

Roland GK-3 to PRS Santana SE Divided Pickup Adapter

8/12/2004

Dear PRS folks;

I've bought a Roland GR20/GK3 Hex PU and didn't agree with their GK3 attachment techniques to my Santana SE. The following is a GK3 mount that is completely non invasive to the guitar. I thought I'd share it with you. After all you provided me with a great guitar. If you agree, pass this on to any requestors with my email for questions.

Regards;

Wayne Bjorken
wab@springdivers.com

Original Message from Mark Harmony Central

Rec. 08/11/2004

Hi Guys

Just read your post on harmony central. Interested about the pickup mount - I also play a PRS, and drilling is definitely not an option. So far I've just been using the sticky pads - if they come off, I plan to just use some more. But a permanent solution would obviously be better. Can you send me the photos you talk of? I'm not sure where I would go to get something like that made - there is an engineering company near where I work - I might ask them.

Thanks for any input
Mark

Hi Mark;

In response to your email, this is how I made a GK3 adapter for my PRS. I got the idea from the bridge post (Gibson™) pickup holder supplied with the GK3 kit.

You'll need to buy a piece of 1/8th inch Plexiglas (Loews or Home Depot) I used clear but I suppose any color would work. The following tools will be required should you consider making this yourself. If you're a little handy you'll save money from jobbing it out.

1. Dremel tool and their drill press attachment if you don't have a standalone drill press.
2. Sand paper. 800 grid should work.
3. One small fine triangular file and one fine flat file.
4. One of the new hand saws with sharp teeth on both sides.
5. Various Dremel bits and parting disks can come in handy during the initial fabrication.

Using either a hack saw or a parting wheel, remove the bridge pole holes from the GK3 supplied bridge pickup holder (CAUTION: This part can no longer be used for its intended purpose). This will provide the exact distance between the mounting holes on the GK3.

Next you'll need to de-tune the guitar. Make a cardboard strip the circumference of the neck just below the nut and wrap the strip around the neck and tape it in place to retain the strings from flying all over the place. Also this will allow you to remove the PRS bridge without re-stringing the guitar.

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CREATING THE ADAPTER

Note: The following figures do not show the pickup to bridge angle. The initial adapter photo does.

Now, make precise measurements for the mount (figure 1).

Cut the mount holes for the adapter and temporary apply it to the guitar. Make sure the adapter flush with the bridge pickup base. This is what creates the stability when in use. Reassemble the guitar and retune the guitar.

Drawing is not to scale.

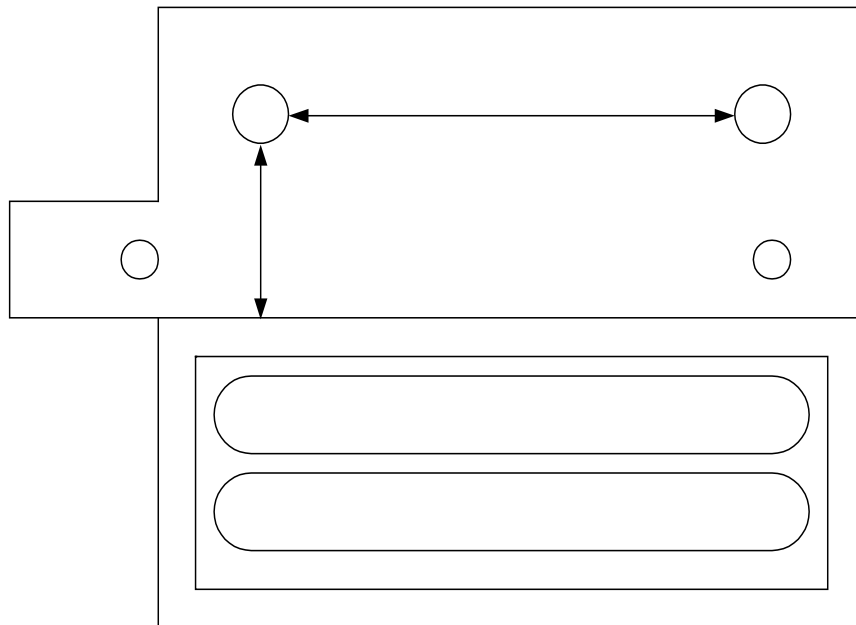


Figure 1

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Figure 2 shows the unfinished adapter fitted to the guitar. The final step is to align the pickup sensors under each string. Apply the Roland Gk3 divided pickup to the remaining Roland provided pickup holder (now a template) and move the unit into place using the tolerance provided in the Roland supplied manual. Don't worry about the height of the pickup, just the sensor to string centering alignment (my guess is that if it isn't a "JP" or a "JP" copy, the center alignment will be off slightly). Not to worry, as this is allowable per Roland and will be adjusted during string sensitivity settings later.

When completed, de-tune the guitar, remove the bridge and new adapter. Remove the GK3 from the pickup holder template and using it mark where to drill the new adapter for the GK3. The Roland pickup holder is no longer needed (keep it for future use). Drilling the pickup holes and mount are described and depicted in the following images.

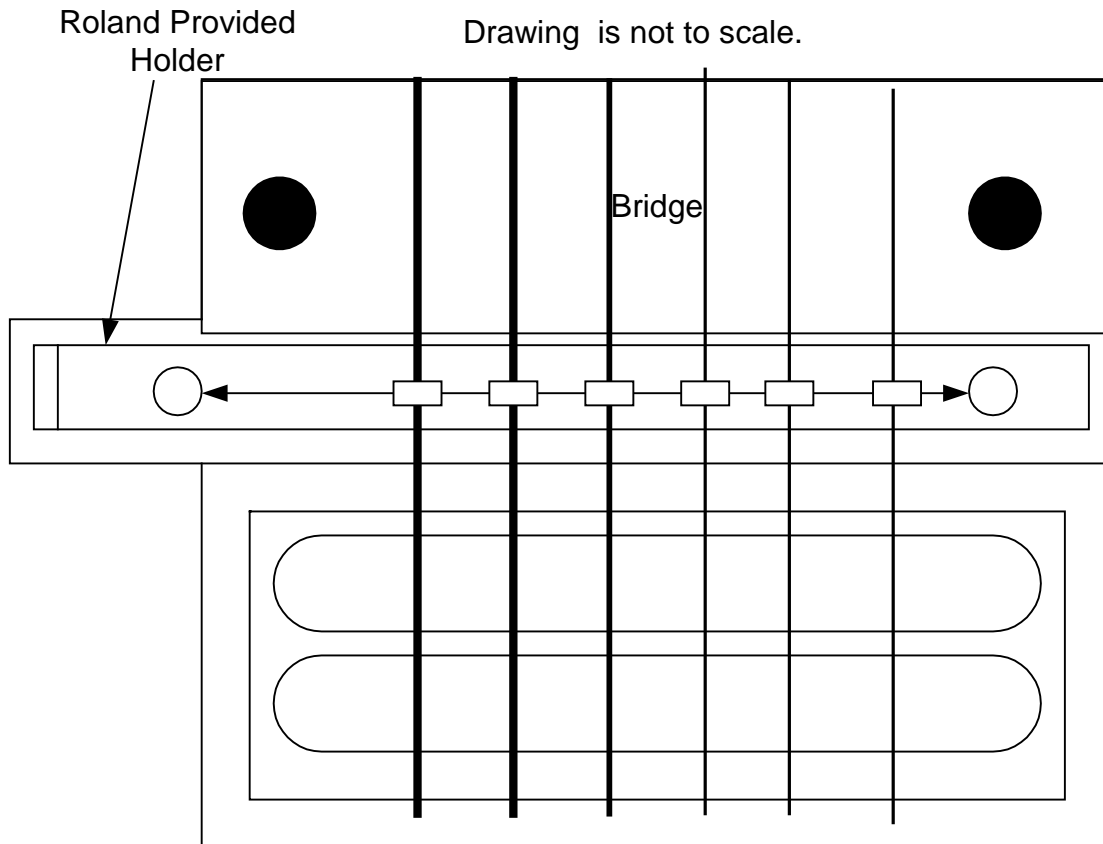


Figure 2

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Ok some pictures now. This is before the filing and sanding of the edges. Notice the Hex pickup is attached. This can be accomplished with a 3 millimeter tap or use the supplied screws to tap the holes. Drill them undersize and slowly screw them in. Plexiglas is quite soft. I chose the latter method.



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Now buffer the space between the mount and the guitar with the supplied non sticky spacers. You'll have to chose the one with holes for the GK3. The idea is when everything is back together the GK3's new mount is forced against the bottom of the bridge. Put spacers under the GK3 and just behind the bridge. This coupled with the firm contact to the bridge pickup housing is the key to success. The mount cannot move. Finally cut the adjustment springs to a suitable length before inserting them between the divided pickup and the new adapter.

One note of caution. If your guitar ever needs intonation work due to string gauge change or truss rod adjustments, the adapter may need re fabrication. Keep the pickup holder template in a safe place.

The rest of this document is just pictures from different angles.



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Also use a thin space between the GK3 and the bridge





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Note:

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