



SOLO BOOST MASTER PREAMP PEDAL FOR GUITAR & BASS MANUAL

SPECIFICATIONS

Input impedance: >1MΩ
Output Impedance: ~70KΩ
Optimal Power Voltage: 9VDC ±10% up to 18VDC
Power Consumption: <10mAh in use;
Product Size: Length: 39mm, Depth: 92mm, Height: 51mm
Product Weight: 157 gr.
Packed Weight: 178 gr.

ADVICE, WARNING & CAUTIONS

- Read this manual and keep it handy.
- Do not exceed 18VDC (center negative) when powering this pedal.
- Do not place the pedal & batteries in direct sunlight, in extreme temperature and humidity conditions, or in dusty environment.
- Do not make modifications to the circuit and do not install the pedal in any other way except as described in this manual.
- As we struggle to improve ourselves and our products, we may change products specifications, design, and features without notice. Likewise, this manual may be changed or modified without notice so we advise you to download it from the website before installation.

INTRODUCTION

Thank you for choosing Solo Boost Master Preamp to control your instrument signal level. Solo Boost is completely analog and unique designed clean J-FET buffer/booster pedal with added control over tone shaping. Encased in a rugged but tiny aluminium box, this high quality built circuit has audio mastering virtues.

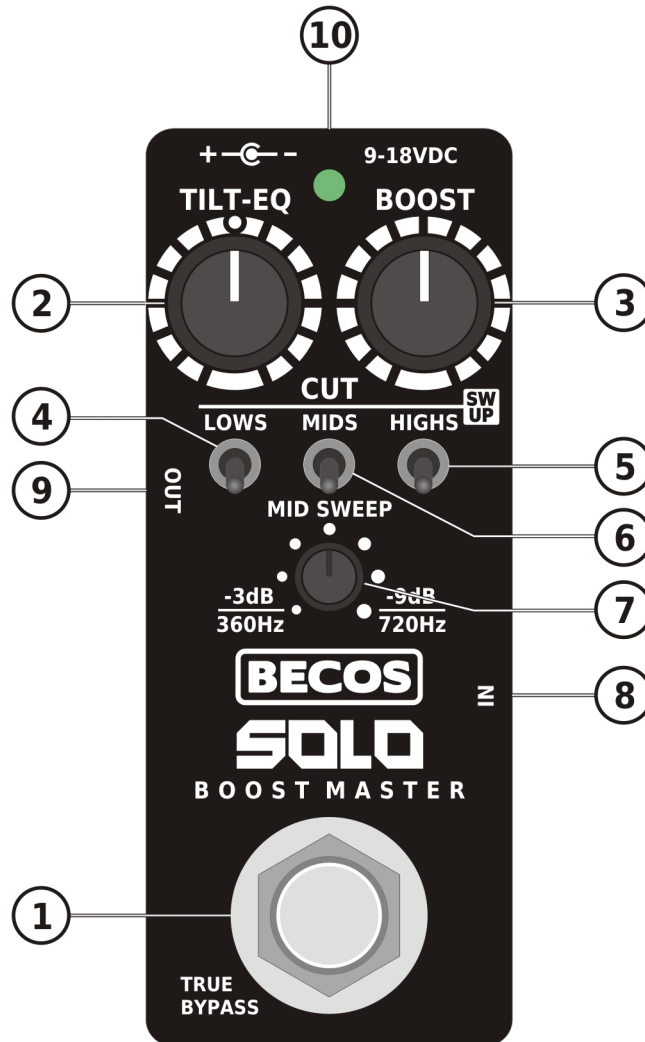
A variable gain stage allows a flat raise of the input signal, starting from unity gain (buffer level) and going up to +20dB of amplification, enough to either saturate a following drive stage or boost the signal when placed after.

A Tilt-EQ active circuitry borrowed from hi-end music pre-amplifier design may be used to add minor corrections over buffered or

boosted signal. Left in the middle position, this control does not alter the sound.

On top of that, three additional cut filters can delicately act upon selected frequency spectrum, to further contour audio signal. The mid-cut section has the most powerful effect in conjunction with the variable Mid Sweep control, which selects the cut spectrum as well as the amount of cut.

EFFECT CONTROLS



1. **FOOTSWITCH** - When engaged, the switch routes the audio signal through the circuitry, and Power LED is lit Green. When pushed again, the signal is routed in **True Bypass** from Input to Output, leaving the audio untouched. This routing is still available even when power is taken off of the pedal.

2. **TILT-EQ** - This one-knob smart EQ control stage enables a simultaneous raise in high frequencies and dump in low frequency when turned to right. It acts in an opposite way when turned to left. Left in the middle, the audio signal is not modified at all. The pivot frequency is set around 1KHz. When turned completely one way or another, there will be a total of 18dB difference in between low and high frequencies. When the control is in the middle, this difference is 0dB, leaving audio the way it enters the pedal. This is a very powerful control when used in conjunction with the Frequency Cut filters (4, 5 & 6).

3. **BOOST** - The amplification level of the pedal is set with this control. The range was carefully calibrated from buffer level (turned to the left) and up to +20dB of signal amplification (maxed to the right). Even for a bass passive pickup, there is enough clean amplification of signal, before distorting. This acts like a volume, although it is not a volume stage circuit. In fact, it sets the amount of amplification directly on the J-FET amplification stage. For that reason, when moved, the amplification level is adjusted on-the-fly, and static noise is heard - **this is normal!** Since such an effect pedal is not intended to be used as a live volume sweeper, this little compromise was made while gaining a huge benefit: **lowering the amplification noise at any given level set.** That is, no matter where you set your booster level; you will always end up with the lowest possible amplification noise. And remember: used in conjunction with Tilt-EQ and Frequency Cut filters, you only boost some frequencies, so this "clean flat booster" pedal becomes also a "treble booster" or a "mid booster" or everything in between!

4. **LOWS CUT FILTER** - When the switch is DOWN, the audio signal is untouched. Engaged in the UP position, the lower spectrum of the audio signal is progressively attenuated, starting from -0dB at 600Hz and continuing all the way down, where it reaches -9dB of attenuation at 100Hz. At 30 Hz, it reaches -18dB of attenuation. Used alone or in conjunction with TILT-EQ and BOOST controls, this frequency constrain filter may become a powerful weapon against boomy guitar pickups, or it can tighten up a flubby bass.

5. **HIGHS CUT FILTER** - Acting much like the Low Cut filter but in higher end of the audio spectrum, this control can eliminate the hissy noises or it can thame down a very sharp sounding pickup, as often heard in single coils. It starts with -0dB of attenuation at 1KHz and it progressively gets to -9dB at 7500Hz. At 20KHz, it

reaches -18dB of attenuation. Of course, at 7,5KHz we are around or above guitar's highest harmonic content. For some pickups, like humbuckers or bass pickups, this notch filter will barely be noticed. But again, for single coils, the upper harmonic content is notched down a bit, without taking all the air from it. This control may be used again, in conjunction with TILT-EQ, BOOST and the other cut filter, to only apply cut (or boost) only to a workable frequency. For instance, the simple combination of Low Cut and High Cut filters, leaving out all other control but BOOST, will lead to the **exact audio frequency bandwidth and shape of a tubescreamer**. This time, without the clipping distortion. This will qualify the Solo Boost Master Preamp as a genuine mid booster, highly desired when placed in front of a high gain channel of an amplifier such Mesa Boogie MK5 - which we tested on, and loved the results!

6. **MID CUT FILTER, 7. MID SWEEP** - This is the most powerful control of the three cut filters! When Mids Cut is switched in UP position, it notches down a carefully selected spectrum of frequencies resembling a V-shape well known to metal players; but not only! As soon as it is engaged, the cut spectrum is controlled with Mid Sweep pot. Maxed to the left, the V-shape is loose and the amount of cut is only -3dB at 360HZ. You would use such a setting if you would like to remove the honky sounds. Maxed to the right, the maximum attenuation of -9dB takes place at around 720Hz, where the V-shape is sharpened a bit. Again, this is not an excessive cut filter, and it's most praised effect is warming up the clean sound. For example, a cold sounding humbucker pickup, especially in the neck position, will suddenly find it's never known musical character. Once again, when used in conjunction with TILT-EQ, BOOST and one other Cut Filter (Lows or Highs), the Solo Boost pedal will reveal its mastering audio potency.
8. **INPUT** - Here you will connect either an instrument directly, or the output of another effect, or a signal taken from the amplifier's SEND FX-loop.
9. **OUTPUT** - From here you will send the buffered or boosted signal to the next effect pedal, or to amplifier's input, or to RETURN of FX-loop of an amplifier.
10. **DC POWER CONNECTOR** - Use only good filtered power supplies, with a voltage between 9-18 VDC, with negative polarity at barrel's center.

SET UP

This pedal may be used to buffer an instrument signal when using long cables to the amplifier, but it should be mainly used to boost an instrument signal while making fine frequency correction over it, to better suit the musical needs and usage context. Usually, a booster pedal is placed last in the signal chain of a series of effects. These effects, on the other hand, may be placed in front of instrument amplifier or in the feedback loop of it. Such an effect pedal may also be placed in front of a drive section of the amplifier, or in front of an overdrive or distortion pedal, to boost input signal, and alter their gain structure.

The additional frequency controls the Solo Boost Master provides, allows for a better interaction balance in between components of the signal chain. It actually acts like a lighter preamp, rendering a warm and clean sounding audio signal.

Being designed from the ground up with highest quality and carefully chosen components, this completely analog pedal is as transparent as it can be, with lowest possible amplification noise at any boost level.

IN OPERATION

BECOS SOLO Boost Master Preamp is configured for clean flat boost in all audio spectrum. Each playing style or gear setup change may require booster setting adjustments, because everything interacts with each other. Boost knob sets the amplification bias; as we said, it acts like a volume, but is not a volume control. During swipe, static noise can be heard - this is normal. It happens because the amplification level (gain) is adjusting on-the-fly. This behavior is a minor compromise for a greater good: to minimize amplification noise at any gain level!

When signal is routed through pedal (engaged), a modestly gained clean channel of an amp gets louder, pushing the break-up. Engaging the Boost Master in front of an amp set on a cranked channel puts you in the spotlight instantly. The higher the gain set on the amp, the more fat & saturated distortion you get, with increased sustain and plenty of warm harmonics. On high gain, booster's effect is less obvious in volume, yet more obvious in creamy saturation overdrive, due to amp's natural compression. You will most likely feel that you can play faster and easier.

YOUR FEEDBACK, PRODUCT REGISTRATION & SUPPORT

We will always appreciate any direct feedback. Please let us know how you use our products and how can we in make things better. Don't forget to register your product to receive full e-mail support and updates, when they are available.



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MANUAL
Version 1.0

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