



User manual for the Sound Skulptor preamplifiers



1. Installation

The preamp must be installed in a well ventilated area. The class A circuits are known to produce heat. If you install the preamp in a rack, leave some space above and below.

Avoid racking the mic pre next to a device that may radiate electromagnetic fields, such as another box with a power transformer. It may induce hum noise in the preamplifier circuits.

The external power supply also generates heat and must be placed in a ventilated area. The PLS2 can get very hot when it powers 12 preamp boards.

2. PSL1 power supply

Check that the external voltage selector is correctly set

The externally accessible fuse must be matched to the mains voltage : 0.63A slow blow for 230V and 1.25A slow blow for 115V.

Warning : If you open the PSL1 case, you will have to re-fill the openings between heatsinks and case with thermal compound, before closing. The regulators cooling is done through the box.



3. PSL2 power supply

If you need to access the voltage selector switch, disconnect the power cord, then open the top cover, by removing 4 screws. The voltage selector switch is located near the front panel.

The externally accessible fuse is located on the IEC inlet connector. It must be matched to the mains voltage : 1.6A slow blow for 230V and 3.15A slow blow for 115V.



4. Connections

Connect the power supply cable (5 pins XLR) between PSU and micpre. Then connect the mains power cable to the PSU.

Every preamp has a female XLR for the microphone input and a male XLR for output. The XLR pinout is as follows :

- Pin 1 : Ground
- Pin 2 : + Signal



Pin 3 : - Signal

Two Direct Instrument, high impedance, inputs are available. They are internally wired to two preamps which are identified by colour pads. The DI/Preamp routing is made by flat cable connectors and can be changed without soldering. It needs opening the box and remapping the cables.

5. Powering

The 3 LEDs, red, green and yellow on the power supply must light up. If one of the LEDs does not light up, or is too bright, or not bright enough, immediately cut off power and find out the problem.

6. MP73



LEVEL IN : Adjusts the signal level after the input transformer or after the first stage when activated. To get the best signal to noise ratio, LEVEL IN should be set as close as possible to "10".

GAIN : Le gain switch has 3 positions.

HI : Gain 70dB

LO : Gain 40dB

MID : Gain 55dB

The HI position activates the first stage which adds 30dB of gain. The other two positions change the second stage gain.

LED : When green, the LED gives feedback about the preamp activity, when red, it is a clipping indicator. It is driven in parallel by the 3 stages. If you want to know which stage is clipping you must :

Lower LEVEL OUT : If the LED turns green then clipping occurs in stage 3.

if not, lower LEVEL IN : If the LED turns green then clipping occurs in stage 2.

if not, clipping occurs in stage 1.

Ø : Reverses phase in the low position.

48V : Activates phantom power in the low position, for static microphones. Do not forget to lower LEVEL OUT, or mute monitoring before switching.

LEVEL OUT : Acts as a console fader. This potentiometer adjusts the signal level immediately before the third stage. It allows complete signal muting.

Gain setting : Start by setting LEVEL OUT at "2 o'clock" (0dB position). Then find out the gain switch setting that allows LEVEL IN to be the closest to "10", without clipping. If LEVEL IN is below "6", switch to a lower gain. Finally you should adjust LEVEL OUT to suit your AD converter or whatever gear is next in your chain.



7. MP12



GAIN (potentiometer) : Adjusts the preamplifier gain.

GAIN (switch) :

- HI : maximum gain
- MID : medium gain
- PAD : minimum gain

The HI and MID positions simply switch between two potentiometer values. The PAD position inserts a -20dB attenuator on the input, before the transformer.

LED : When green, the LED gives feedback about the preamp activity, when red, it is a clipping indicator.

Ø : Reverses phase in the low position.

48V : Activates phantom power in the low position, for static microphones. Do not forget to lower GAIN, or mute monitoring before switching.

OUTPUT PAD : It is a passive, symmetrical, -18dB attenuator, inserted after the output transformer. This pad is generally set to "10" (inactive). It can be useful when the preamp has too much gain for the converters, with a hot snare microphone for instance. It can also be useful when you want to push the preamp into clipping for special effects. In this case, the output level is much too high for most converters and must be padded.

8. MP32



GAIN (potentiometer) : Adjusts the preamplifier gain.

GAIN (switch) :

- HI : maximum gain
- LOW : minimum gain

The HI and LOW positions simply switch between two potentiometer values.

LED : When green the LED gives feedback about preamp activity, and when red, it is a clipping indicator.

Ø : Reverses phase in the low position.

48V : Activates phantom power in the low position, for static microphones. Do not forget to lower GAIN, or mute monitoring before switching.



9. MP66



GAIN (potentiometer) : Adjusts the preamplifier gain. It is actually a level control potentiometer and the best signal to noise ratios will be obtained when it is closer to 10.

GAIN (switch) :

- HI : maximum gain (2 gain stages)
- MID : medium gain (1 gain stage)
- PAD : minimum gain (1 gain stage)

The HI position adds an amplification stage into the circuit. The PAD position inserts a -20dB attenuator on the input, before the transformer.

LED : When green, the LED gives feedback about the preamp activity, when red, it is a clipping indicator. It is driven in parallel by the optional first stage and the second stage. If you want to know which stage is clipping you must lower the GAIN potentiometer. If the LED stays red then clipping occurs in stage 1. Switch to MID GAIN.

HI PASS : This is a 2 frequencies 6dB/octave high pass (or low cut) filter. Its action is very smooth and can be used to remove unwanted very low frequencies from the signal.

- Top position : bypassed
- 100Hz : Cuts 5 dB at 100 Hz. The actual -3dB cut frequency is 160 Hz.
- 50Hz : Cuts 5 dB at 50 Hz. The actual -3dB cut frequency is 80 Hz.

AIR Equalizer :

- (+) : adds 3dB at 12 kHz
- (-) : cuts 3dB at 12 kHz

This is often all that is needed to turn a dull microphone into a detailed one or a harsh microphone into a smooth one.

Ø : Reverses phase in the low position.

48V : Activates phantom power in the low position, for static microphones. Do not forget to lower GAIN, or mute monitoring before switching.

OUTPUT PAD : It is a passive attenuator. This pad is generally set to "10" (inactive). It is useful when you want to push the preamp into tube saturation for special effects. In this case, the output level is much too high for most converters and must be attenuated.

10. DI inputs

The switching of the DI signal to the associated preamp is made automatically by a relay when a jack plug is inserted. All the preamp settings modify the DI signal.