

Pick Guard noise canceling system for Strat (PGNCS-S)

User's manual and installation instructions

Strat© style guitars that have a standard 11 or 8 holes pick guard and three single coil pickups can be retrofitted with the PGNCS-S. The following instructions and wiring diagram are for guitars with 3 same polarity single coil pickups. For guitars with a different pickup combination or switching such as a RWRP middle pickup, a super switch, ON-OFF switch, please refer to our online wiring diagrams page for specific wiring schematics and instructions.

The PGNCS-S contains an extremely low impedance coil assembly, so it effectively eliminates hum while keeping the true single coil pickup tone unaltered. The PGNCS-S is an easy to install passive system.

The best way to install the PGNCS-S is to use the professional service of a guitar builder or guitar repairer but it can also be installed by anyone familiar with guitar electronics, guitar assembling and wire soldering.

Drilling holes or bending the PGNCS-S could damage the unit and void the One year warranty.

Tools and materials needed for installation:

Soldering gun, screw driver, wire cutters, soldering wire, shrink tubing. Optional: a digital multimeter, a piece of foam, small plastic bag, electrical/masking tape.

Basic requirements:

1. All single coil pickups need to be same kind (i. e. Alnico 5 rod poles) and within the selected DC resistance range
2. All pickups need to be wound in the same direction and the same magnetic polarity.
3. If there is a **RWRP Middle pickup** this pickup needs to be replaced with a regular one, or you can use a different wiring diagram we provide on the web: <http://www.ilitchelectronics.com/wirings/>
4. The pickups switching does not include any "in series" and/or "out of phase" combination.

Preparing the guitar for PGNCS-S Installation:

1. Pull OFF all strings from the tuners. Now you can easily access the entire pickguard assembly.
2. On the guitar front - unscrew all mounting screws that hold the pickguard to the guitar body.
3. Carefully flip the pickguard assembly around its bottom side so you can see all electronic parts at a glance.
4. Transfer all three pickups, the Volume, Tone1, Tone 2 potentiometers and the 5 way pickup selector switch from the original PG to the new PGNCS-S. Make sure the Volume potentiometer housing is connected with ground wire to Tone 1 and Tone 2 potentiometer housings.

PGNCS-S installation steps:

No shielding foil on the new PGNCS-S is necessary. Do not bend the PGNCS-S. Do not overheat the three pots

=Cut the three pickup ground wires (usually black) originally soldered to the housing of the Volume potentiometer at about ½" (10mm) from the soldering spot.

=Strip one of the short ground wires left on the Volume pot (G1) and all three pickup ground wires (Bg, Mg, Ng) by 1/8" and tin them with soldering gun and fresh solder wire.

=Solder the cables coming out of the Adjusting PCB as follows:

=Green wire to G1; White wire to Ng; Orange wire to Mg; Blue wire to Bg. Then isolate the created soldering joints.

=Shape the red and yellow wires coming out from the pickguard.

=Solder the wires coming out of the adjusting PCB with the cables coming out from the PGNCS-S as follows: yellow wire from the adjusting PCB to yellow wire from the PGNCS-S; red wire from the adjusting PCB to red wire from the PGNCS-S. Then isolate the created soldering joints.

=Flip the pickguard assembly back to its original position and screw some of the top located screws to hold it. Do not mount the bottom located screws so the Adjusting PCB could be easily placed inside later.

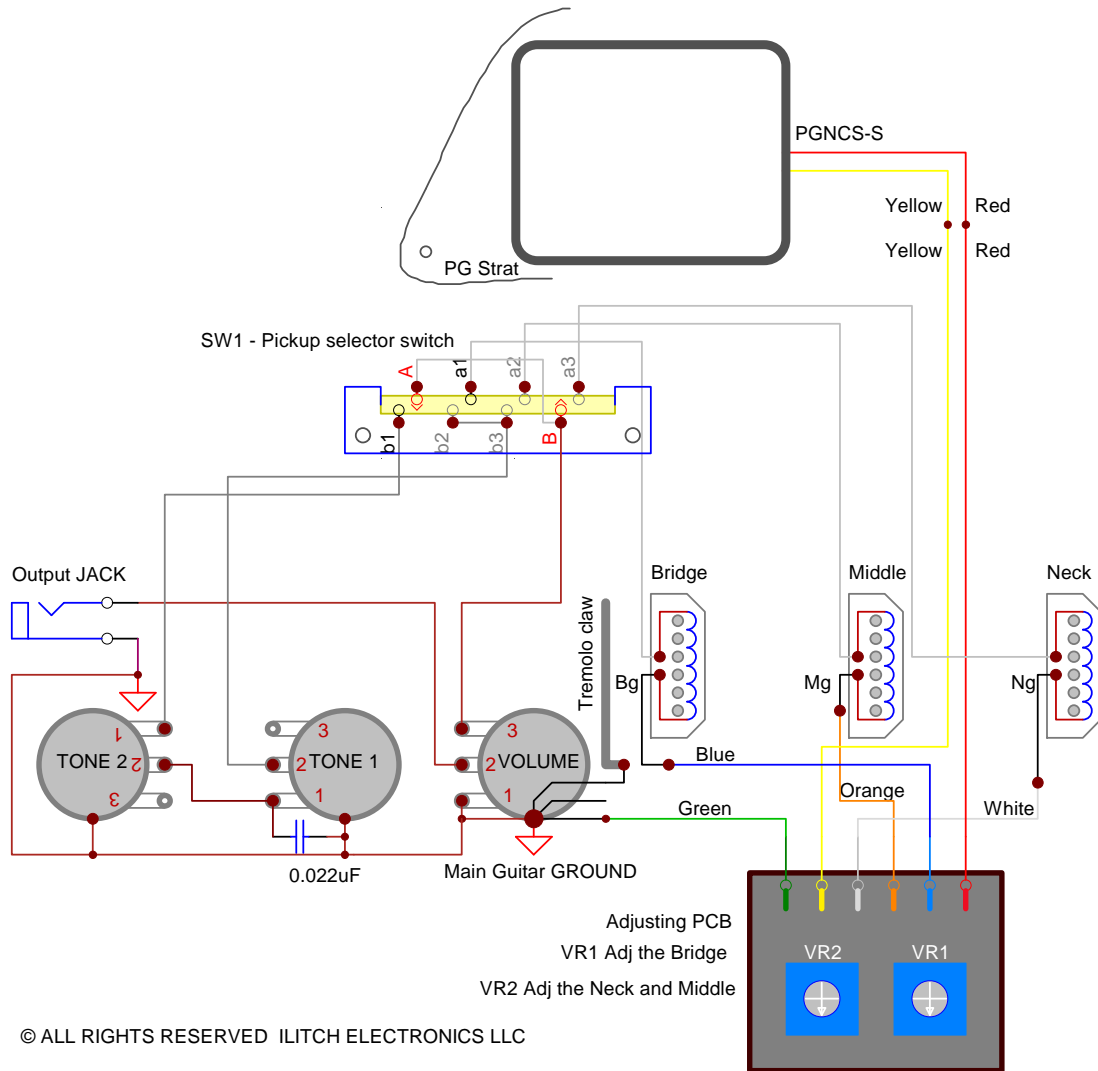
Adjusting the PGNCS-S for best noise cancellation:

1. Put back ON some of the guitar strings (at least one), then turn the guitar volume and tone controls to their "MAX".
2. Use a guitar cable to connect the guitar to a guitar amplifier.
3. Use a correct size screwdriver to adjust the blue trim pots located on the adjusting PCB.
4. Turn the two trim pots located on the adjusting PCB to their "MAX" (100%). In this way the guitar is at its original mode as the PGNCS-S system hasn't been installed.
5. Turn "ON" the guitar amplifier and set it up with a gain and loudness, so you can hear some noticeable hum noise. Play over the strings to check that all pickups operate normally and the hum noise has almost the same level at all 5 position of the pickup selector switch SW1. Now set the two trimpots VR1 and VR2 to their middle position (50%)
6. Hold the guitar as you would play it and get a position near the amplifier but not less than 3 feet (1 meter). Best noise canceling result will be achieved with the amplifier located behind your back and the guitar approximately parallel to the amplifier front face.
7. Put the pickup selector switch at position "1" (only Bridge pickup). Turn down (CCW) VR1 trim pot to reduce the noise level. If the noise increases instead of decreasing, unplug the guitar from the amplifier, unscrew the PGNCS-S (go to step D of the installation instructions) and swap the wires connection: yellow wire from the adjusting PCB to the red wire from the PGNCS-S; and red wire from the adjusting PCB to the yellow wire from the PGNCS-S. Screw back the PGNCS-S and turn down VR1 trim pot until you get optimum noise cancellation at position "1".
8. Put the pickup selector switch at position "4" (Middle and Neck pickups in parallel). Turn slowly down VR2 trim pot to reduce the noise until you get optimal noise cancellation at position "4".
9. You can now go back and forth through all 5 positions of the SW1 and fine adjust the locations of the VR1 and VR2 until you get optimum noise cancellation. After you are satisfied with the noise reducing result wrap out the adjusting PCB with a small plastic bag or piece of foam, and insert it into the guitar electronics cavity.
10. Align the pickguard and screw in the rest of the pickguard mounting screws. Check for normal operation of the guitar.

Basic Wiring diagram. Use this wiring ONLY if the three SC pickups are same polarity (hum noise at ALL 5 positions)!

Find more wiring diagrams on the website - www.ilitchelectronics.com/wirings/

You MUST disconnect the three pickup ground wires from the Volume potentiometer housing!



Terms of Limited Warranty. RETURN & EXCHANGE POLICY:

We offer to the original purchaser (For DIRECT SALES from ILITCH ELECTRONICS ONLY) the following terms of Limited Warranty and RETURN & EXCHANGE POLICY:

1. One year of warranty for all moving parts (i.e. trim potentiometers) of the product.
2. Two years warranty for all non-moving parts (i.e. - capacitors, resistors etc.) of the product. Ilitch Electronics reserves the right, based on visual observing and electrical measuring, to determine what has caused a defect. Damages caused by accident, abuse, alteration, or misuse are not covered by this warranty. Product appearance and normal "wear and tear" (worn paint, scratches, etc.) are not covered by this warranty.
3. We offer a four weeks money back policy for customers not satisfied with the purchase. You have to contact us first to get a return authorization number (RAN).

A refund will exclude all shipping and handling costs PayPal fees and an additional 15% restocking fee will be applied. The product needs to be in its original condition and packaging that you have received it from us.

Customer's Name:..... Date of purchase :.....

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