Sound Skulptor DI503J User manual

Installation

The lunchbox (or rack) hosting the DI503J must be installed in a well ventilated area. Tube circuits produce heat. Do not omit the 2 fixing screws on the module front plate before moving. The weight could put too much pressure on the back connector. Avoid placing the unit near an electromagnetic radiating source such as another device with a power supply transformer. The DI503J could pick up 60Hz noise.

Connections

The DI503J is connected to the rear female XLR for the audio source and to the rear male XLR for output.
Pin 1 = Ground, Pin 2 = Hot, Pin 3 = Cold.

DI Mode: FET / PASSIVE / TUBE (1)

The DI503J has 3 possible audio paths:

Passive: The instrument signal is routed through a premium quality Jensen transformer, the JT-DB-EPC which lowers the impedance allowing long wires to the preamp. The input impedance seen by the instrument is around 300 kilo-ohms.

FET: The instrument signal is buffered by a very high impedance FET stage before going to the Jensen transformer. The input impedance seen by the instrument is around 3.2 megohms.

Tube: The instrument signal is buffered by a tube stage before going to the Jensen transformer. The input impedance seen by the instrument is around 1.5 megohms.

DIST (2)

The DIST switch removes the feedback on the tube which increases the character of the sound with second order distortion. The added distortion depends directly on the instrument level.

POL (3)

The POL switch reverses the polarity of the instrument signal. Useful when the DI signal is combined with a miked signal.

PREAMP (4) (5)

The PREAMP-ON switch activates an inbuilt, ultra low noise, low distortion, preamplifier after the Jensen transformer, eliminating the need for an external preamp. The gain is set by the potentiometer from +8 to +60dB.

LIFT (6)

This switch is a ground lift. It disconnects the instrument ground from the lunchbox ground which can be useful in case of hum loops. It works for both the DI and the Re-Amp but is only available in the passive mode for the DI.

RE-AMP (7) (8)

The Re-Amp-ON switch activates the Re-amp function. It disconnects the OUT jack from the INSTRUMENT jack and connects it to the Lunchbox input XLR via a line transformer and the LEVEL potentiometer.

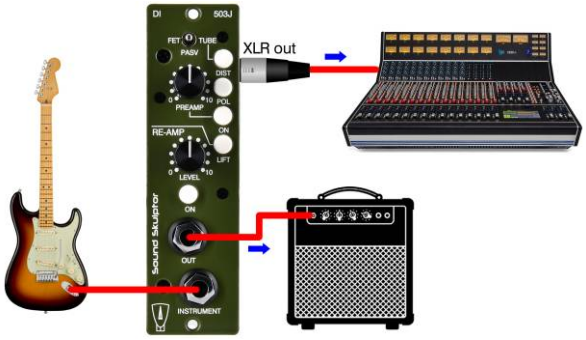
OUT (9)

The OUT jack socket is a through connection for the instrument when the Re-Amp ON switch is off.
It is the Re-Amp output when the Re-Amp ON switch is on.

INSTRUMENT (10)

The INSTRUMENT jack socket is the input of the DI.

DI503J Applications



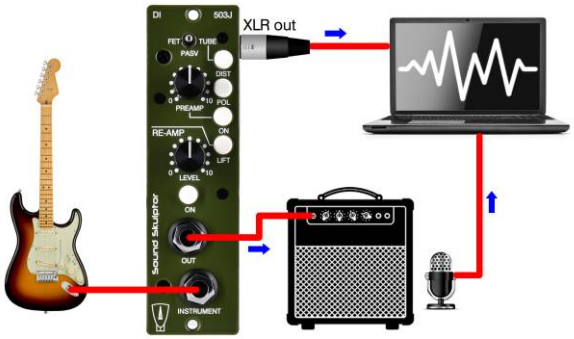
1. Live setup

The DI XLR output goes to the PA system. It may go to a microphone input or to a line input if the PREAMP switch is activated.

The through OUT is used to connect to an amp.

The POL switch can be used if there is a phase issue between the PA and the amp.

The LIFT switch can be used if there is a hum loop issue.

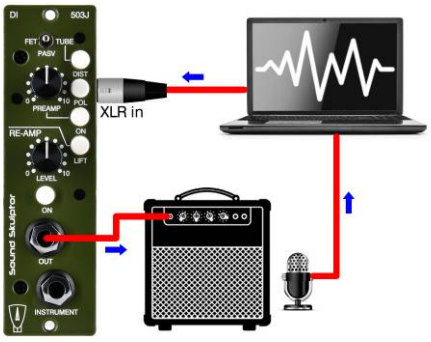


2. Studio setup

The DI XLR output goes to the DAW input converters. It may go through a preamp if some sound character is looked after.

The through OUT is used to connect to an amp which can be miked.

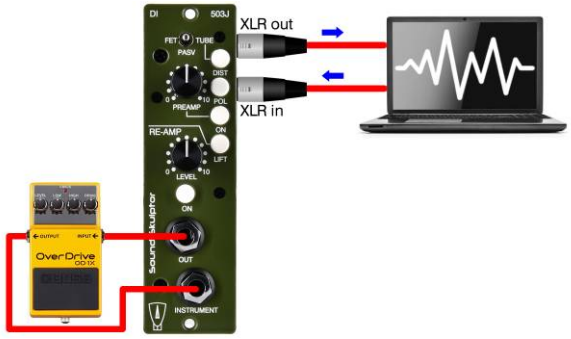
The POL switch can be used if there is a phase issue between the monitors and the amp.



3. Re-amp setup

The DI XLR input goes to the DAW output converters.

The OUT is used to connect to the amp which is miked.

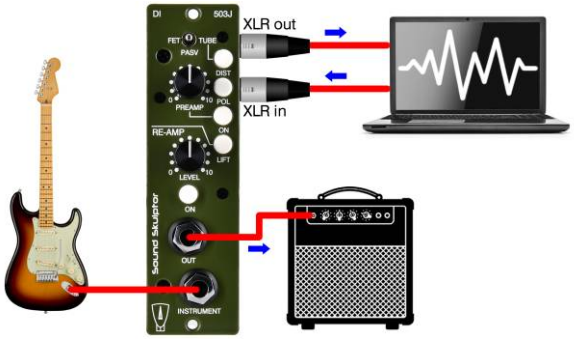


4. Effect loop at mixdown

The DI XLR input goes to the DAW output converters.

The DI XLR output goes to the DAW input converters.

The effect pedal is connected between OUT and INSTRUMENT.



5. Effect loop for instrument

The DI XLR input goes to the DAW output converters.

The DI XLR output goes to the DAW input converters.

The computer is used for adding digital effects to the instrument.