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## PURE + PRE-PHASE



### Thank you for choosing the Pre-Phase!

This little preamp provides an astonishing sound quality. The addition of the phase switch is one of the most important tools for live sound amplification of any acoustic instrument.

The super light weight of the Pre-Phase will not affect the acoustic tone of your instrument and the battery life is 500+ hours, which means about 1 year on average use.

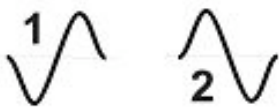
The volume control wheel allows for convenient adjustment during performance. With the Pre-Phase you should be able to plug your acoustic guitar into any amp or PA directly. Simply use the EQ on the amp or Mixer channel to adjust your tone.

### How the Phase Switch Works

The Pre-Phase has a miniature phase switch mounted on the left side of the volume wheel. It is a sliding switch and you can slide the little white tab left and right with your finger. There are only two settings.

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 trough.



This picture shows two (basically identical) waves, but the wave on the right (2) is inverted with respect to the wave on the left (1). Interestingly, if these two waves were played back simultaneously from the same speaker source with the same volume, they would completely cancel each other out and no sound would be heard. There would be silence.

When you amplify your guitar, your sound will also suffer from a degree of phase cancellations. Amplification systems, effect units, or any electronic audio device may or may not invert the phase of the signal coming in. In most cases the manufacturers do not specify.

Every acoustic instrument projects sound waves in a certain phase when it is played unplugged. The phase that is projected from the amplified speaker source needs to be "in phase" with the acoustic instrument's own sound waves or the result will not be optimal.

An out-of-phase problem is indicated by early feedback and tinny, unbalanced sound. This may be tolerable in some tone ranges (positions on the fret board) and quite noticeable in others, even resulting in sound cancellations on some notes.

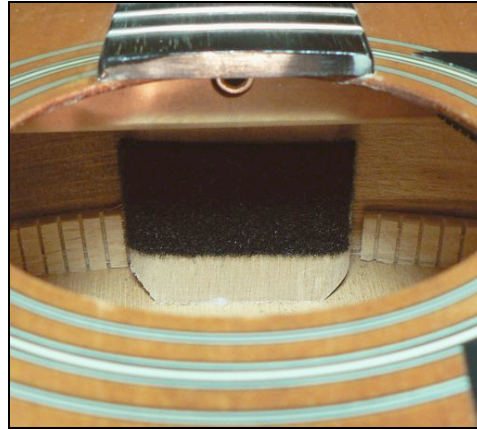
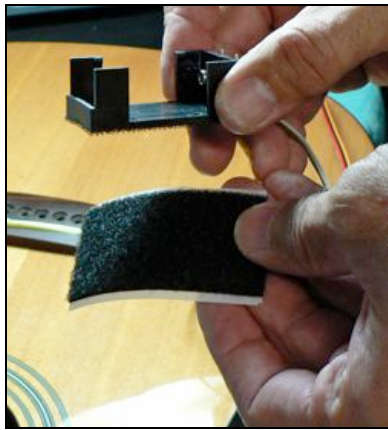
**The Pre-Phase's phase switch allows for instant correction of this problem.** By toggling the phase switch back and forth, you will notice fuller, warmer and nicely balanced tone with less feedback in one setting. This is the correct phase switch setting. Keep in mind that it may be different with different amplification systems.

## Installing the Pure + Pre-Phase

This manual describes the installation of Pure + Pre-Phase Package in an acoustic guitar. You might want to put it in a different instrument, in which case you would have to adapt some installation techniques.

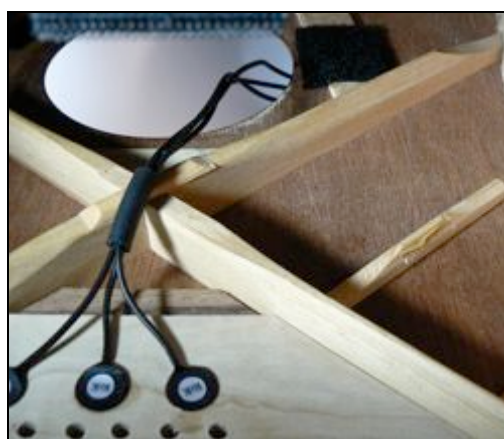
1. Attach the 3 Pure pickup heads, according to the Pure pickup manual. (If the manual is not included here, go to [kksound.com/manuals.html](http://kksound.com/manuals.html) to download it.) The pickup for this setup has an RCA jack (which will be connected to the Pre-Phase), not an endpin jack.

2. Pull the big soft Velcro piece off the Pre-Phase's battery holder and stick it to the neck-block.



3. Pull the soft Velcro piece off the preamp's circuit board and stick it to the inner edge of the sound hole at the low e string side.

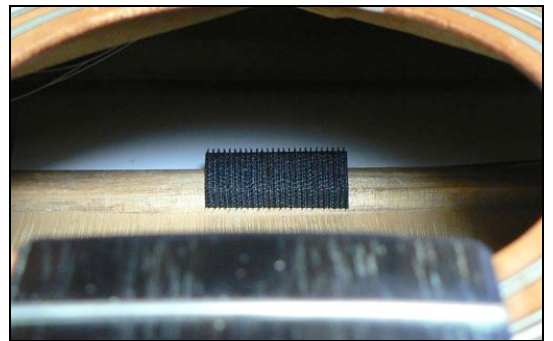
The bracing around the sound hole may look different than shown on the photo. Find a spot where it will fit properly.



4. Locate the hard rectangular Velcro strip provided in the package.

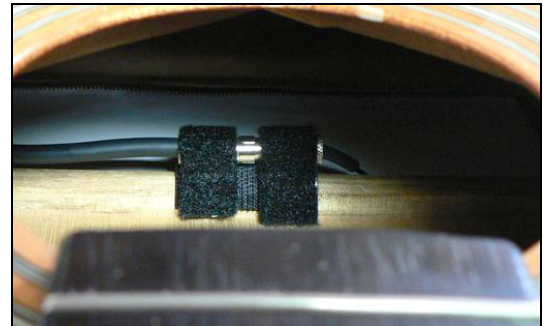


5. Stick the Velcro around the second bottom brace in the lower bout of your guitar. Wrap it around the brace lengthwise (so that the long side is going the same way as the brace).



6. Plug the pickup's male RCA plug into the preamp's female RCA plug and attach the connectors to the Velcro on the brace.

Make sure the cables of the pickup are looped free in the air without touching anything in your guitar.



7. Attach the preamp circuit board and the battery clip to their corresponding Velcro pieces.

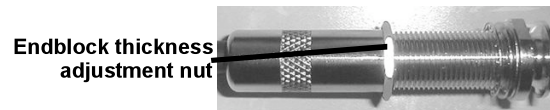


8. Install the endpin jack:

### Drilling the hole for the endpin jack

- Remove existing endpin, if any.
- If there is no endpin hole in your guitar mark a point on your guitar where you will drill the hole.
- To get the cleanest possible result, start with a small drill bit and work your way up to a 1/2" hole in 5 or 6 individual drill steps using a little bit bigger drill every time.
- Use protective tape (duct tape or similar) to cover the drill hole. This helps protect your finish.
- Drill or widen the endpin hole to 1/2".
- Unscrew the endpin jack's strap mount knob.
- Take off the nut and the washer.

Find out the thickness of your end block and set the nut on the cap accordingly (see picture below).



Insert the jack from the inside into the endpin hole.

**Tip:** A chopstick or something similar helps to get a hold of the jack and pull it through the hole.

Attach outside washer and nut and tighten. You can hold the jack in place by sticking a nail or small screwdriver into the 1/8" (3mm) holes on the tip. NOTE: All fastening is done from the outside!

Attach the end knob.

**Important:** Make sure that the strap knob screws in ALL THE WAY over the outer threaded part of the jack, so that a tiny portion of the thread is exposed when the strap-knob is tightened.

If you don't do this, you might experience insufficient signal transmission and sound, which is cutting in and out.



9. Secure the long wire from Pre Phase's circuit board to the endpin-jack with the provided self-adhesive cable clamps.

