

How Can I Test This Mess?

The 'tap-test'

This is the original, low-tech, no-fancy-tools required method. With the harness (or guitar) plugged into an amp with the volume set LOW, you can tell if a pickup is working by gently tapping on the pole-pieces with a screwdriver, allen wrench, anything metal. When the pup is working, you will get a pronounced and unmistakable "thunk" out of the amp. If you get nothing, the pup is probably out of the circuit; if you hear a light "tick-tick," the pup (or coil) is probably in the circuit but shunted or shorted.

Run through all the positions on the pup selector switch to make sure you have that working FIRST. You can also check the volume and tone pots for functionality this way. This will NOT help you check for phase mods, but if you have open-coil (exposed coils) humbuckers, you can certainly tell if the coil-shunts are working. The shunted coil will respond with the light "tick-tick," the active coil will "thunk."

Test with a multimeter

You can test a few things with a multimeter as well. If you know the ballpark impedance of your pickups, you can test the series/parallel/shunt options for each pickup. Set your multimeter in the 20k ohm range, and select the one pickup on the pup selector. With a cable plugged in to the output jack, at the other end of the cable, put one probe on the tip and one probe on the sleeve.

A typical bridge pup would be, let's just say, 8k. IF you coil-shunt it, it should drop to 4k, or half the full-humbucker. If you PARALLEL the coils, it should drop to 2k, or half the coil-shunt reading. Now flip the pup selector over to the other pup(s), and check the same readings.

Once you have the series/parallel/shunt readings for each pup, put the pup selector in the position that will select TWO pickups. The full-humbucker readings for two pups selected should be half of the average of the two pups - let's say we have an 8k bridge and a 7k neck pup, the average would be 7.5k, and half that would be 3.75k.

To test your pup-in-series or series/out of phase combos, put the pup selector and/or any other switches in the position that will select the two pups in series (disregarding phase). The reading for two pups in series should be equal to adding their readings together. As above, the 8k pup in series with the 7k pup should read 15k.

If your readings are a couple of tenths or so off from expected, that's probably in the ballpark. If they are more than 1k off, you may have a problem.

The one thing I haven't been able to figure out how to "no strings attached" test for is the phase stuff - in phase reads the same as out of phase on the meter, and you can't tap both pups at the same time to get an "ear reading."