

**THE GIGRIG.COM**



# UNDERLINER & UNDERLINER F/S MANUAL

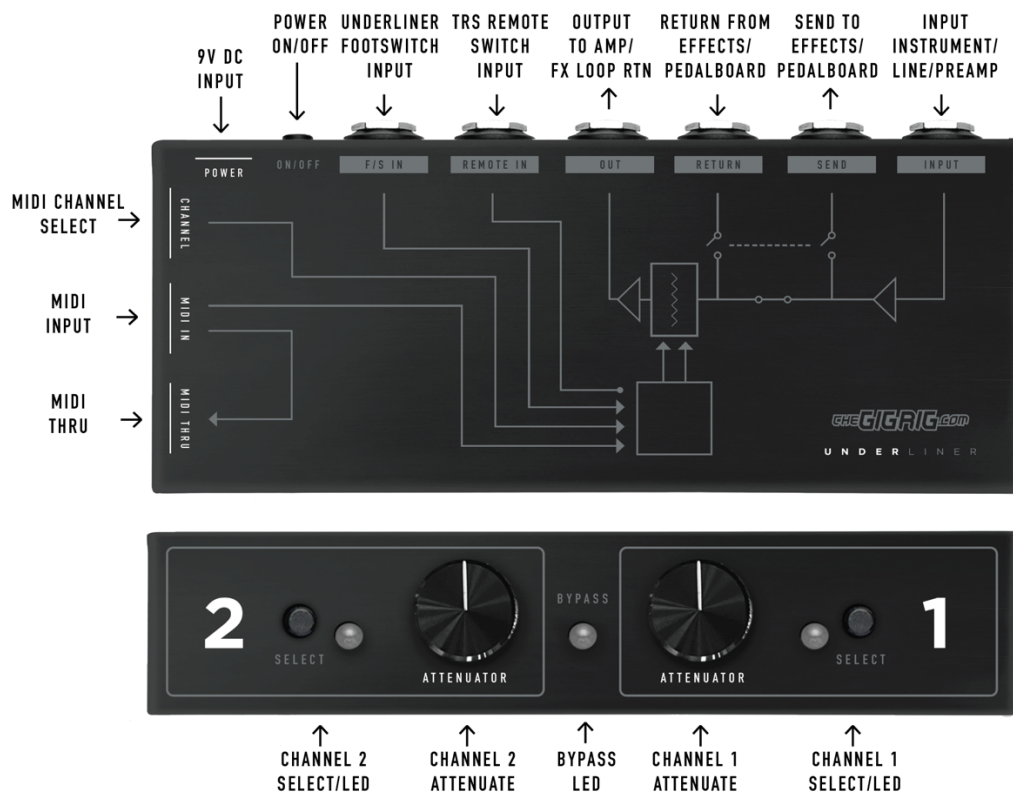
## TheGigRig UnderLiner and UnderLiner FS

TheGigRig UnderLiner is a line/instrument level attenuation device designed to give you two extra switchable and MIDI accessible master volumes. The UnderLiner utilises the extra power in your amp for the moments you need to be louder. Instead of boosting into the front of your amp which can change your gain structure, you can set your maximum volume from your amp, a solo tone for example, and then have access to 2 attenuated levels for when you need your overall level to be reduced.

**PLEASE NOTE – The UnderLiner is for line/instrument signal levels. It is NOT a power amp attenuator or speaker load device. DO NOT connect this to the speaker out of your amp or you may damage your amplifier.**

The UnderLiner also includes a purpose designed buffered effects loop giving you consistent low impedance signal from the fx send of your amp to the effects you'd like placed in the effects loop.

The UnderLiner has been designed to sit on top of your amp, connecting to the amp's fx loop with short patch cables but can also sit in anywhere in your signal chain giving you 2 extra master volumes.



The UnderLiner FootSwitch (F/S) is designed to control the UnderLiner from your pedalboard. Connecting a standard TRS cable from the F/S OUT to the UnderLiner's F/S IN not only allows you to switch the UnderLiner channels from your pedalboard but will also power your UnderLiner so there's no need for a separate supply back at the amp.



The UnderLiner F/S also includes a REMOTE IN so you can operate the UnderLiner from your G2/G3/G3 Atom, or any other latching switch. This means that you can program the UnderLiner as part of a preset.

## UnderLiner Connections

- INPUT:** The main signal input. Connect the 'SEND' from your amps' FX LOOP to this input
- SEND:** Connect any effects you want after your input signal, in the FX LOOP of your amp, e.g., reverbs and delays
- RETURN:** Connect the output of the effects you want in your AMP FX LOOP effects here
- OUT:** The main output signal. Connect this to your amps FX LOOP RETURN
- REMOTE IN:** You can remotely switch the UnderLiner by using any dual latching switch including G3's remote switches. This is a TRS connection
- F/S IN:** This connection is specifically for the UnderLiner FootSwitch. Powering the UnderLiner F/S from your pedalboard will also power the UnderLiner via the TRS cable
- ON/OFF:** Switches the UnderLiner On/Off
- POWER:** 9V Centre Neg 2.1 mm connection @ 150mA. Please note, if you are powering your UnderLiner via the UnderLiner F/S you don't need to connect power directly to the UnderLiner
- CHANNEL:** Selects the MIDI input channel from 1 to 16
- MIDI IN:** Receives MIDI signal via standard 5 pin din
- MIDI OUT:** Reflects the MIDI IN signal directly through

## UnderLiner F/S Connections

- POWER:** 9V Centre Neg 2.1 mm connection @ 150mA. This will also power your UnderLiner via the TRS cable
- F/S OUT:** Connects to the F/S IN on the UnderLiner
- REMOTE IN:** You can switch the UnderLiner channels using this remote input, works perfectly with TheGigRig G3 Remote Switches. Simply connect a TRS cable from G3's Remote Switch out to the UnderLiner F/S's Remote In and you can program the UnderLiner channels as part of your preset
- F/S OUT:** Connects to the F/S IN on the UnderLiner
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## In Operation

You have two separate levels of attenuation that you can select and set on the UnderLiner front panel by pressing CHANNEL SELECT to select the channel, then set the level of attenuation. Pressing the SELECT button again will send the unit to BYPASS, so you have 1 press access to all 3 states. Once you have set your levels you can access them either via MIDI, remote switch, the UnderLiner F/S, or the front panel.

## MIDI

The UnderLiner MIDI protocol is very simple

\* Set your desired MIDI input channel using the channel select rotary encoder. 1= channel 1, 2= channel 2, etc. A= channel 10, B= channel 11, C= channel 12, D= channel 13, E= channel 14, F= channel 15, 0= channel 16

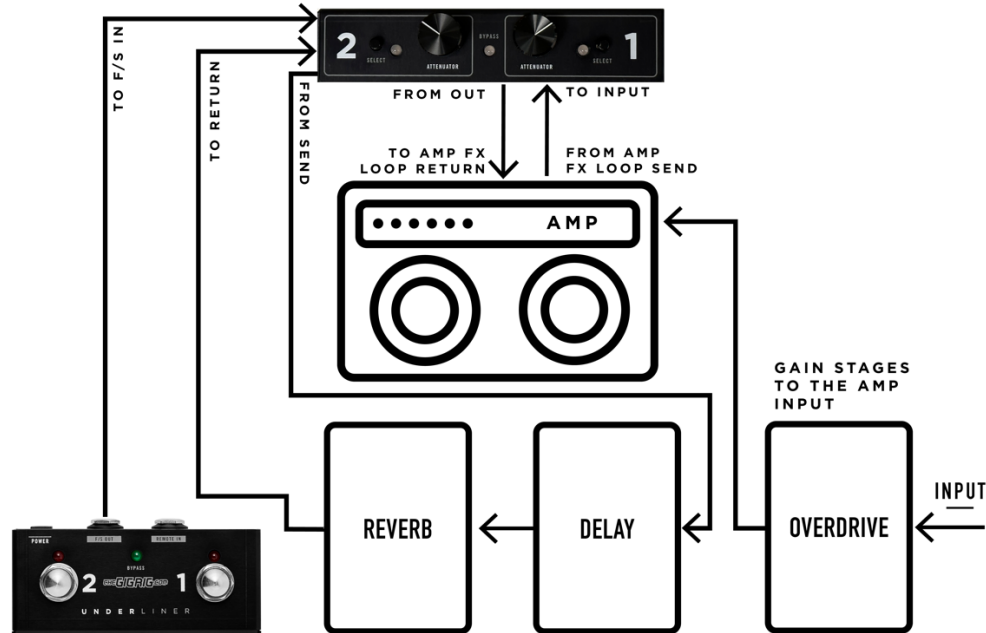
\* Send the UnderLiner the desired MIDI message

PCM 1 = UnderLiner Channel 1
PCM 2 = UnderLiner Channel 2
PCM 3 = UnderLiner Bypass

## SET UP EXAMPLES

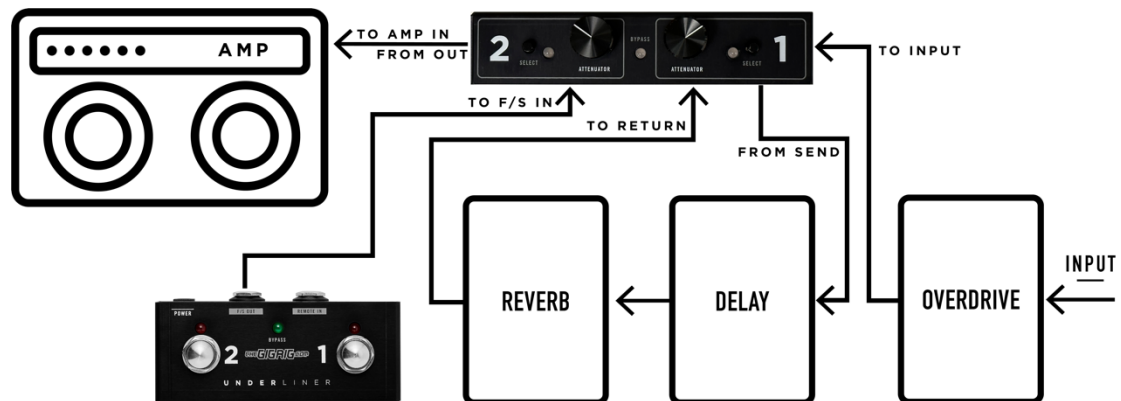
### Set Up Example 1 – Amps FX Loop

The most common set up for the UnderLiner is in an amps fx loop



In this example the overdrive pedal is plugged directly into the front of the amp. The overdrive could be a boost, or any other pedal that you prefer in the front of the pre-amp. The idea here is that we're getting the gain/distortion we need from the amps' pre-amp or by boosting into the pre-amp. From there the UnderLiner is connected to the amps fx loop with delay and reverb in the loop of the UnderLiner.

### Set Up Example 2 – Giving Your Overdrive 2 Extra Master Volumes

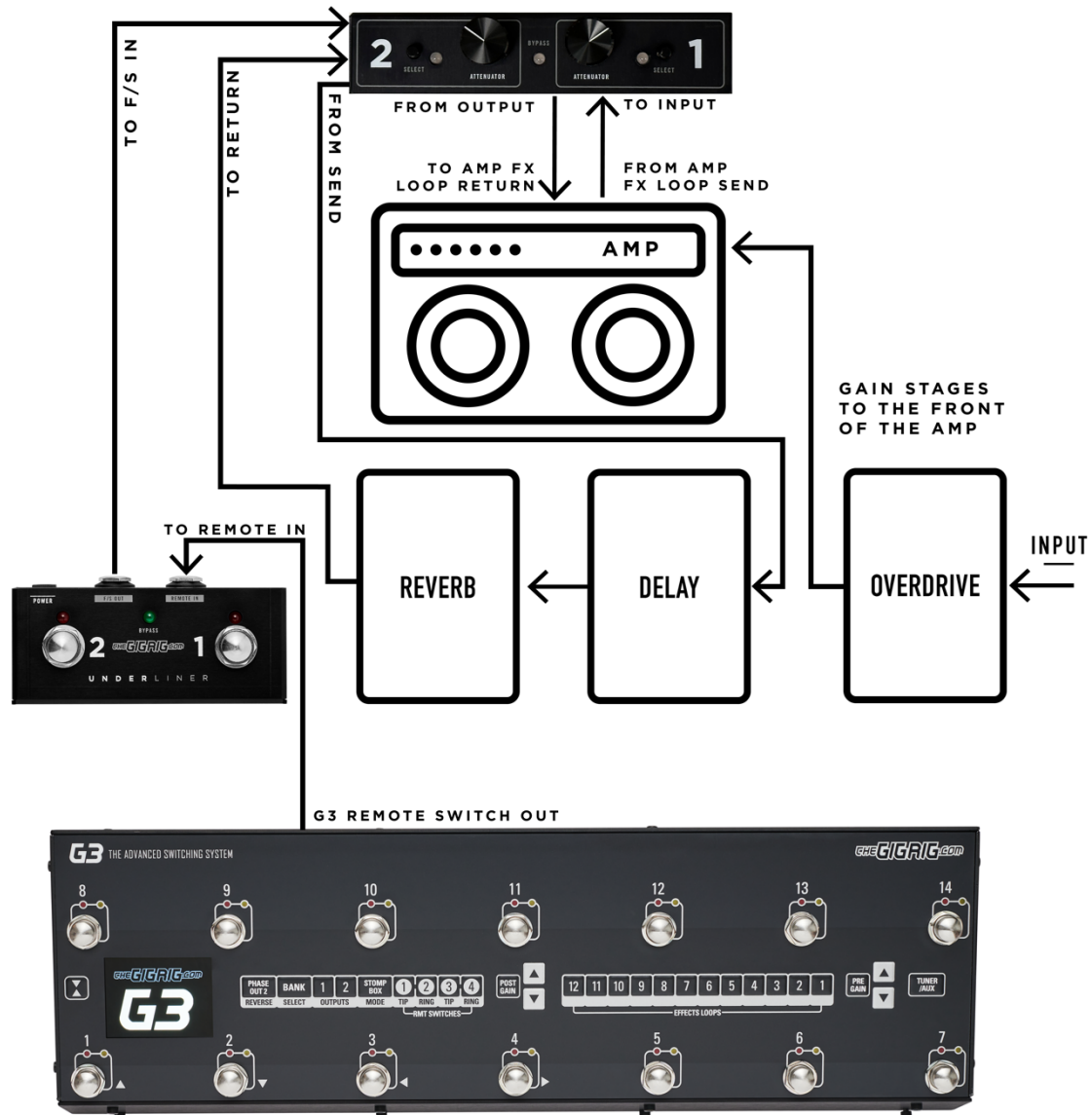


In this example we are using the UnderLiner to give an overdrive pedal 2 extra volume controls.

One advantage of the UnderLiner regardless of if it's used with a pre-amp or an OD is that the level going to the delay and reverb is consistent. Imagine if you had a louder pedal for a boost placed after your overdrive, the level into the delay and reverb increase, changing the gain structure. Used like this, the overdrive is set to the maximum level you need for louder sections in songs, then the other two attenuated levels set on the UnderLiner. No matter what state the UnderLiner is in, channel 1, 2 or bypass, the level going to the delay and reverb is the same.

### Set Up Example 3 – Connecting UnderLiner To G3/Atom/G2

You can program the UnderLiner to work with G3/Atom or any TRS remote switch by connecting the TRS Remote Switch Out from G3 to the REMOTE IN on the UnderLiner F/S.



## FAQ's

### Is it True-Bypass?

No, the circuitry in the UnderLiner is always active.

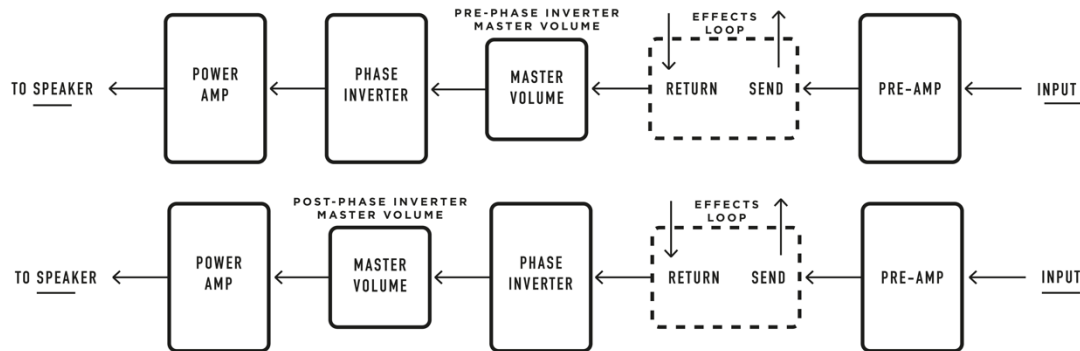
### Why should it sit on my amp?

Many great sounding amps have simple effects loops that have a higher than desirable impedance on the send. This means they are susceptible to tone loss from long cable runs. Having the UnderLiner on your amp means you're only using a short patch lead to go from your amp to the input of the UnderLiner, and from there the UnderLiner FX Loop sends a low impedance signal which can drive extremely long cables with no tone loss.

### Will it work with every amp's fx loop?

The UnderLiner is extremely high headroom, around 35V peak to peak, so will handle even the beefiest preamp signal. One thing to be aware of is how your amplifier is producing its gain/overdrive character. In many valve amps, the overdrive tone is produced in the pre-amp section before it hits the phase inverter. This signal is then

sent to the amps' FX loop followed by the master volume sat in line before the phase inverter. From there the phase inverter feeds the power amp section. In these amps the UnderLiner will simply change the return signal level on the amps fx loop giving you two extra master volumes but the distortion level will stay consistent.



In some amps the overdrive is created by slamming the signal from the pre-amp into the phase inverter valve. In this scenario the UnderLiner will give you the option to reduce the signal driving the phase inverter giving you less distortion. The UnderLiner can give you 2 extra attenuated levels on top of the amps max gain level.

### Thank You

By buying this GigRig product you are supporting a small team of ridiculously talented engineers, tech advisers, production heroes, admin legends and their families. If you need anything please contact us through our support page at [thegigrig.com/support](http://thegigrig.com/support) and don't forget to check out our YouTube channel for more info.

### Technical Specifications:

- Input Impedance: 680K Ohm
- Output Impedance: 100 Ohm
- Send Impedance; 100 Ohm
- Return Impedance: 680K Ohm
- Current Draw Main Unit: 150mA
- Current Draw Main Unit & Footswitch: 200mA
- Input Voltage. 9V DC 2.1mm centre negative
- Input is reverse diode protected
- Safety: The GigRig UnderLiner & UnderLiner FS are is designed for indoor use only - Don't get them wet

### Warranty:

The GigRig warrants the product to be free from defects in material and workmanship for a period of 2 years from the original date of purchase. If the product fails within the warranty period, The GigRig will repair or, at our discretion, replace the product and cover the cost of return shipping to the original purchaser. This warranty covers defects in manufacturing discovered while using this product as recommended by The GigRig. This warranty does not cover loss or theft, nor does the coverage extend to damage caused by misuse, abuse, unauthorized modification, improper storage, lightning, or natural disasters. Damage caused by any of the above circumstances may result in a non-warranty repair fee

### Legal:

In the case of malfunction, the purchaser's sole recourse shall be repair or replacement, as described in the preceding paragraphs. The GigRig will not be held liable to any party for damages that result from the failure of this product. Damages excluded include, but are not limited to, the following: lost profits, lost savings, damage to other equipment, and incidental or consequential damages arising from the use, or inability to use this product. In no event will The GigRig be liable for more than the amount of the purchase price, not to exceed the current retail price of the product. The GigRig disclaims any other warranties, express or implied. By using the product, the user accepts all terms herein.

### Disposal:

Return the unit to The GigRig Ltd for disposal or use standard disposal for electrical equipment recommended in your country



Approved. Fully compliant with the RoHS√ standard.