



XLQ 3-Band Preamp & Direct Box Owner's Guide

*Congratulations. You are one smart and lucky musician. You've chosen the **XLQ Preamp & Direct Box** from Vermont-based DeMars Guitars. This quality unit has been handcrafted to the tightest manufacturing tolerances here in the United States, producing excellent clarity and finely-adjustable EQ to be used with stringed instruments equipped with either piezo pickups or magnetic pickups.*

POWER

The **XLQ** operates on either phantom power (12 to 48 volts) or an internal 9 volt battery. A small LED (labeled "PP") adjacent to the **VOLUME** control glows when phantom power is applied. The battery will not drain as long as the phantom power provides 10 volts or more. The battery will drain whenever an instrument is plugged into the input jack, so unplug the unit when not in use. To gain access to the battery housing, simply unscrew the 2 screws on the sides of the unit and remove the lid.

ADJUSTABLE TRIM

Think about the channel layout of a typical mixing board. The **TRIM** (or "gain") pot on the top of each channel is responsible for bringing the incoming signal to a level comparable to that of other channels, ensuring low noise and high headroom and allowing the fader to operate optimally. We've done the same here with our **TRIM** control. This also makes the **XLQ** useful for instruments with different output levels like passive magnetic or piezo pickups, active magnetic or passive piezo pickups/preamps and even line-level instruments like synthesizers or computer sound cards. Like a mixer channel, the **XLQ's TRIM** is at the front of the circuit, setting the amount of pre-amplification before the signal enters the EQ section.

3-BAND EQ

The **XLQ** features sensitive equalization controls, applying 20db of cut/boost for **BASS**, **MIDDLE** and **TREBLE** frequency bands; EQ center points are 100Hz, 1.5kHz and 10kHz, respectively. The **MIDDLE** band is centered slightly higher than most EQ units, but also has a wider bandwidth than most EQs. The sensitivity and adjustability of this wider-than-typical midrange are especially applicable for instruments like acoustic guitars and bass guitars that benefit from a sweetened midrange.

VOLUME

Like the fader on any channel of a mixer, the **XLQ's VOLUME** control is located post-EQ in the circuit and simply permits you to smoothly lower or raise the volume as you desire.

OUTPUTS

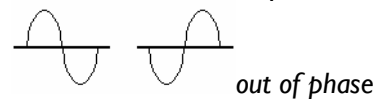
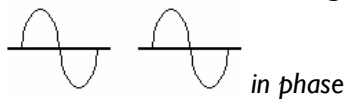
The active XLR output and the 1/4" line output can be used simultaneously. The XLR signal can be run straight to the board, and the 1/4" output to an onstage amp/monitor system or to a tuner.

PROPER LEVEL SETTING

Both the TRIM and VOLUME controls have a marked effect on the output of the **XLQ**. High-output instruments (e.g., active pickups) require a lower TRIM level than do low-output instruments. To set the TRIM correctly, connect the **XLQ** between your instrument and your amplification system. Set the BASS, MIDDLE and TREBLE EQ controls of the **XLQ** at their midpoints ("flat"). Set the TRIM control to zero and raise the VOLUME control to full. While playing your instrument, raise the volume of your amplification system until you hear a low volume signal. Now play your instrument in your loudest dynamic range. Slowly raise the TRIM control until distortion is detected. Back the TRIM off *just a bit* until the signal clears and then turn the VOLUME control back to about $\frac{3}{4}$. This setting should provide a clear signal with optimal low noise and sufficient sonic headroom.

PHASE

Phase switches are typically marketed as feedback-controlling features, but they do a lot more than just that. Why is phase so important? Let's go back to Physics 101: every acoustic instrument (i.e., one that "pushes air" whether it be a guitar or trumpet or piano) projects sound waves in a certain phase. If it is also amplified by an external source (amp or PA) the instrument's sound waves should be in phase with those produced by the amplification system. If the amplification system projects the inverted phase, the acoustic instrument will fight its own sound, making it nearly impossible to produce a balanced and even tone for the audience to enjoy. The **XLQ's** PHASE switch assures proper phase alignment between the acoustic source and the amplified sound.

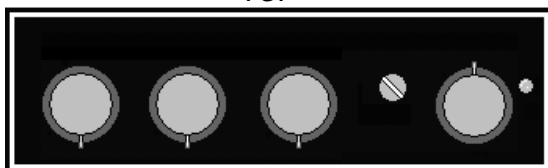


If you're using your **XLQ** with a DeMars Guitars instrument, the point is essentially moot, since our instruments do not "push air" and can only be played with external amplification. In our case, use the PHASE switch as a "sweetener"; use the setting that sounds best to the ears of your audience and you.

SPECIFICATIONS

Input impedance: 1 meg Ω
Output impedance: XLR (balanced) and $\frac{1}{4}$ " : 100 Ω
Overall frequency response: 30 – 30,000 Hz
Frequency cut/boost: ± 20 db; EQ midpoints: 100Hz, 1.5kHz, 10kHz
Dimensions: 5.0" x 3.5" x 1.0" (127mm x 89mm x 25mm)
Power: 9V battery (internal) or phantom power (12 - 48V)

TOP



BASS MIDDLE TREBLE TRIM VOLUME
PP

BOTTOM



INPUT PHASE
 $\frac{1}{4}$ " OUTPUT XLR OUTPUT

All specifications subject to change. Rev 07/07

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