1. Introduction

Congratulations on your purchase of the Rocktron Prophesy™!

Effectively comprising three complete processors in a single package, the Prophesy is the single most powerful and sophisticated guitar system available today. With dual 24-bit, 66MHz DSP processors providing 130mips of processing power, the Prophesy is over 12 times as powerful as the original Rocktron Intellifex!

The pre-effects section features wah, compression, EQ, and numerous other effects that can be assigned prior to the preamp section. The highly-configurable post-effects section provides ultra-transparent, high quality effects which completely preserve the tone of the preamp—thick reverbs and lush choruses can be used without coloring the sound of the preamp's tone.

The preamp section features four channels (*Clean American, Texas Blues, Vintage British* and *Mega Drive*), each with their own distinct voicings to provide a vast array of amp sounds to the player — especially when combined with the pre and post parametric EQ.

The ADSR (Attack/Decay/Sustain/Release) function features Rocktron's patent-pending pluck detection, and allows you to configure specific Prophesy parameters to be controlled dynamically by each pluck of a guitar string.

Getting Started

Often the large number of display pages and preset parameters in a product such as the Prophesy can seem a little overwhelming to a new user. Once you have become familiar with the basic operating interface of the Prophesy, we encourage you to study the Performance Notes section in the Appendix of this manual. The Performance Notes section describes how many of the factory presets were created, and discusses how to get a particular distortion sound, which effects are used, etc. You can use the information from these notes to help you in creating your own unique presets.



For a thorough explanation of the Prophesy and its many features, please read this manual carefully and keep it for future reference.

Safety Precautions

NOTE: IT IS VERY IMPORTANT THAT YOU READ THIS SECTION TO PROVIDE YEARS OF TROUBLE FREE USE. THIS UNIT REQUIRES CAREFUL HANDLING.

- All warnings on this equipment and in the operating instructions should be adhered to and all operating instructions should be followed.
- Do not use this equipment near water. Care should be taken so that objects do not fall and liquids are not spilled into the unit through any openings.
- All safety and operating instructions must be read before operating this equipment. Instructions should be retained for future use.
- All warnings on the equipment and in the operating instructions should be adhered to, and all operating instructions should be followed.
- Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through any openings.
- The power cord should be unplugged from the outlet when left unused for a long period of time.

- This equipment should not be used near water for example, near a bathtub, laundry tub, in a wet basement, near a swimming pool, etc.
- The power cord to this equipment should be routed so that it is not likely to be walked on or pinched by items placed upon or against it. Care should be taken as to not overload any one AC power outlet with too may appliances. The power cord should be unplugged from the outlet when the equipment is left unused for a long period of time.
- This unit should be connected to a power supply only of the type recommended by the manufacturer as described in the operating instructions.
- This equipment should be situated so that its location or position does not interfere with proper ventilation. This equipment should be kept away from heat sources.
- This unit should be serviced by qualified service personnel when:
 - The power supply cord or the plug has been damaged, or
 - Objects have fallen, or liquids have been spilled into the unit, or
 - The unit has been exposed to rain or water, or
 - The unit does not appear to operate normally or exhibits a marked change in performance, or
 - The unit has been dropped, or the enclosure damaged.

DO NOT ATTEMPT TO SERVICE THE EQUIPMENT. THIS EQUIPMENT SHOULD BE SERVICED BY QUALIFIED SERVICE PERSONNEL ONLY. DO NOT REMOVE THE COVER FROM THIS EQUIPMENT AT ANY TIME. DO NOT MAKE ANY INTERNAL ADJUSTMENTS OR ADDITIONS TO THIS EQUIPMENT AT ANY TIME. DO NOT TAMPER WITH THE INTERNAL ELECTRONIC COMPONENTS AT ANY TIME. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY VOID WARRANTY SERVICE TO THIS EQUIPMENT, AS WELL AS CAUSING SHOCK HAZARD.

Power Requirements

This unit accepts power from the 9VAC/3.4A adaptor supplied with the unit. This 9 volt RMS AC voltage is internally processed by a voltage doubler which generates a bipolar ±15 volts to maintain the headroom and sound quality of professional, studio quality equipment. Using an external power source such as this minimizes excessive noise and hum problems often associated with internal transformers, providing optimal performance for the user.

Operating Temperature

Do not expose this unit to excessive heat. This unit is designed to operate between 32° F and 104° F (0° C and 40° C). This unit may not function properly under extreme temperatures.

2. Front Panel



1 POWER switch

2 PRESET control

The **PRESET** control is used to scroll through the Prophesy's 127 presets. Each preset is activated automatically when it is displayed.

3 DISPLAY panel

4 GAIN control

The function of the **GAIN** control is dependent upon the current status of the display:

- When the title for the current preset is displayed, this control can be used to instantly display the first Preamp page. This control then provides instant access to the *Gain* parameter of that page.
- When any parameter page is displayed, this control is used to edit the parameter that is displayed directly above it. (Note that this control is not used when no parameters are displayed above it.)

5 BASS control

The function of the **BASS** control is dependent upon the current status of the display:

- When the title for the current preset is displayed, this control can be used to instantly display the first Preamp page. This control then provides instant access to the *Bass* parameter of that page.
- When any parameter page is displayed, this control is used to edit the parameter that is displayed directly above it. (Note that this control is not used when no parameters are displayed above it.)

6 MID control

The function of the **MID** control is dependent upon the current status of the display:

- When the title for the current preset is displayed, this control can be used to instantly display the first Preamp page. This control then provides instant access to the *Mid* parameter of that page.
- When any parameter page is displayed, this control is used to edit the parameter that is displayed directly above it. (Note that this control is not used when no parameters are displayed above it.)

7 TREBLE control

The function of the **TREBLE** control is dependent upon the current status of the display:

- When the title for the current preset is displayed, this control can be used to instantly display the first Preamp page. This control then provides instant access to the *Treble* parameter of that page.
- When any parameter page is displayed, this control is used to edit the parameter that is displayed directly above it. (Note that this control is not used when no parameters are displayed above it.)

8 PRESENCE control

The function of the **PRESENCE** control is dependent upon the current status of the display:

- When the title for the current preset is displayed, this control can be used to instantly display the first Preamp page. This control then provides instant access to the *Presence* parameter of that page.
- When any parameter page is displayed, this control is used to edit the parameter that is displayed directly above it. (Note that this control is not used when no parameters are displayed above it.)

9 MASTER control

The function of the **MASTER** control is dependent upon the current status of the display:

- When the title for the current preset is displayed, this control can be used to instantly display the first Preamp page. This control then provides instant access to the *Master* parameter of that page.
- When any parameter page is displayed, this control is used to edit the parameter that is displayed directly above it. (Note that this control is not used when no parameters are displayed above it.)

10 PAGE control

The **PAGE** control is used to scroll through the display pages of the current preset, where each page displays adjustable parameters for the active effects and Prophesy functions.

11 INput and COMPression meters

The input meter provides a visual indication of the peak level of the input signal. For the optimal signal-to-noise ratio, it is best to adjust the input level so that the top-most LED (0dB) is rarely lit. This will guard against overdriving the unit.

The compression meter provides a visual indication of the level of compression currently applied to the signal.

These meters are also used to indicate the stereo output levels when mixer function pages are displayed.

12 Button group

The group of buttons to the right of the display perform various tasks, and light up to provide a visual indication of active effects and functions. These buttons each operate as described below.

	Allows you to compare a preset that has been modified to the original, stored preset. This button is lit when listening to the stored version of the preset.
STORE	Permanently saves any changes made to a preset to Prophesy memory. This button lights when a preset page is displayed which has one or more parameters that have been altered from their stored values, or the preset title page of an altered preset is displayed.
	This button also lights when the Preset Utility page is displayed, indicating that a MIDI dump or factory restore may be initiated.

BYPASS	When pressed, switches all Prophesy effects out of the signal path. This button is lit when the effects are bypassed.
	Fully attenuates the Prophesy outputs and activates the Prophesy built-in tuner. This button lights when the Prophesy output is muted.
COMP	Instantly accesses the Compressor page for the current preset. Once the Compressor page has been displayed, this button can then be used to switch the compressor in and out of the signal path. This button is lit when the compressor is active.
WAH	Instantly accesses the Wah page for the current preset. Once the Wah page has been displayed, this button can then be used to switch the wah in and out of the signal path. This button is lit when the wah is active.
PHASER	Instantly accesses the Phaser page for the current preset if it has been assigned. When the Phaser page is displayed, this button can then be used to switch the phaser in and out of the signal path. This button is lit when the phaser effect is active.
	Instantly accesses the first Preamp page for the current preset. Once the Preamp page is displayed, this button can then be used to switch the preamp in and out of the signal path. When lit, the preamp is active. When not lit, the preamp is bypassed and the signal only passes through any active effects.
	Instantly accesses the Tremolo page for the current preset. When the Tremolo page is displayed, this button can then be used to switch the tremolo in and out of the signal path. This button is lit when the tremolo effect is active.
	Switches the Loop in or out if it has been assigned.
	When pressed, looks to see if one of the three modulation effects is assigned (flange, chorus or rotary). If the particular effect it is searching for is assigned to the preset, the Prophesy displays the first page for that effect. If not, displays a message indicating that the effect is not currently assigned.
	Additional presses of the MODU button perform the same search for the remaining two modulation effects.
	Instantly accesses the first Pitch Shift page for the current preset if it has been assigned. When the first Pitch Shift page is displayed, this button can then be used to switch the pitch shift effect in and out of the signal path. This button is lit when the pitch shift effect is active.
	When viewing any page other than a delay or tremolo page, this button allows you to tap the current delay time, tremolo rate, or both (depending on the current setting of the TAPBTN parameter on the Tap button page).

When viewing the delay time parameter, this button allows you to tap the current delay time.

When viewing the tremolo rate parameter, this button allows you to tap the current tremolo rate.

	Instantly accesses the first Delay page for the current preset if it has been assigned. When the first Delay page is displayed, this button can then be used to switch the delay effect in and out of the signal path. This button is lit when the delay effect is active.
	Instantly accesses the first Reverb page for the current preset. When the first Reverb page is displayed, this button can then be used to switch the reverb effect in and out of the signal path. This button is lit when the reverb effect is active.
MIX	Instantly accesses the first Mixer page for the current preset.

13 OUTPUT LEVEL control

The **OUPUT LEVEL** control determines the overall output level of the Prophesy at the MAINOUT jacks only.

14 INPUT LEVEL control

The **INPUT LEVEL** control adjusts the Prophesy's gain to match the signal level at its input. Use the input meter (11) to determine the optimal setting of this control.

15 INPUT jack

This standard unbalanced ¹/₄" jack provides an input to the Prophesy. This jack has the same function as the rear panel INPUT jack.

Note that the front and rear INPUT jacks should never be used simultaneously.

This jack should be used when plugging a guitar in and out on a regular basis. The rear INPUT jack should be used for a permanent input connection, such as in a rack with a wireless receiver.

3. Rear Panel



1 INPUT jack

This standard, unbalanced ¹/4" mono jack provides the same function as the front panel INPUT jack (i.e. provides an input to the Prophesy). Please note that the front and rear input jacks should not be used simultaneously.

2 OUTPUT TO TUNER jack

This standard, unbalanced ¹/₄" mono jack provides the same signal that is applied to the INPUT jack (1) for use with an external electronic tuner.

3 LOOP SEND jacks

The Left and Right LOOP SEND jacks provide left and right output signals to be fed to the left and right inputs of the first outboard effects device in the effects loop.

4 LOOP RETURN jacks

The Left and Right LOOP RETURN jacks receive the left and right output signals from the outputs of the last outboard effects device in the effects loop.

5 MAINOUT jacks

These ¹/₄" mono jacks are used to connect the Prophesy to the inputs of a stereo power amplifier. The output level of these jacks is controlled by the OUTPUT LEVEL control on the front panel.



About the Effects Loop

The Prophesy effects loop allows you to patch a series of one or more other effect units into the Prophesy's signal path at a location determined by the user.

An example of an effects loop configuration is shown in Section 4: Connections.

6 **RECORDING OUT** jacks

These XLR connectors provide left and right output signals that are suitable to be fed directly into a mixing console or recording device. Note that the Prophesy's Speaker Simulation function operates only on the RECORDING OUT outputs.

The output level of these jacks is independent of the OUTPUT LEVEL control on the front panel and is only effected by internal parameter settings. This would allow you to adjust your stage volume through the MAINOUT jacks without changing the level to the mixing board.

7 POWER jack

This 4-pin DIN connector accepts power from the 9VAC adapter supplied with the unit.

8 FOOT SWITCH jack

This ¹/₄" TRS jack allows for the connection of a dual function, latching-type footswitch. One function provides the Mute function, while the other provides the Tap Delay function.

9 PHANTOM jack

This jack provides the ability to power a Rocktron MIDI Mate[™] foot controller from a seven pin MIDI cable which connects from the MIDI Mate to the MIDI IN jack on the rear panel of the Prophesy—thus eliminating the need to find an AC outlet near where the footpedal would be placed during a performance, or the need to run an extension cord out to the MIDI Mate.

Instead of inserting the adaptor into the MIDI Mate POWER jack, plug it into the PHANTOM POWER jack on the Prophesy. This will power the MIDI Mate through pins 6 and 7 of the MIDI cable connecting the two units. A 7-pin MIDI cable must be used for this feature and is available through your Rocktron dealer.

10 MIDI IN jack

This 7-pin DIN connector receives MIDI information from the device which is transmitting the MIDI commands for the Prophesy to execute.

11 MIDI OUT/THRU jack

This standard 5-pin DIN connector passes on the MIDI information that is received at the MIDI IN jack to other MIDI-compatible devices via a MIDI cable. It also outputs MIDI data when performing a memory dump.



About MIDI chains

Inherently in MIDI there is a limit to the number of devices which can be chained together (series connected). With more than three devices, a slight distortion of the MIDI signal can occur (due to signal degradation) which can cause an error in MIDI signal transmission.

Should this occur, a MIDI box can be used which connects directly to the device transmitting MIDI information. A MIDI box has multiple connectors for the multiple devices receiving MIDI.

Note that MIDI cables should not exceed 50 feet (15 meters) in length.

4. Connections

Used with a stereo power amp and stereo cabinet



Using direct into a mixing console



Using the Prophesy Effects Loop



5. Basic Operation

Preset Basics

The Prophesy provides 127 unique, stored sounds called *presets*. Each Prophesy preset remembers effect settings, mixer settings and MIDI information which can be recalled at any time.



Presets are instantly recalled when accessed via the front panel PRESET control or a MIDI footswitch. When a preset is selected, the Prophesy will display the preset number, channel, title, and any additional effects that have been assigned to the preset which aren't automatically included with every preset (HUSH, compression, wah, tremolo and reverb are automatically included with every preset). Active effects are indicated via illuminated buttons at the right of the display, as shown below:



Note

The first preset page displays any effects that are user-assigned to the current preset (that aren't automatically included).

Effects that are active in the signal path are indicated by the corresponding lit buttons to the right of the display.



Figure 5-1: Display shows preset number (122), preamp channel ("Mega Drive"), preset title ("Hot Lead") and assigned effects (Chorus, Pitch Shift).

The sound of a particular preset is dependent upon the preamp channel that is selected, which effects are selected, and how each of those effects is configured. Each effect provides numerous *parameters* that can be edited to change its characteristics, and therefore change the sound of the preset.

Preset Pages

The initial information that is displayed when a preset is recalled represents the first *page* for the preset. All remaining parameters for the preset (i.e. mixer parameters, effect parameters, etc.) are located on subsequent pages which are accessible via the front panel PAGE control. Many pages can also be instantly accessed by the corresponding buttons to the right of the display.

Each preset page displays up to six parameters for a particular effect or function, each of which can be edited to change the sound of the preset. Note that some effects and functions (such as reverb and the mixer) have many editable parameters, and therefore occupy numerous successive pages.

Turning the PAGE control will scroll through the successive pages of the current preset. The pages for each preset are organized as shown in Figure 5-2.

PAGE	Page:	Displays:
	Preset title page	Preset title, Preamp channel and assigned effects for preset (1 page)
Turning the PAGE	HUSH page	HUSH in/out status and parameters (1 page)
scrolls through the preset pages at right	Compression page	Compression in/out status and parameters (1 page)
	Wah page	Current wah frequency (1 page)
V	Preamp pages	Main preamp channel page shows Gain, Master and channel EQ (as displayed above faceplate knobs). Page 2 provides preamp channel, Global Volume MIDI parameters (2 pages)
	EQ pages	Pre, post and global EQ parameters (3 pages)
	Pre effect page	User-assignable pre effect status and parameter pages (if effect is assigned)*
	Post effect pages	User-assignable post effect status and parameter pages (if effect is assigned)*
	Tremolo page	Tremolo parameters (1 page)
	Reverb pages	Reverb parameter pages (2 pages)
	Speaker simulator page	Speaker simulator parameters (1 page)
	Mixer p ag es	Shows all pre-effect, post-effect, reverb and direct mixing parameters, as well as direct pan, global output and overall preset level. (4 pages)
	Controller pages	Controller assignment parameter pages (8 pages)
	Tap button page	Tap button setup parameters
	MIDI pages	MIDI setup parameter pages (2 pages)
	Title edit page	Editable preset title
	Preset Utilities	MIDI dump/load, preset reinitialization

* Number of pages is dependent on which effects are assigned, if any.

Figure 5-2: Basic layout of Prophesy preset pages

Adjusting parameters

The six controls grouped directly below the display are used to edit the displayed parameter values for each page. All display pages are configured so that each parameter can be adjusted by the control that is located directly beneath it.



Figure 5-3: Each displayed parameter can be adjusted by the control located directly below it.

Instant access controls

When a preset is recalled and the preset title page is displayed, the six controls below the display can be used to instantly access the gain, basic EQ and master volume parameters for the current preset (Figure 5-4). Turning any of these controls when viewing the preset title page will immediately display the first preamp page — providing instant access to some of the most commonly-edited parameters.



Figure 5-4: Turning any of the six controls above when viewing a preset title will instantly recall the first preamp page, allowing for instant editing of these common parameters.

Prophesy effects

Each Prophesy preset can have up to eight effects assigned to it. Of these eight, there are four that are always automatically assigned to every preset — these are compression, wah, tremolo and reverb. The table on the following page lists all of the effects that can be assigned to a Prophesy preset.



Although some effects are automatically assigned to each preset, they do not necessarily have to be active in the signal path (i.e., they can be switched in or out at any time).

PROPHESY EFFECTS		
Effect	Pre/Post Preamp	Assignment
Compressor	Pre	Automatic
Wah	Pre	Automatic
Tremolo	Post	Automatic
Reverb	Post	Automatic
Phaser	User Defined	User Assignable
4-voice Chorus	User Defined	User Assignable
Ducker Delay	User Defined	User Assignable
Pitch Shift	User Defined	User Assignable
Flanger	User Defined	User Assignable
Rotary	User Defined	User Assignable
Effect Loop	User Defined	User Assignable

Effect Configuration

Of the eight possible effects per preset, three are configured as *pre-effects* (located before the gain section in the signal path) while the remaining five are *post-effects* (located after the gain section), as shown in Figure 5-5 below.



Figure 5-5: Simplified Prophesy effect configuration

You can think of the pre-effects like the stomp-boxes that you would normally connect between the guitar and the input of an amplifier (before any gain is applied to the signal) effects like phasers, wah pedals and compressors. Post-effects are those that you would run through the effects loop of the amp (after gain has been applied to the signal)—these include the higher-end processing units which provide effects such as reverb, delay and chorus. However, you are free to assign any available effects to any of the user-assignable locations designated in Figure 5-5.

Assigning Effects to a Preset

The user-assignable Pre Effect and Post Effect pages each begin with a simple page which displays the effect currently assigned to the respective location, as shown in Figure 5-6. The unit will display "EMPTY" if no effect has been assigned to the location, as shown in Figure 5-7.



Figure 5-6: Post Effect 1 status/assign page with the Chorus effect assigned



Figure 5-7: Post Effect 1 status/assign page with no effect assigned

1 To assign an effect to a preset, first select the location where the effect is to be executed in the signal path (Pre effect, Post Effect 1, Post Effect 2 or Post Effect 3) using the PAGE control.





Continued ⇒

2 The display should look like Figure 5-6 if an effect has already been assigned to the selected location, or like Figure 5-7 if one has not. The control labeled "GAIN" can be used to scroll through all of the available effects that can be assigned.





3 Once an effect has been selected, use the PAGE control to access the next page, which will be the first page of the selected effect. The effect can be switched in or out of the signal path via the its button located to right of the display. If an effect does not have its own button (such as Chorus), it can be switched in or out via the first parameter of the first page for the effect.





Note that the modified preset must be stored in order for the changes that have been made to be activated the next time the preset is recalled. This is described in the following section.

Saving your changes

A modified preset must be *stored* in order for the changes that have been made to be activated the next time the preset is recalled.

1 To save a modified preset, press the STORE button once to initiate the storing procedure. The Prophesy will display "SELECT DESTINATION PRESET". This allows you to store the modified preset into a new location, while saving the original preset at the present location.



STORE

SELECT DESTINATION PRESET





It is not necessary to store changes made to a particular page before accessing another page of the same preset, as all changes remain in memory until another preset is recalled.

However, it is important to note that any changes made to a preset will be lost if another preset is recalled before those changes are stored. 2 If you wish to save the new preset to a new preset number, use the PRESET control to select the new preset number. *Note that the preset at the currently selected location will be written over when the storing process is completed.*



If you do not wish to store the new preset at a different preset number, skip this step. *Note that the original preset stored at this location will be written over once the storing process is complete.*

3 Once the desired preset number has been selected, press the STORE button a second time. The Prophesy will display "STORING PRESET NOW" as it is storing the information, and "PRESET HAS BEEN STORED" when it is finished.





****** PRESET HAS BEEN STORED *****



Now the modified preset has been stored to the selected preset number and can be recalled at any time.

Assignable Effects Loop

In addition to assigning Prophesy effects to the locations noted as "User-assignable" in Figure 5-5, the rear panel effects loop can also be assigned to any of these locations instead of an internal Prophesy effect. This effectively inserts any outboard effect(s) into the Prophesy signal path wherever you define!



Cancelling the store process

Turning the PAGE control at any time prior to pressing the STORE button a second time (Step 3) will cancel the storing process.

Block Diagram



6. Pages and Parameters

This section details all of the pages displayed by the Prophesy and their respective parameters. Note that the pages that are accessible from any given preset is dependent upon which effects are assigned to it, therefore not all pages discussed in this section are accessible from every preset.

PRESET TITLE Page

The preset title page is the first page that is displayed when a preset is recalled. The preset title and current channel are displayed on the top line, while the bottom line indicates the effects that are currently assigned to the preset.

Preset Title Page



HUSH® Page

HUSH[®] is Rocktron's patented single-ended noise reduction system, and is available in all presets. The HUSH system provided in the Prophesy is a fully digital implementation, modeled after the latest analog HUSH design, achieved through Digital Signal Processing (DSP).

How HUSH® works

The low level expander of the **HUSH** system operates like an electronic volume control. The analog version of the **HUSH** system utilizes a voltage-controlled amplifier (VCA) circuit which can control the gain between the input and the output from unity gain to 30, 40 or even 50dB of gain reduction. When the input signal is above the user-set threshold point, the VCA circuit remains at unity gain. (This means that the amplitude of the output signal will be equal to that of the input signal.) As the input signal level drops below the user preset threshold point, downward expansion will begin. It is at this point that the expander acts like an electronic volume control, gradually decreasing the output signal level relative to the input signal level. As the input signal drops further below the threshold point, downward expansion increases (see figure below). A drop in the input level by 20dB would cause the output level to drop approximately 40dB (i.e., 20dB of gain reduction). In the absence of any input signal, the expander will reduce the gain so that the noise floor becomes inaudible.



The **HUSH** circuit is located after the A/D converter in the signal chain to reduce any noise generated from the guitar and the A/D converter. This ensures a quiet input signal to the preamp section. Because the preamp section of the Prophesy is digital, it is virtually noise-free (even in the high-gain mode). Therefore, a quiet input signal to the preamp will result in a quiet output signal.



HUSH page parameters

Parameter	DESCRIPTION
HUSH	The HUSH parameter determines whether the HUSH [®] circuit is active for the current preset. (Off, On)
HUSH THRESH	The HUSH THRESHOLD parameter determines the level at which downward expansion begins. For example, if the HUSH THRESHOLD was set at -20dB and the input signal dropped below -20dB, downward expansion would begin. (-90dB to -27dB)
GLB OFFSET	The GLOBAL OFFSET parameter allows you to globally (all presets) adjust the HUSH [®] expander threshold. This means that if this parameter is altered from 0dB to +3dB, the expander threshold will become 3dB higher for all presets. This feature is useful when switching from a quiet guitar with passive electronics to a noisier guitar with active electronics, as the guitar with active electronics would require a higher threshold level in all presets. (-10dB to +30dB)

- Application Notes: HUSH

You may find that the HUSH is not even needed for tones created with the Clean American voicing or the Texas Blues voicing when using a low gain setting. As you move into a higher gain Texas Blues setting or the Vintage British and Mega Drive voicings, the gain rises and so does the noise floor. The higher the Gain parameter of these voicings is set, the more noise you'll hear. Before turning on the HUSH and adjusting the HUSH threshold, make sure you have the preamp gain and EQ settings the way you want them for that preset, then engage the HUSH.

To properly set the HUSH THRESHOLD:

Set the Threshold level so that your signal remains open during the quietest notes or decay's that you'll be playing, yet shuts down tight when you mute your strings.

Using different guitars:

It is also important to note that if you switch guitars during a performance and those guitars have a different output level, you should quickly use the INPUT LEVEL control on the face of the unit to set a proper input level for each guitar. This will allow your preset HUSH Threshold settings to work the same for all guitars. You may also use the GLOBAL OFFSET to fine tune the HUSH Threshold settings for all presets.

COMPRESSOR Page

The compressor allows you to compress the signal prior to the distortion stage. Compression is often used to maintain an even volume level when using clean tones, and is also used to increase sustain when using distorted tones.

Compressor Page



Compressor page parameters

Parameter	DESCRIPTION
C-THRESH	The COMPRESSOR THRESHOLD parameter determines the input level (in dB) at which compression will begin. Lower settings of this parameter will result in more compression. (-30dB to -6dB)
C-ATTACK	The COMPRESSOR ATTACK parameter determines the speed (in milliseconds) in which the compressor will reach its maximum compression level after the input signal has exceeded the threshold level (set by the Compressor THRESHold parameter). (0 to 75ms)
C-RELEASE	The COMPRESSOR RELEASE parameter determines the speed in which compression will cease after the input signal has dropped below the threshold level. (.05sec to 2.05sec)

Application Notes: Compression

Compression is most often used when playing with a very clean tone, like in the Clean American or Texas Blues voicings. Since there is very little or no clipping (distortion), the guitar signal will remain very dynamic, which means that there is a lot of variance in volume levels. For example, when you strum a chord or pick a note, it sounds very loud at first and then dies out quickly. What compression will do is narrow the dynamic range of the signal, meaning that your strum or pluck will not be as loud and the decay of the chord or note will be louder. The result is greater sustain and a more even volume level.

Since the Vintage British and Mega Drive voicings have more gain, there is more clipping of the guitar signal (distortion). This clipping of the guitar signal is actually a natural form of compression — this is the reason your chords and notes will sustain much longer using high gain than when using a clean channel. Compression is not usually used with high gain settings, although you can use it if you really need to get even more sustain and/or for a less dynamic effect and sound.

Using different guitars:

It is also important to note that if you switch guitars during a performance and those guitars have a different output level, you should quickly use the INPUT LEVEL control on the face of the unit to set a proper input level for each guitar. This will allow your preset Compression threshold settings to work the same for all guitars.

WAH Page

The Prophesy includes an internal wah-wah which can either be used as a fixed wah or can be controlled by an expression pedal through continuous control changes. Use of this feature eliminates the need to run long audio cables out to a conventional wah-wah pedal.

To set up an expression pedal as a wah-wah pedal, the Prophesy must be configured so that the expression pedal controls the "WAH FREQ" parameter described below. (See "Controller Assignments" in Section 7 for more information.)

Wah Page



Wah page parameters

Parameter	DESCRIPTION
WAH FREQ	The WAH FREQUENCY parameter allows you to manually sweep the fre- quency range of the wah-wah. Selecting a frequency for this parameter allows you to use the wah-wah as a fixed wah. (310Hz to 2600Hz)

PREAMP Pages

The preamp pages are available in all presets. They are all accessible via the front panel PAGE control, however the PREAMP button provides immediate access to the first preamp page. In addition, turning any of the front panel instant access controls when the preset title is displayed will also instantly access the first preamp page.

Preamp Page 1: Gain/Basic EQ Levels



Preamp Page 1 parameters

PARAMETER	DESCRIPTION
GAIN	The GAIN parameter determines the amount of gain in the distortion stage. (0.0 to 10.0)
BASS	The BASS parameter adjusts the amount of low frequency information at the output of the current preset. (0.0 to 10.0)
MID	The MID parameter adjusts the amount of mid frequency information at the output of the current preset. (0.0 to 10.0)
TREB	The TREBLE parameter adjusts the amount of high frequency information at the output of the current preset. (0.0 to 10.0)
PRES	The PRESENCE parameter also adjusts the amount of high frequency information at the output of the current preset. (0.0 to 10.0)
MASTER	The MASTER parameter determines the overall signal level of the current preset. (0.0 to 10.0)

Preamp Page 2: Channel/Voicing



Preamp Page 2 parameters

Parameter	DESCRIPTION
CHANNEL	The CHANNEL parameter allows you to select any of the four preamp channels (1-4) for the current preset. The name of each channel is displayed under the VOICING TYPE heading when selected. Available preamp channels are <i>Clean American</i> , <i>Texas Blues</i> , <i>Vintage British</i> and <i>Mega Drive</i> .
V-CN	The V-CN parameter defines a dedicated MIDI controller number for the Prophesy's volume. A MIDI expression pedal can be configured to match this number and act as a volume pedal. (0-120)
RUN STAT	The RUN STAT parameter determines the current running status of the volume pedal. If this parameter is set to "ON" and a preset is recalled, the Prophesy will set the volume of the recalled preset to the last value it had received from the volume pedal. When set to "OFF", the Prophesy will recall the stored preset volume regardless of the current volume pedal position. Once a preset has been recalled, the volume pedal can be used to change the volume.
V-PED	The V-PED parameter displays the volume that will be used when the preset is recalled and the RUN STAT parameter is set to "OFF".

Preamp Page 3: Pre EQ

The PRE EQ pages allow you to shape the tone prior to the distortion stage. Considerable tone variations can be achieved by modifying these pre-distort EQ parameters.



Preamp Page 3 parameters (cont'd)

Parameter	DESCRIPTION
PRELF	The PRE LOW FREQUENCY level parameter allows you to cut or boost the low frequencies from -15dB to +12dB prior to the distortion stage. This EQ section is a shelving-type. (-15.0 to +12.0)
PRELFF	The PRE LOW FREQUENCY FREQUENCY parameter allows you to select a frequency band with an upper frequency between 63Hz and 500Hz to be cut or boosted by the pre-LF LEVEL parameter.
PREMF	The PRE MID FREQUENCY level parameter allows you to cut or boost the mid-band frequencies from -15dB to +12dB prior to the distortion stage.
PREMFF	The PRE MID FREQUENCY FREQUENCY parameter allows you to select a mid-band center frequency between 63Hz and 8kHz to be cut or boosted via the Pre Mid Frequency level parameter.
BW	The BANDWIDTH parameter determines how wide or narrow the bandwidth of the selected mid-band frequency is (in octaves). A small bandwidth only boosts or cuts frequencies close to the center frequency, while a large bandwidth affects the level of frequencies up to two octaves from the center frequency. (0.1 to 2.5)
BRIGHT	The BRIGHT parameter is displayed only when Channel 1 (<i>Clean American</i>) is active, and allows you to add extra brightness to the clean channel when switched on.

Application Notes: Pre EQ

Since the PRE EQ affects the way your guitar signal sounds *before* it enters the preamp stage, its effect is most useful to influence the way the way high gain distortion tones will respond. The more gain you use, the more distortion you get, which can decrease your pick attack. Boosting mid-range frequencies with a medium bandwidth and dipping some bass can bring back the attack of your pluck.

Another example of using the PRE EQ would be to create a stomp box overdrive effect by cranking up the mid frequency level and using a very wide bandwidth while reducing the low frequency. Another cool effect is to crank up the Pre Low Frequency Level with a Frequency setting of around 155Hz — this will produce a fuzz pedal tone if using with high gain.

Preamp Page 4: Post EQ

The Post EQ page allows you shape the tone after it has passed through the distortion stage. These post-distortion EQ parameters have a more pronounced effect on the overall tone than the pre-distortion parameters.



Preamp Page 4 parameters

Parameter	DESCRIPTION
PEQ1	The POST EQ 1 level parameter allows you to cut or boost a user-selected frequency ± 15 dB after the distortion stage.
PEQ1F	The POST EQ 1 Frequency parameter allows you to select a center frequency between 63Hz and 8kHz to be cut or boosted.
PEQ1BW	The POST EQ 1 BandWidth parameter determines how wide or narrow the bandwidth of the selected Post EQ 1 frequency is (in octaves). A small (narrow) bandwidth only boosts or cuts frequencies close to the center frequency, while a large (wide) bandwidth affects the level of frequencies up to two octaves from the center frequency.
	Beyond the 2.5 setting, you may also select "SHELF". The PEQ1BW "SHELF" setting will shelve the frequencies <i>below</i> the center frequency. (0.1 to 2.5, Shelf)
PEQ2	The POST EQ 2 level parameter allows you to cut or boost a user-selected frequency ± 15 dB after the distortion stage.
PEQ2F	The POST EQ 2 Frequency parameter allows you to select a center frequency between 63Hz and 8kHz to be cut or boosted.
PEQ2BW	The POST EQ 2 BandWidth parameter determines how wide or narrow the bandwidth of the selected Post EQ 1 frequency is (in octaves). A small (narrow) bandwidth only boosts or cuts frequencies close to the center frequency, while a large (wide) bandwidth affects the level of frequencies up to two octaves from the center frequency.
	Beyond the 2.5 setting, you may also select "SHELF". The PEQ2BW "SHELF" setting will shelve the frequencies <i>above</i> the center frequency. (0.1 to 2.5, Shelf)

Preamp Page 5: Global EQ

The Global EQ page allows you to shape the tone at the output of the Prophesy for all presets. This feature is useful, for example, if you are playing in a venue which provides acoustics that would require readjustment of the EQ parameters of all the Prophesy presets (such as needing less bass or more highs). The Global EQ parameters allow for quickly increasing or decreasing two user-selectable frequencies for all the presets simultaneously when necessary.



Preamp Page 5 parameters

Parameter	DESCRIPTION
GEQ1	The GLOBAL EQ 1 level parameter allows you to cut or boost a user-selected frequency ± 15 dB at the output of the Prophesy for all presets.
GEQ1F	The GLOBAL EQ 1 Frequency parameter allows you to select a center fre- quency between 63Hz and 8kHz to be cut or boosted.
GEQ1BW	The GLOBAL EQ 1 BandWidth parameter determines how wide or narrow the bandwidth of the selected Global EQ 1 frequency is (in octaves). A small (narrow) bandwidth only boosts or cuts frequencies close to the center frequency, while a large (wide) bandwidth affects the level of frequencies up to two octaves from the center frequency.
	Beyond the 2.5 setting, you may also select "SHELF". The GEQ1BW "SHELF" setting will shelve the frequencies <i>below</i> the center frequency. (0.1 to 2.5, Shelf)
GEQ2	The GLOBAL EQ 2 level parameter allows you to cut or boost a user-selected frequency ± 15 dB at the output of the Prophesy for all presets.
GEQ2F	The GLOBAL EQ 2 Frequency parameter allows you to select a center fre- quency between 63Hz and 8kHz to be cut or boosted.
GEQ2BW	The GLOBAL EQ 2 BandWidth parameter determines how wide or narrow the bandwidth of the selected Global EQ 1 frequency is (in octaves). A small (narrow) bandwidth only boosts or cuts frequencies close to the center frequency, while a large (wide) bandwidth affects the level of frequencies up to two octaves from the center frequency.
	Beyond the 2.5 setting, you may also select "SHELF". The GEQ2BW "SHELF" setting will shelve the frequencies <i>above</i> the center frequency. (0.1 to 2.5, Shelf)

PRE EFFECT page

The Pre Effect page allows you to assign any effect that is not already assigned to the current preset to a location in the signal chain that is before the preamp stage. This page displays the effect currently assigned to the Pre Effect location, or "EMPTY" if no effect has been assigned.

After an effect is assigned, the Pre Effect page becomes the first display page for that effect. Turning the PAGE control accesses the parameter pages for the assigned effect.

Pre Effect Page



Pre Effect page parameters

Parameter	DESCRIPTION
PRE EFFECT	The PRE EFFECT parameter allows you to assign an available effect to the current preset before the gain stage of the preamp.

POST EFFECT pages

The Post Effect pages comprise three pages which each allow you to assign any effect that is not already assigned to the current preset to a location in the signal chain that is after the preamp stage. These pages each display the effect currently assigned to the respective Post Effect location, or "EMPTY" if no effect has been assigned.

After an effect is assigned, each Post Effect page becomes the first display page for that effect. Turning the PAGE control accesses the parameter pages for the assigned effect.

Post Effect Pages



Post Effect page parameters

Parameter	DESCRIPTION
POST EFFECT 1 (repeated for pages 2 and 3)	The POST EFFECT parameter allows you to assign an available effect to the current preset after the gain stage of the preamp in the signal path.

FLANGER Pages

Flanging involves splitting the input signal into at least two individual delayed signals (here referred to as Voice 1 and Voice 2), then modulating these delayed signals so that, when summed back together with the direct signal, phase cancellations will occur at some frequencies while peaks in the response will occur at others.

Flanger Page 1: Voice 1



Flanger Page 1 parameters

Parameter	DESCRIPTION
FLANGE	The FLANGE parameter determines whether the flanger is active for the current preset. (Off, On)
LVLI	The LEVEL1 parameter determines the volume of Voice 1 relative to Voice 2. (Off to +6.0)
PANI	The PAN1 parameter allows you to pan Voice 1 to the left or right channel. (Left to Right)
DPTH1	The DEPTH 1 parameter adjusts the amount of modulation of Voice 1. Lower DEPTH settings produce more subtle effects, while higher settings will result in a more drastic effect. (0 to 100)
RATE1	The RATE 1 parameter determines the speed at which Voice 1 is modulated. (0 to 253)
Flanger Page 2: Voice 2



Flanger Page 2 parameters

Parameter	DESCRIPTION
LVL2	The LEVEL2 parameter determines the volume of Voice 1 relative to Voice 2. (Off to +6.0)
PAN2	The PAN2 parameter allows you to pan Voice 1 to the left or right channel. (Left to Right)
DPTH2	The DEPTH2 parameter adjusts the amount of modulation of Voice 1 . Lower DEPTH settings produce more subtle effects, while higher settings will result in a more drastic effect. (0 to 100)
RATE2	The RATE2 parameter determines the speed at which Voice 1 is modulated. (0 to 253)
REGEN	The REGENERATION parameter determines how much of the delayed output signal is fed back into the input. More regeneration produces a more pronounced "jet airplane" type of effect. (Off, -42.0 to 5.0)

CHORUS Pages

The Chorus effect in the Prophesy is produced by using up to four delayed signals (referred to here as Voices 1-4), detuning these delayed signals (slightly changing their pitch), then modulating the detune effect so that the amount of pitch detune is constantly varying. Using different detune amounts, modulation rates, modulation depths and pan settings for each delayed signal will produce a greater perceived spaciousness.

Chorus Pages 1 and 2: Voices 1 and 2



Chorus Pages 1 and 2 parameters

Parameter	DESCRIPTION
CHORUS	The CHORUS parameter determines whether the Chorus is active or bypassed for the current preset. (<i>This parameter is displayed only on Page 1.</i>) (Off, On)
LVL1 and 2	The LEVEL parameter determine the volume of Voice 1 relative to the other voices. (Off, -42.0 to $+6.0$)
PAN1 and 2	The PAN parameter allows for Voice 1 to be panned to the left or right channel. (Left to Right)
DLY1 and 2	The DELAY parameter allows you to select the minimum delay time (in milliseconds) for Voice 1. This delayed signal is detuned and modulated to produce the chorus effect. Shorter delay times will result in a tighter sounding chorused signal, while longer delay times will produce a larger ambient effect. (0 to 100)
DEPTH1 and 2	The DEPTH parameter adjusts the amount of modulation of Voice 1. A lower depth setting will produce a more subtle detune effect, while a higher setting results in a more extreme detuning. (0 to 58)
RATE1 and 2	The RATE parameter determines the sweep speed (or the speed at which each voice is modulated). Lower parameter settings result in slower speeds, while higher settings result in faster speeds. (0 to 253)

Chorus Pages 3 and 4: Voices 3 and 4



Chorus Pages 3 and 4 parameters

PARAMETER	DESCRIPTION
REGEN L (page 3) REGEN R (page 4)	The REGENERATION LEFT parameter determines how much of the delayed output signal is fed back into the left input. Note that voice 3 has a REGEN L parameter, while voice 4 has a REGEN R for providing regeneration through the right input. (Off, -42.0 to +6.0)
LVL3 and 4	The LEVEL parameter determines the volume of the current voice relative to the other chorus voices. (Off, -42.0 to +6.0)
PAN3 and 4	The PAN parameter allows for the current voice to be panned to the left or right channel. (Left to Right)
DLY3 and 4	The DELAY parameter allows you to select the minimum delay time (in milliseconds) for the current voice. This delayed signal is detuned and modulated to produce the chorus effect. Shorter delay times will result in a tighter sounding chorused signal, while longer delay times will produce a larger ambient effect. (0 to 100)
DEPTH3 and 4	The DEPTH parameter adjusts the amount of modulation of the current voice. A lower depth setting will produce a more subtle detune effect, while a higher setting results in a more extreme detuning. (0 to 58)
RATE3 and 4	The RATE parameter determines the sweep speed (or the speed at which each voice is modulated). Lower parameter settings provide slower speeds, while higher settings result in faster speeds. (0 to 253)

ROTARY Page

The Rotary effect simulates the classic rotating speaker popular with guitarists and keyboard players. It is designed to mimic the characteristics of the mechanical rotating speaker with added versatility afforded by DSP.

Rotary Page



Rotary page parameters

Parameter	DESCRIPTION
ROTSPK	The ROTARY SPEAKER On/Off parameter determines whether the Rotary effect is active or bypassed for the current preset.
	Note that even when this parameter is set to OFF, the rotary effect is still present, meaning that it will still sound like you're playing through a rotary speaker cabinet, but with no rotary action. When turned off, the sound will vary as the rotaries will not always come to rest in the same position, just like in a real rotary cabinet. (Off, On)
RSPEED	The ROTATION SPEED parameter switches between the SLOWSP and FASTSP setting. (Slow, Fast)
SLOWSP	The SLOW SPEED parameter sets the slow rotation speed. (The horn and rotor will rotate at slightly different speeds.) (0 to 100)
FASTSP	The FAST SPEED parameter sets the fast rotation speed. (0 to 100)
ACCEL	The ACCELERATION parameter adjusts the length of time it takes to reach the SLOW SPeed or FAST SPeed setting of both the horn and rotor. (The horn will accelerate faster than the rotor). (0 to 100)
ROTBAL	The ROTATION BALANCE parameter adjusts the relative level of the rotor (lows) vs. the horn (highs). (Rotor to Horn)

Application Notes: Rotary

The Rotary effect included in the Prophesy has been designed to provide the most realistic simulation of an actual rotary speaker as possible. However, the nature of the rotary effect requires a significantly higher amount of processor power than any of the other effects included in the Prophesy in order to implement it without sacrificing the quality of the effect.

As a result of this, it is important to note that using all three modulation effects (rotary, flanger, chorus) *and* the phaser effect simultaneously can result in an overload of the Prophesy's internal processor—causing a significant hum and loss of sound quality. For this reason, it is recommended that simultaneous usage of all three modulation effects is avoided to greatly reduce the chances of this condition occurring.

PHASER Page

Phase shifting involves splitting the input signal into two signals, then shifting the phase of different frequencies of one signal and mixing it back with the original signal.

Phaser Page



Phaser page parameters

Parameter	DESCRIPTION
DEPTH	The DEPTH parameter determines the modulation depth of the phase shift effect. Higher parameter settings result in the sweep of the filtering effect occurring over a wider frequency range. (0 to 100)
RATE	The RATE parameter determines the speed at which the phase shifted signal is modulated. (0 to 253)
RESONANCE	The RESONANCE parameter adds feedback to the Phaser so that it has a more pronounced effect. (0 to 100)
STAGES	The STAGES parameter determines how many stages of phase shift are to be active. A parameter setting of "4" produces a result similar to a vintage Phase 90, while a setting of "6" emulates other phaser pedals. (4, 6)

PITCH SHIFT Pages

Pitch Shifting is used to change the pitch of the input signal to produce a harmony note based on the input signal. The Prophesy allows for 2 harmony voices to be defined for each preset. Each harmony voice can be of any fixed interval—up to one octave above the input signal to two octaves below—and is selected in 20-cent increments. Fine adjustment can be made in one cent (1/100th semitone) increments.

Pitch Shift Page 1: Voice 1



Pitch Shift Page 1 and 2 parameters

Parameter	DESCRIPTION
PITCH 1 and 2	The PITCH parameter selects what harmony note the Prophesy will produce based on the input note. The value displayed for this parameter represents the number of cents that the signal will be shifted (adjustable in 20-cent increments). Each 100 cents (or five 20-cent steps) above or below "0" represents the number of half-steps the shifted signal will be from the input signal.
	This parameter is adjustable from -2400 to $+1200$, where $-2400 =$ two octaves below the input signal, $0 =$ unison and $+1200 =$ one octave above the input signal. Refer to the table below to determine the cent value for each fixed interval.
FINE 1 and 2	The FINE parameter allows for adjustment in 1-cent steps for fine adjustment of the harmony note. (-20 to +20)
LEVEL 1 and 2	The LEVEL parameter determines the volume of the pitch shifted signal relative to the other signals. (Off, -42.0 to $+6.0$)
PAN 1 and 2	The PAN parameter allows you to pan the shifted signal to the left or right channel. (Left to Right)

Pitch Shift Intervals

PITCH PARAMETER	CORRESPONDING INTERVAL (RELATIVE TO INPUT	г NOTE)
+1200	1 Octave	Above input note
+1100	Major 7th	"
+1000	minor 7th	"
+900	Major 6th	"
+800	minor 6th	"
+700	perfect 5th	"
+600	diminished 5th	"
+500	perfect 4th	"
+400	Major 3rd	"
+300	minor 3rd	"
+200	Major 2nd	"
+100	minor 2nd	"
0	unison	Equal to input note
-100	Major 7th	Below input note
-200	minor 7th	"
-300	Major 6th	"
-400	minor 6th	"
-500	perfect 5th	"
-600	diminished 5th	"
-700	perfect 4th	"
-800	Major 3rd	"
-900	minor 3rd	"
-1000	Major 2nd	"
-1100	minor 2nd	"
-1200	1 octave	"
-1300	1 octave plus a Major 7th	"
-1400	1 octave plus a minor 7th	"
-1500	1 octave plus a Major 6th	"
-1600	1 octave plus a minor 6th	"
-1700	1 octave plus a perfect 5th	"
-1800	1 octave plus a diminished 5th	"
-1900	1 octave plus a perfect 4th	"
-2000	1 octave plus a Major 3rd	"
-2100	1 octave plus a minor 3rd	"
-2200	1 octave plus a Major 2nd	"
-2300	1 octave plus a minor 2nd	"
-2400	2 octaves	"
2700		"
(m)	There are 5 steps of the parameter adjust controls shown above (each step equals 20 cents). This when an expression controller is assigned to the pitch by remote means	ol between each of the intervals allows for smooth pitch changes e PITCH parameter to change the

Note!

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DUCKER/DELAY Pages

Delay is a repeat of the guitar signal, which will repeat at the time the user sets (typically expressed in milliseconds) after the original guitar signal. The Prophesy provides several parameters to adjust the characteristics of the delay effect.

About Ducking

The Delay effect also has a built-in Ducker function. The word "ducking" is another way to say that you're turning down the volume level of the delay (or "attenuating" the delay). When using the ducker, the volume of the delay would be attenuated, or "ducked" while playing so that it was quieter than your original played notes and, therefore, would not compete with your played notes. When you stop playing, the ducker will release and the volume level would then come back to full volume and echo out nice and loud. The Ducker effect does this for you automatically! This is a great effect for soloing. When the ducker is adjusted correctly, you can have the delay mixed just right behind your played notes and have nice loud and long trail-offs when you stop playing.

Delay Page 1: Delay Time, Level



Delay Page 1 parameters

Parameter	DESCRIPTION
MUTE	The MUTE parameter allows for muting of the Delay section at its input (PRE), its output (POST) or both pre and post (BOTH). (The MUTE function is actually switching the Delay IN and OUT — just like you would with the Delay button on the front panel. It can be accessed with a MIDI pedal by sending the Prophesy a MIDI control number of your choice and assigning that same MIDI control number to the DELAY-IO parameter in any of the Prophesy's eight Controller Assignments. See "Controller Assignments" in Section 7 for more information.)
	When using the MUTE "PRE" setting, the Delay IN/OUT function will start and stop the guitar signal <i>before</i> it enters the delay effect. This will produce the following results: When you switch the delay "OUT" while you're playing, the guitar signal will be stopped from entering the delay effect at its input and the last few notes you were playing will trail off until there is no more delayed signal. When switching the delay "IN", signal will begin to enter the delay effect and will then start to be delayed from the exact point at which you turn the delay on.

Parameter	DESCRIPTION
	When using the MUTE "POST" setting, the Delay IN/OUT function will start and stop the guitar signal at the delay effect's <i>output</i> . This will produce the following results: When you switch the delay "OUT" while you're playing, the delayed signal will suddenly be chopped off and will no longer be heard. The delay effect's input, however, is still receiving signal. So, when you switch the Delay "IN" while playing, any licks you were playing will already be echoing and will then be heard.
	When using the MUTE "BOTH" setting, the Delay IN/OUT function will start and stop the guitar signal at the delay effect's input <i>and</i> output. This will produce the following results: When you switch the delay "OUT" while you're playing, the delayed signal will suddenly be chopped off and will no longer be heard. When switching the delay "IN", the signal will begin to enter the delay effect and will then start to be delayed from the exact point at which you turn the delay on.
SPILOVR	The SPILOVR parameter determines whether delays from the current preset will "spill over" into the next preset when it is recalled. If this parameter is set to "OFF", delays from the current preset will be immediately cut off when another preset is recalled.
	When this parameter is set to "ON", it enables the current delay to "spill over" to the next preset. However, note that in order for the spillover to work, the Delay effect <i>must</i> be assigned to any of the effect assignments in the <i>next preset that you switch to</i> . Also, the Delay SPILOVR parameter must be stored as "ON" in that next preset. You do NOT have to have the delay stored as "ON" in the next preset unless you want to. For example, this can create a very smooth transition from a very long lead solo delay into a nice short rhythm delay, where the long delay trails out as the new shorter delay has already begun. If Delay has <i>not</i> been assigned in the next preset that you switch to, the spillover will not work.(Off, On)
LEVEL	The LEVEL parameter determines the overall level of the delayed signal at the output relative to the direct signal and other effect signals. (Off, -42.0 to +6dB)
PAN	The PAN parameter allows for the delayed signal to be panned to the left or right channel. (Left to Right)
D-TIME	The DELAY TIME parameter determines the length of time (in milliseconds) after the input signal that the delayed signal will begin. (0 to 988)
REGEN	The REGENERATION parameter determines the number of times that the delayed signal will repeat itself. This is achieved by feeding the delayed output back into the input. Higher parameter settings will result in more repeats. The displayed value represents the attenuation (in dB) that the regeneration signal is subjected to at each repeat. (Off, -42.0 to +6dB)

Delay Page 1 parameters (cont'd)

Delay Page 2: Damping/Ducker



Delay Page 2 parameters

PARAMETER	DESCRIPTION
HF DAMP	The Delay HIGH FREQUENCY DAMPING parameter controls the amount of high frequency content in the delayed and regenerated signals. Higher amounts of damping will result in less high frequency information in the delayed signal.
	<u>Application Note</u> : Using little or no High Frequency Damping will render a perfect, mirror like delay. Medium to high amounts of High Frequency Damping will produce a duller, more tape echo-like delay sound. (0 to 99)
DUCK	The DUCKER parameter determines whether the Ducker is active or muted for the current preset. (Off, On)
SENS	The SENSITIVITY parameter determines the threshold point above which the ducker will begin attenuating the delay signal. Until the input reaches this level, the delay signal will not be affected by the ducker. (-92dB to -20dB)
ATTN	The ATTENUATION parameter determines how much the delayed signal is attenuated (muted). It may be set for only a slight change in signal level or it can completely attenuate the delayed signal so that no delayed signal passes while ducking is active. (INFIN, -48 to -0.0)
REL	The RELEASE parameter determines the length of time it takes for the for the muted delay signal to return to its original level after the input signal falls below the threshold point set by the SENSitivity parameter. (.2 to 9.0)

TREMOLO Page

The Tremolo effect continuously varies the volume of the signal at a rate and depth defined by the user.

Tremolo Page



Tremolo page parameters

Parameter	DESCRIPTION
T-DPTH	The TREMOLO DEPTH parameter determines the amount of modulation for the Tremolo signal. Lower depth settings produce more subtle tremolo effects, while higher settings will result in a more extreme tremolo effect.
T-RATE	The TREMOLO RATE parameter determines the speed at which the tremolo signal modulates (or increases and decreases in volume).
T-SHAPE	The TREMOLO SHAPE parameter determines the waveshape of the tremolo signal. Selecting a different waveshape produces a different tremolo effect.
{TREMOLO}	The {TREMOLO} parameter determines whether the tremolo effect is before (PRE-REV) the reverb or after it (PST-REV) in the effects chain. Refer to the block diagram shown in Chapter 5 for more information on the Prophesy signal path.

REVERB Pages

Reverb is a multitude of echoes that are spaced so close together that, to human ears, seem as a single continuous sound. These echoes gradually decrease in intensity until they are ultimately absorbed by the boundaries and obstacles within a room. As the sound waves from the sound source strike the boundaries of a room, a portion of the energy is reflected away from the obstacle while another portion is absorbed into it thereby causing both the continuance of sound as well as the decaying or "dying out" of the sound.

Reverb Types

The Prophesy provides the following types of reverb:

• The **Plate** reverb type simulates an artificial method of producing reverberation, popular in the early years of recording, which involved using a fairly large, but very thin, metal plate suspended at its four corners by steel wires under tension. This metal plate becomes excited by a driver unit (similar to a dynamic speaker without the diaphragm) and the resulting reverberation is picked up by contact microphones.

The Prophesy offers two Plate reverb types which reflect the most common plate characteristics. This type of reverb is often used on drum and vocal tracks.

- **Room** reverb effects simulate various rooms of different sizes and surfaces. For example, a room which is made up of primarily hardened surfaces (such as tile or hard wood) will generate reflections containing much more high frequency information than one which is made up of softer surfaces (such as thick carpeting). The Room reverb effects provided by the Prophesy can generate virtually any imaginable room setting via highly efficient and adjustable reverb parameters.
- **Hall** reverb simulates the reverberation characteristics of a very large room with a high ceiling. Reflections in a hall are much longer than a typical room, as the length of time it takes for the sound waves to travel from one surface to the next is greatly increased.
- Stadium reverb simulates the characteristics of a large stadium or arena and should be used with large amounts of predelay and high frequency damping.
- **Dual** reverb is unique in that it allows for the left and right channels to be processed independently of one another. For example, the predelay for the left channel can be set at 100mS while the Predelay for the right channel can be set at 200mS. This results in reverb output from the left channel 100mS before reverb is output from the right channel.

Reverb Page 1:



Reverb Page 1 parameters

PARAMETER NAME	DESCRIPTION
R-PAN	The REVERB PAN parameter allows you to pan the direct input signal to the reverb section to the left or right—thus allowing for only the left or right channel to be reverberated when used with the Dual reverb type, or, for one channel to be reverberated to a greater degree than the other. It is adjustable from LEFT (0) to RIGHT (100), where 1-49 appear between LEFT and CENTER, and 51-99 appear between CENTER and RIGHT.
R-DEC	The REVERB DECAY parameter specifies the length of time that the reverb signal will sound before it has completely "died out". Note that the maximum length of this decay will vary dependent upon the reverb type currently active. (0 to 99)
HFDMP	The HIGH FREQUENCY DAMPING parameter is used to control the decay rate of high frequency information in the reverb signal. Higher parameter settings will result in a faster decay of high frequency information. (0 to 99)
L-FRQ	The LOW FREQUENCY parameter determines the amount of low frequency information in the reverb signal. Higher levels of this parameter add more low end. (0 to 99)
REV TYPE	The REVERB TYPE parameter determines the active reverb type. The following types are available: <i>Plate A</i> , <i>Plate B</i> , <i>Room A</i> , <i>Room B</i> , <i>Hall A</i> , <i>Hall B</i> , <i>Stadium</i> and <i>Dual</i> .

Reverb Page 2:



Reverb Page 2 parameters

Parameter Name	DESCRIPTION
PREDLYL	The PREDELAY LEFT parameter determines the length of time after a signal is input to the Prophesy that the left channel signal will be input to the reverb section. Delaying the reverb signal provides greater separation of the input and reverb signals, and helps to increase the perceived size of the Room, Hall or Stadium. (0 to 198)
PREDLY R	The PREDELAY RIGHT parameter determines the length of time after a signal is input to the Prophesy that the right channel signal will be input to the reverb section. Delaying the reverb signal provides greater separation of the input and reverb signals, and helps to increase the perceived size of the Room, Hall or Stadium. (0 to 198)
GATE	The GATE parameter closes down the decay of the reverb very quickly after a prescribed amount of time (most commonly a very short period of time). Note that the gating on the Prophesy acts on the reverb decay, rather than the reverb output as on many other units. (Off, On)
G-DEC	The GATE DECAY parameter determines how quickly the gate will close down the reverb decay after the reverb has sounded for the specified time. (0 to 31)
G-THR	The GATE THRESHOLD determines the signal level at which gating will take place. When the signal remains below this threshold level for the specified HOLD time, the reverb will be gated. When the input signal peak rises above this threshold, the gate will open and reverb will be heard. (Off, -42.0 to +6.0)
HOLD	The HOLD parameter determines how long the reverb signal will sound before the gate begins to close. (0 to 99)

SPEAKER SIMULATOR Page

The SPEAKER SIMULATOR function is available in all presets, and provides a realistic approximation of a miked speaker cabinet when connecting the Prophesy directly to a mixing board, recording system or other full range system using the rear panel RECORDING OUT jacks.

Speaker Simulator Page



Speaker Simulator page parameters

Parameter	DESCRIPTION
SPKR TYPE	The SPEAKER TYPE parameter determines the type of speaker to be simulated. 15",12",10", 8" and full range speakers are available.
MIC POS	The MIC POSITION parameter simulates a microphone placed anywhere from the center of the speaker cone out to the edge of the cone. Positive parameter values simulate moving the microphone toward the center of the speaker, while negative values simulate moving it to the edge. $(-15.0 \text{ to } +15.0)$
REACTANCE	The REACTANCE parameter simulates the characteristics of the interaction between a tube amplifier and a guitar speaker cabinet. The higher the parameter value selected, the more these characteristics will be apparent. Negative values of reactance can be used to simulate an open-back cabinet. (-15.0 to +15.0)

MIXER Pages

The Mixer parameters are included in all presets. However, the parameter values stored in these pages pertain only to the currently-recalled preset. This internal digital mixer occupies five pages, and allows you to control the signal levels pertaining to each preset's effect configuration.

Mixer Page 1: Pre Effect Mix Levels



Mixer Page 1 parameters

Parameter	DESCRIPTION
PRE MIX	The PRE MIX parameter determines the direct/effect mix from the Pre Effect block. (100% Direct to 100% Effect)
PRE EFX OUT	The EFX OUTPUT parameter determines the overall level that is output from the Pre Effect block. Note that this parameter acts like an overall volume control, and affects the signal level for the remainder of the signal path. Please refer to the Block Diagram shown at the end of Section 5 for a visual indication of how this parameter is used in the signal path. (Off, -42.0 to $+6.0$)
EFFECT USED	The EFFECT USED parameter indicates the effect that is currently assigned to the Pre Effect location, if any. (Not adjustable)

Mixer Page 2: Post Effect 1 Mix Levels



Mixer Page 2 parameters

Parameter	DESCRIPTION
PST1 EFX 1 OUT	The PST1 EFX 1 OUTPUT parameter determines the output level of the effect that is assigned to Post Effect 1.
EFFECT USED	The EFFECT USED parameter displays the name of the effect that is currently assigned to the Post Effect 1 location.

Mixer Page 3: Post Effect 2 Mix Levels



Mixer Page 3 parameters

Parameter	DESCRIPTION
PST2-IN MIX	The PST2-IN MIX parameter determines how much of the signal applied to the Post Effect 2 effect is direct signal, and how much is effect signal. (100% Direct to 100% Effect)
EFX 2 OUT	The EFX 2 OUTPUT parameter determines the output level of the effect that is assigned to Post Effect 2. (Off, -42.0 to +6.0)
EFFECT USED	The EFFECT USED parameter displays the name of the effect that is currently assigned to the Post Effect 2 location. (Not adjustable)

Mixer Page 4: Post Effect 3 Mix Levels



Mixer Page 4 parameters

Parameter	DESCRIPTION
PST3-IN MIX	The PST3-IN MIX parameter determines how much of the signal applied to the Post Effect 3 effect is direct signal, and how much is effect signal. (100% Direct to 100% Effect)
EFX 3 OUT	The EFX 3 OUTPUT parameter determines the output level of the effect that is assigned to Post Effect 3. (Off, -42.0 to $+6.0$)
EFFECT USED	The EFFECT USED parameter displays the name of the effect that is currently assigned to the Post Effect 3 location. (Not adjustable)

- Application Notes: Post Effect Mixing

The PST2-IN MIX and PST3-IN MIX parameters act as a balance between the direct and effect that is *entering* the assigned effect of Post effect blocks 2 and 3. For example, lets say that DUCKER/DELAY is assigned to Post 1 effect block and that CHORUS is assigned to Post 2 effect block. Adjusting the PST2-IN MIX parameter to 100% DIRECT would cause only the direct guitar tone to be chorused while the delayed signal would not be chorused. Adjusting the PST2-IN MIX parameter to 100% EFFECT would cause only the delayed signal to be chorused while the direct guitar tone would not be chorused. Adjusting the PST2-IN MIX parameter anywhere between DIRECT and EFFECT would cause a blend of the direct and the delayed signal to be chorused.

The REV IN (Reverb in) parameter on the following page works the same way.

Mixer Page 5: Reverb Mix Levels



Mixer Page 5 parameters

Parameter	DESCRIPTION
REV IN	The REVERB INPUT parameter determines how much of the signal applied to the reverb section is direct signal, and how much is effect signal. (100% Direct to 100% Effect)
REV OUT	The REVERB OUTPUT parameter determines the output level of the reverb effect. (Off, -42.0 to +6.0)
DIR	The DIR parameter determines the overall output level of the direct signal. (Off, -42.0 to +6.0)
DPAN	The DPAN parameter is used to pan the direct signal to the left or right Prophesy output. (100% Left to 100% Right)
OUTPUT	The OUTPUT parameter determines whether the output of the Prophesy is a stereo (left and right) signal or two mono signals.
PLEVEL	The PRESET LEVEL parameter determines the overall output level of the current preset relative to the other Prophesy presets.

- Application Notes: Reverb Mixing

The DIR (Direct) parameter actually controls the volume of the DRY guitar signal (with no effect) at the output. This can become very useful when attempting to get a wetter effect sound — rather than cranking up all your effects levels, simply turn down the DIR parameter to remove some dry guitar signal. The result will be thicker, richer sounding chorus, rotary, flanger, etc.

The OUTPUT control is global, which means that it effects *all* presets. When set to "STEREO", all effect and direct signal panning will be directed toward their respective Left and Right Recording and Main outputs. The "STEREO" setting should be used when connecting the left and right outputs to individual channels of a stereo power amp and then to a stereo speaker cabinet. When set to "MONO", all effect and direct panning is ignored and all signals are directed to the Left and Right outputs evenly. Use the "MONO" setting and either the Left or Right output for use with a mono amp head and non stereo speaker cabinet, or when you wish to mic only one speaker.

The PLEVEL (Preset Level) control should be used only for additional preset level matching. The MASTER control of the first Preamp page is your first and most easily accessible level setting for each preset, however, you may find that some clean presets with a very low gain setting are very quiet, even with the master set to 10. High gain presets will be much louder in relation to these ultra-clean presets. This parameter simply gives you an added preset level control in addition to your channel masters.

CONTROLLER Pages

Controller assignments allow for specified Prophesy parameters to be mapped (or assigned) to a MIDI controller for real-time control by an expression pedal or by the controller on/off buttons of a MIDI foot controller. In addition to 120 MIDI control numbers, you may assign the Prophesy's ADSR (Attack/Sustain/Decay/Release) control effect to any parameters with these controller assignments (ADSR is discussed further in Section 7, Using the ADSR).

Controller assignments also allow you to store an upper and lower parameter value limit which the controller cannot exceed. For example, when using the expression pedal to send continuous control changes to control the "PITCH 1" parameter, an upper limit of +300 can be set and a lower limit of -200 can be set—even though the actual parameter range is from +1200 to -2400. When the expression pedal is at its heel position in this example, the "PITCH 1" parameter will be at -200, while at its toe position it will be at +300. (Refer to Section 7: "Using the Prophesy" for information on setting up controllers.)

Up to eight controllers can be assigned for each individual preset, and each one has its own display page.

Controller Pages



Controller page parameters

PARAMETER	DESCRIPTION
(1)	This number indicates the controller that is currently being edited.
CNTNUM	The CONTROLLER NUMBER parameter is used to select a controller number for the current controller to respond to. (0 to 120, ADSR)
PARM	The PARAMETER parameter determines the Prophesy parameter that is to be controlled by the current controller.
UPLIM	The UPPER LIMIT parameter sets the highest value that the controlled parameter is not to exceed through MIDI control changes. (The parameter values that appear here will depend on the actual parameter selected in the PARM parameter.)
LOWLIM	The LOWER LIMIT parameter sets the lowest value that the controlled parameter is not to fall below through MIDI control changes. (The parameter values that appear here will depend on the actual parameter selected in the PARM parameter.)
	<i>The remaining seven (7) Controller pages repeat the above parameters to define controllers 2-8.</i>
Note	

TAP BUTTON Page

The Tap Button function allows for delay times and tremolo rates to be set by tapping the front panel TAP button, by a momentary footswitch connected to the rear panel, or by a control button on a MIDI foot controller like the Rocktron All Access. Obviously, this is very handy for quickly getting the proper Delay times and/or Tremolo rates for different song tempos.

The Tap Button page determines which effects that the Tap function will operate on. The Tap function can work with the Delay time, the Tremolo rate, or both simultaneously. These settings will work the same for the front panel Tap button, a momentary footswitch connected to the footswitch jack, or control messages sent by a MIDI foot controller.

It is also important to note that: The TAPBTN (Tap Button) parameter settings of DELAY, TREM or BOTH will only operate as set <u>when viewing any other page except the</u> <u>delay or tremolo pages</u>. So, for example, if the TAPBTN parameter is set to BOTH and you're presently viewing the preset title page, and you were to begin tapping the TAP button, the Delay time and Tremolo speed will be adjusted simultaneously. However, if you then turn to the Delay page and begin tapping the TAP button, it will effect the Delay time <u>only</u>. Likewise, viewing the Tremolo page and tapping the TAP button will effect the Tremolo rate <u>only</u>.

Tap Button Page



Tap Button page parameters

PARAMETER	DESCRIPTION
TAPBTN	The TAPBTN parameter allows you to select whether the front panel Tap button, momentary footswitch, or MIDI controller affects the Delay time, the Tremolo rate or both simultaneously. (Delay, Trem, Both)
QUANT	The QUANTize parameter determines how the Tap function sets the delay time and the tremolo rate. For example, when set to "1/4 NOTE", the delay time will be set to match the same tempo that you tapped. When set to "1/8 NOTE", the delay time will be twice as fast as the tempo that you tap. Likewise, the Tremolo rate may be quantized in the same fashion, allowing one to quickly get the proper tremolo rate for the tempo of a particular song. What if I want a 1/16 note? Simply multiply a 1/8 note tapped speed or rate value by 2 and adjust it by hand! (1/8 Note, 1/4 Note)
T-CTRNUM	This parameter sets a dedicated controller number for the Tap function, allowing you to set delay times from a MIDI controller. (0 - 119)
T-LED	When set to "ON", this parameter causes the front panel TAP button to flash at a speed based on the current delay setting. This feature can be disabled by setting this parameter to "OFF". (Off, On)

MIDI Pages

The MIDI pages provide numerous MIDI setup options. These pages allow you to set MIDI send and receive channels and configure MIDI program changes.

MIDI Page 1: MIDI Channels



MIDI Page 1 parameters

Parameter	DESCRIPTION
MIDI RX	This parameter sets the MIDI channel that the Prophesy will receive MIDI commands on. In order for the Prophesy to receive MIDI commands, this parameter must be set to the same channel that the MIDI transmitting device is transmitting commands to the Prophesy on. "OMNI" may also selected, which allows the Prophesy to receive commands on all MIDI channels. (1-16, OMNI)
MIDI TX	This parameter sets the MIDI channel that the Prophesy will transmit controller information to a Rocktron All Access footswitch. Note that this parameter only needs to be set when using the Prophesy with an All Access, as the Prophesy does not transmit MIDI program changes to other devices. (1-16, OMNI)
REMOTE	When switched "ON", the REMOTE parameter configures the Prophesy to be controlled from a Rocktron All Access footpedal operating in Remote mode. (Off, On)
TITLE	When switched "ON", the TITLE parameter enables preset title transfers from the Prophesy to the All Access display. Note that only the first 13 characters of the title can be displayed by the All Access. (Off, On)
REM ID	The REM ID (Remote ID) parameter must be matched with the <i>Remote Title Number</i> parameter from the All Access' Setup pages to transmit preset titles from the Prophesy to the All Access.

MIDI Page 2: MIDI Program Mapping



MIDI Page 2 parameters

Parameter	DESCRIPTION
PRG CHG	The PRG CHG parameter determines how the Prophesy will react to incoming MIDI program change commands. When set to "OFF", the Prophesy ignores all incoming MIDI commands. When set to "ON", program changes are executed exactly as they are received. "MAP" recalls the preset set by the RECALL parameter when the program change indicated by the RECV parameter is received.
RECV	This parameter selects a MIDI program change to map a preset to.
RECALL	This parameter determines the preset to be recalled when the program change indicated by the RECV parameter is received.

TITLE EDIT Page

The Title Edit page looks just like the preset title page, however it does not display the assigned effects for the preset on the second line. In addition, a flashing cursor indicates the current character position of the title to be edited.

For more information on editing a preset title, refer to "Naming Presets" in Section 7.

Title Edit Page



PRESET UTILITY Page

The Preset Utility page provides various preset-related functions, including dumping a single preset, dumping all Prophesy presets and restoring one or all presets to their original condition as shipped from the factory.

Preset Utility Page



Preset Utility page parameters

Parameter	DESCRIPTION
PRESET UTILITY	This parameter is used to select the desired function to perform. Preset Dump, Dump All, Preset Reinit or Factory Reinit may be selected. The use of each of these functions is described in detail in Section 7: <i>Using the Prophesy</i> .

7. Using the Prophesy

Selecting a preset

The Prophesy provides 127 presets, any of which are immediately recalled when selected with the PRESET control.

1 Selecting a preset is a one-step process. To select a preset, turn the PRESET control until the desired preset number is displayed.

Editing preset parameters

1 To change a parameter setting, first use the PAGE control to access the page where the parameter is located.



PRESET



2 Once the proper page has been accessed, the control directly below the displayed parameter value can be used to change its value.



Changing the LVL1 parameter value.

Storing modified presets

A modified preset must be stored in order for the changes that have been made to be activated the next time the preset is recalled.

1 To save any changes that have been made to a preset, press the STORE button once to initiate the storing procedure. The Prophesy will display "SELECT DESTINATION PRESET". This allows you to store the modified preset into a new location and save the original preset at its present location.

STORE



PRESE

SELECT DESTINATION PRESET



2 If you wish to save the new preset to a new preset number, use the PRESET control to select the new preset number. *Note that the preset currently stored at the newly selected location will be written over once the storing process is completed.* If you decide at this point that you do not wish to store the preset, you may turn the PAGE control to cancel the storing process.

If you do not wish to store the new preset at a different preset number, skip this step. *Note that the preset stored at the current location will be written over once the storing process is completed.*

Once the desired preset number has been selected, press the STORE button a second time. The Prophesy will display "STORING PRESET NOW" as it is storing the information, and "PRESET HAS BEEN STORED" when it is finished.





Now the modified preset has been stored to the specified preset number and can be recalled at any time.

Naming presets

The Prophesy display provides up to 20 characters that can be used to configure a title (or unique name) for each preset.

1 Use the PAGE control to access the Title Edit page. (The Title Edit page looks just like the first preset page, but without the assigned effects displayed).

A cursor will appear below the first character of the displayed title, and the entire character space will flash—indicating the current character position to be edited.



2 Use the MASTER control to edit the character at the current position, or skip to step 3 if you wish to edit a different character location.



 $\underline{3}$ The GAIN control can be used to move to the next character position (or any other desired position) at any time while viewing the Title Edit page.





4 Repeat steps 2 and 3 as many times as is necessary until the desired preset title is displayed.



Note

<u>5</u>

The GAIN and MASTER controls were selected as a quick and convenient twohanded method to perform title editing — where the left hand moves the cursor and the right hand edits the character. The edited title must be stored (as described in the previous section: *Storing modified presets*) in order for any changes to remain effective the next time the preset is recalled.

Note: The GAIN and MASTER controls were chosen as a convenient and quick two-handed way to perform title editing — where the left hand moves the cursor and the right hand edits the character.



Using Controller assignments

Controller assignments allow for specified Prophesy parameters to be mapped (or assigned) to a MIDI controller for real-time control by an expression pedal or by the controller on/off buttons of a MIDI foot controller. In addition to the 120 possible MIDI control numbers, you may also assign the Prophesy's ADSR (Attack/Decay/Sustain/ Release) control effect to any parameter with any of the 8 controller assignments (ADSR is discussed in detail in the section titled "Using the ADSR" later in this chapter).

The Prophesy's controller assignments also allow you to store an upper and lower parameter value limit which the controller cannot exceed. For example, when using the expression pedal to send continuous control changes to control the "PITCH 1" parameter, an upper limit of +300 can be set and a lower limit of -200 can be set—even though the actual parameter range is from +1200 to -2400. When the expression pedal is at its heel position in this example, the "PITCH 1" parameter will be at -200, while at its toe position it will be at +300. The example which follows will detail configuring a controller in this manner.

Up to eight controllers can be assigned to each individual preset.

1 Use the PAGE control to access the first Controller page. Note that the number displayed in the top row indicates which controller page is currently displayed. The first controller page will display "(1)" as shown below.





2 Use the control labeled "BASS" to select the number that will be assigned to Prophesy controller page (1). This number *must* match the controller number set on the MIDI controlling device.





3 Use the control labeled "MID" to select the Prophesy parameter that is to be controlled by the MIDI controlling device. The MID control scrolls through all available Prophesy adjustable parameters.





<u>4</u> Use the control labeled "TREBLE" to select the highest parameter value that the parameter is not to exceed through MIDI control changes.



Reversing upper and lower limit settings

The upper and lower limit parameter values can be reversed, so that the upper limit parameter actually holds a lower value than the lower limit value.

This effectively reverses the operation of the MIDI controller, such that the toe position of a footpedal would produce the lowest value, and the heel position would provide the highest value. (1) ONTNUM PARM UPLIM LOWLIM 7 PITCH1 +300 0 GAIN BASS MID TREELE PRESENCE M

5 Use the control labeled "PRESENCE" to select the lowest parameter value which the parameter will not fall below through MIDI control changes.





6 Once steps 1-5 have been completed for controller page (1), store the new settings as described under the subheading entitled "Storing modified presets" earlier in this section so that they will be in effect each time the current preset is recalled.

You may now use the PAGE control to access the next controller page and repeat Steps 2-6 to configure another Prophesy parameter to be controlled by a MIDI controller, if desired. Up to 8 controllers can be configured per preset.

STORE



Using ADSR

What is ADSR?

ADSR stands for **A**ttack/**D**ecay/**S**ustain/**R**elease. The advanced ADSR function featured in the Prophesy provides a powerful degree of control over any user-specified parameter while playing. The Prophesy's ADSR function operates differently than previous ADSR circuits¹, as it utilizes Rocktron's patent-pending *pluck detection* to trigger the ADSR function as you play. That is, each time a string is plucked on the guitar, the Prophesy detects it and triggers the ADSR circuit, which then varies the value of a specified parameter as defined by the settings configured on the ADSR page.

To use the ADSR function, you must configure a controller assignment (as described in the previous section) for a Prophesy parameter that you wish to control, using "ADSR" as its controller number. Here you can also define upper and lower parameter limits which determine the range that the ADSR function will operate over.

Once the controller assignment has been made, you can assign ADSR to one of the assignable effect locations (Pre Effect, Post Effect 1-3), then go to the preset's ADSR page and define what happens to the assigned parameter each time a string is plucked.

There are five parameters which determine how ADSR interacts with an assigned Prophesy parameter. These are as follows:

ATTACK	Determines the length of time for the assigned parameter to reach its maximum value (or the upper limit value set by the controller assignment, if set) once a plucked string is detected.
DECAY	Determines the length of time for the parameter value to decay from the peak ATTACK value to the value set by the S-LVL (Sustain Level) parameter.
S-TIME	Determines the length of time that the parameter will sustain (remain) at the value set by the S-LVL parameter.
S-LVL	Sets the sustain level (or parameter value) at which the assigned parameter value will be sustained for S-TIME milliseconds. This value can be set from 0 to 127, with 0 representing the minimum parameter value available and 127 representing the maximum value.
R-TIME	Determines the length of time it takes for the assigned param- eter to return to its minimum value from the value set by the S- LVL parameter.

¹ Older implementations of ADSR utilized a threshold-based method of triggering the ADSR function, rather than pluck detection. Threshold-based implementations are less effective, as many notes can be plucked that go unnoticed by the detection circuit and never trigger the ADSR function.
Figure 7-1 is a graph of a typical waveform that the ADSR function might generate, where the line which moves across the graph represents the value of the assigned Prophesy parameter after a string is plucked. Here you can see the role that each parameter plays in determining ADSR operation.



Figure 7-1: Typical ADSR waveform

ADSR can be used with any Prophesy parameter. One of the many potential uses for ADSR is the simulation of a wah pedal being pressed each time a string is plucked. To better illustrate the setup and use of the ADSR function, the remainder of this section will detail the steps involved for configuring ADSR for use with the WAH FREQ parameter.



2 Use the control labeled "BASS" to select the controller number that will be assigned to Prophesy controller page (1). To set up a controller assignment to be used with ADSR, this parameter value must be set to "ADSR" rather than a typical controller number. The "ADSR" controller is located one click past control number "120".





<u>3</u> Use the control labeled "MID" to select the Prophesy parameter that is to be controlled by ADSR. Here we will select "WAH FRQ".



4 Use the control labeled "TREBLE" to select the upper limit, which is typically the highest parameter value that the WAH FRQ parameter is not to exceed via controller changes sent via ADSR.



For this application, however, we will reverse the upper and lower limits (as described in the previous section) so that the initial attack will drop the WAH FRQ parameter to its lowest value, rather than increasing it to its highest value. Set the upper limit to 310Hz.



5 Use the control labeled "PRESENCE" to select the lower limit, which is typically the lowest parameter value which the parameter will not fall below via controller changes sent via ADSR.



However, since we are reversing the upper and lower limits for this application, set this value to 2600Hz.



 $\underline{6}$ Once steps 1-5 have been completed for the current controller page, store the new settings as described under the subheading "*Storing modified presets*" earlier in this section so that they will be in effect each time the current preset is recalled.



<u>Assign ADSR to the preset</u>
Use the PAGE control to access the effect location that ADSR will be assigned to (i.e. Pre Effect 1, Post Effect 1-3).





 $\underline{\mathbf{8}}$ Use the gain control to select "ADSR" for the selected effect location.



9 Set up the ADSR page for the preset

Use the PAGE control to access the next page, which displays the ADSR parameters.





<u>**10**</u> Use the GAIN control to set the ADSR function "ON".



When a note is plucked, the Input meter will display, in the following order:

Input meter changes functions and instead displays ADSR levels.

1. the initial attack

- 2. the decay down to the S-LVL value
- 3. holding at the S-LVL value for S-TIME
- 4. the release



11 Use the BASS control to set the ATTACK parameter, which determines the amount of time in which the WAH FRQ parameter will reach its maximum value (or the upper limit value set in the controller page, if set) after a note is plucked.



ADSR	ATTACK	DEC	S-TIME	S-LVL	R-TIME
ON	19	0	0	0	0
GAIN	BASS				MASTER

12 Use the MID control to set the DECAY parameter, which determines the amount of time in which the WAH FRQ parameter will go from its maximum value to the value defined by the S-LVL (Sustain Level) parameter.



ADSR	ATTACK	DEC	S-TIME	S-LVL	R-TIME
ON	19	53	0	0	0
GAIN	BASS	MID		PRESENCE	MASTER

<u>13</u> Use the TREBLE control to set the S-TIME (Sustain Time) parameter, or the length of time in which the WAH FRQ parameter will hold the value set by the S-LVL parameter.





14 Use the PRESENCE control to set the S-LVL (Sustain Level) parameter, which defines the value that the WAH FRQ parameter will hold at for the length of time defined by S-TIME.



ADSR	ATTACK	DEC	S-TIME	S-LVL	R-TIME
ON	19	53	14	61	0
	BASS		TREBLE	PRESENCE	MASTER

<u>15</u> Use the MASTER control to set the R-TIME (Release Time) parameter, which defines the length of time (in milliseconds) for the WAH FRQ parameter to go from the S-LVL value back to its minimum value after S-TIME has expired.





That's it! You now have a dynamic, automatic wah pedal effect which simulates pressing and releasing a wah pedal with every picked note. This is far more effective than a conventional automatic wah effect, which simply varies the wah frequency up and down based on time (without recognizing what is actually played). In fact, for many applications using ADSR with the wah effect can be even more accurate than using an actual wah pedal.

Figure 7-2 shows a graph similar to that shown in Figure 7-1, but with the parameter values from this example included.



Figure 7-2: Graphical representation of example settings

What happens when a note is plucked?

- ① Referring to Figure 7-2, upon the pluck of a string, the WAH FREQ parameter starts at its lower limit value of 2600Hz and gradually increases to its upper limit value of 310Hz (remember, the upper and lower limits have been reversed in this example) over a period of 19 milliseconds.
- ② The signal then decays from the upper limit value (310Hz) to the value set by the S-LVL parameter over a period of 53ms.
- ③ The WAH FREQ parameter will hold at the current value for 14 ms, as defined by the S-TIME parameter.
- ④ After S-TIME has passed, the WAH FREQ parameter will drop to the value set by the lower limit parameter (2600Hz) over a period of 12ms.

Note that changing the value of the WAH FREQ parameter as described above is essentially the same process that occurs when a conventional wah pedal is pressed and released over a period of 98ms (the total time-span shown in Figure 7-2).

Viewing the ADSR effect as it operates

It is possible to actually view the ADSR effect in action by viewing the parameter that the ADSR is controlling. After completing the setup steps, press the WAH button to recall the Wah page and you'll actually be able to see the WAH FREQ parameter being adjusted by the ADSR as you pluck notes! This is also a handy way to identify the actual parameter value that the ADSR's S-LVL (sustain level) parameter represents. In this example, you'll notice that after the decay, the wah frequency parameter will stop and hold for 14 milliseconds (S-TIME) at 1297HZ (S-LVL).

Using the Tap Button

The Prophesy's Tap Button function allows you to set delay times and/or tremolo rates on-thefly (while playing), either by tapping the front panel TAP button, by a momentary footswitch connected to the rear panel, or by a control button on a MIDI foot controller like the Rocktron All Access.

When activated, the TAP function instantly changes the current delay time/tremolo rate settings based on the length of time between any two taps that are less than one second apart. Obviously, this can be very handy for quickly getting the proper Delay times and/or Tremolo rates for different song tempos.

After the Prophesy detects the length of time between taps, it then uses the time detected to set the D-TIME parameter (displayed on the first Delay page) and/or the T-RATE parameter (displayed on the Tremolo page). Depending on the value stored in the QUANT parameter of the Tap page, the resulting delay time will be either:

- equal to the time between taps (when QUANT is set to "1/4 NOTE"), or,
- one-half of the time between taps (when QUANT is set to "1/8 NOTE")

The front panel TAP button flashes continuously to provide a visual indication of the current delay time setting. (This feature can also be turned off via the T-LED parameter on the Tap Button display page.)

The TAPBTN parameter on the Tap Button page determines which effects that the Tap function will operate on. These settings will work the same regardless of whether the Tap function is initiated via the front panel Tap button, a momentary footswitch connected to the footswitch jack, or control messages sent by a MIDI foot controller.

It is also important to note that the TAPBTN (Tap Button) parameter settings of "DELAY", "TREM" or "BOTH" will only operate as set *when viewing all other pages except the delay or tremolo pages.* So, for example, if the TAPBTN parameter is set to "BOTH" and you're presently viewing the preset title page, and you were to begin tapping the TAP button, the Delay time and Tremolo speed will be adjusted simultaneously. However, if you then turn to the Delay page and begin tapping the TAP button, it will effect the Delay time *only*. Likewise, viewing the Tremolo page and tapping the TAP button will effect the Tremolo rate *only*.

Setting up MIDI Program Changes

MIDI program changes allow for different MIDI program numbers to be assigned to Prophesy preset numbers. For example, MIDI program #58 can be mapped to Prophesy preset #33. Then, when program #58 is selected from a MIDI transmitting device (such as a Rocktron All Access foot controller), preset #33 will be recalled on the Prophesy.

The preset/program change mapping is shipped from Rocktron at a one-to-one correspondence (i.e., MIDI program #1 is mapped to Prophesy preset #1, 2 to 2, etc.).

The Prophesy can be set to execute program changes as sent from a controller (ON), map incoming program changes to different Prophesy presets (MAP), or ignore all incoming program changes (OFF)

Note that the default setting for the Prophesy MIDI transmit channel is OFF in all presets, therefore no MIDI commands are sent from the Prophesy when a preset is recalled unless it is configured by the user.

<u>1</u> Use the PAGE control to access the second MIDI page, shown below.





2 Use the control labeled "GAIN" to turn the MIDI mapping status to MAP.





The PRG CHG parameter can be set to any of the following options to control incoming MIDI program change commands:

OFF:Does not execute incoming MIDI program changesON:Executes program changes exactly as receivedMAP:Map incoming program change commands to specified
Prophesy presets

<u>3</u> Use the control labeled "BASS" to select the MIDI program change number to be assigned to a selected preset.





<u>4</u> Use the control labeled "MID" to select the preset that the specified incoming MIDI program change will be mapped to.





5 Store the new settings as described under the subheading entitled *"Storing modified presets"* earlier in this section.



Repeat steps 2-5 for as many program changes as desired.

Setting MIDI Channels

The Prophesy can receive MIDI commands from other MIDI transmitting devices. In order for this function to operate properly, the Prophesy's MIDI receive channel must be set to correspond to the MIDI channel that the other devices are transmitting MIDI messages on. This section discusses how to set the MIDI receive channel.

MIDI RX TX

1

1

1 Use the PAGE control to access the first MIDI page, which looks like the page below.

OFF

REMOTE TITLE REMID

OFF

0



2 Use the control labeled "GAIN" to select the MIDI channel on which the Prophesy will receive MIDI commands from other devices. Channels 1-16, OMNI (receive on all channels), or OFF (do not receive MIDI commands) may be selected. Note that this number must match the channel that the MIDI transmitter is sending MIDI commands on.





3 Use the control labeled "MID" to set the MIDI channel on which the Prophesy will *transmit* controller information to a Rocktron All Access footswitch. Note that this parameter only needs to be set when using the Prophesy with an All Access, as the Prophesy does not transmit MIDI program changes to any other devices.





<u>4</u> Store the new settings as described under the subheading entitled *"Storing modified presets"* earlier in this section.

STORE



Remote control from All Access[™]

The Rocktron All Access MIDI footswitch can be configured to act as a dedicated remote control for the Prophesy — allowing direct access to specific Prophesy features and parameters from the footswitch at any time.

<u>1</u> <u>Connecting the units:</u>

To use an All Access footswitch as a dedicated remote, connect the MIDI OUT of the All Access to the MIDI IN jack of the Prophesy using a 7-pin MIDI, as shown below:

	ROC	
PEDAL 1 PEDAL 2 MIDI		
		All Access rear panel
	Connect of the Al the Prop	a MIDI cable from the MIDI OUT l Access to the MIDI IN jack on hesy.
		Prophesy - partial rear view
		ROCKTRON CORPORATION Rochester Hills, MI MADE IN THE U.S.A. MODEL::ROPHESY
		SERIAL# FOOT MIDI SWITCH IN OUT/THRU

2 Configure the Prophesy for remote access: Use the PAGE control to access the first MIDI page, which looks like the page below.





3 Use the control labeled "MID" to enable Remote mode operation.





4 If the Prophesy preset titles are to be displayed by the All Access, use the "TREBLE" control to set the TITLE parameter to "ON", enabling title transfers from the Prophesy to the All Access.





- 5 Configure the All Access to control the Prophesy: Set the Operating Mode to "REMOTE".
- $\underline{\mathbf{6}}$ Set the Bank Size to "10".
- 7 Reinitialize only the controller information for the instant access switches and pedals using the All Access controller restore code number "231".
- **<u>8</u>** If the preset titles from the Prophesy are to be displayed on the All Access automatically, set the Remote Title Number to match the "REM ID" parameter value on the Prophesy.



Editing the All Access

Please refer to the All Access manual for detailed information on editing the All Access.

Dumping and Loading Prophesy Data

Any or all of the Prophesy presets can be dumped to a sequencer or another Prophesy via system exclusive messages. The information exchanged when performing a MIDI dump or load consists of parameter values, title characters and controller assignment/ limit information. When dumping a single preset into another Prophesy, the dumped preset can be loaded into any preset location on the receiving unit.

Dumping a single Prophesy preset into another Prophesy

1 Connect a standard MIDI cable from the MIDI OUT of the transmitting Prophesy to the MIDI IN of the receiving Prophesy, as shown below.



Important

Do not allow a looping connection from the MIDI OUT/THRU of the receiving Prophesy back to the MIDI IN of the transmitting Prophesy when performing a preset dump. Only use the connections shown at right when dumping data from one Prophesy to another.



2 On the *transmitting* Prophesy, use the PAGE control to select the preset to be dumped to another Prophesy.



3 On the *transmitting* Prophesy, use the PAGE control to select the PRESET UTILITY page.





<u>4</u> On the *receiving* Prophesy, use the PRESET control to select the preset location where the received preset will be stored. *Note that the preset currently stored at the selected location will be lost when the new preset is received.*



<u>5</u> On the *transmitting* Prophesy, press the STORE button to dump the preset. The transmitting unit will display "DUMPED!!!!" for about one second.



At this point, the preset has been copied to the receiving unit and the Preset Dump function is complete. Repeat Steps 2-5 to copy additional presets to another Prophesy.

STORE



Dumping all Prophesy presets into a sequencer

Connect a standard MIDI cable from the MIDI OUT of the transmitting 1 Prophesy to the MIDI IN of the receiving sequencer, as shown below.



 $\land /$

J

<u>5</u> Start the sequencer recording.



STORE

<u>6</u> On the transmitting Prophesy, press the STORE button to begin dumping presets to the sequencer. The Prophesy will successively recall each preset, displaying "DUMPED!!!!!" for each one.



7 When completed, all presets have been dumped and the sequencer can be stopped. Keep the dumped data stored on a disk in a safe, dry location.



J

To reload user data from a sequencer

1 Connect a standard MIDI cable from the MIDI OUT of the transmitting sequencer to the MIDI IN of the receiving Prophesy, as shown below.



2 Play back the data stored on the sequencer. The Prophesy will automatically begin storing the information as it is sent from the sequencer, and will display the data strings as it is storing them. After all the data has been loaded, the Prophesy will display "LOAD COMPLETE".



PRESET UTILITY LOAD COMPLETE

Important

Do not allow a looping connection from the MIDI OUT/THRU of the receiving Prophesy back to the MIDI IN of the transmitting sequencer when performing a preset dump. Only use the connections shown at right when dumping data from one Prophesy to another.

When dumping data to and from the Prophesy, always perform the dump in real time sequence mode. This will ensure that data loaded back into the Prophesy is not sent faster than the Prophesy can receive it.

Also, make sure that the sequencer's MIDI filter is configured to accept SYSX information.

Restoring original factory presets

The Prophesy allows you to return user-modified presets to their original condition as shipped from the factory. You can restore the entire Prophesy memory (all presets) or restore a single preset to any preset location.

Restoring a single factory preset



Restoring all factory presets



Using the Prophesy built-in tuner

The Prophesy provides a built-in tuner which can be activated at any time by pressing the MUTE button.



<u>2</u> Pluck any note on the guitar.

The Prophesy will detect the note and indicate its nearest eventempered pitch at the center of the display. If the note is slightly above or below any of the 12 even-tempered notes, a sharp or flat condition is indicated by an asterisk symbol at either side of the displayed note, as shown below.



A note that is slightly above C (i.e. slightly sharp)



A note that is slightly below C (i.e. slightly flat)

As you tune the string, the displayed asterisk will move closer to the displayed note. When the plucked note is perfectly in tune with the note that is displayed, "TUNED" will display at each side of the note, as shown below.



A plucked "C" note that is perfectly in tune

8. Appendix

MIDI Implementation

Model:	Rocktron Prophesy

Date: August 10, 1998

Version: 1.0

Key: O = YES

X = NO

	FUNCTION	TRANSMITTED	RECOGNIZED	REMARKS
BASIC CHANNEL	DEFAULT CHANGED	1-16 1-16	1-16 1-16	May be saved in non-volatile memory
MODE	DEFAULT MESSAGES ALTERED	X X X	X X X	
NOTE NUMBER	TRUE VOICE	Х	Х	
VELOCITY	NOTE ON NOTE OFF	X X	X X	
AFTER TOUCH	KEY'S CHANNEL	X X	X X	
PITCH BEND		Х	Х	
CONTROL CHANGE**		0	0	
PROGRAM CHANGE*	TRUENUMBER	Х	0	
SYSTEM EXCLUSIVE		0	0	For Bulk Dump/Load and Preset Dump/Load
SYSTEM COMMON	SONG POSITION SONG SELECT TRUE REQUEST	X X X	X X X	
SYSTEM REAL TIME	CLOCK COMMANDS	X X	X X	
AUXILIARY MESSAGES	LOCAL ON/OFF ALL NOTES OFF ACTIVE SENSING SYSTEM RESET	X X X X	X X X X	

* Actual MIDI program value sent is 0-127, corresponding to presets 1-128.

** The control number may be from 0-120, or OFF. An upper and lower range may also be specified for most parameters.

Specifications

Input Impedance
Maximum Input Level+16 dBu
Input Jack
Output Impedance < 150W
Maximum Output Level MAINOUT
Output Jacks MAINOUT
MIDI In
MIDI Thru/Out 5-pin DIN
Power Requirements
Dimensions