

by Myriad Design

Altoids Piezo Preamp

(SKU SV802) User Guide V1.0 – May 2017

Thank you for purchasing the Altoids Piezo Preamp.

Please note that the preamp is built into a genuine used Altoids^{*} tin and the tin will likely not be in perfect condition. Please expect small scuffs and dents and minor damage to the paint finish. Such imperfections are not to be considered manufacturing defects of the Piezo Preamp and are not cause for product returns.

The preamp is designed to buffer the output of high impedance piezo transducers as typically used for stringed instruments (such as violins, cellos, basses, dulcimers, etc) and percussion instruments such as cajons and stomp-boxes. The preamp may also be used as a buffer for electric guitars to prevent loss of high-frequency tone down a long connecting cable. The preamp is professionally hand-built and the JFET transistors employed are very closely matched. The preamp has very low distortion and noise.

The output voltage of a piezo is comparatively large but its output impedance is very high. The preamp has unity voltage-gain and provides current-gain to lower the output impedance of the piezo to allow it to drive a significant length of cable without loss of high-frequency signal.

BATTERY

Before use, the unit must be opened using a cross-head screwdriver and fitted with a 9V battery. Any type of battery may be used (heavy-duty, alkaline, NiCd, NiMh or Lithium), but, as power consumption is extremely low, a disposable alkaline battery is recommended and will likely last years with moderate use. It is recommended that you do not remove the cover from the sticky foam pad - just fit the battery and sandwich the battery lead between battery and the lid. Friction will keep the battery from sliding about.

There is a red LED between the input and output connectors. The LED will illuminate when it is time to change the battery. Do not be alarmed if the LED lights during a performance - there will be enough charge left in the battery to get you to the end. However, the LED takes a comparatively large current, so you should change the battery at your earliest convenience. You may observe that the LED lights briefly when you remove the input connector (thereby disconnecting the battery).

CONNECTING THE CABLES

You may note when you open the unit that the connectors have three contacts. Nonetheless, you must use a mono (2-pole) jack plug in both the input and output connectors.

The preamp powers up when you plug a cable into the input jack. Disconnect the input cable when the preamp is not in use.

CONNECTING THE INPUT

Connect the piezo transducer or output of your instrument to the input of the preamp using as conventional 1/4" Jack guitar lead. This lead should be as short as comfortably possible.

CONNECTING THE OUTPUT

Connect the output of the preamp to the instrument or line input of a mixing desk, DAW or combo/amplifier instrument input using a conventional 1/4" Jack guitar. Alternatively, you can connect the preamp via one or more effects pedals. The preamp should be the first item in the effects chain.

TECHNICAL STUFF

The unit has an input impedance of about 10Meg Ohms. It has a voltage gain slightly less than unity. There are no input protection diodes fitted, so if you plan to use the unit for a hydrophone or other instrument which may be subject to mechanical shock creating high piezo voltages, you should consider fitting input protection. See http://stompville.co.uk/?p=879 for more details. The unit will function with a supply voltage between 4V and 24V d.c. The nominal current consumption is about 200uA, but if the supply voltage is less than about 7.3V, the LED will light and increase the current consumption to about 2.2mA.

WARRANTY

The Altoids Piezo Preamp is offered with a twelve month return-to-base warranty. Please contact sales@stompville.co.uk if you have a problem with your preamp. If the preamp is found to be defective due to a component or manufacturing defect, the preamp will be repaired or replaced (at the sole discretion of Myriad Design) and returned to you. In the event that the unit has suffered user damage or misuse, a repair may be offered at nominal cost plus return postage. Postage charges for return of the unit to Myriad Design will not be refunded. Your statutory rights in the United Kingdom are not affected.

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