

# electro-harmonix



Congratulations on your purchase of the Electro-Harmonix STRING9 String Ensemble. The STRING9 does for lush strings what the B9 does for organs, the KEY9 does for electric pianos and the SYNTH9 does for analog synthesizers: now anyone with an electric guitar can play great sounding lead string lines and chordal string pads. The STRING9 is so amazing at producing atmospheric pads, we took our groundbreaking Freeze algorithm from the HOG and Superego and included it in three of the STRING9's patches. Like our entire line of 9 series synthesizers, no special pickups are needed for clear polyphonic tracking from single notes to full chords. Grab your favorite electric guitar and a STRING9 and turn yourself into a string ensemble virtuoso.

## Operating Instructions

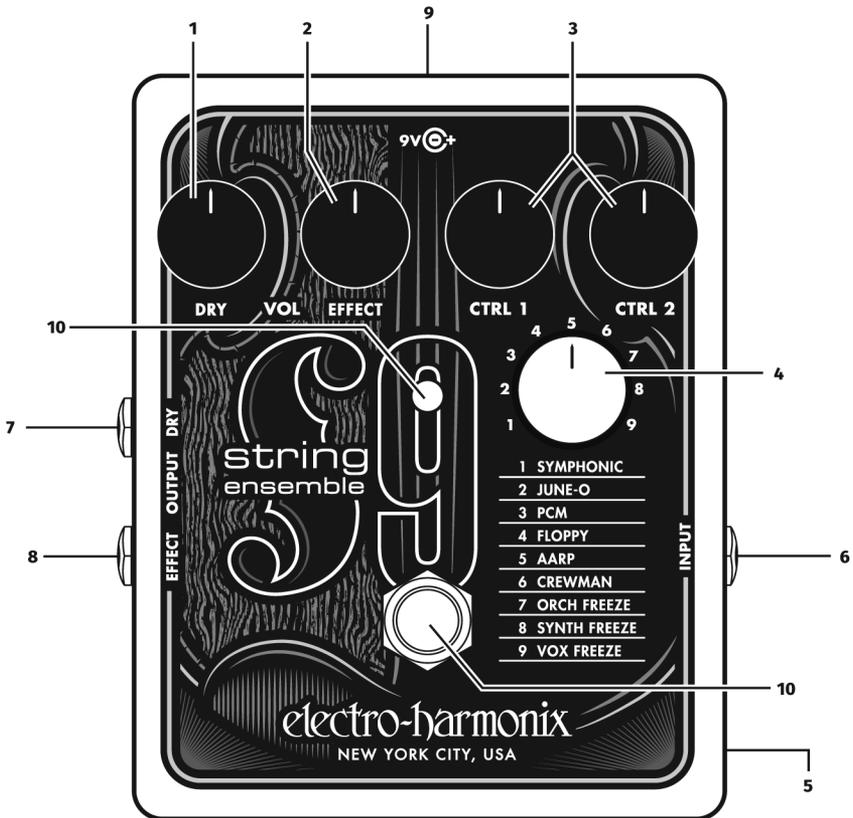
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Connect the supplied power adapter to the 9V power jack. Plug your instrument into the INPUT jack. Connect your amp or mixer to the EFFECT OUTPUT jack. Set the DRY knob to minimum (fully counterclockwise) and set the other top row knobs to 12 o'clock. Select a preset ("SYMPHONIC" is a good starting point) and step on the footswitch to turn on the LED. Play your instrument and adjust controls to your liking.

For further inspiration, check out the STRING9's Suggested Factory Settings section. To download a blank User Settings PDF to record your favorite settings, visit [www.ehx.com/string9](http://www.ehx.com/string9).

**WARNING:** This device comes equipped with an Electro-Harmonix 9.6DC-200mA power supply. It requires **100mA** at 9VDC with a center negative plug. Use of the wrong adapter or a plug with the wrong polarity may damage the device and void the warranty. Do not exceed 10.5VDC on the power plug. Power supplies rated for less than 100mA will cause the device to act unreliably.

## Controls and Connections



- 1. DRY VOL Knob** The DRY VOL knob controls the volume of the untreated instrument signal present at the EFFECT OUTPUT jack. The DRY knob does not control the volume of the DRY OUTPUT jack.
- 2. EFFECT VOL Knob** The EFFECT VOL knob controls the overall volume of the selected patch at the EFFECT OUTPUT jack.
- 3. CTRL 1 and CTRL 2 Knobs** See the preset descriptions on page 4.
- 4. PATCH Knob** Turn the white knob to select a strings patch.
- 5. BYPASS MUTE Internal DIP Switch** Inside the STRING9 is a small DIP switch labeled *dry/mute*. This switch allows you to choose the signal output from the EFFECT jack when the STRING9 is in bypass mode.

While the STRING9 is in Bypass, and the DIP switch is set to *dry* (factory default), the EFFECT jack outputs the signal present at the INPUT. This is the standard guitar pedal routing for bypass. Set the DIP switch to *mute*, and

the EFFECT jack output is muted in bypass. This is handy when sending the STRING9's string effects to a different amplifier or mixer channel and you don't want to hear your guitar out of that amp while in bypass.

To change the *dry/mute* DIP switch setting, do the following:

Remove the bottom cover of the STRING9.

Locate the small board with the footswitch and ribbon cable. Here you'll find the DIP switch labeled *dry* and *mute*.

Change the *dry/mute* DIP switch setting with a small flathead screwdriver.

**Note:** *this switch is very delicate. Do not force it when changing settings. If the switch handle doesn't move easily, try moving it the other way first and then back to the position you want.*

**6. INPUT Jack** Plug your instrument or the output of another effects pedal into this 1/4" jack. The input impedance at the INPUT jack is 1M $\Omega$ . See Tips 1 & 2 on page 7 of this manual for more information on connecting your STRING9.

**7. DRY OUTPUT Jack** The DRY OUTPUT jack outputs the signal present at the INPUT jack through a buffer circuit. In either EFFECT or BYPASS mode, the dry signal is always present at the DRY OUTPUT jack. The source impedance at the DRY OUTPUT jack is 500 $\Omega$ .

**8. EFFECT OUTPUT Jack** In effect mode, the EFFECT OUTPUT jack outputs the mix set by the DRY and EFFECT volume knobs. In BYPASS mode, EFFECT outputs either the buffered bypass signal or is muted, depending on the setting of the internal BYPASS MUTE DIP switch. The source impedance at the EFFECT OUTPUT jack is 500 $\Omega$ .

**9. 9V Power Jack** Attach the output plug from the included power supply to the 9V power jack. The STRING9 draws 100mA at 9VDC on a center-negative plug. Do not exceed 10.5VDC on the power jack.

**10. BYPASS Footswitch and STATUS LED** Press the Bypass footswitch to toggle the EFFECT OUTPUT jack between buffered bypass/mute and EFFECT mode. The status LED lights when you are in EFFECT mode. Change between buffered bypass or mute—while in Bypass mode—by flipping the internal BYPASS MUTE DIP switch. The STATUS LED blinks when waiting for a Freeze trigger or upon receiving a new Freeze trigger.

### **Manual Freeze On The Bypass Footswitch**

The Bypass footswitch performs double-duty, in addition to toggling between bypass and effect modes, the footswitch also engages Manual Freeze when the STRING9 is set to any of the last three patches: ORCH FREEZE, SYNTH FREEZE, VOX FREEZE and the CTRL 2 knob is set to the CW half of its range.

# Preset Descriptions

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**1. SYMPHONIC** An emulation of a large symphonic orchestra. The bottom guitar strings produce a lower octave for a full sound.

**CTRL 1** is a tone control. As you turn CTRL 1 CW, the effect gets brighter. As you turn CTRL 1 CCW, the effect goes darker.

**CTRL 2** adjusts sustain/release time. Sustain/release is the time it takes for the effect to fade out after stopping your notes. As CTRL 2 is turned CW, the fade-out time increases. The sustain/release effect is similar to reverb, but it controls fade-out volume instead of a reverb tail.

**2. JUNE-O** A string sound inspired by the classic polyphonic analog synths of the early 80s.

**CTRL 1** is a tone control.

**CTRL 2** is an octave switch, selecting between 5 octaves.

**3. PCM** A smaller studio string section, as heard on vintage digital keyboards.

**CTRL 1** is a tone control.

**CTRL 2** adjusts vibrato depth. As you turn CTRL 2 clockwise, the vibrato depth increases. Turn CTRL 2 fully CCW to bypass vibrato.

**4. FLOPPY** Emulation of the 1960's and 70's mechanical string machines like the Mellotron® and Orchestron®. Orchestron® used optical floppy discs.

**CTRL 1** is a tone control.

**CTRL 2** is sustain/release time.

**5. AARP** Emulation of the much-loved Arp® Solina string synthesizer.

**CTRL 1** adjusts Small Stone Phase Shifter speed. As you turn CTRL 1 clockwise, modulation speed increases. Turn CTRL 1 fully CCW to bypass the phase shifter.

**CTRL 2** is sustain/release time.

**6. CREWMAN** Emulation of the classic Crumar® Performer analog string and brass synthesizer.

**CTRL 1** sets filter envelope sweep time and direction. When CTRL 1 is set within its counterclockwise range, it will adjust the attack time of the filter sweep; when set clockwise, beyond "noon," it controls the decay time of the filter sweep. For either section of CTRL 1, sweep time gets faster as the knob is turned clockwise.

**CTRL 2** is sustain/release time.

**7. ORCH FREEZE** An orchestra sound with Freeze effect.

**CTRL 1** is a tone control.

**CTRL 2** selects between Auto Freeze and Manual Freeze modes. Set CTRL 2 anywhere in its counterclockwise half to select Auto Freeze. Set CTRL 2 anywhere in its clockwise half to select Manual Freeze.

**8. SYNTH FREEZE** A string synthesizer with Freeze effect.

**CTRL 1** is a tone control.

**CTRL 2** selects between Auto Freeze and Manual Freeze modes.

**9. VOX FREEZE** Mellotron® choir and strings with Freeze effect.

**CTRL 1** adjusts the speed of the Small Stone Phase Shifter effect.

**CTRL 2** selects between Auto Freeze and Manual Freeze modes.

# Suggested Factory Settings

1 SYMPHONIC

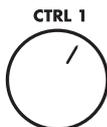


DRY

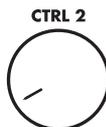


VOL

EFFECT



TONE



SUSTAIN/RELEASE

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2 JUNE-O



DRY

VOL

EFFECT



TONE



OCTAVE

---

3 PCM



DRY

VOL

EFFECT



TONE



VIBRATO DEPTH

---

4 FLOPPY



DRY

VOL

EFFECT



TONE



SUSTAIN/RELEASE

---

5 AARP



DRY

VOL

EFFECT



PHASER  
SPEED



SUSTAIN/RELEASE

---

6 CREWMAN



DRY

VOL

EFFECT



FILTER  
SWEEP TIME



SUSTAIN/RELEASE

---

7 ORCH FREEZE



DRY

VOL

EFFECT



TONE



AUTO/MANUAL  
FREEZE

---

8 SYNTH FREEZE



DRY

VOL

EFFECT



TONE



AUTO/MANUAL  
FREEZE

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9 VOX FREEZE



DRY

VOL

EFFECT



PHASER  
SPEED



AUTO/MANUAL  
FREEZE

## FREEZE FUNCTION

Freeze holds notes and chords for far longer than a typical guitar will sustain and is therefore perfect for generating atmospheric pads with your guitar. Combine the string ensemble sounds found in the STRING9 with the Freeze algorithm to create beautiful pads that last as long as you need them, even the entire length of a song. Please note, the Freeze algorithm acts on the string ensemble sounds, not your dry guitar.

The Freeze function can be found in patches 7-9: ORCH FREEZE, SYNTH FREEZE, or VOX FREEZE. The STRING9 allows you to freeze your string effects either automatically or manually. Set the CTRL 2 knob in the counterclockwise (CCW) half of its range for Auto Freeze or set CTRL 2 in its clockwise (CW) half for Manual Freeze.

### Auto Freeze

Ensure CTRL 2 is set in its CCW half and the STRING9 is set to a Freeze patch.

Enter effect mode. The Status LED blinks until you play a note or chord. The LED's blink speed momentarily doubles when it has captured a new Freeze.

For every note or chord you play, the STRING9 automatically freezes or holds the string effect until the next note or chord is played.

**Trigger Tip:** if you find Auto freeze triggers too easily, turn your guitar volume down a touch.

To stop the Freeze effect, press the footswitch to enter bypass.

**Quick Stop Tip:** To quickly stop or silence the freeze effect, mute the strings with your left hand and gently tap the strings with your right hand.

### Manual Freeze

Turn CTRL 2 to the CW half of its range, set the STRING9 to a Freeze patch.

Start in Bypass mode, then press the footswitch to enter effect mode; the Status LED blinks until you play a note or chord. The LED's blink speed momentarily doubles to indicate it has captured a new Freeze.

Once you play, Freeze engages with the selected string section and holds the notes you played.

The Freeze sound sustains until you go back to Bypass mode.

**Tip:** play your note or chord on the guitar just before pressing the footswitch to enter effect mode; the note or chord freezes immediately.

**Tip:** turn up the DRY knob so that you can play along with your frozen soundscape.

**Tip:** changing to a different patch will stop and reset the Freeze sound.

To stop and reset your Freeze, press the footswitch to enter Bypass.

**Note:** if noise enters the INPUT jack at the time of engaging the effect, the STRING9 could Freeze the noise. If this happens, press the footswitch to enter Bypass and reset the Freeze, then try again.

## Performance Tips

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1. The STRING9 is generally best used as the first pedal in an effects chain. Place distortion, modulation, delay, and reverb effects after the STRING9. The unit will not perform well if placed in the effects loop of a guitar amp.
2. Avoid placing a distortion or overdrive in front of the STRING9, which could muddy up the input signal and cause the tracking to be unstable. If you want to add overdrive or distortion, place it after the STRING9.
3. For optimal playability, use a strong bridge pickup and turn the volume knob all the way up ("10"). If you have low output pickups, you could consider using a clean boost before the STRING9. If Auto Freeze triggers too easily, turn the guitar's volume down a bit.
4. The usable tracking range on the STRING9 extends up to about the 23rd fret on the high-E of a standard guitar and down to the open A-string on a bass guitar.
5. For the most realistic string ensemble sounds, try fingerpicking with your right hand instead of striking notes and chords with a pick.
6. For the most hi-fidelity sound—and true string ensemble realism—we recommend connecting the STRING9's EFFECT OUTPUT to a keyboard amp, PA, or mixing console. Otherwise, a guitar amp will work fine.

## Notes and Specifications

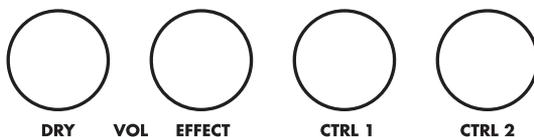
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- ▶ Buffered bypass
- ▶ Input impedance: 1MΩ
- ▶ Output impedance (for both output jacks): 500Ω
- ▶ Current draw: 100mA

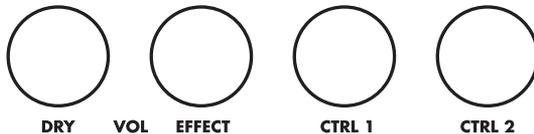
## User Settings

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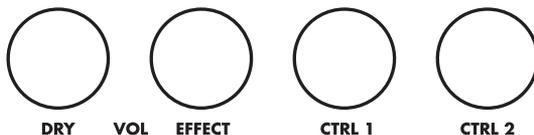
Presets:



Presets:



Presets:



## WARRANTY INFORMATION

Please register online at [www.ehx.com/product-registration](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](mailto: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. With your returned unit, include a written description of the problem as well as your name, address, telephone number, e-mail address, RA# and a copy of your receipt clearly showing the purchase date.

### United States & Canada

EHX Customer Service  
Electro-Harmonix  
co New Sensor Corp.  
47-50 33rd Street  
Long Island City, NY 11101

Tel: 718-937-8300  
Email: [info@ehx.com](mailto:info@ehx.com)

### Europe

John Williams  
Electro-Harmonix UK  
13 Cwmdonkin Terrace  
Swansea SA2 0RQ  
United Kingdom

Tel: +44 179 247 3258  
Email: [electroharmonixuk@virginmedia.com](mailto:electroharmonixuk@virginmedia.com)

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.

## 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.*



The CE logo indicates that this product has been tested and shown to conform with all applicable European Conformity directives.



The WEEE or "trashcan" logo indicates that this product is made up of electronic components that should not be trashed alongside household waste but instead should be recycled by a proper electrical waste facility.

All third party trademarks referenced by EHX remain the property of their respective owners. Any references to such trademarks herein is simply to identify the corresponding third party goods and is nominative fair use under the trademark law.

# STRING9 User Settings

electro-harmonix

WWW.EHX.COM

Preset: \_\_\_\_\_

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
DRY	VOL	EFFECT	CTRL 1
			CTRL 2

Preset: \_\_\_\_\_

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DRY	VOL	EFFECT	CTRL 1
			CTRL 2