

### PRODUCT MANUAL

# **PURE CLASSIC**

Thank you for buying the **Pure Classic** Transducer System for your guitar! The Pure Classic is a four-head piezo-ceramic transducer with endpin jack.

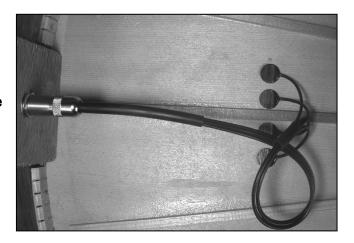
Please read through the complete instructions before beginning installation. This manual is written in great detail to help you install the Pure Classic for best possible performance. Please also familiarize yourself with the handling instructions of the double-sided tape and with the disclaimer at the end of this manual.

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### 1. TOOLS & SUPPLIES NEEDED

- Superglue gel
- Electric drill (for drilling endpin jack hole and pickup reference hole)
- Proper drill bits for endpin jack mount and a very small bit for the reference holes
- Pliers or wrench for endpin jack installation
- 4 latex gloves (if superglue is used, alternatively use the supplied finger cots)
- Razorblade



## SUPERGLUE NOT INCLUDED!

Please purchase any brand of **SUPERGLUE GEL** (Cyanoacrylate) before beginning installation.

**IMPORTANT!** Please ensure that you are buying **superglue gel** (the package will specify) as this is essential for proper installation.

### Preparing superglue for use:

- Knead superglue before using to ensure even consistency.
- Test the superglue by gluing a penny to a piece of wood. Apply pressure for about 30 seconds.
- The glue on the penny should cure after another 30 seconds, meaning that the gel has hardened and the penny is firmly attached. If the glue did not cure properly, please discard it and repeat steps with a fresh tube.

Using superglue properly creates a molecular bond between the pickup and the instrument and is the single most important factor in the final performance of the pickup! Please do not skip these steps.

### 2. PACKAGE CONTENTS

- Pure Classic 4-head transducer with cable harness and endpin jack
- Double-sided tape for removable installation

### 3. REMOVABLE VS. PERMANENT INSTALLATION

The pickups can be installed either with a permanent installation (super-gluing them directly to the wood inside your guitar) or with a removable installation (using the supplied double-sided adhesive tape). But there is a difference in tone quality.

Our recommendation is to install Pure pickups with super glue. It will put out about 30% more volume, more bass and more punch. It is a big part of the sound that made these pickups so successful! The overall tone quality using the superglue installation is probably best described as providing "authoritative tone" with very fundamental bass response. Even a single tone will sound warm, full and woody.

On the other hand, an installation using the double-sided adhesive tape provides a somewhat finer tone, which may be desirable for some players. Plus it makes the system removable. It sounds slightly brighter with less authority and less bass response. The output will still be sufficient and higher than most competitors' passive pickups. Volume and bass can easily be boosted with one of our preamps, if desired. The pickups are virtually noiseless; pre-amplification usually does not introduce noticeable noise.

If you opt for the removable installation, please follow the handling instructions that are supplied with the double-sided adhesive tape.

If you are new to the Pure pickups, we recommend using the removable installation at first. You may like it just fine this way. If you would like to get a more authoritative, fundamental and louder tone later on, you can carefully remove, clean and re-install the pickups with superglue.

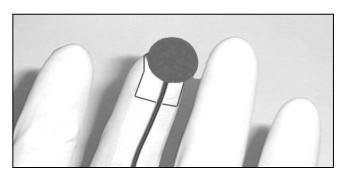
### 4. INSTALLATION PREPARATION

You are going to install the pickups according to the pictures in this manual.

- Place the guitar on a table. Use a blanket to prevent damage to the instrument body.
- Remove the strings.
- Place the guitar so you can comfortably put your hand into the sound hole and feel the inside structures underneath the bridge with your fingers.
- Locate the bracing and check if your guitar has a bridge reinforcement strip. Some do, some don't. It is a thin wood plate usually about 3/4" or less (about 15-20mm) wide and about as long as the bridge. It is located underneath the bridge. You can feel it with your fingers.
- Please follow the appropriate paragraph below for the installation (with- or without bridge reinforcement strip)

If using super glue: Find out which hand you are going to use for the installation and put on a latex glove or one of the included finger cots.

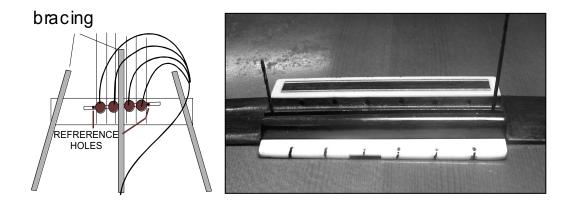
Use some of the supplied double-sided adhesive tape and stick a small piece to the tip of your index or middle finger (whichever you use, see photo) and stick the pickup to it. The golden side of the pickup is facing up. This makes holding onto the pickup and aiming a lot easier as you do not have to deal with holding the cable.



IMPORTANT! The entire golden surface of the pickups should be covered with glue! Spread a THIN layer all over the golden side. Do not use just a drop in the center, as this will not distribute evenly. Please do not worry or hurry; the glue will not dry immediately after it is applied to the pickup. You will have sufficient time without rushing things. The superglue gel even allows for a very short repositioning time after the pickup is in contact with the wood. Excess glue will ooze out at the edges and eventually dry - that's fine. Hold and press the pickup firmly in place for about 30 seconds at its final location.

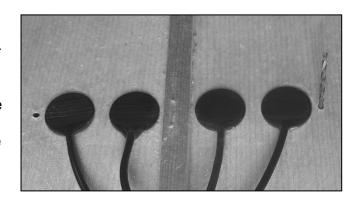
The four pickup heads are identical, they are all full range transducers. It does not matter in which position you install any of the pickups.

### 5. INSTALLATION ON A GUITAR WITHOUT A BRIDGE REINFORCEMENT STRIP



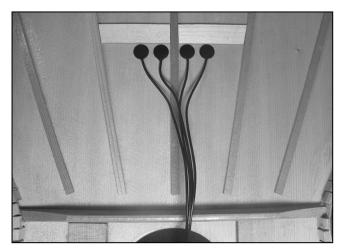
- Please inspect the bridge area inside the guitar with a mirror and a flashlight to make sure that there is enough room for all 4 pickups. Usually there will be 5 fan braces with more than enough room in between.
- Drill two very small reference holes in each end of the saddle-slot, outside the e strings (see pictures above). Use the smallest drill bit you can find I.E. 1/32" or 1mm.
- Stick the drill bit (or pieces of an old low e-string or a small nail) through the reference holes so that they extend at least ½" inside the guitar.
- Please practice the installation of each individual pickup before you use glue or tape!

- Use the protruding drill bit (string piece or nail) as a side-stop for your outer pickups (see photo). In other words, glue the pickup with its outer edge close to touching the nail that extends inside the guitar through the according reference hole.
- Once the 2 outer pickups are in place, remove the drill bit (string piece or nail).
- Install the 2 inner pickups evenly between the outer pickup and the center brace. These ones are not as critical in regards to exact positioning; please do not worry if these end up a little bit out of line.



### 6. INSTALLATION ON A GUITAR WITH A BRIDGE REINFORCEMENT STRIP

- Please inspect the bridge area inside the guitar with a mirror and a flashlight to make sure that there is enough room for all 4 pickups. Usually there will be 5 fan braces with more than enough room in between.
- First, make sure that the front edge of the bridge reinforcement strip is clear off glue that may have oozed out during the guitar manufacturing process! Clean this edge with a razor blade if necessary.
- Install the pickups in front of the bridge reinforcement strip (towards soundhole) as shown in the photo. This provides the best tone. The reason is that the bridge reinforcement strip is in most cases



not directly under the saddle but slightly offset to the rear, to support the area where the strings are knotted on the bridge. Sometimes they are radiused as well, which would get you in even more trouble if you would glue a pickup on it. When you install the pickups in front of it, their tips (the most sensitive part of the pickup) will be right under the saddle - where they are supposed to be.

- Please practice the installation of each individual pickup before you use glue or tape!
- Start with the 2 inner pickups right beside the middle brace. Position them as shown in the photo above.
- The inside edge of the 2 pickups should be very close to the center brace and the tips can touch the bridge reinforcement strip.
- Install the 2 outer pickups also using the bridge reinforcement strip as a backstop. They should end up like shown on the photo. Try to especially make sure that the high e string pickup ends up pretty much exactly under the high e string!

### 7. DRILLING THE HOLE FOR THE ENDPIN JACK

- Remove existing endpin if any (classical guitars usually do not have endpins).
- Use protective tape to cover the drill hole area. This helps protecting the guitar's finish.

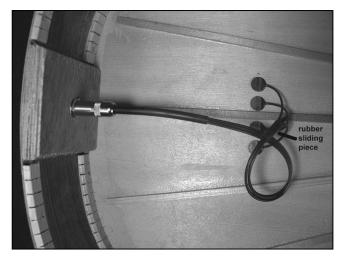
- Mark an according point on your guitar.
- To get the cleanest possible result, start with a small (1/8") drill bit and work your way up to a  $\frac{1}{2}$ " hole in 5 or 6 individual drill steps using a little bit bigger drill every time. Alternatively a step drill works fine. Best results are achieved with a  $\frac{1}{2}$ " Forstner bit, but this one only works if there is no existing hole.
- Drill or widen the endpin hole to 12mm-1/2".

#### 8. INSTALLATING THE ENDPIN JACK

- Unscrew the endpin jack's strap button.
- Take off the outer nut and washer (with smaller inner diameter), do not lose the inner washer and lock washer (with larger inner diameter).
- Try to roughly find out the thickness of your end-block and set the inner nut on the jack accordingly (see picture below).



- Note that the screw cap may be screwed against the inner nut. But if the end block is thin, like on most classical guitars, screw the screw cap in as far as it goes, and set the inner nut as needed. Setting the inner nut precisely is necessary to properly mount the jack.
- This usually requires some trial and error.
- TIP: a chopstick or something similar helps to grab the jack from the outside to pull it through the hole.
- Once you got this done, add the outer washer and nut and tighten it. There are 2 small holes on the tip of the jack to allow holding onto it with a small drill bit or Allen wrench.
- Slide the rubber sliding piece up the 4 cables to tie them together about 2" from the pickups.
- Then give the endpin jack's outer nut a few twists to curl the pickup wires inside until they are free in the air (see photo).
- Attach the strap nut. Make sure that it screws in ALL THE WAY over the threaded part of the jack, so that a tiny portion of the thread is exposed when the strap-knob is tightened.





## 9. REMOVING THE PICKUPS (Please read and understand the disclaimer at the end of this manual)

### Removable/double-sided tape installation:

- Very gently wiggle and pull on the pickup wire as close to the pickup as you can to loosen it.
- Be very careful not to bend the pickups.
- This removal procedure requires skill! If you do not feel up to this task please contact a luthier or your music stores guitar-tech.
- There will be some glue residue on the golden plates of the pickups.
- You can clean it by rubbing it off with your thumb. If you like to use a solvent, "Naphta" or "Acetone" applied with a q-tip works best. Please check at your hardware store.
- After the pickups are cleaned, inspect them for bends or damage.
- Plug them into your amp and hold each of the 4 pickups about ½" from the pickup-head on the wire. Tap on the golden surface of each pickup with a finger. That tapping sound should be clearly amplified without any missing taps.
- All pickups should perform with the same sensitivity and loudness level.
- Now the pickups are ready for re-installation.

### Superglue installation:

This work has to be done by a professional. Experienced luthiers should be able to remove the pickups by using a razor blade. Be aware that this will very likely damage the piezo transducers. If done properly it should not damage your guitar.

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### **DISCLAIMER**

Please make sure you read, understand and agree to the disclaimer below before you proceed with the installation. Please call us if you have any questions. If you have doubts please do not install this product.

Regarding the installation or removal of the Pure Classic and any product which contains any of these transducers:

Installation or removal of the above listed products is at your own risk. In no event will K&K Sound Systems Inc. be liable to you for any damages arising from your use of, or, the inability to use these products. This includes any possible health hazards, accidents, injuries, any lost profits, or other incidental or consequential damages, even if K&K Sound Systems Inc. has been advised of the possibility of such damages, or for any claim by another party. Exact following of mounting instructions and handling instructions for supplied superglue is mandatory.