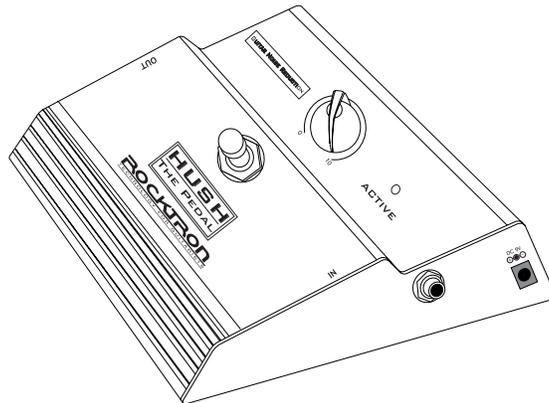


**ROCKTRON**  
TECHNOLOGY FOR GUITARISTS

**HUSH**  
**THE PEDAL**



HUSH<sup>®</sup> is a registered trade mark of GHS Corporation USA

*May be covered by one or more of the following: U.S. Patents #4538297, 4647876, 4696044, 4745309, 4881047, 4893099, 5124657, 5263091, 5268527, 5319713, 5333201, 5402498 and 5493617.  
Other patents pending. Foreign patents pending.*



Your HUSH The Pedal has been tested and complies with the following Standards and Directives as set forth by the European Union:

**Council Directive(s):** 89/336/EEC Electromagnetic Compatibility

**Standard(s):** EN55013, EN50082-1

This means that this product has been designed to meet stringent guidelines on how much RF energy it can emit, and that it should be immune from other sources of interference when properly used. Improper use of this equipment could result in increased RF emissions, which may or may not interfere with other electronic products.

To insure against this possibility, always use good shielded cables for all audio input and output connections. This will help insure compliance with the Directive(s).

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## Precautions

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

Read all instructions contained in this manual.

Keep these instructions

Heed all warnings

Follow all instructions.

Do not use this apparatus near water.

Clean with dry cloth

Do not block any ventilation openings (if applicable). Install in accordance with the manufacturer's instructions.

Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.

This product is not equipped with a plug, cable or adapter. A battery provides power under normal operation. A 9Volt DC adapter may be used to supply power to this unit.

If an adapter is used take care to use an approved adapter and follow the instructions provided with the adapter.

Protect the adapter cord from being walked on or pinched.

Only used attachments/accessories specified by the manufacturer.

Do not use this product with any case, stand tripod, bracket or table that is not specified by the manufacturer. Insure that the case, stand, tripod, bracket etc. is properly adjusted and setup (follow all instructions). Extra care and caution should be taken to avoid tip over and injury.

Unplug this apparatus during lightening storms or when unused during long periods of time.

## **Precautions Continued....** \_\_\_\_\_

Refer all service to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply or plug is damaged, liquid has been spilled or objects have fallen into the apparatus or if the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.

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

### **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.

## **Introduction**

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Congratulations on your purchase of Rocktron's HUSH® The Pedal - guitar noise reduction footswitch! HUSH The Pedal is designed to eliminate the background noise or "hiss" produced by high gain amplifiers when a signal is present without descimating your tone.

HUSH The Pedal incorporates the latest version of the HUSH descreet circuitry which also includes Rocktron's patented Variable Integrated Release (V.I.R.) technology. V.I.R. technology utilizes a low-noise VCA with precision detector circuits to achieve the smoothest and most transparent noise reduction possible.

The Pedal is housed in an ultra-rugged chassis with a slightly recessed Threshold control to protect against any accidental bumps which might alter your setting.

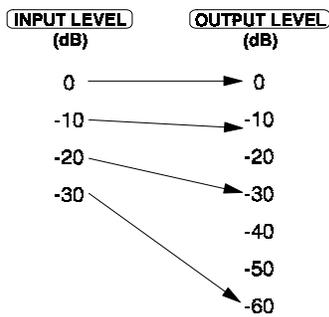
This user's manual will introduce you to The Pedal and its various functions. After reading it carefully, please keep it for future reference.

## **HUSH**

In most applications, the signal from an instrument being played is much louder than the noise level. Therefore, much of the noise is not heard when an instrument is being played. However, when you stop playing or let a note decay, the instrument level drops below the noise level and the noise becomes much more audible. Setting the THRESHOLD controls just above the level of the noise causes The Pedal to begin to decrease the output level so that the noise is never heard.

The Pedal incorporates the latest advancements in HUSH noise reduction technology. HUSH The Pedal's discreet threshold control circuit utilizes a voltage-controlled amplifier (VCA) as a downward expander which can control the gain between the input and output of The Pedal from unity to over 60dB of gain reduction. When the input signal is above the threshold level set by the THRESHOLD control, the VCA will remain at unity gain (i.e. the output level will remain equal to the input level). As the amplitude drops below the threshold point, downward expansion will begin. When downward expansion begins, the VCA acts like an electronic volume control and gradually begins decreasing the output signal relative to the input signal. For example, if the input signal were to drop below the threshold point by 10dB, the output would drop approximately 12dB. As the input signal drops further below the threshold point, downward expansion increases exponentially. This means that if the input signal dropped 20dB below the threshold point, the output level would drop approximately 30dB. A 30dB drop below the threshold would result in a drop of 60dB of the output signal (30dB of gain reduction). The absence of any input signal will result in the expander reducing the gain so that the noise floor is inaudible.

**TYPICAL EXPANSION RATIO**  
(with a 0dB threshold)



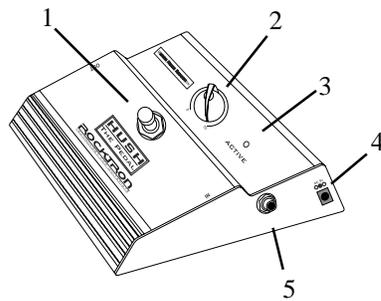
*As the input signal level decreases further below the threshold point, the output signal drops more rapidly.*

The Variable Integrated Release (V.I.R.) technology contained in each HUSH circuit automatically adjusts the release rate of the expander based on the dynamic decay rate of the incoming signal. If the input signal stops suddenly, downward expansion will occur rapidly (similar to a gate). If the input signal decays slowly, expansion will occur slowly without disrupting the dynamic decay of the input signal.

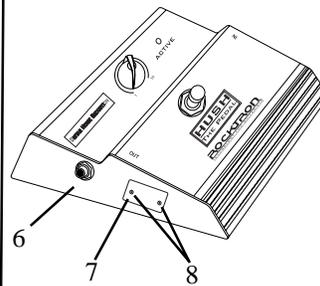
The THRESHOLD control should be adjusted by listening to the noise floor while not playing. Turn the THRESHOLD control clockwise to the point where the noise floor becomes inaudible. Turning too far past this point will cause the downward expander to attenuate the output level too quickly and not allow the signal to decay as long as it should.

## Functions

Right Side



Left Side



- 1= This switch activates the HUSH circuitry. Step on the switch again to deactivate the HUSH.
- 2= Threshold Control - Turn Clockwise to increase the amount of HUSH added to the signal. In high gain situations turn the Threshold more towards "Max". In lower gain settings turn Theshold more towards "MIN". Set this control to suit your taste.
- 3= "ACTIVE" LED - When lit the HUSH is "active" or "on"
- 4= 9 Volt DC Adapter Input
- 5= Input Jack
- 6= Output Jack
- 7= Battery Compartment - To access, remove two screws, pull cloth tab to remove the battery. When installing a new battery, push battery in over cloth tab so that you can pull out the battery during your next replacement.
- 8= Battery Compartment screws - remove to access battery.

## Connections

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When using the HUSH The Pedal in line between your guitar effects and amplifier the pedal should always be the last device in the signal chain.

The HUSH The Pedal can also be used in your amplifier's effects loop. However, if you are running multiple effects through this loop the HUSH The Pedal should always be the last dynamic device in the signal chain, but before digital delays or reverbs.

### *Check out some of our other products:*

#### Stomp Boxes:

**Rampage Distortion, Tsunami Chorus, Austin Gold Overdrive,  
Vertigo Vibe Rotating Vibe Pedal, HUSH The Pedal**

#### Foot Controllers:

**MIDI Mate** (*Midi Foot Controller*)

**MIDI I.T.** (*MIDI Footcontroller*)

**All Access** (*Midi Foot Controller*)

**RMM900** (*7-pin Din MIDI Cable*)

**RFS1 and RFS2** (*Single and Double Latching Footswitches for Rampage Amps*)

*Continued.....*

*other products continued.....:*

**Rack Gear:**

**Gainiac** (*preamp w/12ax7 tube*)

**Chameleon 2000** (*preamp w/multi-effects*)

**Voodoo Valve** (*preamp w/12ax7 tube and multi-effects*)

**Prophesy** (*our top of the line preamp with multi-effects*)

**Intellifex On Line** (*Multi-effects processor*)

**HUSH Super C** (*guitar noise silencing system*)

**Vendetta VP4 Preamp** (*All Tube 4-Channel Guitar preamp - 2 Rack Space*)

**Electric Guitar - Acoustic Guitar and Bass Amplifiers:**

**Vendetta Head** (*100 W Head 4-Channels All Tube - MIDI Switchable*)

**Vendetta Combo** (*100W 2x12 Combo Celestion 90s all Tube4-Channel MIDI Switchable*)

**R80DSP** (*80W 1x12 Amp w/Digital Effects*)

**RT80** (*80W 1x12 Amp w/Reverb & Built-in Tuner*)

**R120DSP** (*120W 2x10 Amp w/Digital Effects*)

**R120C** (*120W 2x12 Amp w/Stereo Chorus and Reverb*)

**RT122C** (*120W 2x12 Amp w/Stereo Chorus, Reverb & Chromatic Tuner*)

**R50DSP** (*50 Watt 2x8" Guitar Amp w/Digital Effects*)

**R50C** (*50 Watt 2x8" Guitar Amp w/Reverb & Chorus*)

**R20** (*20 Watt 1x8" Amp w/Reverb*)

**R10** (*10 Watt 1x6.5"*)

**ACOUSTIC** (*60 Watt Acoustic Amp with Chorus & Reverb*)

**RA50DSP** (*50W Acoustic Amp w/Digital Effects - Wedge Shape*)

**RA30DSP** (*30W Acoustic Amp w/Digital Effects - Wedge Shape*)

**RB20** (*Bass Amp 20W with 8" Speaker*)

**RB30** (*Bass Amp 30W with 10" Speaker*)

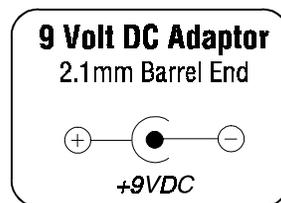
**RB60** (*Bass Amp 60W with 12" Speaker*)

**RB100** (*Bass Amp 100W with 15" Speaker*)

## Specifications

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<b>Input Impedance</b>	470K
<b>Maximum Input</b>	+5dBu
<b>Maximum Output</b>	+5dBu
<b>Distortion</b>	.09% 0dBu@1KHz typical
<b>Dynamic Range</b>	99dBu (A-weighted)
<b>Frequency Response</b>	$\pm 1/2$ dB 20Hz-20KHz
<b>Noise Reduction</b>	over 60dB
<b>Current Consumption</b>	10mA
<b>Power Requirement</b>	9V battery or 9V DC adaptor



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