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. 50mA, for battery life of approximately 10 hours.

* 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.
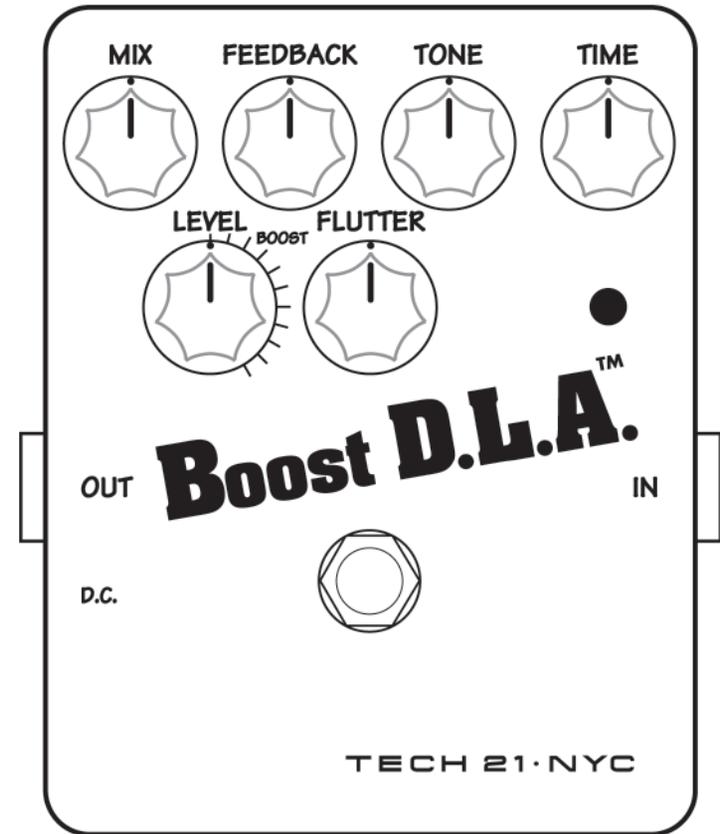
FOR PERSONAL ASSISTANCE & SERVICE:
Contact Tech 21 weekdays from 10:00 AM to 5:00 PM, EST.

MADE IN THE U.S.A.

$C\,\epsilon$

TECH 21

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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 Boost D.L.A. is an analog delay emulator pedal that uniquely incorporates a clean boost function for up to 9dB of additional volume. With boost and delay in a single pedal, your solos will jump out with greater dimension.

This pedal is designed with user-tweakable, "lo-fi" analog technology. By manipulating the controls, you can infuse degrees of warmth and life characteristic of vintage delays. The circuitry intentionally injects the inherent imperfections of vintage delays, which is what makes them so seductive and nostalgic.

A single, *continuously-variable* Time control provides a full sweep of delay, up to 1000 milliseconds. Flutter introduces modulation which adds a slight shimmering/chorus-like effect of a vintage tape echo. The Mix, Feedback, Tone and Level controls are 100% analog for warm, organic sounds. The Boost D.L.A. enables you to explore and custom tailor such delay styles as digital, vintage tape and bucket brigade.

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 Boost D.L.A. will be a useful tool for stimulating your creativity and, ultimately, providing the inspiration to play your best.

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/CONNECTIONS

The Boost D.L.A. is designed to accommodate instrument level signals to the *Input*, such as the output of a guitar, the output of distortion pedals, etc. For normal operation, signal level to *Input* should be close to that of a standard electric guitar (approx -10dBm / 250mV).

NOTE: Some amplifier effects loops are line level, which will cause the Boost D.L.A. to distort. It will also compress the signal and reduce the output. The same may hold true for mixing boards. Therefore, you may need to obtain a level matching transformer.

Be aware that line level signals will not damage the Boost D.L.A., however the resulting sound may not be particularly desirable.

GUIDE TO CONTROLS

TIME
Controls the amount of delay. This single, continuously-variable control provides a smooth, full sweep, ranging from 30 milliseconds up to 1,000 milliseconds. At 12 o'clock, Time is approximately 300 milliseconds. You can easily dial in the exact amount of delay desired with one turn of the knob. Turning the Time control while playing will transpose the pitch of your guitar note, just like a vintage analog delay.

TONE
100% analog shelving filter of 6dB per octave. Effects the tone of the delayed signal. At maximum (5 o'clock), it has no effect on the signal of the delay. As you decrease the setting, it will reduce the high-end to round off the signal and add warmth. So that, like an analog echo, each successive repeat will be darker.
Tone Tips: To slightly warm up the sound, experiment between 1-3 o'clock. To radically darken the tone, experiment between 12-7 o'clock.
With the Boost D.L.A. in front of a distorted or slightly distorted amp, set the Tone control to make the repeats darker than the straight signal, between 11-1 o'clock. This will keep the straight and delayed signal from "fighting" with each other.

FEEDBACK
100% analog circuit. Feeds back the delayed signal to the input of the pedal to generate the number of repeats. At minimum (7 o'clock), you will hear one repeat. As you increase the setting, the repeats will follow accordingly until they are almost infinite.
Feedback Tip: With the Boost D.L.A. in front of an amp, the amp will compress the signal and make the low level repeats louder. Therefore you will most likely need to have the setting lower than you would when running through an effects loop. For instance, you may find a Feedback setting at 10-11 o'clock through an effects loop will yield 3-4 repeats. However, through the front of an amp, you may find a setting of 4 o'clock will yield the equivalent.

MIX
100% analog circuit. Adjusts the ratio of direct and delayed signal. While most delay pedals provide a maximum 50/50 mix ratio via a level control, the Tech 21 Mix control offers a sweep from 100% dry to 100% wet. This gives you more flexibility when you want to run through a parallel effects loop without annoying phase cancellation, and to make the delayed signal louder than the direct signal for special effect.

FLUTTER
Introduces modulation which adds a slight shimmering/chorus-like effect of a vintage tape echo. At minimum (7 o'clock), there is no effect. At maximum, there will be a drastic shifting of the pitch, which can be used for extreme special effects.

LEVEL / BOOST

100% analog circuit. Adjusts the overall output level. Increasing from unity gain (12 o'clock) provides additional boost, up to 9dB.

Level tip: If you have a 100% wet signal going through a parallel effects loop, use the Level to adjust the mix of dry and effected signal.

BYPASS

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.

PLACEMENT NOTES

The general rule of thumb with time-based effects, is to place them last in the signal chain. Here are some points to consider:

1) Into an amp's effects loop. This will give you the cleanest, most true representation of the effect because it is last in the chain --after the amp's tone shaping, compression and distortion. It is the closest way to replicate how delays are used in a recording studio.

2) In front of an amp. The amp's tone, compression and distortion will all change how a delay sounds. The amp will distort, brighten and raise the level of the Boost D.L.A., which will give you more of a '70s sound. For a more natural sound, reduce the Mix, Feedback and Tone controls as needed.

3) After an amp emulator (such as a SansAmp) **or distortion pedal into an amp.** Set your amp completely clean to achieve similar results to running through an effects loop.

NOTEWORTHY NOTES

1) 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 type of gear.

2) When recording through a studio mixer, set the Boost D.L.A. at 100% wet. Use the AUX send/return of the mixer and use the effects knob on the mixer channel to bring in the desired amount of delay.

3) Stereo imaging for a '70s jazz chorus sound. With, for instance, two Tech 21 Trademark 60 combo amps, plug your guitar into one amp, use the Effects Send to the Boost D.L.A. set at 100% wet, a short delay and Flutter at 12 o'clock. Then run the Boost D.L.A. to the Effects Return of the second amp.

4) The Boost D.L.A. is very responsive. Our controls are unusually sensitive and tend to perform well beyond what would be considered "normal."

5) LED indicator light. When battery runs low, the LED will become noticeably dim. Power consumption is 50mA. With a fresh battery, you can expect the Boost D.L.A. to operate for approximately 10 hours of continuous use --more than enough for a full gig. To conserve battery life, unplug the unit during breaks and any other time it is not in use. We recommend opting for a power supply (Tech 21 Model #DC2 or equivalent), as it is environmentally-friendlier, will ensure operation, save money on batteries, and relieve stress trying to remember when you last changed the battery.
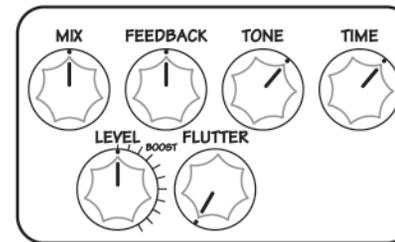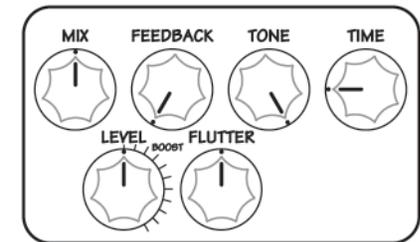
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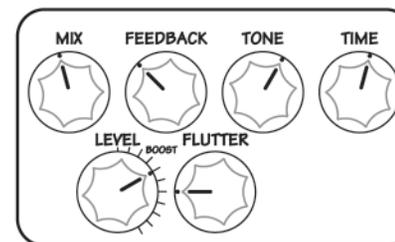
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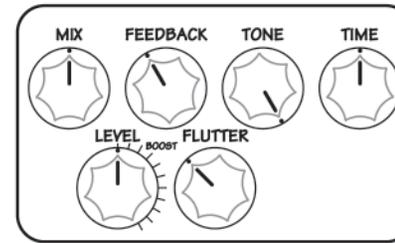
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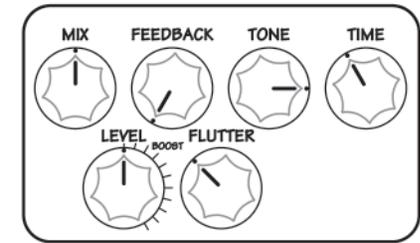
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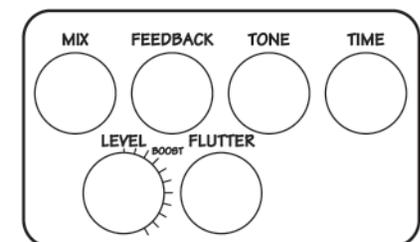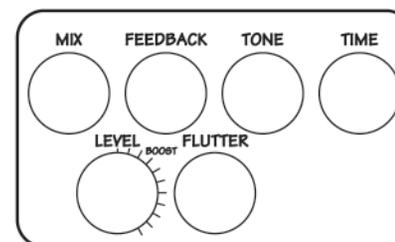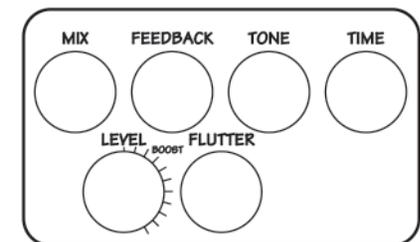**Chorus**

Lead Boost D.L.A.

FOR CUSTOM SETTINGS:

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BOOST D.L.A. CUSTOM SETTINGS

MIX FEEDBACK TONE TIME
LEVEL BOOST FLUTTER

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