

## POWERMIX TRINITY XT

### Preparation and Pickup Installation

Please familiarize yourself with the installation manuals for the FanTaStick undersaddle transducer and the Pure bridgeplate pickup. (You can disregard the paragraphs regarding the endpin jack.) If they're not included, the manuals can be downloaded at [kksound.com/manuals.html](http://kksound.com/manuals.html)

First, install the FanTaStick undersaddle transducer according to its manual. After you've installed the FanTaStick in the saddle slot, solder the supplied RCA plug to the FanTaStick's cable end: the inner wire to the tip and outer shield to the ground terminal.

Install the Pure pickup according to its manual.

### Connecting and Securing the System Inside your Guitar

Plug the FanTaStick's male RCA connector into its female counterpart and secure the connectors to a brace using the attached dual-lock fastener. Secure the cables inside the guitar with duct tape or similar.

### Installing the Microphone



In order to get 3 individual signals out of a guitar, you need to install a second connector below the endpin jack. We chose a flush-mount jack for this purpose because in our opinion it is the most unobtrusive type.

You will **not** compromise the structural integrity of your guitar with this installation! All guitars have a strong end block, which reliably reinforces this area of the instrument. This second connector will carry the mic signal only. The stereo endpin jack carries the Pure on the tip terminal and the FanTaStick on the ring terminal.

1) Drill a second hole halfway between the bottom edge of your guitar and the endpin jack (hole).

The precise diameter of the hole is 12mm (a 32nd of an inch less than 1/2") but 1/2" works fine. You need proper tools for this job, preferably an endpin reamer. If you do not feel confident doing this work yourself or if you do not have the proper tools on hand please contact a competent guitar tech or a luthier.



2) Insert the mic from the outside of the guitar through the **lower hole** and fish it out of the sound hole. Stick the connector into the hole from the outside.

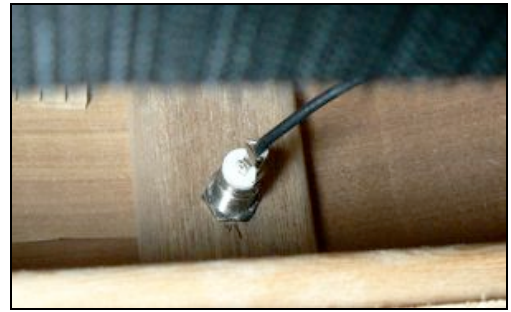
3) Locate the special fastening tool. We temporarily superglued the nut for the connector to the tip of this tool. This makes the installation of the nut a very easy task. Slide this special fastening tool with the nut side first over the mic, through the sound hole and into the guitar.



4) Move it front of the connector inside the guitar. This tool will allow you to fasten the nut without reaching all the way back with your hands inside the guitar.

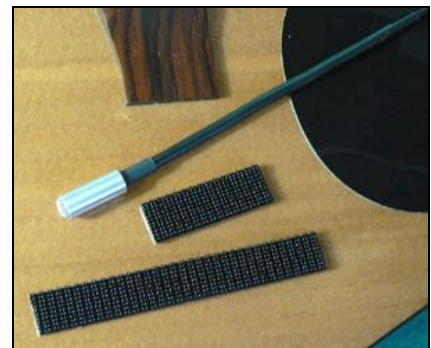


5) Hold on to the connector from the outside and push the fastening tool onto the threads of the connector. Screw on the nut. On the last threads keep pushing and turning the tool towards the connector while holding the connector tight from the outside with the other hand. When the connector feels solidly attached remove the tool. The nut will pop off the tool easily.



6) **Keep the tool in a safe place!** If at a later date you wish to remove the mic, you can use it to open the nut (Note: it's not absolutely necessary to glue the nut to the tool, it will work by friction as well).

7) Locate the two dual-lock fastener pieces (dual-lock is a 3M product, an industrial strength Velcro-like self-adhesive fastener with a white protective tape on one side)



8) Install the longer dual-lock piece on the mic's gooseneck **exactly** as shown. It is placed around the **thicker part** of the gooseneck, 3/8" (10mm) from where the shrink tube starts.



9) Push the 2 sticky ends of the longer dual-lock piece together and press it tightly around the gooseneck.



10) Apply the short dual-lock piece to one side. Press it on tightly. The two pieces will lock together. You can actually hear it “clicking”.



11) We don't think that it's a problem to stick the mic to one of the flat reinforcement-braces around the inner edge of the sound hole (as shown). The mic is light and the dual-lock is flexible. We should not detect any negative effect on the resonance of the soundboard. But if you like, you can choose another spot. You could stick it to the neck block or pull the short dual-lock piece off, wrap it around a bottom brace, and attach the mic to it. Keep in mind that you definitely get the biggest number of usable positioning options with the mic attached as shown in this picture.



### Tri-Tone 3-Channel Preamp

The PowerMix Trinity XT System comes with the Tri-Tone 3-Channel Preamp. The Tri-Tone is a 3-channel acoustic preamp with one designated microphone channel and 2 transducer/pickup channels.

If it is not included here, you can find the complete manual for the Tri-Tone at [kksound.com/manuals.html](http://kksound.com/manuals.html)

### How to connect and perfectly adjust the Tri-Tone with a PowerMix Trinity XT

Use the supplied 6' stereo/mono cable-bundle to connect your guitar and Tri-Tone. Plug the stereo plug into the endpin jack on your guitar. It carries the Pure pickup on the tip- and the FanTaStick on the ring terminal. The mono plug carries the microphone signal and plugs into the flush-mount mic jack (below the endpin jack) on your guitar.

Connect the other ends of the cable into the Tri-Tone as follows: Stereo plug into channel 1 input. Mono plug into the channel 3 mic input.

Use the **line-out** and/or the **XLR-out** to connect it to your amplification system(s).

Turn the volume on your amp/PA **down**.

Set the amp/PA channel EQ to a neutral setting. **Acoustic amp users:** It is advisable to turn **down** the bass control on your amp to start. In most cases there is an excessive amount of bass present when an acoustic preamp is added in the signal chain, because acoustic amps have very high impedance inputs.



Set all phase switches on the back of the Tri-Tone to the released position to start.

Turn Tri-Tone's channel 2 and 3 volumes **down** and the channel 1 volume **up** all the way.

Turn Tri-Tone's master volume **up** all the way.

Set **all** gains to center.

Set the bass, mid and treble EQ on channel 1 to center 12 o'clock position (center is neutral – left turn cuts and right turn boosts frequencies).

Channel 2: We find it beneficial to set the EQ to treble at 10 o'clock, mid to neutral and bass to 2 o'clock (this is only a suggestion; please feel free to try different settings).

Channel 3: Set the EQ on the mic channel as follows: treble to 9 o'clock, mid to 10 o'clock, bass fully or almost fully left. Again, this is only a suggestion. Please keep in mind that the mic should be used to enhance the high frequencies only! Bass should come from the pickups because the mic tends to get boomy sooner than a pickup. Compared to the overall volume of the pickups you will get only about 30 percent of that volume from the mic. This is normal. But even this little amount enhances the overall sound dramatically.

Turn up the volume on your amp/PA channel and play your guitar. You now have roughly preset all 3 channels. You are going to test channel 1 individually first.

Flip the phase switch on channel 1 to determine the proper phase.

Fine tune channel 1 (Pure pickup) on gain and EQ.

Add channel 2 to the mix. Make sure the overall signal gets louder when you add it. If it gets softer flip the phase switch on channel 2.

Turn down the volume on channel 1 and fine tune channel 2 individually. Try to obtain a similar maximum volume level as channel 1 by using the channel 2 gain.

Turn down channel 1 and 2.

Turn up the mic volume on channel 3. To start, use the mic channel only to pre-adjust the EQ and gain. The mic transmits the higher frequencies. The bass will come from the pickups. The mic volume will not be very loud; this is normal.

Turn the mic channel down and channel 1 up. Now turn the mic up again and test the **phase setting** of the mic channel. Your goal should be to complement the sound of the Pure pickup with the mic. The sound should get **richer** when the mic is added into the mix. It may be hard to determine at first because of the comparably lower mic volume. Once you found the proper phase fine-adjust the EQ on the mic channel. Interestingly the setting of the mic's phase switch depends on the position of the mic. Generally you want the mic very close to the soundhole opening, or with the tip of the mic even slightly above the soundboard. This allows the mic to freely breathe. Experiment! The flexible gooseneck of the mic allows for many positions.

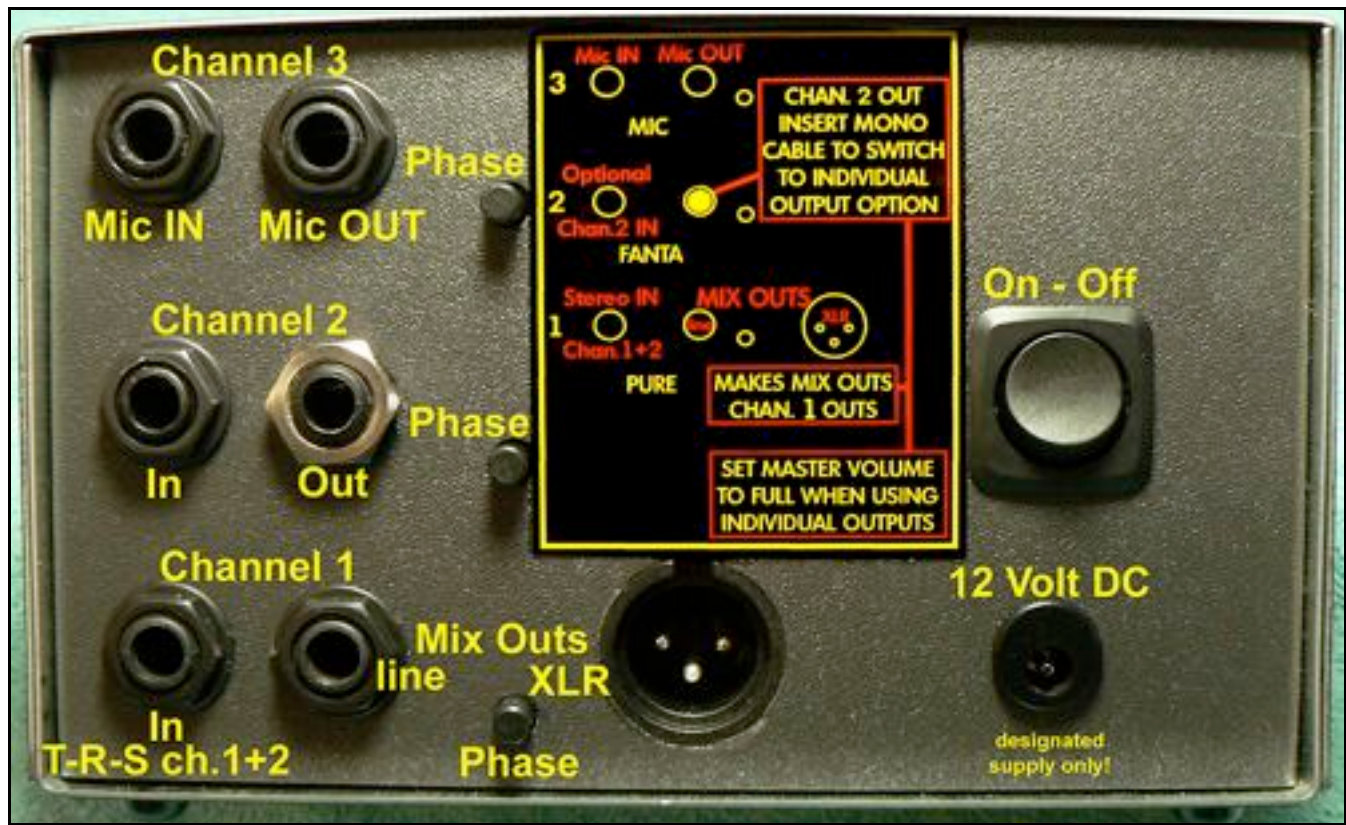
## During the Performance

Use the Pure pickup as your "fundamental" tone all the time.

Blend in as much mic as the situation allows for.

Add the FanTaStick undersaddle pickup to enhance your volume and to cut through the mix, if needed.

Dial in a small amount of FanTaStick to aid definition of acoustic tone even at lower volume.



**USE DESIGNATED EXTERNAL POWER SUPPLY ONLY!**