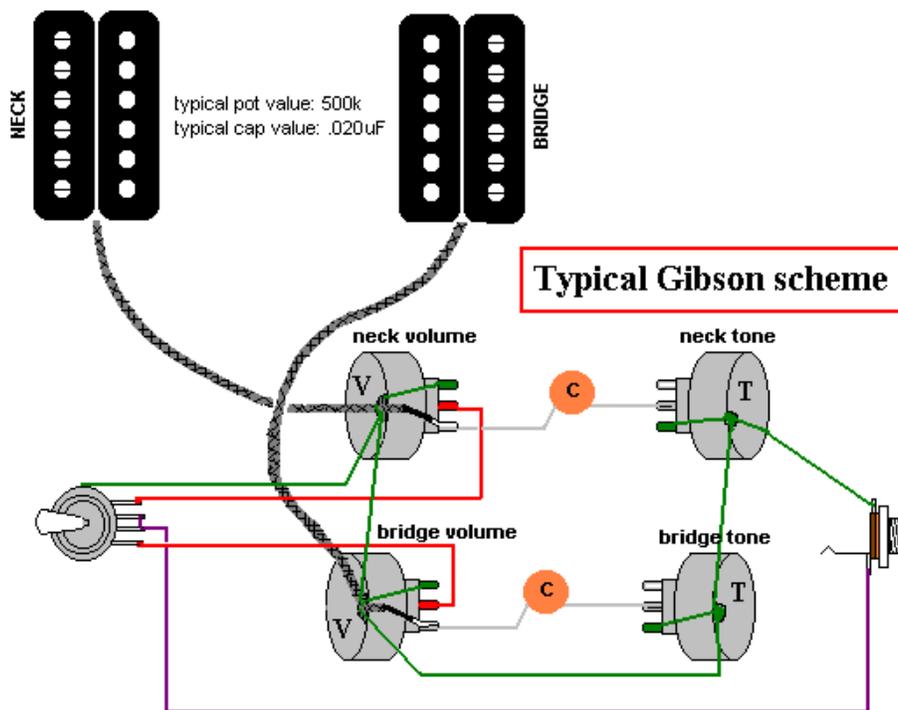


# The Master Volume Mod

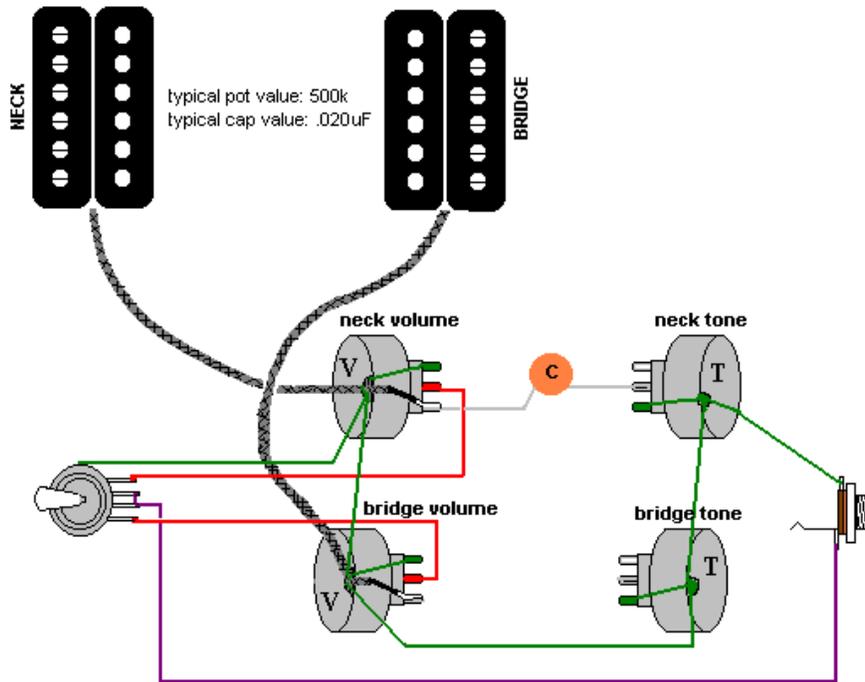
This is a mod I've done to a few axes, including my Gretsch-wannabe Epi Sheraton. It changes the functions of the controls so that you have individual pickup volumes, AND a master volume and tone - rather like the classic Gretsch set up. This document was created for a specific request – the player wanted to retain the pickup volumes in their original locations, and change the two tones to a master volume and tone. To see another scheme, check out how I wired my Epi Sheraton into its “pseudo-Gretschiness” as the **Urban Ruffian** in the doc, “epi-mv.doc.”

This first drawing represents a pretty typical setup for many two-humbucker axes with two volume and two tones. There are only TWO differences that might be obvious in your specific guitar: (1) where-and-how the tone caps are hooked up, and, (2) the in/out lugs on the volume pots. This drawing represents the way a Gibson Les Paul, ES-335, SG, etc. is wired. If your curious, take a peek at the last drawing on the last page now to see how the volume pot in and out lugs would look, reversed... but come right back! That last drawing shows how MIK Epis are wired, with the in and output lugs of the vol pot reversed from this drawing. I actually prefer that style wiring, as it makes the pup volumes truly independent - with both pups selected, you can actually shut one pup all the way off and the other will still sound. If your volume pots are wired just as they are in this first drawing, when you shut one pup off with both selected, neither will sound. That's just the way the Gibsons work..

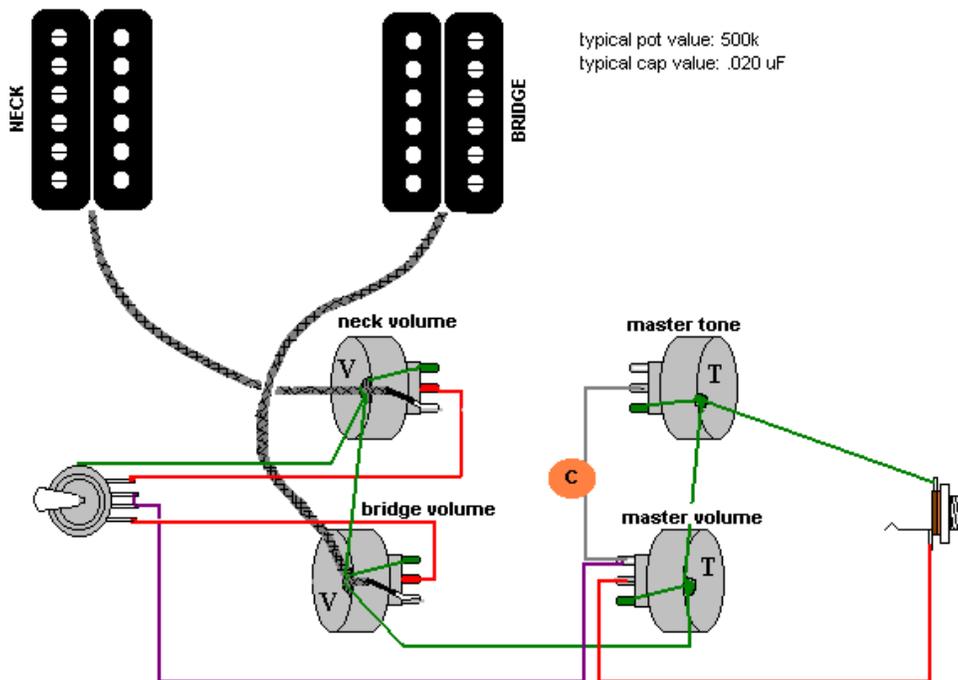
Some wiring schemes (Fender Strat, others) jumper the tone pot to the volume pot and put the tone cap between a lug of the tone pot and ground, rather than the cap between the tone and volume pots. There's no perceivable difference in the tone, but if your tone caps are NOT wired as they are in this drawing, no worries - we're eliminating one and rewiring the other, anyway.



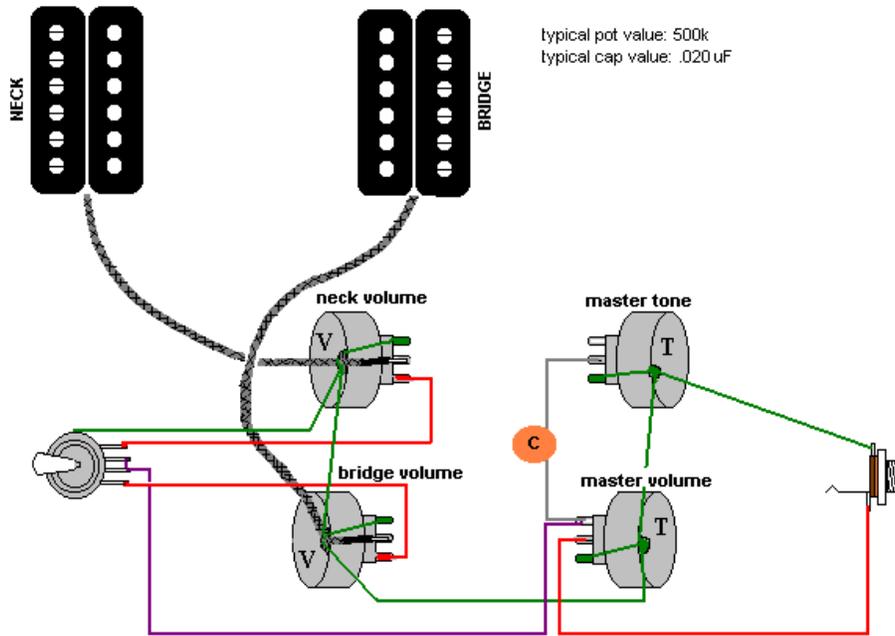
The first thing we'll do is remove the tone caps from both tone controls. Next, we'll wire the neck tone pot to be a **master tone** pot by connecting a cap between its center lug and the first lug on the new **master volume** pot. Make sure the un-insulated legs of the cap don't touch anything else in the control cavity except the two lugs it is soldered to. If needed, you can slip a piece of heat shrink tubing over these legs, or insulate them by some other means, like black electrical tape.



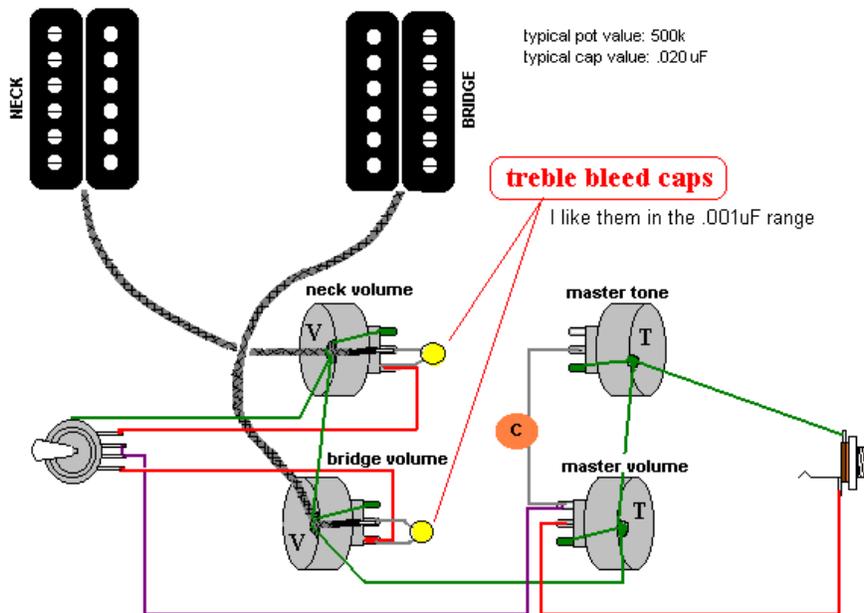
Now, we'll find the output lead from the pup selector switch, and unsolder it from the output jack. Solder it, instead, to the first lug on the **master volume** pot where you have already soldered the master tone cap. Solder a new jumper from the center lug of the master volume pot to the output jack, where you removed the lead from the pup selector switch.



Actually, we COULD be done... But, if you DO want to make your pickup's volume pots independent, then you may need to reverse the "in" and "out" leads to match this drawing - put the pickup's lead on the center lug, and put the jumper to the pickup selector on the first lug. One of the disadvantages of this type of wiring is that the tone of the pups gets dark very quickly when you turn the individual volumes down... But, there's a fix in the next step.



The "gilding on the lily" for this mod would be the addition of "treble bleed" caps, if you don't already have them. I highly recommend them, as running a pup through two volumes can affect its high-end tone negatively. I've drawn them in as little yellow caps, one leg each on the "in" and "out" lug of the individual pickup volume pots. A typical value for these is in the .001 mf range, some people go lower, a few people go higher...



GOOD LUCK!