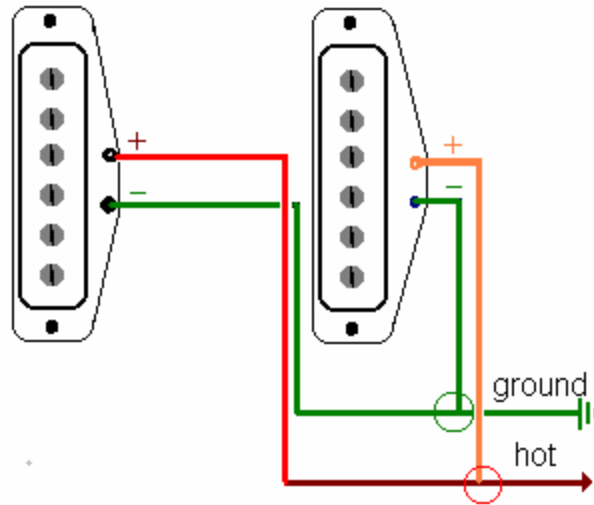


PARALLEL AND SERIES

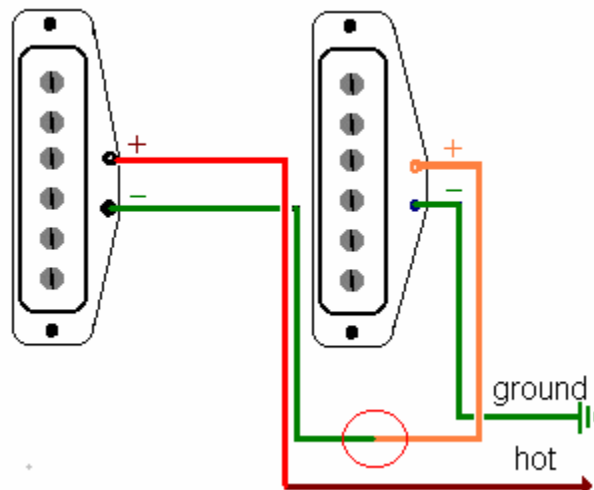
PARALLEL:

Most guitars produced today combine pups in a PARALLEL scheme. Pickups wired in parallel usually have a constant connection to the ground ("negative") side of the circuit, and their hot leads have a path to the output. Pickup selector switches usually interrupt the hot lead's path to the output, allowing you to select which pickup you hear. Two (or more) pickups played in parallel combinations typically give you a "quack" tone - a quirky, sweet blend of the tone of the two pups. If you had a pair of identical pups wired in parallel and looked at the circuit with a multimeter, your reading of the pair played parallel would typically be about half of the impedance of either pup played solo.



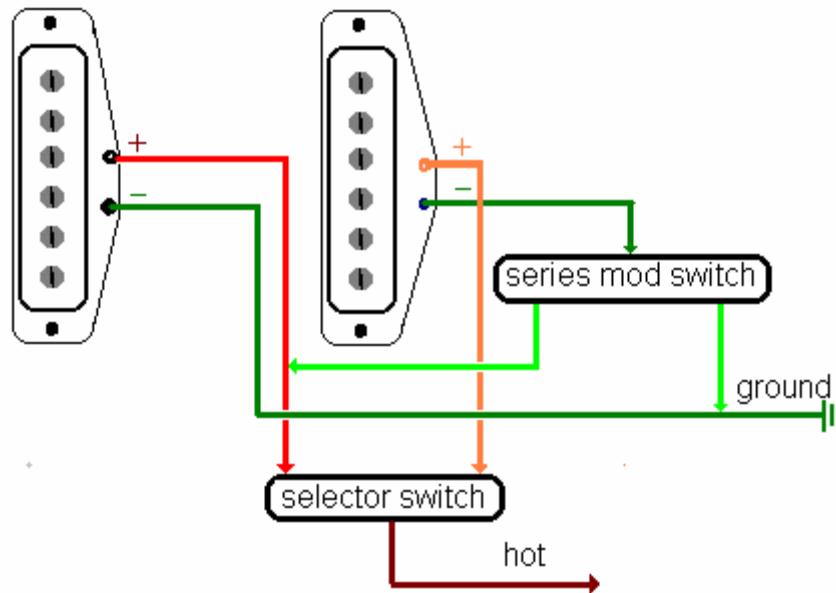
SERIES:

Pickups wired in SERIES cause the current to flow through first one pickup and then the other, effectively doubling the resistance/impedance of the circuit. This usually makes the tone of the combined pickups fatter or warmer than pickups played in parallel, emphasizing the fundamental more than the overtones. Series is also usually slightly louder. If you had a pair of identical pups wired in series and looked at the circuit with a multimeter, your reading of the pair would typically be about twice of the impedance of either pup played solo.



THE MOD:

The way to create a series mod is to lift the ground (“-“) lead of ONE of the pickups from the guitar’s ground, and route it instead through a switch that can select either the guitar’s ground or the hot lead of the other pup. This only requires a single pole/double throw switch, and can easily be done with a push/pull pot or min- toggle.



However, there is a side effect: if both pups are selected on the pup selector (selector in the middle position), the pup that is in series will be “shunted” and not sound. If you look at the drawing for a moment, it will become apparent that the series pup’s hot and ground lead are shorted together at the pup selector switch (no worries, this is exactly how a coil shunt works when you mod a humbucker). You will only hear the series combo when the pup in series is selected on the pup selector.