POWER REQUIREMENTS

- Utilizes standard 9V alkaline battery (not included). NOTE: Input jack activates battery. To conserve energy, unplug when not in use. Power Consumption: approx. 5mA.
- **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 #DC9.

WARNINGS:

* Attempting to repair unit is not recommended and may void warranty.

* Missing or altered serial numbers automatically void warranty. For your 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. 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.

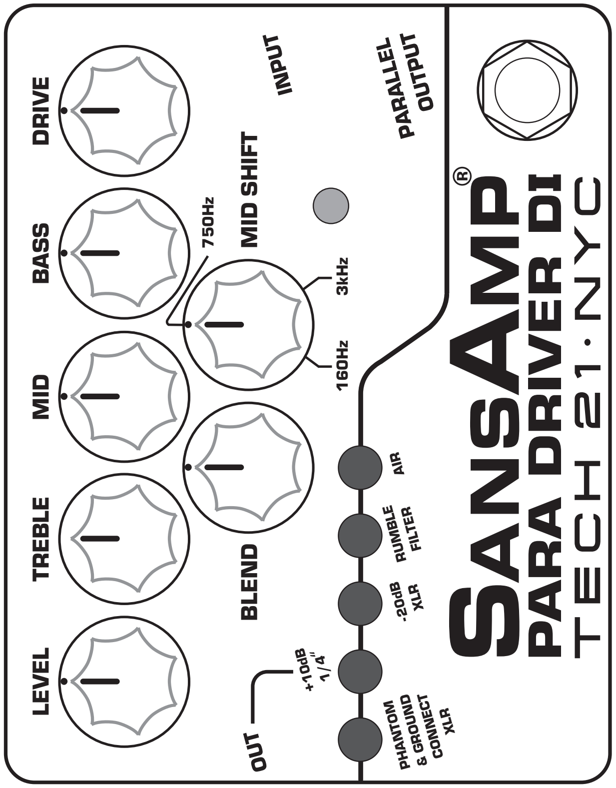
ALL REPAIRS for residents of U.S. and Canada: Call Tech 21 for **Return Authorization Number**. Manufacturer will **not** accept packages without prior authorization, pre-paid freight (UPS preferred) and proper insurance.

FOR PERSONAL ASSISTANCE: Contact Tech 21 weekdays from 9:00 AM to 5:00 PM, EST.

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 • www.tech21nyc.com

(Rev 10.23)



SansAmp Para Driver DI (v2)
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. Tech 21 takes great pride in delivering consistent quality sound, studio to studio, club to club, arena to arena.

PRODUCT OVERVIEW

The SansAmp Para Driver DI offers detailed tone shaping for any signal source and gives your instrument a natural warmth and presence as if you were miking it through a tube pre-amp. Our exclusive, 100% analog circuitry eliminates the unnatural harmonics of piezo pickups. It is particularly useful with acoustic, electric and bass guitars, and upright bass, as well as violin, cello, etc.

The Para Driver functions as a pre-amp, a stomp box, as a standard direct box with EQ (when Blend is at minimum), and as a standard transparent DI (in bypass). When you engage the SansAmp circuitry via the on-board footswitch, 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 amp.

APPLICATIONS

WITH AN INSTRUMENT AMP:

•**As a Pre-Amp:** Run 1/4" Output of the Para Driver directly into the power amp input, a.k.a. "effects return" (if applicable), of an amp, which will bypass the amp's tone-coloring pre-amp section and defeat the amp's master volume. So, be sure your instrument's volume is off, BEFORE you turn on the amp. If a power amp input is not available, use the cleanest channel with the amp's EQ flat and maximum headroom. For best results, keep the Para Driver's Level close to unity gain to not overload the amp's input (which could yield undesirable distortion).

•**As a Stomp Box:** Run the 1/4" Output into the front input of your amp. For best results, keep SansAmp Para Driver DI's Level close to unity gain so as not to overload the amp's input, which could yield undesirable distortion.

TO DRIVE A POWER AMP: Run the 1/4" Output or XLR Output to the corresponding input of a power amp, and adjust your stage volume with the Level control of SansAmp Para Driver DI.
NOTE: When running into the power amp input of an amp or a power amp alone, make sure to set the Output Level Switches as follows:
If using 1/4-inch: +10dB engaged (in position).
If using XLR: -20dB disengaged (up position).

If you are so inclined, this is the time to crank it --as long as the power amp volume is close to or at max.

FOR RECORDING DIRECT OR DIRECT TO P.A. SYSTEM:

Plug the XLR or 1/4" Output directly into the input of a mixer/DAW. Work with the input trim control on the mixer/ recorder and be sure not to overload its input. If the Level of the Para Driver is below 12 o'clock and is overloading the board, use the respective output level switch to reduce the output:
If using 1/4-inch: +10dB disengaged (up position).
If using XLR: -20dB engaged (in position).

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.

WITH INSTRUMENTS: Use with acoustic, electric and bass guitars, and upright bass, as well as keyboards, violin, drums, sax, harmonica, and even vocals. But don't stop here. Try your own experimentation.

WITHOUT INSTRUMENTS:

-Insert SansAmp Para Driver DI in your mixing board and use it as an outboard processor to warm up a particular channel.
-Put direct in-line from the microphone to the mixer.
-Enhance existing tracks in the mix-down process.
-Use as a speaker/mic simulator to record your favorite effects/stomp boxes directly (see Sample Settings).

GUIDE TO CONTROLS

DRIVE adjusts the overall amount of gain and overdrive, similar to when the output section of a tube amp is being pushed. For fatter, more robust clean sounds, increase Drive until it starts to distort, then gradually decrease until it disappears.

BASS & TREBLE are active tone controls that cut or boost ±12dB from unity gain at 12 o'clock. Bass is 80 Hz. Treble is 3.2kHz.

MID SHIFT & MID

Sweepable, semi-parametric EQ controls range from 160 Hz to 3 kHz, ±16dB, respectively. With Mid Shift, you can select the center frequency of the mid-range control (MID), enabling you to notch out specific frequencies that may be causing your acoustic guitar to feed back. You can achieve various unique sounds by boosting MID and selecting different frequencies with Mid Shift -- such as the "Money for Nothing" sample setting. Note: If you set Mid Shift at 1kHz, MID operates as a traditional mid-range control.

BLEND controls the ratio of your direct instrument signal and the SansAmp Tube/Microphone Emulation. In most cases, you will probably have this set at maximum (100% SansAmp). If you should want to hear some of the distinct timbre of a piezo pickup, or reduce the amount of "compression," you can simply adjust accordingly by turning the Blend control counter clockwise.
At minimum, the SansAmp circuitry is bypassed. However, all the other controls remain active. The unit then functions as a standard DI with EQ.

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

RUMBLE FILTER

Engaged (in position), it removes unwanted sub-sonic frequencies that cause boominess and audible handling noises associated with acoustic guitars. Also complements other instruments, such as electric guitar, for a snappier, more in-your-face sound. Note: When Blend is at minimum, there will be no effect.

AIR

Engaged (in position), adds top-end clarity and sparkle to acoustics. Also complements other instruments, as well as vocals, for more definition and more open sound. Note: When Blend is at minimum, there will be no effect.

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", 4.7megOhm, instrument level. Switches battery power on/off. To avoid battery drain, unplug when not in use. (DON'T FORGET TO MUTE!)

PARALLEL OUTPUT: 1/4" unbalanced direct output is "hard-wired" to the Input jack. Instrument signal passes through, UNEFFECTED, to the input of your stage amplification system. NOTE: The impedance of the 1/4" Input will change and assume the impedance of the equipment the Parallel Output is connected to. If that equipment has a lower impedance (i.e., vintage effects, tuners, etc.), it will cause the signal to diminish. To avoid signal degradation, we recommend not using the Parallel Output when a high impedance is required (for instance, for piezos).

BALANCED XLR OUTPUT: Balanced 600-Ohm 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. Disengaged (up position), the output is 0dB. Engaged (in position), the output is -20dB.

1/4" OUTPUT: Unbalanced 1KOhm 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. Disengaged (up position), the output is -10dB. Engaged (in position), the output is 0dB.

FOOTSWITCH, with corresponding LED indicator: Engages/disengages the 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 Para Driver DI functions as an active transparent direct box and will not sonically alter the instrument signal.

PHANTOM POWER

Allows you to "tap into" the power of a suitably equipped mixer. 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 Para 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 instrument into the Para Driver and taking the XLR Output to a mixer **--and you don't have any other grounded equipment connected in the setup--** you will have to push the switch in to connect the ground and engage the phantom power.

With a mixer and amp: If you're going to the mixer via the XLR and using the 1/4" Output or Parallel Output to feed an amp (with its own AC ground), you should have the switch disengaged (in the up position) to be 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. The 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 4).

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 many IRs-- and will complement any type of speaker cabinet system.

NOTEWORTHY NOTES & CONSIDERATIONS

1) SansAmp Para Driver DI is very responsive. Our controls are unusually sensitive and you need not set everything at max to get maximum results. For instance, to brighten your sound, try cutting back on the Bass first, rather than automatically boosting the Treble.

Be aware that boosting Treble and Bass increases the high and low frequency content without changing the overdrive structure. However, boosting the Mid and the Mid Shift controls will increase the amount of saturation. (Refer to the Sample Setting for Sparkle Electric Guitar.) By taking the time to familiarize yourself with how the EQ controls interact, you will be able to achieve the proper mix of frequencies that best suits your needs in any venue.

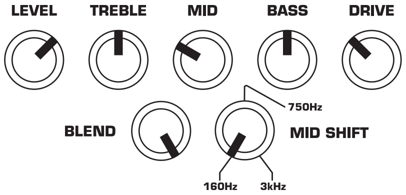
2) The noise level is exceptionally low. However, it may amplify noise emanating from the input source. To minimize noise going into SansAmp Para Driver DI, we recommend active electronic instruments have the volume set at unity gain/maximum and tone controls positioned flat. If you need to boost, do so slowly and sparingly.

3) Compressors or limiters may not be necessary. Our unique circuitry emulates the warm, natural, gentle compression of tubes. It limits transient peaks for an even meter reading, so that outboard units typically are not needed.

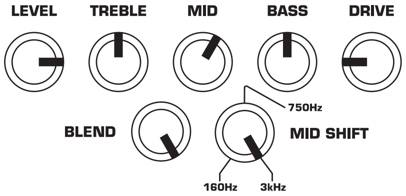
4) Using effects. One of the key attributes of SansAmp is the responsiveness to the dynamics and nuances of your playing technique. Therefore, it is best to have your instrument plugged directly into the SansAmp and place effects after the SansAmp. If, however, you prefer to place an effect before SansAmp, be sure to set the output level of the effect at unity gain with the output level of the instrument.

SAMPLE SETTINGS

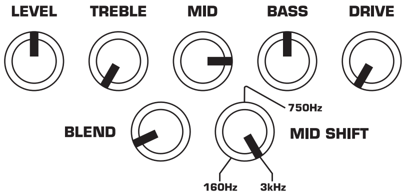
ACOUSTIC GUITAR I



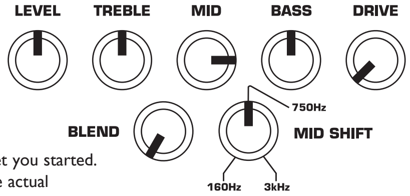
ACOUSTIC GUITAR II



ACOUSTIC GUITAR III



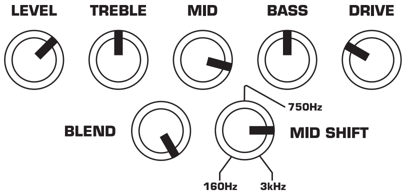
MID-BOOST GUITAR



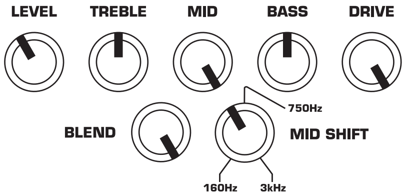
Samples Settings are guides to get you started. Levels will vary depending on the actual instruments and/or amps used.

SAMPLE SETTINGS

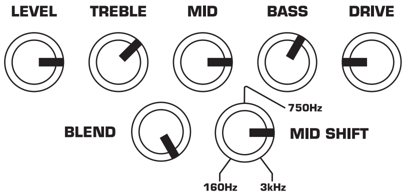
CHAMP®



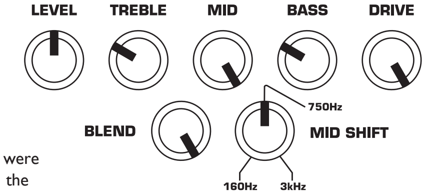
MONEY FOR NOTHING



SPARKLE ELEC GUITAR



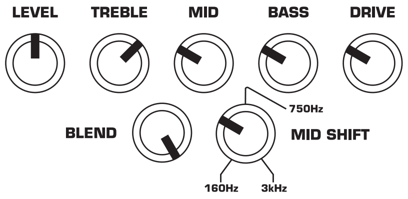
SCHENKER



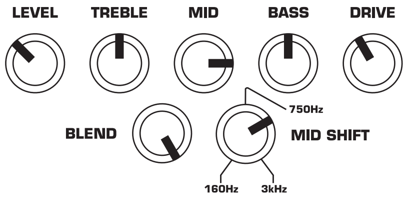
Note: Rumble Filter and Air were not engaged (out position) in the making of the Sample Settings.

SAMPLE SETTINGS

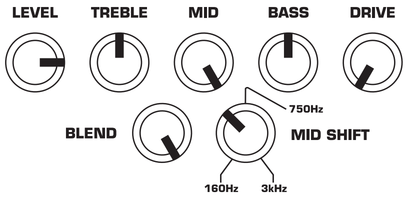
DEEP TUBE BASS



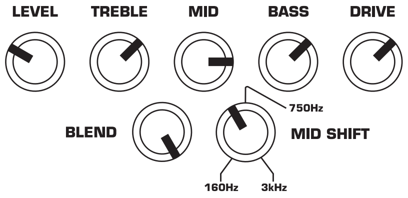
SVT® BASS



JACO BASS

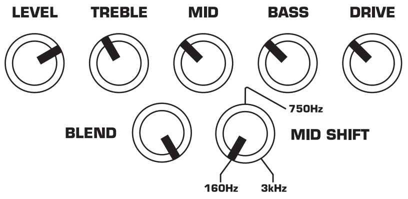


LEAD BASS

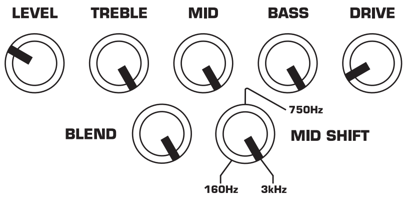


SAMPLE SETTINGS

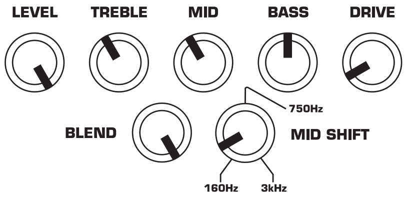
UPRIGHT BASS



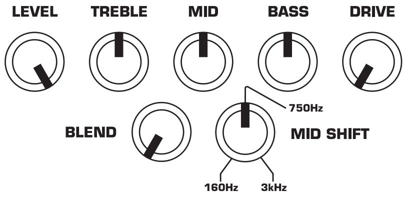
ACTIVE BASS SIMULATOR



ELECTRIC VIOLIN

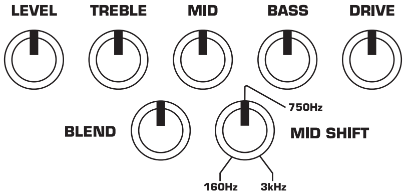


CLEAN BOOST

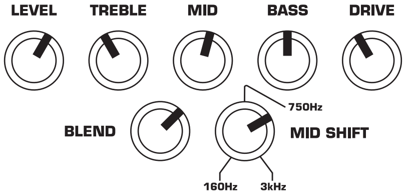


SAMPLE SETTINGS

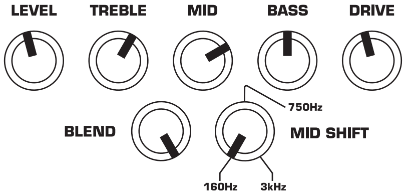
ELECTRIC PIANO



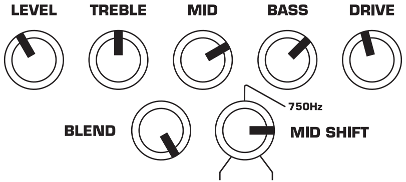
HAMMOND® ORGAN



HIP-HOP DRUMS



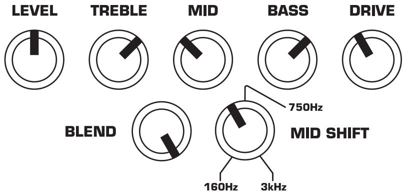
KICK DRUMS



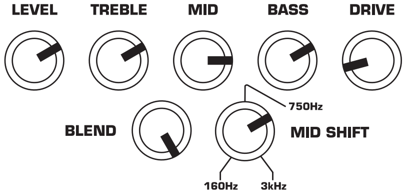
®Registered trademarks. Names of Samples Settings
are intended for descriptive purposes only.

SAMPLE SETTINGS

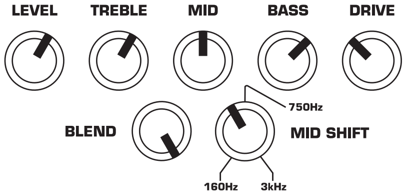
SNARE DRUM



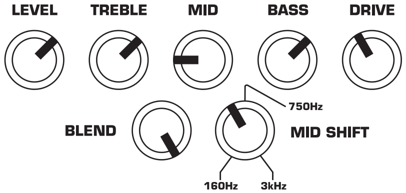
STOMP BOX (COMPRESSOR) DIRECT - CLEAN



STOMP BOX (DISTORTION) DIRECT - ROCK



STOMP BOX (DISTORTION) DIRECT - METAL



CUSTOM SETTINGS

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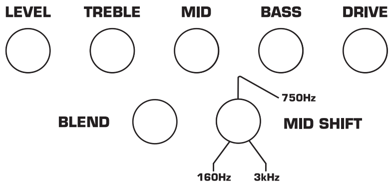

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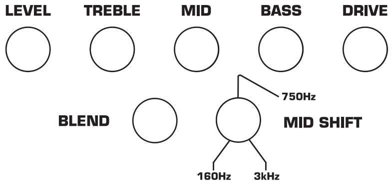

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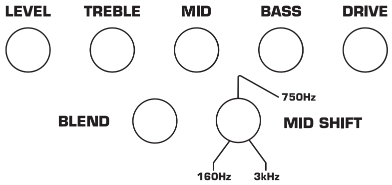

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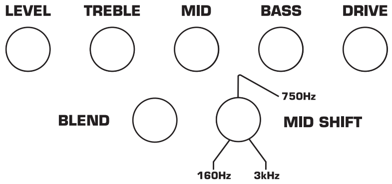

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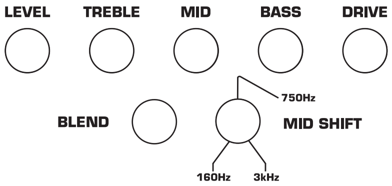

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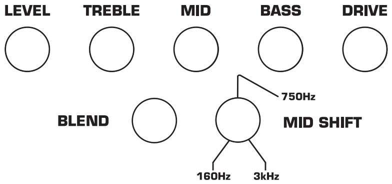

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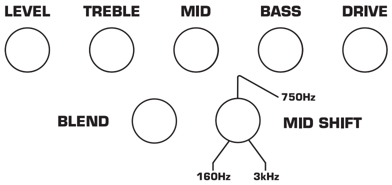

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