

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 #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. 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 & SERVICE:

Contact Tech 21 weekdays from 10:00 AM to 5:00 PM, EST.

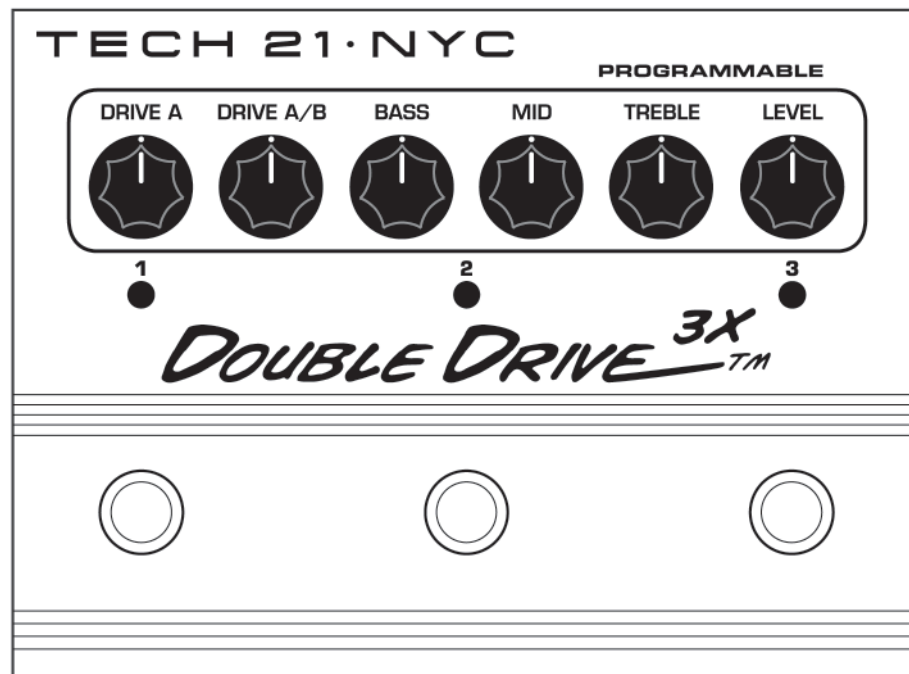
MADE IN THE U.S.A.



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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 you with 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

The Double Drive 3X is a 3-channel, fully programmable version of its single channel predecessor with active 3-band EQ.

With a **100% analog** signal path, the Double Drive design offers 2 different types of distortion that are based solely on the **output** stages of specific tube amplifiers: Class A (Vox AC30®-style) and Class A/B (Fender®-style/Marshall®-style). You can use either Drive control individually, or together --which creates a unique blend of the 2 distortions and achieves a cascading effect.

The interaction of the two Drives with the EQ controls yields an immeasurable number of variations. With the Double Drive 3X, you can go from a clean boost (up to 10dB) to jaw-rattling fuzz.

The ease of operation allows you to make changes on the fly, even during your performance --without having to take this manual with you. There are no complex formulas or numerical calculations to learn, so nothing will get in the way of your creative flow.

Independent footswitches put your three favorite tones right at your feet. Custom actuators provide a smooth transition between channels for instantaneous switching, so you can dance with the music instead of your gear.

As with each Tech 21 product, the controls are designed to give you the flexibility to obtain your desired sound. It is our hope that the Double Drive 3X will be a useful tool for stimulating your creativity and, ultimately, providing the inspiration to play your best.

Simply plug your guitar into the Double Drive 3X, and plug the Double Drive 3X into the input of your amp or the input of a SansAmp.

APPLICATIONS

The Double Drive 3X is designed to be used with any amp --tube or solid state, vintage or modern. You can achieve the same results using the Double Drive 3X in conjunction with any of our own SansAmp™ models of Tube Amplifier Emulators.

Simply plug your guitar into the Double Drive 3X, and plug the Double Drive 3X into the input of your amp or the input of a SansAmp.

THE INS AND OUTS

1/4” INPUT: 1megOhm high impedance input, same as traditional tube amps. Also switches battery power on/off. To avoid battery drain, unplug when unit is not in use.

1/4” OUTPUT: 1kOhm low impedance output drives long cables without loss of signal integrity, even in bypass.

SIGNAL LEVEL TO INPUT

The Double Drive 3X is designed to accommodate instrument level signals to the *Input*, such as the output of a guitar, the output of (other) distortion pedals, etc.

For normal operation, signal level to *Input* should be close to that of a standard electric guitar (approx -10dB / 250mV). However, for extreme effect, feel free to add a treble booster or other overdrive pedal in front of the Double Drive 3X, as the unit will not be harmed.

NOTE: Hot pickups will increase the gain structure of the Double Drive 3X.

GUIDE TO CONTROLS

DRIVE A

controls the amount of Class A power amp output stage distortion (like Vox AC30®-style amps), rich in even harmonics. The amount of harmonics is dynamically controlled by the input level. Therefore, you will influence the ratio of harmonics by how hard you pick. At minimum position, the circuitry has no tonal effect on the sound and is clean.

DRIVE A/B

controls the amount of Class A/B power amp output stage distortion (like Fender®/Marshall®-style amps), rich in odd harmonics. At minimum, the circuitry has no tonal effect on the sound and is clean.

BASS, MID & TREBLE

Unlike passive controls that only cut, these fully programmable **active** tone controls cut or boost ±12dB from unity gain at 12 o'clock. Frequencies are: Bass @ 125 Hz. Mid @ 500 Hz. Treble @ 3.5 kHz.

LEVEL

Adjusts the output level.

PROGRAMMING THE CHANNELS

HOW TO SAVE A PROGRAM

Choose the particular channel where you want a setting to be located by engaging that footswitch. Set knob controls to taste. Double click on that channel's footswitch, and it's saved. It's that easy.

The Double Drive 3X is shipped from the factory with 3 presets: (1) British Overdrive (2) California Overdrive, and (3) California Lead. Refer to Sample Settings for actual knob positions.

HOW TO FIND A PRESET

This is useful when you want to know the position of each knob's setting in the memory of a channel. When you turn a knob from its stored position, it "unlocks" and the channel indicator LED will blink. The slower the blink, the farther away you are from the preset point. The faster the blink, the closer you are. At the preset point, the LED stops blinking and remains on.

LAZY POT™

Another Tech 21 first is the development of the Lazy Pot. This is a unique safety feature engineered for the *Drive A*, *Drive A/B*, and *Level* controls. When you "unlock" the EQ settings, for instance, they will "jump" to the new setting of the knob position. For the *Drive A*, *Drive A/B*, and *Level* controls, however, this could result in you jumping out of your skin if they are at a high setting. With the Lazy Pot, there's a slow, gradual increase to the new setting position giving you time to turn it down. This will only happen when you initially unlock a preset. Once unlocked, the pot will react according to how you reposition it.

BYPASS

You can put the Double Drive 3X into bypass mode from whichever of the three channels you're already in. Just hit that channel's footswitch (the one that's lit) once and you'll be in bypass mode.

PLACEMENT ORDER OF OTHER EFFECTS

For best results, plug your guitar directly into the Double Drive 3X. This will preserve the interactive nature of the unit. We suggest experimenting to find the order that's best for you. As a general guide, we recommend:

Place the following effects BEFORE the Double Drive 3X:

Compressor, Envelope Filter/Follower, Treble Booster, Wah-Wah.

Place the following effects AFTER the Double Drive 3X:

Chorus, Distortion (other), Echo, Reverb, SansAmp, Volume Pedal.

NOTEWORTHY NOTES

1) **The signal path of Drive A runs into** the signal path of Drive A/B. This results in an electronic **multiplication**, rather than addition, of the amount of distortion to achieve a cascading effect.

2) **The Double Drive 3X is very responsive.** Our controls are unusually sensitive and powerful. You need not set everything at max to get maximum results. For instance, to brighten your sound, rather than automatically boosting *Treble* all the way up, try cutting back on the *Bass* first.

The tone controls also help compensate for the EQ curves found in guitar amps. To find the best settings for interacting with your amp, start with the tone controls at 12 o'clock and cut or boost as necessary. Be aware that amplifiers vary greatly and some may require you to use radical EQ settings on the Double Drive 3X to achieve your desired sound. 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 your particular amp.

3) **If you have hot output pickups**, you may experience a hint of distortion when the Drive controls are at minimum.

4) **If you typically use the Bright input/channel/switch on your amp**, the amp's circuitry may cause the sound to be sharp and too bright. To balance out the sound, you can:

- use the amp's Normal input/channel or shut off the Bright switch;
- plug into the lower gain input (if the bright boost cannot be turned off) and increase the amp's gain control;
- tweak the Double Drive 3X's EQ controls to minimize the harshness. We recommend turning *Treble* to minimum and increasing *Bass* and *Mid* to taste.

5) **The noise level of the Double Drive 3X is exceptionally low.** However, it may amplify noise emanating from the input source. To minimize noise going into the Double Drive 3X, 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.

Also check for pickup interference by moving your guitar or turning the volume off. Be aware single coil pickups are more likely to generate noise.

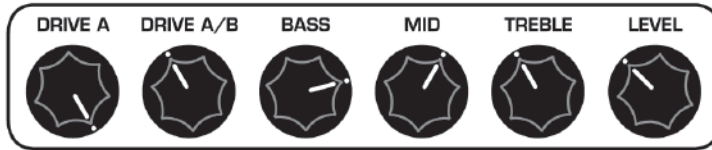
6) **Channel LED indicator lights.** When battery runs low (around 6V), the channel LEDs (above the footswitches) will become noticeably dim.

GLOBAL RESET

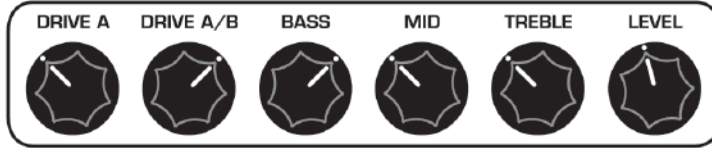
If you want to reset your unit back to factory specifications, you can simply reprogram the three Sample Settings listed first on page 5 [(1) British Overdrive (2) California Overdrive, and (3) California Lead], or perform the following procedure: Hold down the footswitches for Channels 1 and 3 *while simultaneously* applying power (either plugging in an adapter or, if a battery is installed, plugging in your guitar cable). Then release the switches.

SAMPLE SETTINGS

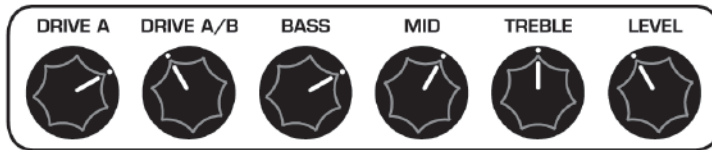
PRESET 1: BRITISH OVERDRIVE



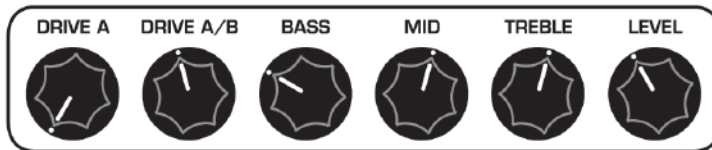
PRESET 2: CALIFORNIA OVERDRIVE



PRESET 3: CALIFORNIA LEAD



TUBE SCREAMER®

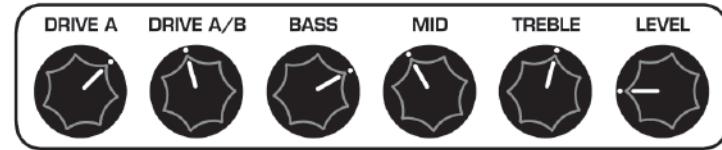


CLEAN BOOST: set Drive A and Drive A/B at minimum and all EQ controls flat (12 o'clock).

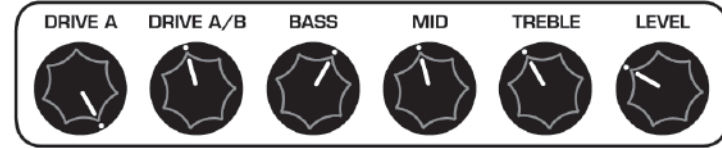
TREBLE BOOST: (i.e., vintage Brian May tone), reduce the Bass and increase Treble and Mid to taste.

SAMPLE SETTINGS

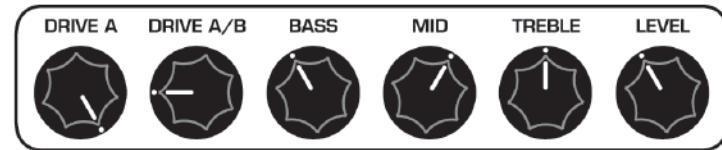
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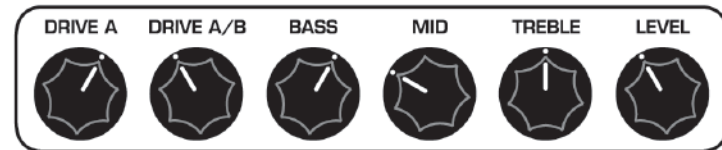
FUZZ FACE®



CRANKED AC30®



HEAVY BASS



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