

# PURE XLR PREAMP



Thank you for choosing the Pure XLR Preamp. This preamp is handcrafted in USA to extremely low noise specifications with excellent clarity and warm EQ.

It is especially suited to complement the K&K Pure pickup line, but due to it's adjustable input gain and wide frequency range it features outstanding results with all piezo based and magnetic pickups.

**Front:**



**Back:**



The Pure XLR Preamp operates on 12–48 volt Phantom Power or 9-volt battery. The LED light on the front-panel indicates if phantom power is present. In order to save battery life it will **not** light when the unit is running on battery power.

With phantom power, the battery will not be drained as long as the phantom power provides more than 10 volt.

## Changing the Battery

To insert and change the battery, open the 2 screws on the sides of the unit, remove the lid, connect a new 9-volt battery to the battery clip and place it in the marked compartment. The unit is delivered without a battery.

## UNPLUG THE INPUT CABLE IN ORDER TO SWITCH OFF THE BATTERY!

## Adjustable Gain Control

Gain and volume both have an effect on the output volume of the preamp, but they accomplish different tasks.

The gain (also called input gain or sensitivity control) is located at the INPUT of the circuit. It sets the amount of pre-amplification before the signal enters the EQ section, DI etc. The volume control is located at the OUTPUT (the very end of the circuit) and simply allows you to adjust the volume.

It is very important to properly set the gain control to fit the instrument you are using. An instrument with a high output signal will require a lot less gain than one with a weaker output.

To set the gain correctly, you have to connect your instrument to the Pure XLR Preamp and to your amplification system.

Start with the gain at low (counterclockwise/left) setting. The volume control on the Pure XLR Preamp has to be set to fully clockwise/right and the EQ should be about centered at this point. Adjust the volume at the amp until you hear a fairly low volume signal.

Now, play your instrument in your loudest dynamic range (play it hard) and slowly turn the gain up until distortion just begins to occur. Now back the gain off a little bit until the signal is clear again. This is the correct gain setting for this instrument.

Please keep in mind that excessive EQ boost applied after the initial gain setting procedure may introduce distortion, in this case you have to reduce the gain a little bit.

## Phase Switch

Phase switches are usually marketed as a feedback-controlling device, but they accomplish more than just that.

What is phase? Phase determines at what point in time a sound wave has it's peak or bottom.



This picture shows two simple (identical) sine waves, but the wave on the bottom (2) is inverted in respect to the wave on top (1). Interestingly enough, if these 2 waves were played back simultaneously, they would cancel each other out and no sound be heard.



Amplification systems and any foot pedal or effect unit may or may not invert the phase with respect to the signal sent in. In most cases the manufacturers do not specify.

Every acoustic instrument projects (acoustic) sound waves in a certain phase. The phase that is projected from the amplified speaker source needs to be "in phase" (not inverted) with the acoustic instruments' own sound waves or the result will not be optimal. If the amp projects the inverted phase, the acoustic instrument will fight its own sound and balanced tone cannot develop. Round and warm tone is only achieved when acoustic and amplified sound oscillate in the same phase.

The Pure XLR Preamp's phase switch allows for instant correction of this problem. Play your instrument and flip the phase switch back and fourth. You will experience a fuller and warmer tone one way or the other.

## Outputs

The active DI XLR output and the line output can be used simultaneously. This way, the 1/4" line out can be used as a monitor out or for connecting to a tuner while the unit is connected to the PA via the XLR out. You can, of course, use each output individually.

## EQ and Other Specifications

The Pure XLR Preamp features strong +/-20 db bass, mid, and treble controls. The special super-wide-band midrange filter is absolutely great in combination with the Pure pickups. The bass control is set to roll of at 100Hz, the midrange at 1.5kHz with extra large bandwidth and the treble are set at 10kHz. Input impedance is 1 meg. Output impedance on balanced XLR and 1/4" line out is 100 Ohm. Frequency response is 30 -30000 Hz.