



SUPER Blues Pro OVERDRIVE

INTRODUCTION

G'Day! Congratulations on purchasing the MI Effects Super Blues Pro v.1 pedal. This pedal is an extension of one of our favourite and most popular pedals in the MI family, the Blues Pro, and now covers more low- to mid-gain overdrive tones than ever before.

The Blues Pro was designed several years ago now and was my take on the ever-popular Tube Screamer design, which was all the rage in the boutique pedal game back then. It has gained a lot of loyal fans over the years for its simplicity, but always had the potential for its design to be expanded further... enter the Super Blues Pro!

FEATURES

HEADROOM!!

Overdrive pedals always sounds best at its highest operating voltage. The previous version ran off 9V supply, but with the capacity to run at higher voltages. The Super Blues Pro features some internal circuit wizardry that takes 9V ONLY* (by DC adaptor or battery) and internally supplies the pedal with approximately 18V! This means no messing around with additional power supplies. Put 9V in, and enjoy the extra clarity, sparkle and headroom.

* refer to *POWERING THE PEDAL* section.

CONTROLS

DETAIL – The DETAIL control is a revision of the TONE control from the standard Blues Pro. This design provides the effective flexibility of a multi-band EQ in a single control, by controlling both the high and low frequency content of the signal. By turning the DETAIL clock-wise, more top-end definition is added for a more open-sounding overdrive. Conversely, rolling back the DETAIL control and increasing the GAIN will give a smoother, mid-rich overdrive.

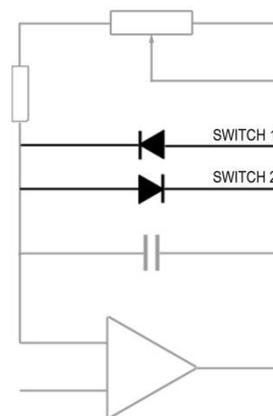
BODY – One of the main circuit design features of the standard Blues Pro is an added bass/low-mid boost to flatten out the typical mid-hump of the TS type of pedal. The BODY control essentially makes this variable, so you can go for a more mid-focused, traditional Blues Pro tone (with the BODY set to 12 O'clock), or even more low end by cranking the BODY, giving a looser feel comparable to overdriven Fender combos.

TRIM – This is essentially a second gain control, which affects the gain in a different part of the amplification circuit. The TRIM and GAIN controls have different frequency responses, so you can achieve a wide variety of tones by adjusting these two controls. With the GAIN set to 12 o'clock, increasing the TRIM not only increases the gain of the overdrive but also adds more top-end. Dialling the TRIM back gives a bit of a roll off in treble frequencies and is great for low-gain applications.

Standard Blues Pro sounds can be achieved with the TRIM control set to 2 o'clock.

CLIPPING STRUCTURE

The addition of two toggle switches allows for complete control of the pedal's clipping structure. Different semiconductors used to clip the signal allows for different frequency responses and feel. The three-way toggle switches allows for the selection of silicon diodes, MOSFET transistors and no clippers to provide anything from a loud, low-gain boost to a gated, compressed fuzz.



To the left is a part of a schematic diagram showing the diodes (highlighted dark) in a feedback loop of the operational amplifier. The type of diode has an effect on the compression, feel, attack, gain and volume of the overdrive.

Each diode clips one half of the waveform. If the waveform is clipped using the same diode, it is referred to as symmetrical clipping. If the diodes are mixed, asymmetrical clipping occurs.

The symmetry of clipping has an effect on the dynamics and response of the overdrive, as well as the output volume and warmth of the tone.

By allowing a choice of diodes accessible via two toggle switches, you are able to tune what kind of overdrive you want from the Super Blues Pro. Classic mid-hump drive? A low-gain boost? Or a super-compressed fuzz? The choice is now yours.



POWERING THE PEDAL PLEASE READ CAREFULLY!!!

THE SUPER BLUES PRO PEDAL RUNS OFF 9V ONLY. REPEAT. ONLY USE A 9V BATTERY OR 9V DC POWER ADAPTOR.

The Super Blues Pro is designed for 9v, and will not run better at higher voltages (for technical reasons). In fact you can cause damage to the circuit if a higher voltage is applied.

The 9 volt DC port (which accepts a standard barrel jack with a Negative centre pin.) or 9V battery may be used. If using battery to power the Super Blues Pro, and the pedal begins to sound different, please monitor the voltage of the battery with a multimeter and/or replace the battery with a new one.

If using a battery, the pedal is powered when a plug is inserted into the input jack. So when not in use, disconnect the input plug to maximise battery life.

To access the battery, unscrew the 4 screws at the bottom of the pedal and remove the bottom plate.

REGISTRATION & WARRANTY

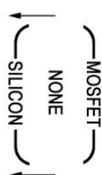
To register your pedal, you can email your name, contact details, purchase date, and retailer details along with the pedal serial number to: register@miaudio.com

Alternatively, you can send the above information to the postal address on the front of this manual. **PLEASE REGISTER YOUR PEDAL.** In the long run, it will be difficult to have your pedal serviced if you need to if the pedal is not registered.

This pedal carries a 5 year warranty that covers all repairs due to manufacturer error. It does not cover any damage due to user mishandling, shipping, acts of God, and abuse. The owner should contact MI Audio directly for all repairs, and any work done by anyone other than MI Audio voids the warranty. All shipping costs are the responsibility of the owner, and are to be paid in advance of any work performed on the pedal. The owner may be asked to provide a copy of the sales receipt for verification.

DISCLAIMER

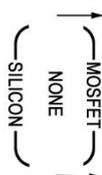
The owner or user assumes responsibility for death, injury and/or damages relating to the operation of this device. MI audio assumes no responsibility for death, injury or damages relating from the operation of this device. I am always thinking of ways to improve things, so all specifications are subject to change without notice.



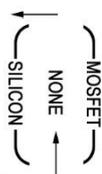
SILICON (both) – Silicon diodes are used in the original Blues Pro clipping structure. Although they are both silicon diodes, they are different in specs, giving a slightly asymmetrical soft clipping. This setting gives the most overdrive and compression of the combinations on offer.



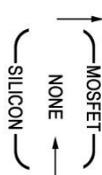
MOSFET/SILICON – By using one MOSFET transistor in the clipping structure, the overdrive tone has more headroom and top-end clarity, but still maintains similar gain levels as silicon diodes. Since two different silicon diodes are used, experiment with the other combination of MOSFET/silicon for a subtle difference.



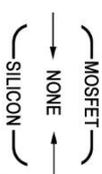
MOSFET (both) – The MOSFET mode uses the clipping characteristics of the transistor and NOT the reverse protection diode commonly integrated into the devices like some other pedals. This gives a rounded edge to the waveform similar to tube amp overdrive. As the gain increases, the overdrive is more smooth and mid-focused similar to the fabled “Dumble” sound.



SILICON/NONE – By lifting one diode from the clipping pair (by selecting NONE), one half of the waveform is heavily clipped, giving an almost square-wave, compressed fuzz tone with the attack being dependant on pickup position and setting of the DETAIL knob.



MOSFET/NONE – The “softer” clipping properties of the MOSFET gives a less compressed fuzz tone than the SILICON/NONE setting. This is heard as a sweet fuzz/overdrive hybrid that cleans up with the volume knob of the guitar, has the rounded MOSFET overdrive but with the bite of a fuzz with a harder picking action.



NONE (both) – By having no clipping diodes in the feedback loop, a louder, cleaner boost is given by the Super Blues Pro. This low-gain drive tone is great for pushing the front end of your amplifier, or for a boost for more complex chord voicings.

VOLUME AND GAIN CONTROL

The GAIN and TRIM controls the amount of gain and overdrive of the pedal. The soft clipping architecture of the overdrive circuit ensures that the original character of the signal still comes through the overdrive, yet it still has 3 times the gain of a typical Ibanez Tube Screamer. This wider gain range gives you the user more options for your overdrive needs.

The final output section has been designed to provide you with maximum output volume. With VOLUME turned all the way up, the output signal can reach 14Vpp, which can seriously overdrive a good tube amp. The volume control is a logarithmic or ‘volume’ taper, which means that when the control is set to 12 noon, the volume is only 15% of the way up, so there’s plenty of volume up your sleeve should you need it.

Also, the amount of output volume is dependent on the clipping structure selected via the two toggle switches. Selecting SILICON (both) will have the lowest output whereas selecting NONE (both) will have the highest.