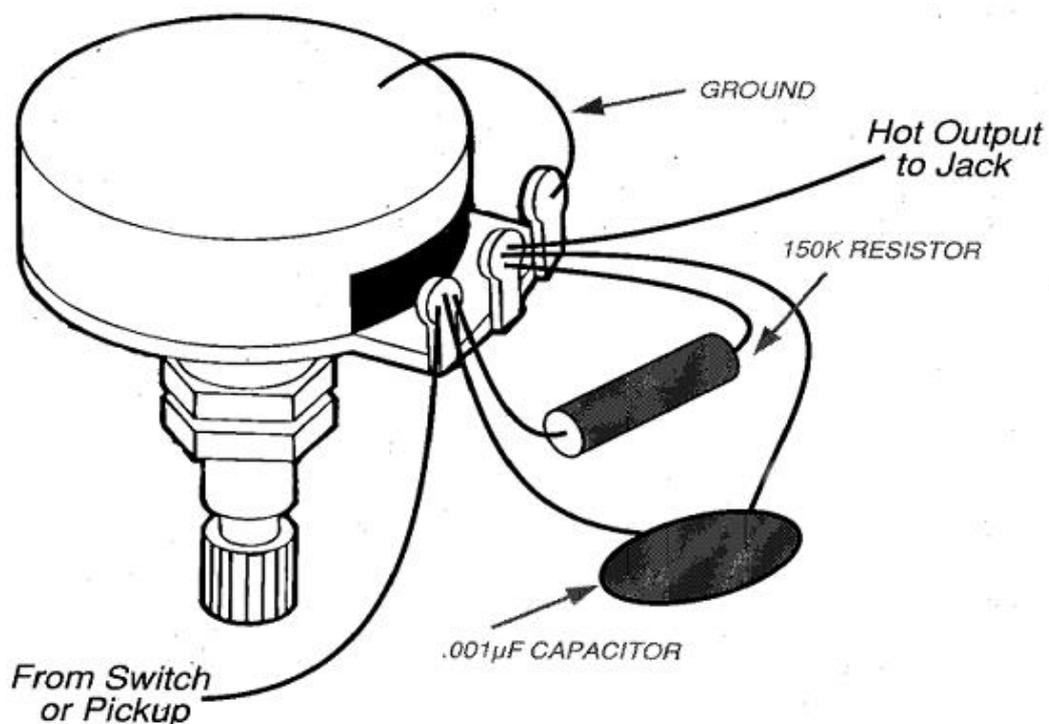


Combating the "volume vs. tone" problem

I'm sure you know this idiosyncrasy inherent in passive single coil pickup systems like the Stratocaster and the Telecaster - when you turn down the volume (even just a bit), the high end or treble loss is **NOT** proportionate !!! In other words, a small cut in volume creates a far greater loss in your guitar's treble response. The best solution would be to replace the complete system for an active one but there is another simple method to get rid of this problem:

1. Make sure that your volume pot(s) are audio taper (log.) types. If not, replace them with such a pot.

2. On the volume pot(s) you add a 150 kOhm ($\frac{1}{4}$ watt) resistor and a .001uF capacitor in parallel across the first and second leg. This values work fine for Strats and Tellies but have to be tried out and modified with other guitars. Make sure to buy high quality parts, I prefer metal film resistors with only 1% tolerance and film caps. But you can use whatever you prefer, Orange Drops, silver mica, tropical fish caps, Bumble Bees feel free to experiment what you (and your ears) like best. By the way, the 0.001uF cap is also often called a 1nF cap. You can also leave out the resistor but then you will have an increased amount of treble when rolling back the volume !!!! This can create interesting sounds eg. for funky rhythmic things but for me this is a crappy solution, so try it with the resistor in parallel. This will not only cure the loss of treble when turning down the volume, but will give the control a smooth, linear taper along its full range without any hot spots. Installing those both parts can be a little bit tricky so I prefer to solder them together before installing them on the pot ;-)



All these circuits are quite crude and won't suit all conditions. They leave very little latitude in deviating from the nominated cap value. You will have to experiment to arrive at the perfect value for your cable. To save time in experimenting you can run some wires out from the volume pot under the edge of the pickguard then you can connect various value caps and resistors to the ends of those wires in a matter of seconds. When you get the right combination they can be soldered to the pot terminals.

And what about the pots' value, is it important ?

A certain amount of experimentation is required with this because it's not particularly related to the pot value although that might affect it to a degree. It's more about balancing the capacitance of your cable, so obviously there are many varied operating conditions that I can not possibly know about. The cap value should ideally be varied according to the cable in use. Change your cable and possibly that means changing the cap. The resistor determines the intensity to which the cap does it's job and helps preserve the pot curve. Without the resistor the pot curve turns almost linear.... it loses it's taper and 'swell' effect as it approaches maximum volume.

Keep in mind, that these values are only a starting point ! If you want a custom calculated treble bleed network that really works right from the start, please contact us and we can do it for you.

Available at the singlecoil-webshop (www.singlecoil.com/shop.html)