VintageVibe guitar pickups

September 2007

Howdy!

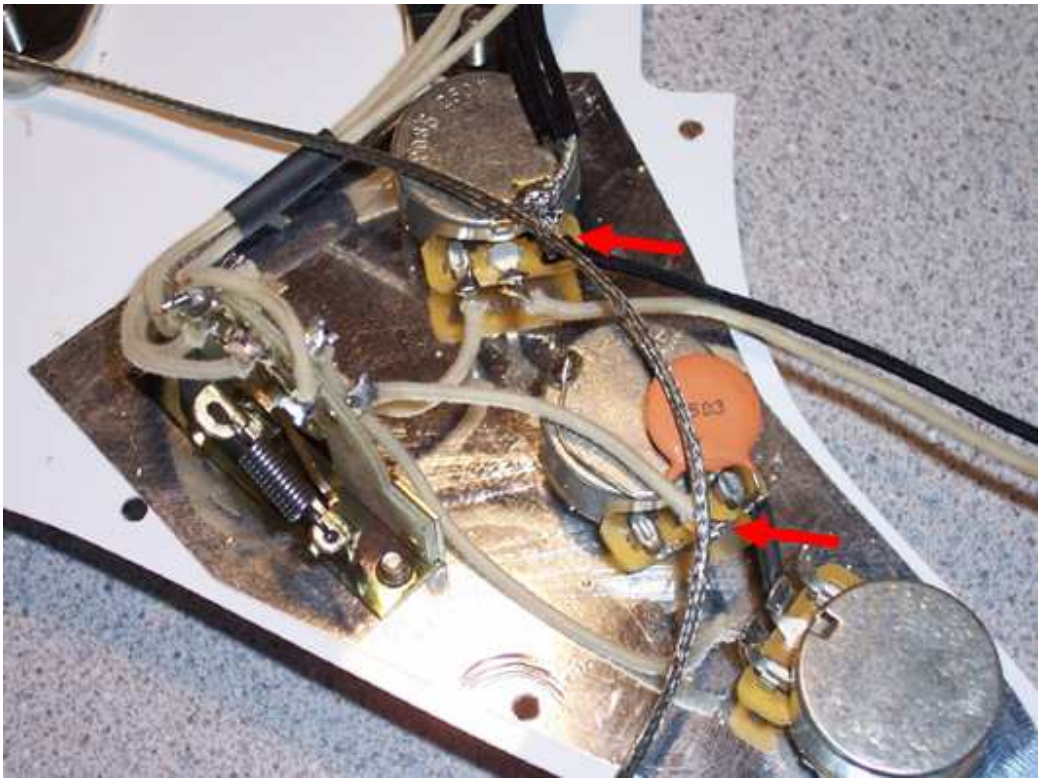
This month's tech tip is an often-forgotten issue that can cause intermittent problems that can drive you crazy.

Any electrically conductive object that is located inside an instrument's controls cavity which is free to move can touch the tabs on pots or a pickup selector switch and momentarily short the circuit causing either static, popping noises or total loss of signal.

Some of the things inside an instrument's controls cavity that may cause this problem are:

- Externally braided cables from pickups, switches or other components
- Unsecured grounded shielding (copper or aluminum foil)
- Poorly secured battery (for active pickups)
- Any loose metal parts (extra screws or other hardware)

The red arrows in the photo below indicate locations where an electrically conductive externally braided cable can touch the tabs of volume and tone pots and cause an intermittent short circuit and loss of output from the pickups.



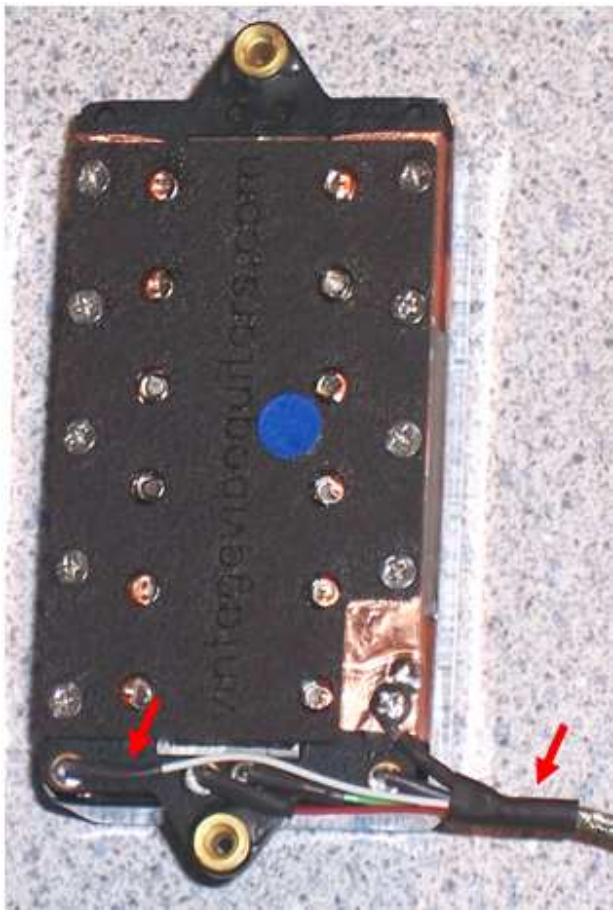
Here are some ideas for preventing this problem:

- Electrically insulate cables which have a conductive external braided shield

  I use “shrink wrap” (available from Radio Shack and other electronics parts vendors) to insulate portions of the externally braided shield that may come into contact with pots or the pickup selector switch.

  Here’s a photo of the shrink wrap tubing I use along side the braided cable that I cover with the shrink wrap:

I use a hot air gun (intended for stripping paint) to shrink the shrink wrap. Once heated the shrink wrap will be snug around the cable as shown in the photo below:



One can also heat the shrink wrap using a hair blow-drier.

- Inspect the controls cavity for any loose parts, especially metallic objects and remove these loose objects.
- Make sure all grounding foil is secured to the inner walls of the controls cavity and not allowed to “flop around”.
- Make sure all pots and switches are tightly secured to the instrument.
- If the back side of the cover to the controls cavity has conductive shielding on it make sure this surface cannot touch the pickup selector switch tabs or other parts of the controls circuit. I sometimes add electrical tape to the area of the cover that is close to the pickup selector switch when the cover is installed.
- Don’t forget to check the area around the output jack- all of the issues described above can also happen near the output jack and in any other location in an instrument’s controls circuit.

I hope this information is helpful.

As always, please let me know if you have a specific issue you would like to see addressed in future newsletters.

Please also let me know if you have any comments and suggestions on the topic covered in this newsletter.

Last thing-

If you are interested in seeing some very cool custom stringed instruments, check out Red Dog Guitars: http://www.reddogguitars.com/

Best wishes to you.