar amplifiers. Because of this, Tremolo is sometimes perceived as sounding “old” or “vintage”. The RP-3, breathes new life into this classic effect, providing totally transparent volume modulation of sound sources.

Speed Controls the tremolo speed (speed of modulation). Ranges from 0 to 99.

Depth Adjusts the intensity of the tremolo effect. Ranges from 1 to 99.

PA (Auto Panning)

Values	Displayed Values
Speed	0 . . . 99
Depth	1 . . . 99

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 99.

Depth Adjusts the intensity of the panning effect. Ranges from 1 to 99.

PE (Pitch Shifting)

Values	Displayed Values
Amount	- 12 . . . 0 . . . 24
Key/Bend	- 15 . . . 0 . . . 15

This RP-3's Pitch Shifting effect gives you a shifted signal from 0 to 24 semi-tones above or -12 semi-tones below the pitch of the input signal.

Amount Sets the interval between the original note and the pitch shifted note. Variable from -12 to 24.

Key/Bend Determines the amount of detuning applied to the shifted note. Variable from -15 to 15.

bd (Pitch Bending/Whammy)

Values	Displayed Values
Amount	1 . . . 16
Key/Bend	0 . . . 99

The RP-3's pitch bending effect allows you to smoothly shift between two preset pitch intervals using the Expression Pedal.

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

1=Up 1 Octave	9=Down 1 Oct - Up 1 Oct
2=Up 2 Octaves	10=Down 4th - Down Minor 3rd
3=Down 2nd Reversed	11=Up 5th - Up 6th
4=Down 2nd	12=Up 4th - Up 5th
5=Down 4th	13=Up Minor 3rd - Up Maj 3rd
6=Down 1 Octave	14=Up 2nd - Up Maj 3rd
7=Down 2 Octaves	15=Down 4th - Up 5th
8=Down 6 Octaves	16=Up 5th - Octave Up

Key/Bend This Parameter is a manually selectable bend amount of the Whammy™ effect. As it is modified, the pitch of the original note will change in intervals according to the setting of the Amount parameter. Ranges from 0 to 99.

H 1-H6 (Harmony)

<i>Values</i>	<i>Displayed Values</i>
<i>Type</i>	<i>H 1 . . . H 6</i>
<i>Amount</i>	<i>0 d . . . 0 u</i>
<i>Key/Bend</i>	<i>A b . . . 9</i>

The RP-3 also offers Intelligent Harmony Pitch Shifting that lets you select the key, scale and amount of shifting in the signal. The parameters are as follows:

Type	This parameter lets you select the scale that the Harmony effect uses. There are six different scales and they are numbered as follows: <i>H 1</i> - Major, <i>H 2</i> - Minor, <i>H 3</i> - Harmonic Minor, <i>H 4</i> - Dorian, <i>H 5</i> - Mixolydian, and <i>H 6</i> - Blues.
Amount	Amount lets you select how much the pitch is shifted. This Ranges from: Octave down-Octave Up
Key/Bend	This parameter lets you select which key the harmony shifting takes place in. This ranges from: A _b to G.

Note: The reverb and Wah effects are not available when the Harmony effect is selected. For complete reference guide to these scales, please refer to the Harmony interval charts located in the Appendix section on page 18.

Delay

<i>Parameters</i>	<i>Displayed Values</i>
<i>On/Off</i>	<i>0 n - b 4</i>
<i>Type</i>	<i>1 . . . 2</i>
<i>Level</i>	<i>0 . . . 99</i>
<i>Delay Time</i>	<i>1 . . . 3.5</i>
<i>Feedback</i>	<i>0 . . . 99 . . . r h</i>

Delay Parameters are as follows:

Delay	Turns the Delay on and off.
Type	Determines the type of delay. Type 1 is a mono delay and Type 2 is a ping pong delay.
Level	Controls the level of the delay. 2. Ranges from 0 to 99.
Delay Time	The available delay time ranges are 1 (no delay) to 3.5 seconds.
Feedback	The number of delay repeats. Ranges from 0 to 99 and rh (repeat/hold).

Reverb

<i>Parameters</i>	<i>Displayed Values</i>
<i>On/Bypass</i>	<i>On - b Y</i>
<i>Type</i>	<i>CL . . . SP</i>
<i>Level</i>	<i>0 . . . 99</i>
<i>Decay Time</i>	<i>1 . . . 10</i>

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:

Reverb	Turns the Reverb effect on or off.
Type	Allows you to choose your ambience or setting you want to use. There are ten available type settings: <i>CL</i> = Club <i>HA</i> = Hall <i>St</i> = Studio <i>Ch</i> = Church <i>ro</i> = Room <i>Ar</i> = Arena <i>PL</i> = Plate <i>SP</i> = Spring <i>GA</i> = Garage
Level	Controls the amount of reverb signal to be mixed in with the dry signal. Ranges from 0 to 99.
Decay Time	The amount of time it takes for the Reverb to fade to inaudibility. Ranges from 1 to 10.

Cabinet Emulator

<i>Parameters</i>	<i>Displayed Values</i>
<i>On/Bypass</i>	<i>On - b Y</i>
<i>Type</i>	<i>1 . . . 9</i>

The RP-3's programmable Speaker Cabinet circuitry allows you to use it in both recording and live situations without lugging heavy amps and/or cabinets around. Just connect the RP-3's outputs to a mixing console and kick in the Speaker Cabinet. Parameters are as follows:

Cabinet	Turns the Cabinet Emulator on or off.
Type	Selects the tonal characteristics of the simulated cabinet. There are 9 different cabinet types; 1 being the brightest and 9 being the darkest.

Note: When headphones are plugged in, the Speaker Cabinet Emulator is engaged globally on all programs. This will affect the sound at the left and right main outputs.

Expression Pedal

<i>Parameters</i>	<i>Displayed Values</i>
<i>Expression</i>	<i>0F . . . AH-SP-dE-bd-Fb-L1-L2</i>

The RP-3's Expression pedal allows you to control various parameters in real time during performance.

Expression There are eight parameters that can be controlled by the Expression Pedal. *AH*=Wah, *SP*=Speed, *dE*=Depth, *bd*=Whammy, *Fb*=Delay Feedback, *L1*=Pre Effects Volume, *L2*=Post Effects Volume.

Master Level

<i>Parameter</i>	<i>Displayed Values</i>
<i>Master Level (L1 and L2)</i>	<i>0 - 99</i>

The RP-3'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. One of two level types can be linked to the Expression pedal, L1 is a pre effects volume and L2 is a post effects volume.

Master Level Controls the overall program level. Variable from 0 to 99.

Section 5 - Appendix

Reinitializing the RP-3

This option allows you to restore the contents of the RP-3's memory to the original factory condition and to calibrate the expression pedal.

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

To restore the factory Programs, the procedure is as follows:

1. Plug in the RP-3 while holding down the Parameter Select <UP> button.
2. When: $r \bar{5}$ appears in the display window, press the Value <UP> button
3. The display will now prompt you to calibrate the Expression pedal by reading: Pd and EH .
4. When the display reads: $EO...dn$ rock the pedal forward and press any one of the <1-3> footswitches.
5. When the display reads: $EO...UP$, rock the pedal back and press any one of the <1-3> footswitches. The expression pedal will now be calibrated and the RP-3 will return to program mode.

Recalibrating the Expression Pedal

If the expression pedal should for some reason need to be recalibrated, you can recalibrate by disconnecting the power, press and hold the Parameter select <DOWN> button and repeat steps 3-5 as shown in the Re-initializing the RP-3 section above.

Harmony Interval Chart

	H1	H2	H3	H4	H5	H6	
Interval	Major	Minor	Harm.Minor	Dorian	Mixolydian	Blues	
↑Oct	C	C	C	C	C	C	
↑6th	A	A \flat	A \flat	A	A		
↑5th	G	G	G	G	G	G	
↑3rd	E	E \flat	E \flat	E \flat	E	E \flat	
Ref	C	C	C	C	C	C	
↓3rd	A	A \flat	A \flat	A	A	G	4th (Blues Only)
↓5th	F	F	F	F	F	F	
↓6th	E	E \flat	E \flat	E \flat	E		
↓Oct	C	C	C	C	C	C	

Specifications

A/D Converter: 20 bit
D/A Converter: 20 bit
Sampling Frequency: 40 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: 10.0 MIPS
Address ALU Processing: 15.0 MIPS
Multiplier Size: 24 bits x 24 bits

Input Section:

Connector: 1/4" Unbalanced TRS
Nominal Level: -8 dBu
Maximum Level: +10 dBu
Impedance: 470 kohms

Output Section:

Connector: 1/4" TRS
Nominal Level: +4 dBu
Maximum Level: +18 dBu
Impedance: 50 ohms

General:

Frequency Response: 20 Hz. - 20 kHz. +0, -3 dB
S/N ratio: Greater than 90 dB; ref = max signal, 22 kHz measurement bandwidth
Total Harmonic Distortion: Less than 0.04% (1 kHz.)
Memory Capacity: Factory: 30 Programs User: 30 Programs

Power Requirements:

US and Canada: 120 V AC, 60 Hz
Japan: 100 V AC, 50/60 Hz
Europe: 230 V AC, 50 Hz
UK: 240 V AC, 50 Hz

Power Consumption: 12 watts
Dimensions: Length 14.6" Width 8.75" Height 2.75"

Preset List

The following is a list of all the factory Programs in the RP-3.

Bank 0 Showcase

- 0-1 Solo Time
- 0-2 Clean Phasor
- 0-3 Thick Rhythm

Bank 1 Heavy

- 11 Crusher
- 12 Bad Boy
- 13 Metal Flange

Bank 2 Blues

- 21 Bold Blues
- 22 Blue Slide (Exp Pdl)
- 23 Chicago Shuffle

Bank 3 Studio

- 31 Studio Rhythm
- 32 Spankin' Clean
- 33 Greasy Solo

Bank 4 Country

- 41 Chicken Slap
- 42 Pedal Steel (Expression Pedal)
- 43 The Tremolo

Bank 5 Modern

- 51 Whammy Head
- 52 To the Wall
- 53 Phase-Delic

Bank 6 Retro

- 61 Surfer Dude
- 62 80's Pop
- 63 Classic Wah

Bank 7 Jazz/Fusion

- 71 Jazz Club
- 72 Fingerstyle w/Bass
- 73 Fusion Solo

Bank 8 Rock

- 81 Rock Tone
- 82 Chorused Clean
- 83 Tray Catz

Bank 9 Special

- 91 2 Second Jam Loop (Exp Pdl)
- 92 Envelope Swell
- 93 E Minor Solo

Preset Chart

We have included this handy preset chart to help you keep an accurate record of your custom presets.

	<u>BANK:</u>	<u>BANK:</u>	<u>BANK:</u>
WAH			
On/Bypass	<input type="text"/>	<input type="text"/>	<input type="text"/>
Type	<input type="text"/>	<input type="text"/>	<input type="text"/>
Amount	<input type="text"/>	<input type="text"/>	<input type="text"/>
COMPRESSOR			
On/Bypass	<input type="text"/>	<input type="text"/>	<input type="text"/>
Amount	<input type="text"/>	<input type="text"/>	<input type="text"/>
DISTORTION			
On/Bypass	<input type="text"/>	<input type="text"/>	<input type="text"/>
Type	<input type="text"/>	<input type="text"/>	<input type="text"/>
On Level	<input type="text"/>	<input type="text"/>	<input type="text"/>
Bypass Level	<input type="text"/>	<input type="text"/>	<input type="text"/>
Gain	<input type="text"/>	<input type="text"/>	<input type="text"/>
EQUALIZER			
On/Bypass	<input type="text"/>	<input type="text"/>	<input type="text"/>
Low Gain	<input type="text"/>	<input type="text"/>	<input type="text"/>
Frequency	<input type="text"/>	<input type="text"/>	<input type="text"/>
Gain	<input type="text"/>	<input type="text"/>	<input type="text"/>
High Gain	<input type="text"/>	<input type="text"/>	<input type="text"/>
EQUALIZER			
On/Bypass	<input type="text"/>	<input type="text"/>	<input type="text"/>
Type	<input type="text"/>	<input type="text"/>	<input type="text"/>
Threshold	<input type="text"/>	<input type="text"/>	<input type="text"/>
MOD PITCH			
On/Bypass	<input type="text"/>	<input type="text"/>	<input type="text"/>
Type	<input type="text"/>	<input type="text"/>	<input type="text"/>
Level	<input type="text"/>	<input type="text"/>	<input type="text"/>
Speed/Amount	<input type="text"/>	<input type="text"/>	<input type="text"/>
Bend/Key	<input type="text"/>	<input type="text"/>	<input type="text"/>
DELAY			
On/Bypass	<input type="text"/>	<input type="text"/>	<input type="text"/>
Type	<input type="text"/>	<input type="text"/>	<input type="text"/>
Level	<input type="text"/>	<input type="text"/>	<input type="text"/>
Delay Time	<input type="text"/>	<input type="text"/>	<input type="text"/>
Feedback	<input type="text"/>	<input type="text"/>	<input type="text"/>
REVERB			
On/Bypass	<input type="text"/>	<input type="text"/>	<input type="text"/>
Type	<input type="text"/>	<input type="text"/>	<input type="text"/>
Level	<input type="text"/>	<input type="text"/>	<input type="text"/>
Decay Time	<input type="text"/>	<input type="text"/>	<input type="text"/>
CABINET EMULATOR			
On/Bypass	<input type="text"/>	<input type="text"/>	<input type="text"/>
Type	<input type="text"/>	<input type="text"/>	<input type="text"/>
EXPRESSIN PEDAL			
	<input type="text"/>	<input type="text"/>	<input type="text"/>
MASTER LEVEL			
	<input type="text"/>	<input type="text"/>	<input type="text"/>



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INNOVATION**

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*Printed In U.S.A. 2/98
Manufactured in the U.S.A.*

RP-3 18-2220-A

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