

### POWER REQUIREMENTS

Utilizes included 9V DC, 100-240V universal auto-switching power supply, 200mA, center negative. **Tech 21 Model #DC9.**

**NOTE: See page 2 for instructions how to change the prong assembly.**

For replacements, contact your local dealer/distributor, or Tech 21. Maximum power consumption: approx 60mA.

### WARNINGS:

- \* There are no user-serviceable parts inside. Attempting to repair unit is not recommended and may void warranty.
- \* Missing or altered serial numbers automatically void warranty. For your own protection: be sure serial number labels on the unit's back plate and exterior box are intact, and return your warranty registration card or register online.



**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 to 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.

### WARRANTY:

#### ONE YEAR LIMITED. PROOF OF PURCHASE REQUIRED.

Manufacturer warrants unit to be free from defects in materials and workmanship for one (1) year from date of purchase to the original purchaser and is not transferable. This warranty does not include damage resulting from accident, misuse, abuse, alteration, or incorrect current or voltage. If unit becomes defective within warranty period, Tech 21 will repair or replace it free of charge. After expiration, Tech 21 will repair defective unit for a fee.

### REPAIRS:

**ALL REPAIRS** for residents of U.S. and Canada: Call Tech 21 for **Return Authorization Number**. Manufacturer will **not** accept packages without prior authorization, pre-paid freight (UPS preferred) and proper insurance.

### FOR PERSONAL ASSISTANCE & SERVICE:

Contact Tech 21 weekdays 10:00 AM to 5:00 PM, EST: 973-777-6996.

**Hand-built in the U.S.A.** using high-quality components sourced domestically and around the globe.



T: 973-777-6996 • F: 973-777-9899  
E: [info@tech21nyc.com](mailto:info@tech21nyc.com) • W: [tech21nyc.com](http://tech21nyc.com)  
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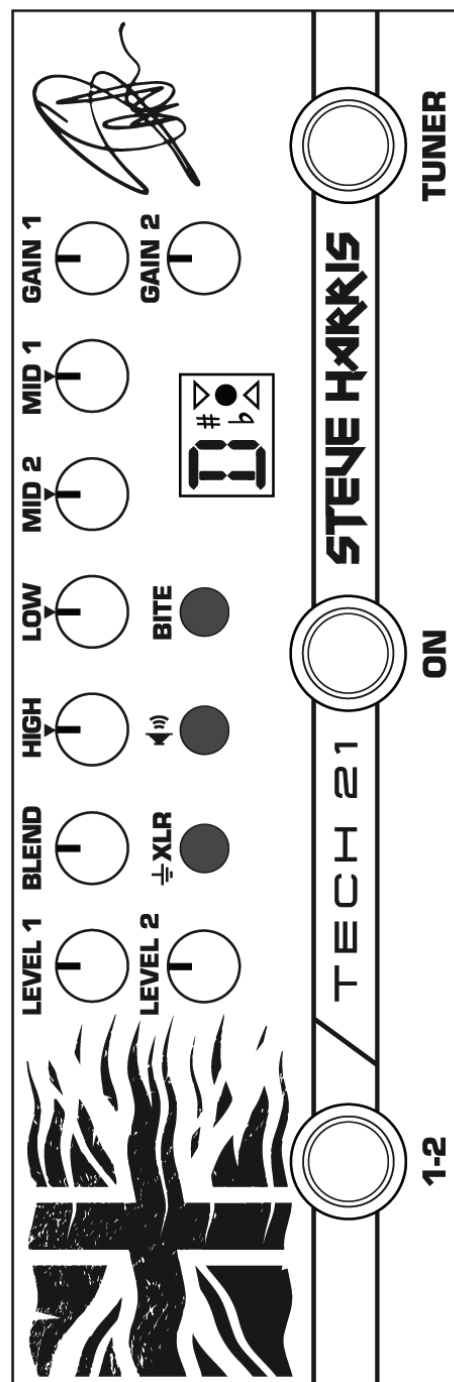


# STEVE HARRIS

## Signature SH1

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# TECH 21 · NYC



OWNER'S MANUAL

## TECH 21, THE COMPANY

Tech 21 was formed by a guitarist possessing the unusual combination of a trained ear and electronics expertise. In 1989, B. Andrew Barta made his invention commercially available to players and studios around the world. His highly-acclaimed **SansAmp™** pioneered Tube Amplifier Emulation in professional applications for recording direct and performing live, and created an entirely new category of signal processing. There have since been many entries into this niche, yet SansAmp continues to maintain its reputation as the industry standard.

With a full line of SansAmp models, Tech 21 also offers effect pedals and MIDI products, as well as “traditional” style amplifiers for guitar and bass. Each product is thoughtfully and respectfully designed by B. Andrew Barta himself with the player in mind. Our goal is to provide flexible, versatile tools to cultivate, control, refine and redefine your own individual sound. Tech 21 takes great pride in delivering consistent quality sound, studio to studio, club to club, arena to arena.

## PRODUCT OVERVIEW

A true hands-on professional, Steve Harris not only formed Iron Maiden (in 1975!), he writes the bulk of their songs, plays multiple instruments, mixes recordings, directs and edits both live and production videos, and sings. As if that wasn't enough, Steve somehow finds time for British Lion, which he describes as a side project that's more mainstream rock than metal. And yet, he's enviably humble.

When it comes to Steve's rig, surprisingly it has barely changed in over 30 years. What has never changed are his prized custom vintage Marshall cabs loaded with EV speakers. We sent the original prototype of the Steve Harris Signature SH1 when Steve was out on tour with British Lion and he had this to say:

*"The tour is going fantastic. And the reason it's going fantastic is this little thing here. It's unbelievable. [Andrew Barta] is a real boffin\*. Because he's managed to simulate my EV speaker sounds, which I love so much. And it's in this little box. Whatever he's done, he's made this thing sound like my sound. So, well done, mate."*

Known for his galloping fleet-fingered bass lines, Steve's distinctive style and tone have, and continue to be, required reading --whether you're into metal or not. Like our other signature gear, the SH1 is not just for one single tone or genre. The controls are designed to provide an expansive range of adjustability so you can dial in a wide spectrum of bass tones as well.

\*Translation: technical expert.

## APPLICATIONS

### WITH A BASS AMP RIG:

**-As a Pre-Amp:** Run the 1/4" Output of the SH1 directly into the power amp input, a.k.a. “effects return” (if applicable) of an amp. This will bypass the tone-coloring pre-amp section of the amp rig.

**-As a Stomp Box:** Run the 1/4" Output into the front input of an amp. For best results, keep the SH1 Volume close to unity gain so you have the same volume coming from your speaker/monitor whether the pedal is active or in bypass. This ensures the next device in the signal chain won't get slammed by a much hotter signal than what would normally come from the instrument. Similarly, you wouldn't want a drop in volume, either, which would force the next device to struggle for enough signal.

**TO DRIVE A POWER AMP:** Run the 1/4" Output or the XLR Output to the corresponding input of a power amp, and adjust your stage volume with the Volume control of the SH1.

**TO RECORD DIRECT:** Plug the XLR or 1/4" Output directly into the input of a mixer/recorder. Work with the input trim control on the mixer/recorder and be sure not to overload its input. Bear in mind full-range systems yield a wide frequency response. Therefore, we suggest you start with the EQ levels at 12 o'clock and then increase/decrease to taste.

## THE INS AND OUTS

**1/4" INPUT:** 4.7megOhm instrument level. For normal operation, signal level to Input should be close to that of a standard guitar (approximately -10dBm / 250mV).

**1/4" UNIVERSAL OUTPUT:** Unbalanced Low Z output. This output can be connected to High Z amplifiers (or effects) as well as Low Z mixer and computer inputs. Output level is unity gain when pedal is in bypass mode. It also drives long cables without loss of signal integrity, even in bypass.

## BALANCED XLR OUTPUT & GROUND

**CONNECT SWITCH:** Balanced Low Z output. When the Ground Connect switch is engaged, the ground connects. Disengaged, the ground of your stage system and other interconnected gear is lifted (isolated) from the ground of the mixing console.

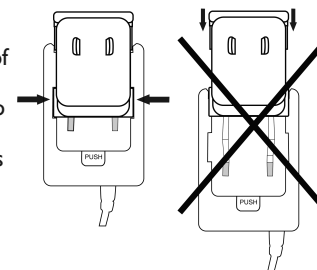


**NOTE:** Both outputs can be used simultaneously. For example, 1/4" Out to your amp and XLR Out to PA mixer, which is one instance where the Ground might need to be disengaged.

## UNIVERSAL POWER SUPPLY

The Steve Harris SH1 is shipped with a power supply that is set up with a U.S. prong assembly. To change the prong assembly to one of the included European, UK or Australia/New Zealand styles, be sure the power supply is unplugged and follow these instructions:

Press the PUSH switch to release the prong assembly. Slide the assembly up (about halfway) to align the side tabs of the prong assembly with the slots of the power supply housing. Then pull up to remove the assembly. Choose the new prong assembly, align the side tabs with the slot of the housing and slide down until it clicks into position.



**NOTE:** You cannot slide the prong assembly all the way out or in.

## TWO CHANNEL MODES

Both Gain and Level controls for Channel 1 and Channel 2 have the same range. You can preset each of them for specific songs or solos, or if you want to switch between two different basses (see Gain section below). For instance, you can set Level 2 for a clean boost and/or Gain 2 for additional overdrive.

## GUIDE TO CONTROLS

(in order of signal flow)

### GAIN 1 and GAIN 2

Controls the amount of gain and overdrive, similar to when the output section of a tube amp is being pushed. You can also use Gain to set up the pre-amp for different pickups. For example, with lower output passive pickups, you can have punchier sounds with a higher amount of Gain. Conversely, with higher output active pickups, you can have a cleaner sound with Gain at a lower setting. Of course, you can also obtain over-the-top distortion by using high output pickups with Gain dimed.

### MID 1, MID 2, LOW and HIGH:

On-board post-EQ section gives you full control, like having a studio mixing board at your fingertips. Unlike passive tone controls that only cut, these active EQs cut or boost  $\pm 18$ dB from unity gain at 12 o'clock.

Mid 1 @ 200 Hz

Mid 2 @ 500 Hz

Low @ 50 Hz

High @ 3 kHz

**BLEND** controls the ratio of SansAmp Tube Amplifier Emulation circuitry and your direct instrument signal. In most cases, you will probably have this set at maximum (100% SansAmp). For certain applications, however, such as an ultra-transparent sound or for use with piezo pickup-equipped instruments, you may want to blend-in the direct signal to achieve your desired sound. While the SansAmp Tube Amplifier Emulation circuitry is bypassed when Blend is at minimum, all controls remain active except Gain 1 and Gain 2.

### LEVEL 1 and 2

Adjusts the overall volume of each channel.

### BITE Switch

Engaged (in position), Bite activates a “Steve” boost to the SansAmp tube amplifier emulation circuitry to provide extra clank and clarity to the top end. It enhances your attack in distorted settings and adds definition to your notes when playing in clean settings.

**BITE**



## SPEAKER SIMULATION

Speaker simulation is an integral part of the SansAmp circuitry. It is designed for a smooth, even response as would be achieved by a multiply-miked cabinet, without the peaks, valleys, and notches associated with single miking. The shape of the speaker curve will not adversely affect or interfere with the frequency response of your own cabinet. The speaker simulation works in tandem with the EQ controls to custom-tailor the overall sound.



If desired, you can defeat the speaker simulation to both outputs by disengaging the speaker switch (up position).

## CHROMATIC TUNER

The Tuner footswitch engages the chromatic tuner, which will simultaneously mute the signal path. The LED in the tuner window will then light up. If the green light is on, you're in tune. If you're not, the red arrows serve as indicators:



Arrow points up = Flat. Raise the pitch.

Arrow points down = Sharp. Lower the pitch.

As you get closer to being in tune, the arrow will blink faster and turn off when you are in tune. The green light then comes on and you're good to go.

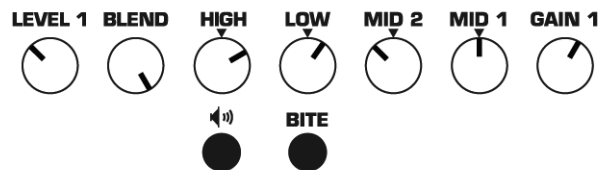
## NOTEWORTHY NOTES

- 1) **Using with active basses.** Active electronics have higher output and typically generate more noise. To compensate, we recommend experimenting with using flat EQ settings and/or decreasing the Gain control.
- 2) **Using the SH1 with headphones.** The SH1 will drive average/full coverage headphones (approx 32 Ohms), preferably with a 1/4" mono to 3.5mm stereo adapter plug. It won't be super loud, but works for silent practicing.
- 3) **Tech 21 controls are unusually sensitive** and tend to perform well beyond what would be considered "normal." So you need not set everything at max to get maximum results. For instance, to brighten your sound, rather than automatically boosting High all the way up, try cutting back on Low first.
- 4) **To find the best settings** for interacting with your other gear, you may need to use radically different settings for each individual way you use it. You need not be discouraged or suspect something is wrong with the unit. If you've got your sound, you've simply found the right balance to complement each individual piece of gear. We recommend you start with the tone controls at 12 o'clock and cut or boost as needed.
- 5) **Tech 21 pedals have exceptionally low noise levels.** However, they may amplify noise emanating from the input source. Check for pickup interference by moving your guitar or turning the volume off. Be aware single coil magnetic pickups are more likely to generate noise.
- 6) **Placement notes:** The Steve Harris SH1 can be treated as an amplifier or pre-amp when it comes to setting up your signal chain:
  - Place the following effects BEFORE the SH1:**  
Phaser/Vibe, Overdrive, Wah.
  - Place the following effects AFTER the SH1:**  
Delay, EQ, Flanger, Phaser (yes, after is good, too), Pitch Shifter, Reverb.
- 7) **Buffered bypass** eliminates the shortcomings associated with "true bypass" (pops and clicks, and high-end loss when multiple pedals are connected together), as well as signal loss associated with other types of switching circuits.
- 8) **Custom actuators.** All Tech 21 pedals feature smooth, custom, silent-switching actuators.

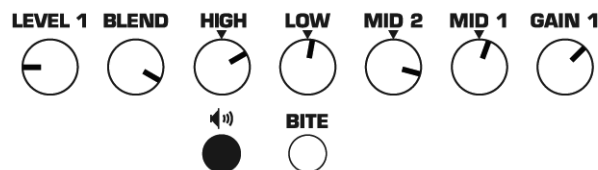
## SAMPLE SETTINGS

ON (IN)  OFF (OUT)

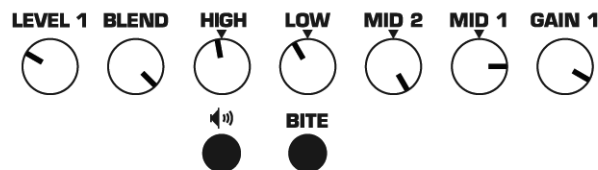
### STEVE HARRIS' Personal Setting



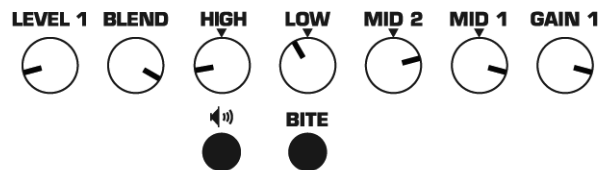
### PHIL LYNOTT / Thin Lizzy-style



### LEMMY



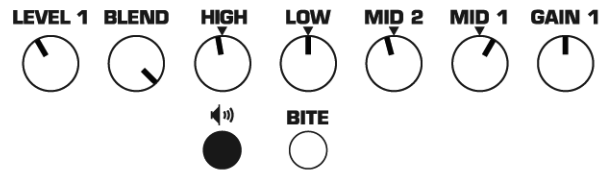
### GEEZER



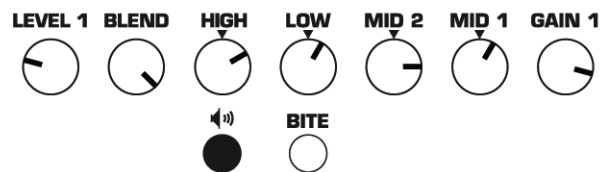
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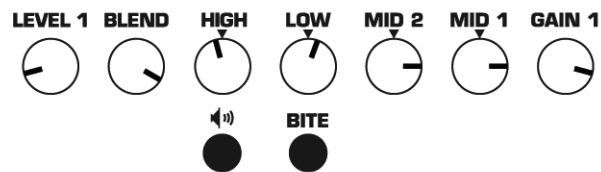
JAMERSON / Motown-style



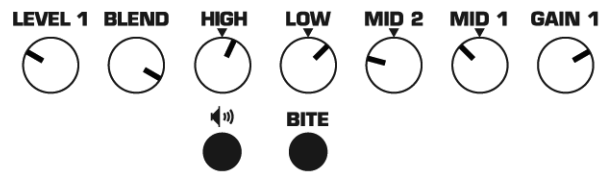
CLIFF BURTON



GENESIS / The Lamb-style



DEEP PURPLE / Highway Star-style

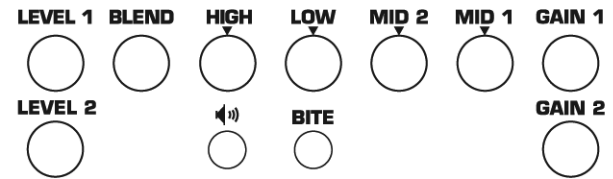


Names of sample settings are intended for descriptive purposes only and should not be construed as an endorsement or affiliation with the companies, products, songs, or artists named.

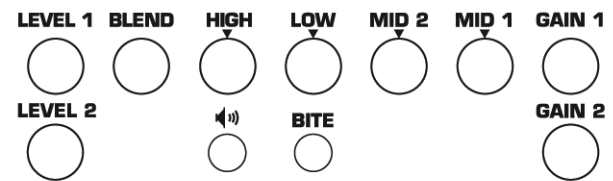
## CUSTOM SETTINGS

ON (IN)  OFF (OUT)

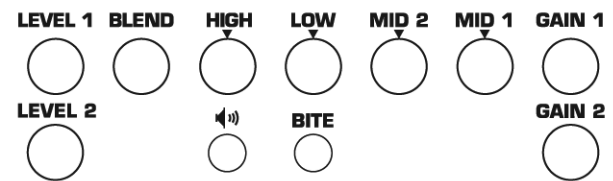
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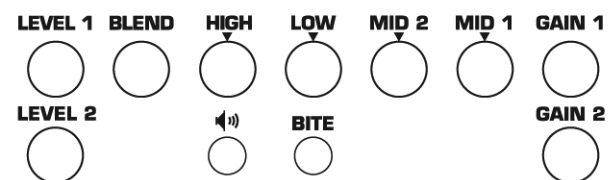
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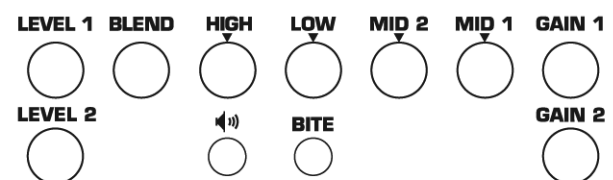
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## CUSTOM SETTINGS

ON (IN)  OFF (OUT)

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