



HOLY STAIN

EH Multi Effect Pedal

Distortion/Reverb/Pitch Shift/Tremolo

Congratulations on your purchase of the Holy Stain: the first multi-effect pedal from Electro-Harmonix. The Holy Stain is comprised of two stages: an analog distortion and a DSP. Two types of distortion are available: Fuzz and Drive. There are four DSP functions: Room Reverb, Hall Reverb, Pitch Shift and Tremolo. One can choose from one distortion mode and one DSP mode at a time or bypass either stage. Please read further to learn how to fully operate your Holy Stain.

- EFFECT DESCRIPTIONS -

DISTORTION

The Distortion section of the Holy Stain is made up of 4 controls: DIRT, COLOR, TONE and VOLUME. DIRT and COLOR are both rotary switches while TONE and VOLUME are rotary potentiometers.

The **DIRT** control allows you to change the type of distortion from Clean to Fuzz to Drive. The Drive setting gives you a smooth distortion. The Fuzz setting is a harder edged distortion compared to the Drive setting. Use the **Clean** setting to bypass the distortion. **Please note:** the Clean setting is part of the distortion circuit so you may still hear a little grit when set to Clean.

The Holy Stain has two controls to help tailor your distortion's tone: COLOR and TONE. The COLOR switch subtly changes the character of the distortion using three settings: Bright, Dark and Warm. Use the Bright setting for a full frequency distortion. Choose the Dark setting to cut high frequencies for a smoother distortion. The Warm setting is somewhere in between the other two giving a rounder distortion. **Please note:** when DIRT is set to Clean, the COLOR switch has no effect on the tone except that in Warm mode your sound may be slightly distorted, depending on the volume of your pickups. The **TONE** knob is a drastic tone control that, when set to extremes, will allow you to emphasize the highs or lows. Set TONE to the middle for a nice, even, full frequency sound.

The **VOLUME** control sets the overall output volume from the distortion stage. The output of the distortion stage is sent directly into the input of the DSP.

ROOM and HALL REVERB

The two reverb settings are excellent sounding, easy-to-use reverbs. The primary difference between the Room and Hall reverbs is the pre-delay time. The Hall setting has a longer pre-delay as compared to the Room. Pre-delay is the delay time between playing a note and hearing the onset of the reverb effect.

All four DSP functions allow you to change their sound using the AMOUNT knob. The AMOUNT knob's function changes with each setting. For the two reverbs: the AMOUNT knob sets the reverb time or length of reverb tail. As you turn the AMOUNT knob clockwise the reverb time will increase.

The **MIX** knob sets the balance between the output of the distortion circuit and the output of the DSP. When the MIX knob is set to fully counter-clockwise you will hear only distortion, no DSP. When the MIX knob is set fully clockwise you will hear the direct output of the DSP which may include the distortion that is present at the DSP's input.

Press the **MODE** Footswitch to cycle through the 4 DSP modes.

PITCH SHIFT

In Pitch Shift mode, the Holy Stain will change the pitch of the note you play up to a 3rd and down to a 4th. This means that when the AMOUNT knob is set to the full clockwise position, if you play a C note on the guitar, the Holy Stain will shift that note up to an E. If the AMOUNT knob is set to full counter-clockwise, the Holy Stain will shift the C note down to a G.

In Pitch Shift mode, the AMOUNT knob sets the pitch shift amount. When AMOUNT is set to 12 o'clock, you will hear practically no pitch shift. As you turn the knob in the clockwise direction, your notes will shift up. As you turn AMOUNT counter-clockwise your notes shift down. The AMOUNT knob, in Pitch Shift mode, is continuously variable from - a 4th to + a 3rd. It does not change the pitch in discrete steps. Set the AMOUNT knob to somewhere around 12 o'clock to double or thicken your sound without changing the pitch.

The MIX knob controls the volume of your original note versus the volume of the pitch shifted note. To hear an equal balance between original and pitch shifted notes, turn the MIX knob to 12 o'clock. To hear only the pitch shifted notes, turn MIX to its fully clockwise position.

TREMOLO

The Tremolo effect in the Holy Stain is a simple tremolo effect with some reverb thrown in. As you turn the AMOUNT knob clockwise, the rate of the tremolo effect will quicken and the amount of reverb will increase.

The MIX knob controls the depth of the Tremolo effect. As you turn the MIX knob clockwise you will hear more Tremolo. Turn the MIX knob to its maximum setting for maximum Tremolo.

- CONTROLS -

DIRT Switch – Switches between CLEAN, FUZZ and DRIVE. Use this switch to change the type of distortion. Set it to CLEAN to bypass the distortion.

COLOR Switch – Switches between BRIGHT, DARK and WARM. Use this switch to make subtle changes to the character of your distortion. Please note: when DIRT is set to CLEAN, the WARM setting of the COLOR switch may produce some distortion.

TONE Knob – Use this control to drastically change the sound of your distortion. As you turn the TONE knob counter-clockwise from its middle position, the bass response will increase and treble will decrease. As you turn the TONE knob clockwise from the middle, the treble response will increase and bass will decrease. Turn TONE to the middle position to obtain an even frequency response.

VOLUME Knob – Sets the output level of the distortion stage. As you turn the VOLUME knob clockwise, the volume will increase.

AMOUNT Knob – Controls the DSP parameters. The function of this knob changes for each DSP setting:

DSP Function	AMOUNT Parameter
Room Reverb	Reverb Time
Hall Reverb	Reverb Time
Pitch Shift	Pitch Shift Amount: - 4th to + 3rd
Tremolo	Tremolo Rate

MIX Knob – This control sets the balance between the output of the distortion and the output of the DSP. The counter-clockwise position will yield 100% distortion. The clockwise position will yield 100% DSP. When the DSP is in Pitch Shift mode, set the MIX knob to 12 o'clock to hear an equal balance of your original note and the pitch shifted note. In Tremolo mode, the MIX knob acts like a Depth control for the Tremolo effect. The more you turn MIX clockwise the more tremolo you will hear.

STATUS LED and BYPASS FOOTSWITCH – The BYPASS Footswitch toggles the Holy Stain between Effect and True Bypass modes. When the **STATUS LED** is lit, the Holy Stain effect is active, when the STATUS LED is off, the Holy Stain is in True Bypass mode.

MODE FOOTSWITCH and LEDs – The MODE Footswitch cycles through the 4 DSP effects in the following order: Room Reverb, Hall Reverb, Pitch Shift, Tremolo, Room Reverb, etc. When you first apply power to the Holy Stain, it will start in the Room Reverb setting and the ROOM REVERB LED will be lit. If you then press and release the MODE Footswitch, the Holy Stain will switch to Hall Reverb and the **HALL REVERB LED** will light. Continue to press and release the MODE Footswitch to cycle through the rest of the DSP effects.

INPUT Jack – This ¼" jack is the audio input to the Holy Stain. The input impedance presented at this jack is 100kΩ.

OUTPUT Jack – This ¼" jack is the audio output from the Holy Stain. The output impedance at this jack is 570Ω.

EXP. PEDAL Jack – This ¼" input accepts an Expression Pedal with TRS connection. The Expression Pedal takes over the AMOUNT knob so that you can modulate the DSP effects with your foot. To obtain the full range of the AMOUNT knob with the Expression Pedal, set AMOUNT to 12 o'clock. To change the range of the Expression Pedal, try different settings for the AMOUNT knob. Some acceptable Expression Pedals include: Boss FV-500L, Alesis F2, Roland EV7, Moog Music EP2, Roland EV5 and M-Audio EX-P.

9V Power Jack – Plug the output of the Holy Stain's supplied AC Adapter into this jack located at the top of the Holy Stain. The Holy Stain requires 9VDC at 100mA with a center negative plug. The Holy Stain accepts Boss style AC Adapters.

- WARNINGS -

To achieve its incredible distortion, the Holy Stain has a very high maximum gain. This requires that both the pickups and cables be well shielded and properly grounded to avoid excessive hum and stray oscillations when the FUZZ and DRIVE settings are used.

WARNING: Use only the 9.6VDC/200mA AC adapter the Holy Stain comes supplied with. Do not use any other AC adapters. Using other AC adapters, even those made by Electro-Harmonix, could cause harm to the unit, the adapter or you. The Holy Stain does not use batteries.

- WARRANTY INFORMATION -

Please register online at <http://www.ehx.com/product-registration> or complete and return the enclosed warranty card within 10 days of purchase. Electro-Harmonix will repair or replace, at its discretion, a product that fails to operate due to defects in materials or workmanship for a period of one year from date of purchase. This applies only to original purchasers who have bought their product from an authorized Electro-Harmonix retailer. Repaired or replaced units will then be warranted for the unexpired portion of the original warranty term.

If you should need to return your unit for service within the warranty period, please contact the appropriate office listed below. Customers outside the regions listed below, please contact EHX Customer Service for information on warranty repairs at info@ehx.com or +1-718-937-8300. USA and Canadian customers: please obtain a **Return Authorization Number** (RA#) from EHX Customer Service before returning your product. Include with your returned unit: a written description of the problem as well as your name, address, telephone number, e-mail address, and RA#; and a copy of your receipt clearly showing the purchase date.

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This warranty gives a purchaser specific legal rights. A purchaser may have even greater rights depending upon the laws of the jurisdiction within which the product was purchased.

To hear demos on all EHX pedals visit us on the web at www.ehx.com
Email us at info@ehx.com

FCC COMPLIANCE

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- *Reorient or relocate the receiving antenna.*
- *Increase the separation between the equipment and receiver.*
- *Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.*
- *Consult the dealer or an experienced radio/TV technician for help.*

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.