POWER REQUIREMENTS

*Operable with phantom power supply, minimum 24V DC regulated, however, 48V DC regulated is recommended in order to illuminate LED.

*Utilizes standard 9V alkaline battery (not included). To install, simply remove door cover. (NOTE: The *Input* activates battery. To conserve energy, unplug when not in use.) Power Consumption: approx. 6mA.

*USE **DC** POWER SUPPLY **ONLY!** Failure to do so may damage the unit and void warranty. DC Power Supply Specifications:
-9V DC regulated or unregulated, 100mA minimum;
-2.1mm female plug, center negative (-).
Optional factory power supply is available: Tech 21 Model #DC2.

WARNINGS:

* 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.

**ONE YEAR LIMITED WARRANTY. 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. Warranty does not include damage resulting from accident, misuse, abuse, alteration, or incorrect current or voltage. If unit becomes defective within warranty period, manufacturer will elect to repair or replace it at no cost. After expiration, manufacturer will repair unit for a fee.

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, Inc., weekdays from 9:00 AM to 5:00 PM, EST.

MADE IN THE U.S.A.
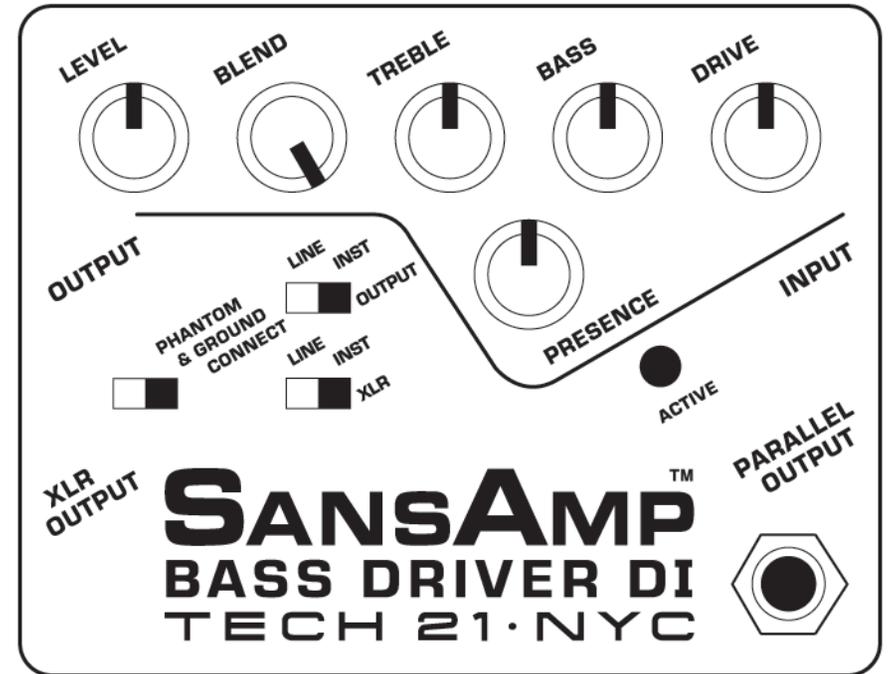
OWNER'S MANUAL

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 incorporated Tech 21 and made his unique 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. While there have since been many entries into this niche, SansAmp continues to maintain its reputation as the industry standard.

After developing a full line of SansAmp models, Tech 21 expanded its offerings to include effect pedals; a compact, battery operable MIDI footcontroller, the *MIDI Mouse*; as well as traditional style amplifiers. Each product is thoughtfully and respectfully designed by Andrew himself with the player in mind.

Our goal is to provide you with flexible, versatile tools to cultivate, control, refine and redefine your own individual sound. Tech 21 takes great pride in delivering consistent professional quality sound, studio to studio, club to club, arena to arena.

PRODUCT OVERVIEW

SansAmp Bass Driver DI offers an entire sound spectrum of the most coveted traditional bass amp rigs, from vintage to modern styles. You can also obtain gnarly *overdriven* sounds that typically require investing in a complex system with multiple rack effects that weren t designed for bass in the first place.

SansAmp Bass Driver DI functions as a pre-amp, a stomp box, and as a direct box. In bypass, SansAmp Bass Driver DI converts the instrument signal to a low impedance balanced output. This prevents signal loss and sound quality deterioration caused by long cable lengths. When you engage the SansAmp Tube Amplifier Emulation circuitry via the on-board footswitch, it not only converts the signal, it gives you the sound and responsiveness of a miked-up pro stage rig --direct into a recording console or P.A. system. You can also *simultaneously* plug straight into a power amp or conventional bass amp.

As with each SansAmp model, the controls are designed to give *you* the flexibility to customize your own sound. After all, the greatest inspiration comes from having the sound that s right for you.

APPLICATIONS

WITH BASS AMP RIG:
- **As a Stomp Box:** Run the 1/4 *Output* into the front input of an amp. For best results, keep SansAmp Bass Driver DI s *Level* close to unity gain so as not to overload the amp s input, which could yield undesirable distortion.
- **As a Pre-Amp:** Run the 1/4 *Output* of SansAmp Bass Driver DI 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.

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 *Level* control of SansAmp Bass Driver DI. **NOTE:** When running into the power amp input of an amp or a power amp alone, make sure the *Output Level Switch* is set to *Line* and adjust the *Level* as needed. If you are so inclined, this is the time to crank it!

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. If the *Level* is below 12 o clock and it is overloading the board, set the *Output Level* switch to *Instrument*. Additionally, bear in mind that 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.

GUIDE TO CONTROLS

PRESENCE: brings out the upper harmonic content and attack. For a smoother high end and for clean settings, decrease to taste.

DRIVE: adjusts the overall amount of gain and overdrive, similar to when the output section of a tube amp is being pushed.

BASS & TREBLE: Unlike passive controls that only cut, these **active** tone controls cut or boost –12dB from unity gain (12 o clock). This powerful EQ section effectively reduces the need for a fixed frequency mid control and enables you to achieve an extensive variety of curves --including a mid-cut as well as a mid-boost.
> **Adjusting Mid-Range Content:** The mid-range level is preset. **Boosting** *Bass* and *Treble* yields a mid-cut (at 750 Hz) where the relative mid-range level is lower than the *Bass* and *Treble* frequency levels. **Cutting** *Bass* and *Treble* yields a mid-boost (at 750 Hz) where the relative mid-range level is higher than the *Bass* and *Treble* frequency levels. NOTE: The overall output level will change relative to your EQ settings. Simply adjust the *Level* control accordingly.

BLEND allows you to blend the direct instrument signal with SansAmp Tube Amplifier Emulation circuitry. 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, the *Bass, Treble* and *Level* controls remain active.

LEVEL adjusts the output level of both the 1/4 and XLR outputs.

THE INS AND OUTS

Follow *Standard Audio Procedure* to avoid unwanted and potentially speaker-damaging pops when connecting or disconnecting any equipment:
> **Always mute mixing board and/or turn down amp volume before plugging or unplugging!**

IMPORTANT: TURN ON FIRST. TURN OFF LAST.

INPUT: 1/4 , 1megOhm, instrument level. Switches battery power on/off. To avoid battery drain, **unplug when unit is not in use. AND... DON'T FORGET TO MUTE!**

PARALLEL OUTPUT: 1/4 unbalanced direct output is hard-wired parallel with input jack. Instrument signal passes through, UNEFFECTED, to the input of your stage amplification system.

BALANCED XLR OUTPUT: Balanced low Z output. Sends effected or uneffected signal to mixing console/recorder, depending on the orientation of the *Footswitch*.
> **XLR Output Level Switch:** -20dB pad to match the output to equipment with different input level requirements. In the line level position, the output is 0dB. In the instrument level position, the output is -20dB.

1/4" OUTPUT: Unbalanced low Z output. Sends effected or uneffected signal to amp rig or power amp, as per the orientation of the *Footswitch*.
> **1/4" Output Level Switch:** +10dB boost to match the output to equipment with different input level requirements. In the line level position, the output is 0dB. In the instrument level position, the output is -10dB.

FOOTSWITCH, with corresponding LED indicator: Engages/disengages SansAmp Tube Amplifier Emulation circuitry. *Active*, LED will be on. Tonality and gain structure are affected as determined by the setting of the controls. Delivers effected signal through the *XLR Output* and 1/4 *Output*. Inactive, LED will be off. SansAmp Bass Driver DI functions an an active *transparent* direct box and does not sonically alter the instrument signal.

PHANTOM POWER

Allows you to "tap into" the power of a suitably equipped mixer, which, today, most are. As the 3-conductor XLR sends the audio signal to the input of a mixer, the mixer sends voltage back to the unit via the same 3 wires, eliminating the need for an external power supply. Consult your mixer's owner's manual for set-up instructions. For live and studio use, let the engineer know your SansAmp Bass Driver DI is phantom power operable.

PHANTOM & GROUND CONNECT SWITCH: When engaged, the ground connects and unit will accept phantom power through the *XLR Output*. Disengaged, the ground of your stage system and other interconnected gear is lifted (isolated) from the ground of the mixing console.

With a mixer only: If you are plugging your bass into the Bass Driver and taking the *XLR Output* to a mixer **--and do not have any other grounded equipment connected in the setup--** you will have to set the switch to the right to connect the ground and engage the phantom power.

With a mixer and bass amp: If you are going to the mixer via the *XLR* and using the *1/4" Output* or *Parallel Output* to feed a bass amp (with its own AC ground), you should set the switch to the left in "Ground Lift" mode. If you experience hum and/or buzz with the switch in either position, there is probably a problem with the AC outlets you are plugging into.

NOTE: If using vintage equipment without proper grounds, take extra care connecting it to modern grounded equipment. Any inadequacies of the ground in vintage gear could result in damaging anything it is connected to.

NOTE: While operating under phantom power, we recommend keeping a 9V alkaline battery installed at all times to avoid the previously mentioned "pops" when lifting the ground (see page 3).

SPEAKER SIMULATION

Speaker simulation is an integral part of the SansAmp Tube Amplifier Emulation circuitry. It is specifically designed for a smooth, even response as would be achieved by a multiply-miked cabinet --without peaks, valleys, and notches associated with single miking-- and will complement any type of bass speaker cabinet system.

NOTEWORTHY NOTES & CONSIDERATIONS

1) SansAmp Bass Driver DI is an interactive tool. It will react differently to various signal levels, as well as your individual touch. For instance, a hotter signal and a heavy hand will increase the gain structure and result in more overdrive. A cooler signal and a light touch decreases the gain structure for a cleaner sound. By using *Presence*, *Drive* and the EQ controls, you can achieve the proper mix of tonality and gain structure that best suits your style. For instance, if you want the high end to be cleaner and smoother, increase *Treble* and decrease *Presence*. If you want more overdrive, increase *Presence* and decrease *Treble*. This will bring out the upper harmonic content and attack. As you increase *Treble*, the high frequency content increases without changing the harmonic content.

2) The noise level of SansAmp Bass Driver DI is exceptionally low. However, it may amplify noise emanating from the input source. Bear in mind that SansAmp Bass Driver DI's controls are unusually sensitive and do not require maximum levels of input to achieve high levels of output. To minimize noise going into SansAmp Bass Driver DI, we recommend the following:

   a) **Active electronic instruments** should have tone controls positioned flat. If you need to boost, do so slowly and sparingly.
   b) **Passive electronic instruments** should have volume and tone controls set at maximum.

3) When you push SansAmp Bass Driver DI to saturation, you get enhanced harmonics, just as you would with an overdriven tube amplifier. Depending on the setting, the unique circuitry limits transient peaks for an even meter reading, so that **outboard compressors or limiters may not be necessary.**
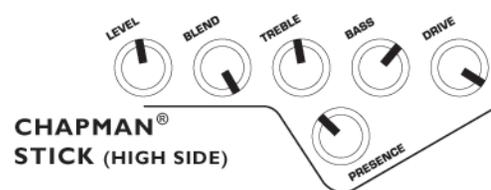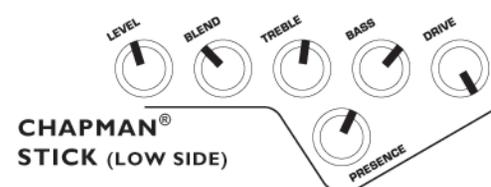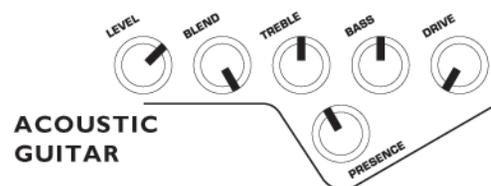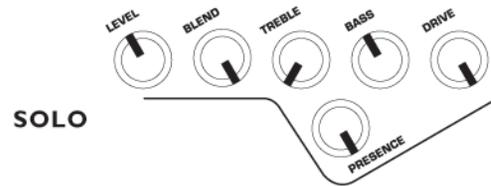
4) Using effects. One of the key attributes of SansAmp is the responsiveness to the dynamics and nuances of your playing technique. Therefore, your bass should be plugged directly into SansAmp and effects should be placed *after* SansAmp. If, however, you prefer to place an effect before SansAmp, be sure to set the output level of the effect at unity gain with the output level of the instrument.

SAMPLE SETTINGS

FAT TUBE

BASSMAN® STYLE

SVT® STYLE

KING'S X STYLE

SLAP

REGGAE
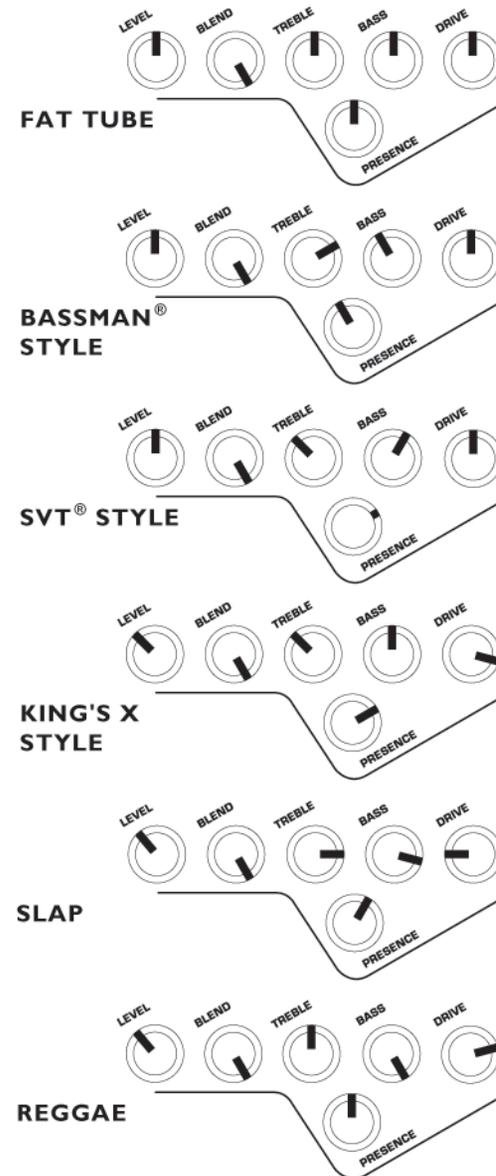
®Registered trademarks of their respective companies.
Names of sample settings are intended for descriptive purposes only.

SAMPLE SETTINGS

CRIMSON STYLE

LEVEL • BLEND • TREBLE • BASS • DRIVE
PRESENCE

SOLO

LEVEL • BLEND • TREBLE • BASS • DRIVE
PRESENCE

FULL RANGE/ CLEAN (FOR PIEZO)

LEVEL • BLEND • TREBLE • BASS • DRIVE
PRESENCE

ACOUSTIC GUITAR

LEVEL • BLEND • TREBLE • BASS • DRIVE
PRESENCE

CHAPMAN® STICK (LOW SIDE)

LEVEL • BLEND • TREBLE • BASS • DRIVE
PRESENCE

CHAPMAN® STICK (HIGH SIDE)

LEVEL • BLEND • TREBLE • BASS • DRIVE
PRESENCE

CUSTOM SETTINGS

LEVEL • BLEND • TREBLE • BASS • DRIVE
PRESENCE
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LEVEL • BLEND • TREBLE • BASS • DRIVE
PRESENCE
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CUSTOM SETTINGS