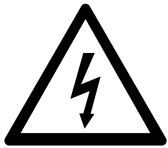


# Specifications

- Input impedance: greater than 1M $\Omega$ m
- Output impedance: less than 10K $\Omega$ m
- Controls: drive, tone and volume
- Features: Bax-Stack active tube tone boost circuitry (zero insertion loss!)
- Wide gain range: overdrive, distortion to fuzz
- True bypass: silent foot-switching circuitry means no 'pop' or 'thump'
- Power requirements: 12VDC @ 1.2A - Centre positive 2.1mm barrel connector
- Dimensions: width 6.8" depth 4.8" height 2"
- Weight: 2lb (on Earth); 0lb (free-fall)
- Construction: solid die-cast aluminum box
- Finish: tough olive green powder coat



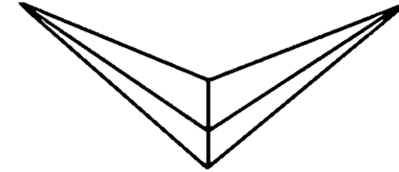
**Warning:** High D.C. voltages of over 300 volts are present in the circuit: disconnect power before opening the unit. There are no user serviceable parts inside this pedal. Contact Effectrode regarding warranty or servicing.



Serial #

**TD-1A**

# *Tube Drive*



## Owner's Manual



# Introduction

The 'Tube Drive' is designed for flexibility, simplicity and outstanding sound quality. Three vacuum tubes make-up a cascaded clipping circuit and active Baxandall tone-stack ('Bax-Stack'). The clipping stages operate in single-ended class A at real amp plate voltages to deliver exceptionally smooth overdrive — there are no solid-state devices (op amps, transistors or diodes) in the signal path. This hot-rodded gain architecture with Bax-Stack is unique to the Tube Drive and for the first time makes it possible to apply active tube boost or cut to those critical frequencies essential for contouring great guitar tones. This allows easy access to a wide palette of authentic tube amp sounds from warm blues break-up, to crunch through to creamy, super-saturated lead sounds and rich fuzz, laden with even harmonic overtones.

Thank you for trusting Effectrode to be your effects company. We wish you many years of musical enjoyment from this hand-finished, all-tube pedal.

*Phil Taylor — Technical Director*

# Tubes



To extend tube life, it is recommended that the pedal be allowed to warm-up for at least one minute after being switched on. This is so the heater filament in the tube properly heats the cathode, which is coated with a layer of barium and strontium oxide. This oxide layer gets torn off the cathode, a process known as cathode stripping, if the cathode has not reached its correct operating temperature. If operated well within their ratings, good quality signal tubes can last 100,000 hours or more: over 11 years of continuous use. If you use your pedal for only 4 hours a day, they should last over 25 years. (We can't warranty tubes for this period, however experience shows that such lifetimes are probable).

The 12AX7 tubes in the Tube Drive can be swapped with other 9-pin double triode tubes, including 12AV7, 12AU7 and 12AY7. These substitutions typically yield lower gain and more headroom as well as tonal differences depending on the tube type and manufacturer. Mil-Spec NOS are recommended, if they can be obtained.



# Sample settings

## 1. Blues Solo

Neck Humbucker



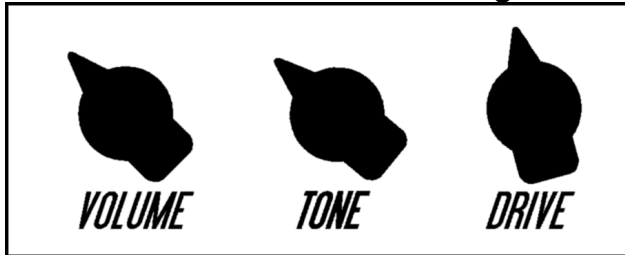
## 2. Crunch Rhythm

Bridge/Middle Single Coil



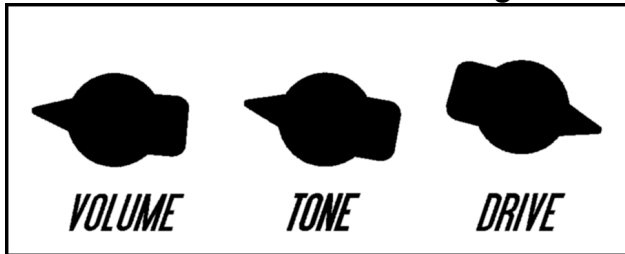
## 3. 70s Rock

Bridge Humbucker



## 4. Saturated Lead

Bridge Humbucker



# Controls

**Drive** knob adjusts signal level and therefore the amount of clipping across four tube stages. It also has a special tapered sweep for fine control over lower gain settings. This configuration allows the Tube Drive to work as an outstanding low gain pedal with a graceful breakup characteristic, to add a little 'grit' or overdrive, and gives it ample raw power to climb the gain curve into heavy tube saturation.

With the **Drive** turned down (9 o'clock), you'll discover some beautiful warm blues tones. Turning the knob clockwise causes clipping in more stages so that the overdrive increases until at around 12 o'clock the pedal is producing a balanced and robust distortion. As the **Drive** is further wound-up the pedal will begin to produce progressively more saturated singing lead tones and effortless pinch harmonics. The response remains focused and tight for excellent string-to-string definition and ensures each pickup retains its own character, no matter how much gain you want to pile on.

**Tone** knob controls an advanced all-tube active Bax-Stack circuit. This unique single knob control provides huge flexibility over conventional passive tone-stacks found in tube amps and some other overdrive/distortion pedals. It is optimized to boost/cut the important mid and high frequencies for guitar. Being an active tone control means it can greatly enhance high frequency components for extra crunch and presence. With this knob centered at the 12 o'clock position the response is flat (equivalent to maxing out a passive tone control), so backing this off between 9 to 10 o'clock is a good starting point for many classic overdrive sounds. Rotating to around 2 to 3 o'clock introduces extra sparkle to distortion settings for stunning crunch tones. This is an easy to use, yet flexible tone contouring control with zero insertion loss (minimum loading on the signal for great tone).

**Volume** knob sets the overall output level. This is used to compensate for any changes in level when adjusting the gain knob and to set the relative levels of bypassed and effected signal.

**Active Low Boost** toggle switch increases the bottom-end frequency component for a heavier, thicker sound and adds some serious muscle to your tone. It has the effect of making an open back amp sound more like a closed back speaker cabinet and at higher gain settings can be used to create massive grunge tones. When used in conjunction with the tone knob fully clockwise, a mid-scoop response is obtained; with the tone fully anti-clockwise and low boost switched out a mid-hump is introduced into the frequency response.

**Footswitch** allows selection between effectified (overdrive) and non-effectified (dry) signal. Silent true bypass switching ensures there are no 'pops' or 'thump' when engaging the effect and that there is absolutely no loss of tone from your guitar to your amp when the effect is disengaged. Additionally, the tube signal path in this pedal is built to demanding audiophile specification to ensure hi-fidelity and signal integrity at all times - the benefit that your guitar tone always remains pure and intact.