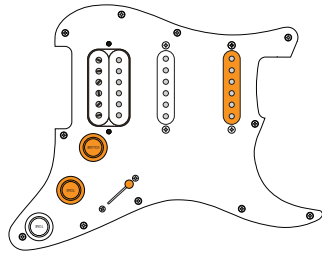
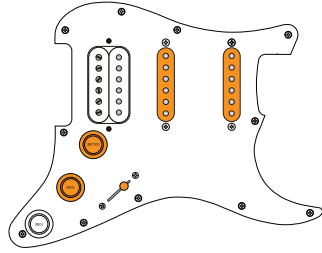


ACTIVE PICKUPS AND CONTROLS INDICATED IN ORANGE (RED INDICATES SERIES PAIR)

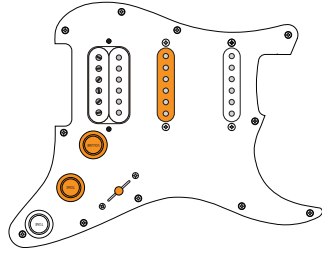
POSITION 5



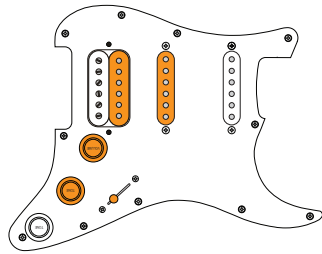
POSITION 4



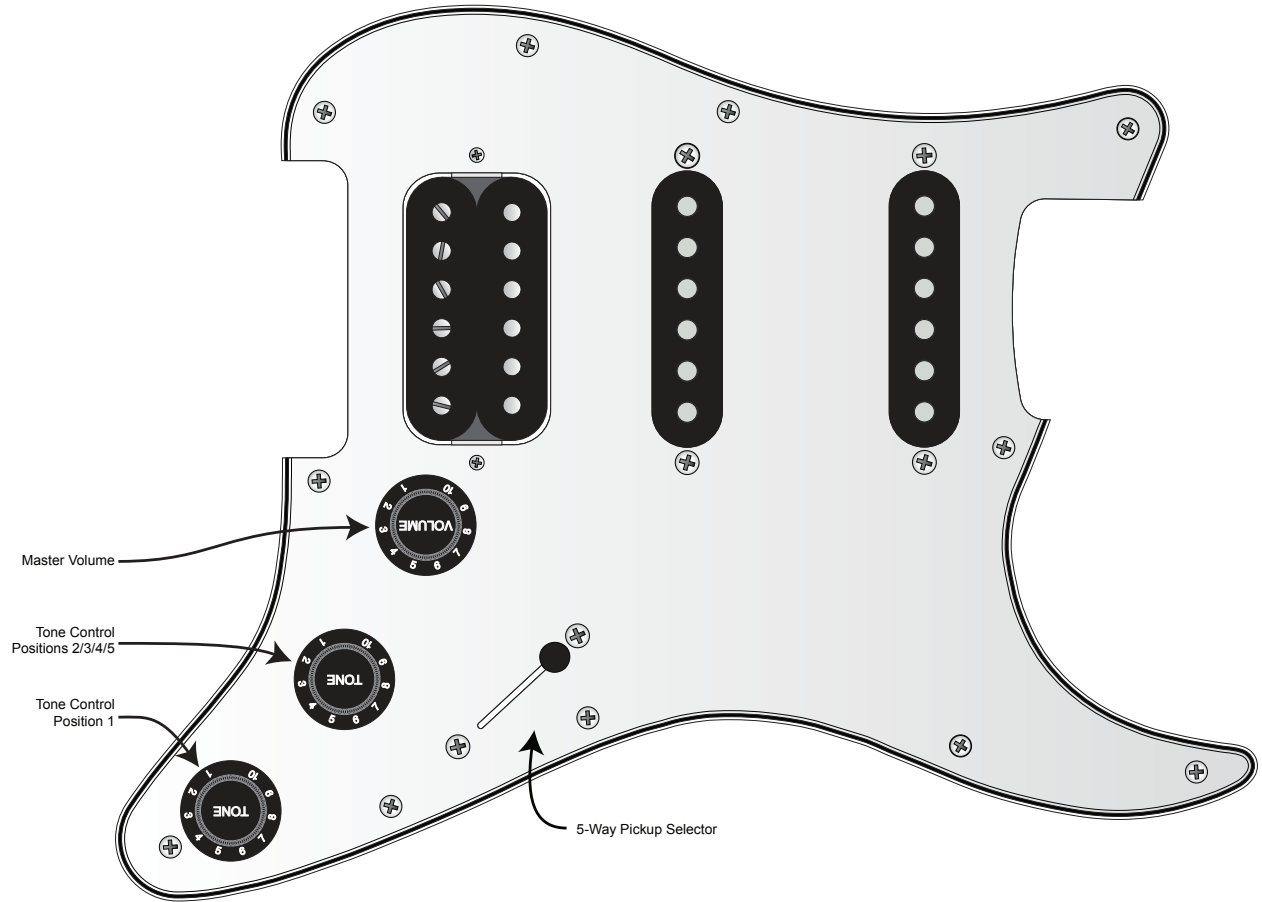
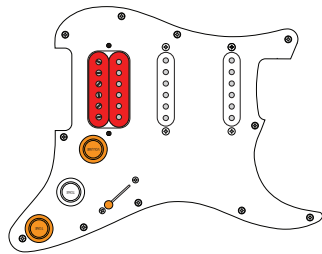
POSITION 3



POSITION 2



POSITION 1



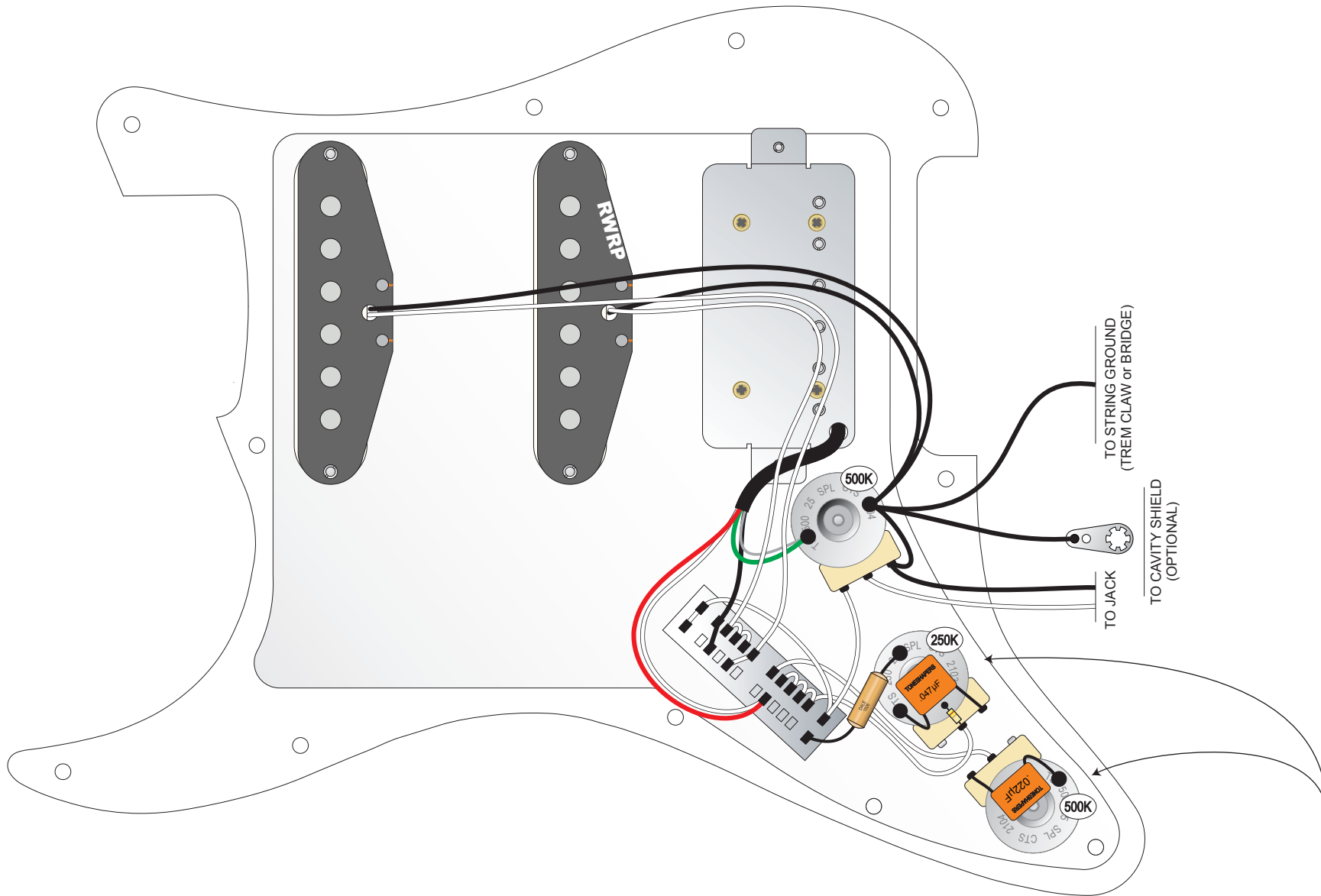
Where to start? HSS Strats pose a few head-scratchers, because there are several challenges when you combine single-coils and humbuckers in Fender guitars: one is that you don't want to compromise hum-canceling; another is that you don't want the split humbucker to be weaker than the middle pickup (a problem with PAF-style bridge humbuckers); and the third is that you want to optimize the pot values.

Most Strats use a middle pickup that is reverse-wound and reverse-polarity (RWRP) so that you get hum-canceling in positions 2 and 4. Add a humbucker into the bridge, and it's important that you split the humbucker in the 2 position, so that you combine only one of its coils with the middle pickup. This allows you to retain hum-canceling in this position (assuming the pickups are compatible), and it also most-closely approximates the tone of a Strat in the 2 position. You could add a switch of some type that would allow you to manually split the humbucker, but this would mean manipulating two switches. Most players prefer to let the 5-way switch perform this function automatically, so that position 1 is always the bridge humbucker, while position 2 is always the split humbucker combined with the middle pickup.

This brings us to the second problem, which is that split humbuckers can be slightly anemic when compared to Fender single coils. We've addressed this by including a resistor with this kit that will mitigate the problem by "partial splitting" the humbucker. Very slick, trust us.

And what about pot values? Humbuckers are voiced with 500kΩ pots (the traditional Gibson value), while Strat pickups are voiced with 250kΩ pots (the traditional Fender value). A 500k volume pot will make the guitar a little brighter, so it's great with the humbucker, but can make the single coils a little over-bright. Conversely, a 250k pot can make the humbucker a little too dark or "wooly". With our HSS assemblies you don't have to compromise. We use a 500k volume pot so that the humbucker sounds right in position 1, but we add a resistor into the circuit in the other 4 positions, dropping the load to 250k, so that the other positions sound right. Hey, who wants to compromise where tone is concerned?

Finally, to make this wiring truly custom, we've used our ToneShaper narrow superswitch rather than the standard 5-way, so that we can customize the tone controls. The standard Strat switch assigns the tone controls to specific pickups, but the superswitch assigns them to specific switch positions, which allows for more granular control. We've assigned the lower tone control to position 1 only, and we've used Gibson-esque values for both the pot and the tone capacitor. This optimizes the tone controls for their respective positions: Gibson values for the "Gibson" position (1), and Fender values for the "Fender" positions (2/3/4/5). Sweet!

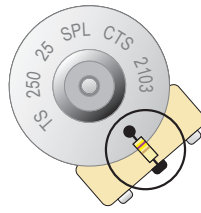


These two pots need to be grounded, either via the pickguard shielding, or via a separate wire that connects them to the volume pot. Black circles or squares in the diagram at left indicate a solder connection.

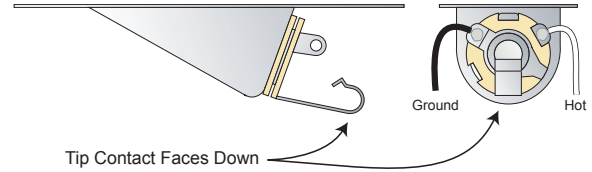
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DRAWN George Ellison	DATE 1/31/21	TITLE Stratocaster® Auto-Split Humbucker (Duncan Color Codes Shown)
ASSY PN ST-HSS2 Rev 2	ADOC 232 R2	PAGE 1 of 1

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Note Resistor Placement
Middle Tone



Jack Detail