



# Missing Link MkII

Thanks for purchasing the Missing Link MkII, a multi function studio tool, containing both an Instrument DI and re-amping interface.

The Missing Link MkII allows simultaneous use of the DI section and the re-amping section. Through provision of a single dual function '*level control*', the gain of the DI is matched by the attenuation of the re-amp.

The DI offers a true high impedance input suitable for electric guitar and bass and is also suitable for use with effect pedal outputs, keyboards and other unbalanced instrument sources. *Counterclockwise* rotation of the control knob *increases* the gain of the DI. For DI operation connection of a suitable power source or plug pack is required. (see below)

The re-amp converts a balanced line level source, such as the output from a console or DAW D-A converter into an unbalanced instrument level signal suitable for connection to a guitar amplifier or guitar effect pedals. *Clockwise* rotation of the control knob *increases* the output level of the re-amp.

## DI

The DI takes its input from either of the two 6.35mm unbalanced sockets. The second 6.35mm socket serves as a *split* of the input signal and can be routed to an amplifier input or another DI. To operate as a DI the Missing Link MkII is required to be powered from any 12 to 16 volt AC or DC plug pack. The powering requirements are 'bullet proof'; AC or DC plug packs are all acceptable with either connector polarity and all will enable powering of the DI section. If you are choosing a suitable plug pack, the optimum choice is a 12V AC plug pack of 100mA or greater.

### Some notes about DI operation

- Both 6.35mm sockets are simply connected in parallel; either can be used as an input and the other as a split, to perhaps a guitar amplifier, effects pedal or another DI.
- The level control provides a gain range of +6 to +30dB. Gain is increased as the control is rotated counterclockwise.
- The XLRM is the DI output and is transformer balanced. The ground lift switch separates the ground (pin 1) of the XLR output from the ground of the 6.35mm input sockets enabling the elimination of any earth loop hum issues.

## Re-amp

The re-amp translates a high level balanced signal to an unbalanced instrument level signal, suitable for connection to a guitar amplifier or guitar effects pedals. Operation in this mode is completely passive, requiring no power source.

The level control sets the output level of the interface, with a clockwise rotation increasing the output level of the re-amp and can be used to match the output of the Missing Link MkII to that obtained directly from a guitar or bass. Operational set up will often include connecting a guitar to an amplifier, setting up your amplifier volume, then replacing the guitar with the Missing Link MkII connected to your recording system output and using the level control to match the amplifier volume.

### Some notes about operation in re-amp mode

- The XLRF is the re-amp input and is transformer balanced. The ground lift switch separates the ground (pin 1) of the XLR input from the ground of the 6.35mm output socket enabling the elimination of any earth loop hum issues.
- The Missing Link re-amp will work with an unbalanced input!

## Now for the cool stuff! :

The Missing Link MkII allows simultaneous re-amping and DI-ing and as the gain is controlled for *both* sections from a single *level control* some unique applications are possible.

### Use of line level balanced processors in guitar effects loops ( setup 1)

Connect the guitar to the DI input and the DI output to the line input of a line level processor, say an equaliser, reverb or compressor. Use the *level control* to set the correct signal level for the line level processor. Take the output of the line level processor to the input of the re-amp section of the Missing Link MkII and then the re-amp output off to either another guitar pedal or straight to the guitar amp. The gain provided by the DI to drive the line level outboard will be compensated by the attenuation of the re-amp, ensuring that the original signal level from the guitar is preserved through to the guitar amp input.

### **Use of instrument level effects ( pedals ) with line level equipment ( setup 2 )**

Connect the line level output (aux or FX send of a console or output of a DAW converter) to the input of the re-amp and the re-amp output to the input of the pedal. Use the *level control* to set the correct signal level for the pedal. Take the output of the pedal to the DI input of the Missing Link MkII and then the output of the DI returning to a line input of the console or DAW converter input. The attenuation of the re-amp set to correctly drive the pedal will be compensated by the gain of the DI, ensuring that the original line signal level from and returning to the console or DAW is preserved.

#### *Some notes about this dual operation*

- A typical operational position of the *level control* is around 12 o'clock to translate an instrument level signal to line level or visa versa. This is good starting point for setting the required gain.
- Obtaining overall unity gain though these setups assumes that the outboard itself used in setup 1 operates at unity gain and that the pedal used in setup 2 also operates at unity gain. In practice some gain adjustment on the individual devices may be required.
- The ground lift switch separates the grounds ( pins 1 ) of both the XLRs from the grounds of the 6.35mm sockets, enabling the elimination of any earth loop hum issues.
- Since the DI section is being used in these setups, plug pack powering is required.
- Setup 1 is also a great working setup for tracking instrument parts. Replace the outboard processor with your recorder or DAW inputs and outputs and you can record DI-ed instruments whilst monitoring them through an amp, then immediately replay the recordings back through the amp for experimentation with amp settings, mic choice and placement.

