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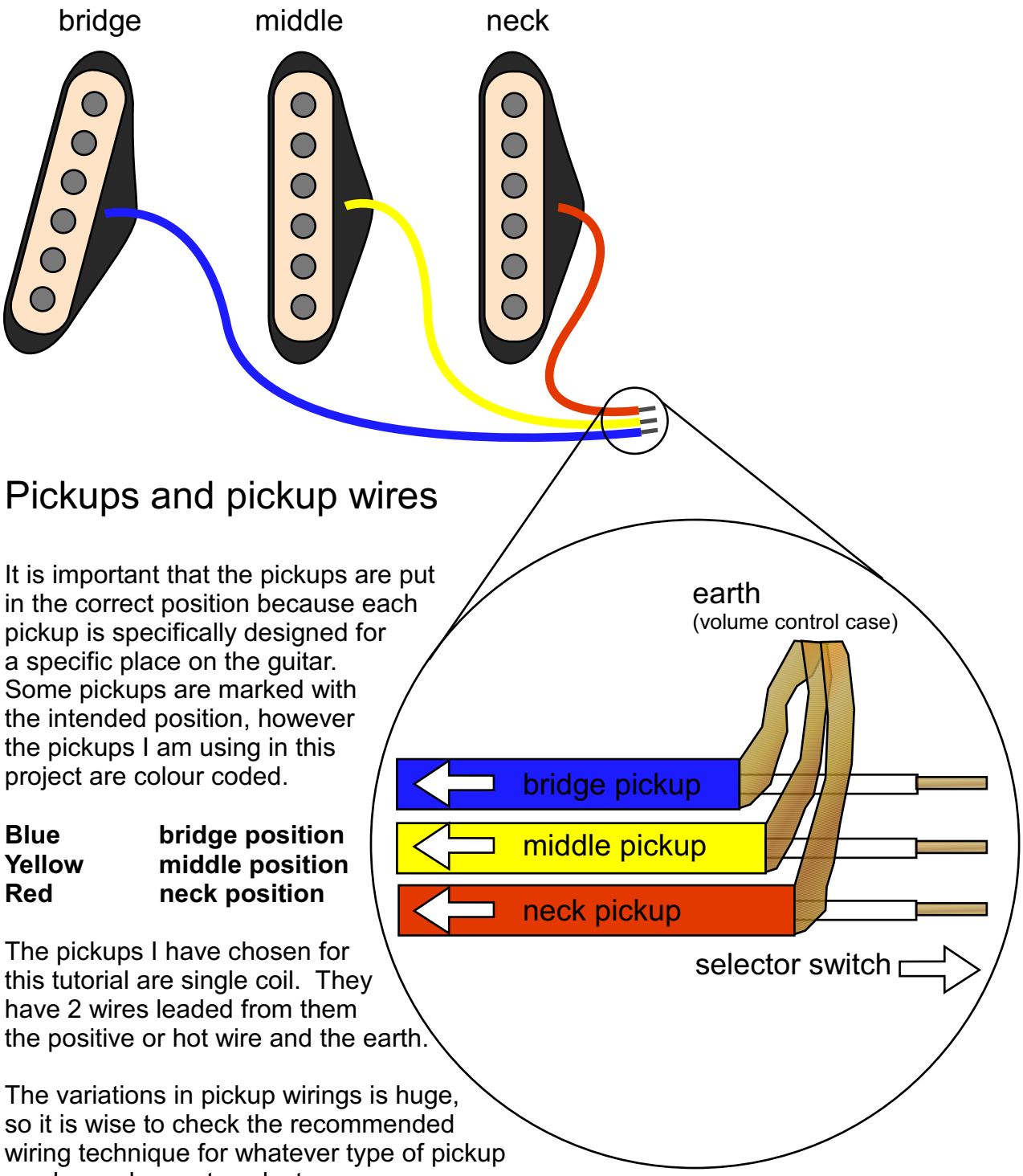
wiring or re-wiring a Fender Stratocaster guitar



Pickups and pickup wires

It is important that the pickups are put in the correct position because each pickup is specifically designed for a specific place on the guitar. Some pickups are marked with the intended position, however the pickups I am using in this project are colour coded.

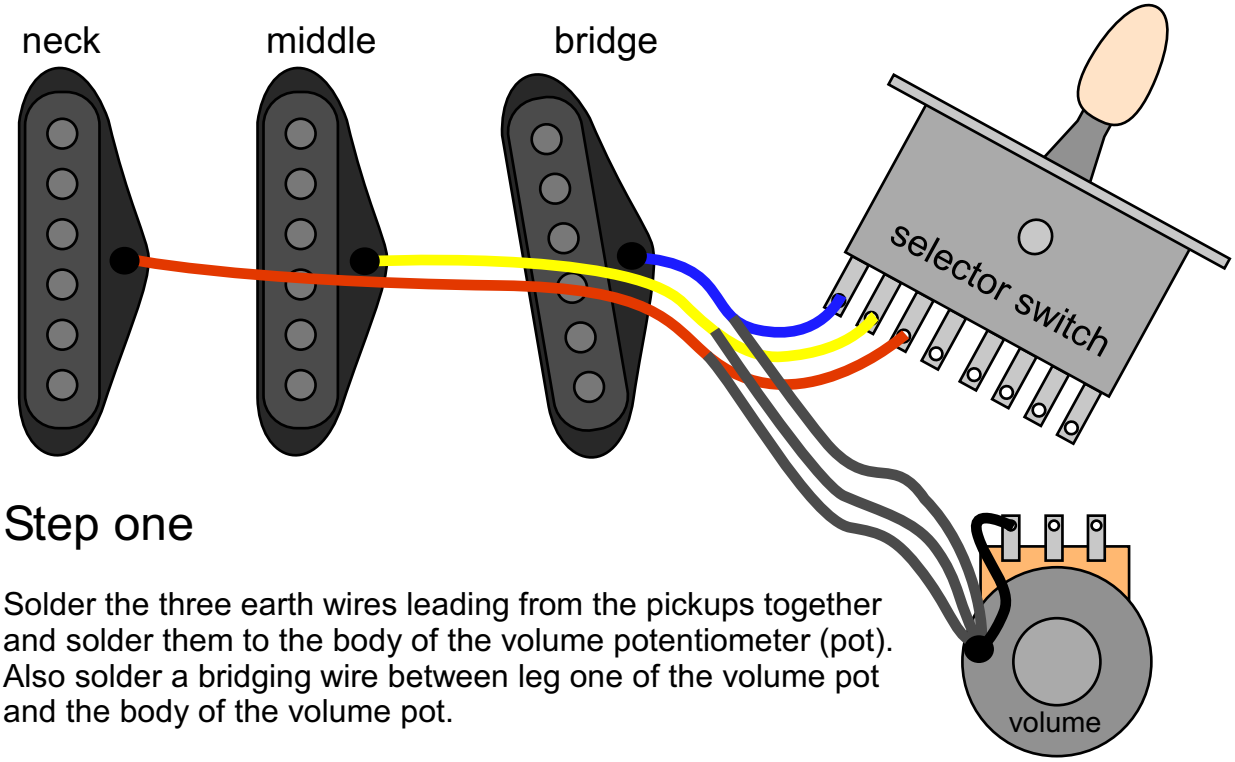
Blue	**bridge position**
Yellow	**middle position**
Red	**neck position**

The pickups I have chosen for this tutorial are single coil. They have 2 wires leaded from them the positive or hot wire and the earth.

The variations in pickup wirings is huge, so it is wise to check the recommended wiring technique for whatever type of pickup you have chosen to select.

For the sake of this project and tutorial I am using 'Ironstone platinum strat pickups' which are good quality but very well priced. But you can use any pickups you might have or want to use.

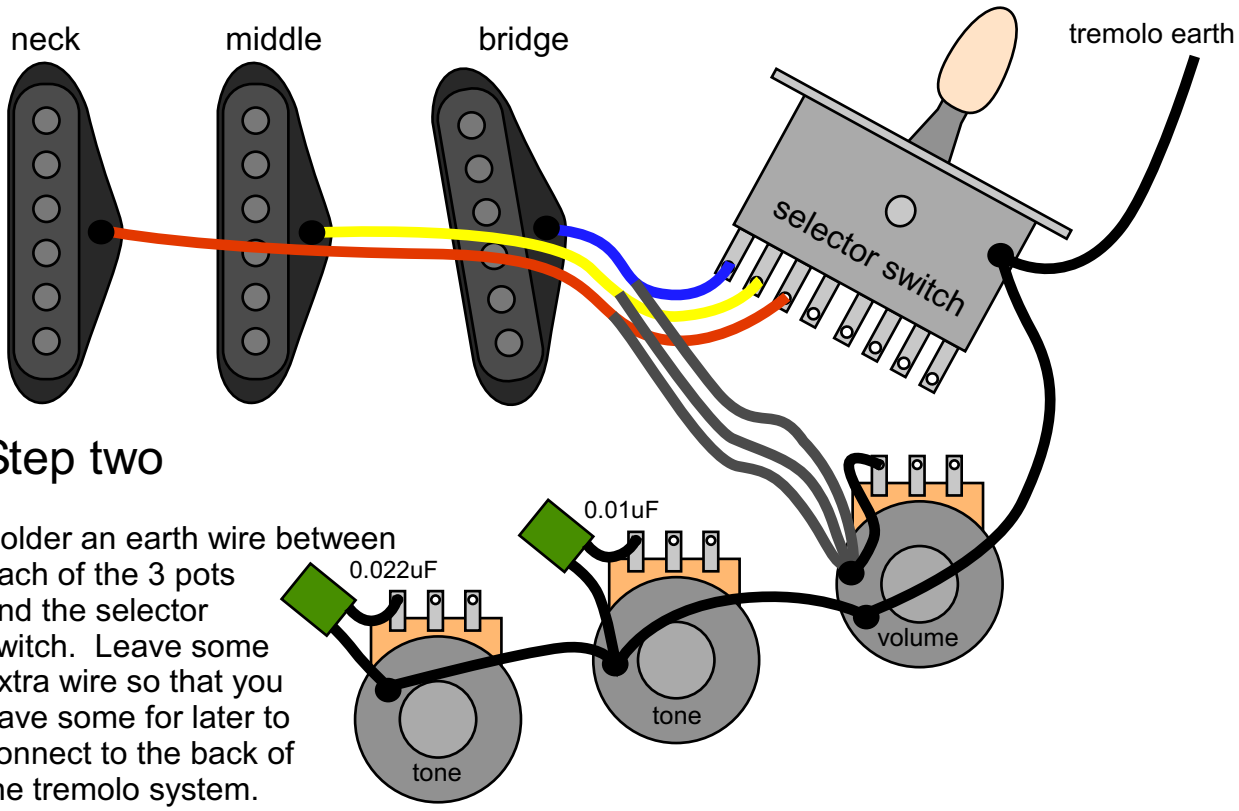
It is important to note however that different pickups have different wiring and therefore you will have to adapt the wiring to suit the pickups of your choice.



Step one

Solder the three earth wires leading from the pickups together and solder them to the body of the volume potentiometer (pot). Also solder a bridging wire between leg one of the volume pot and the body of the volume pot.

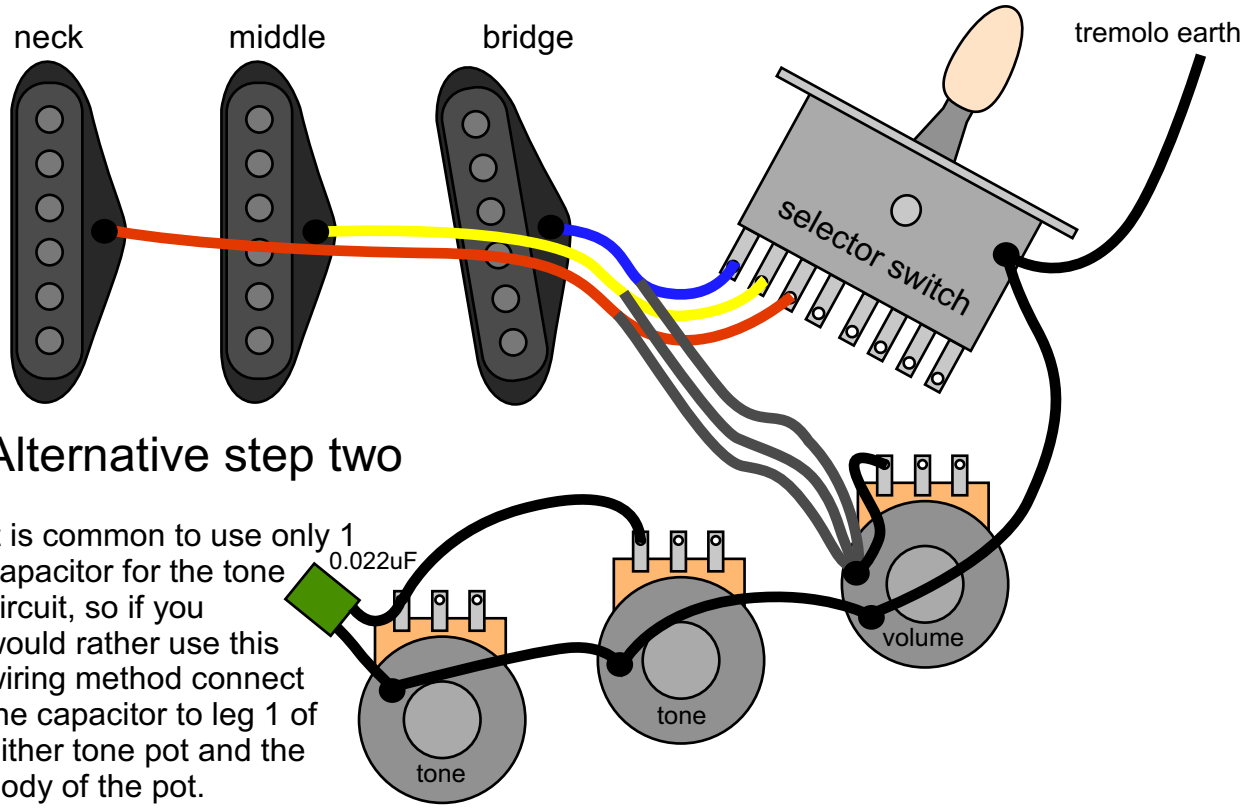
Solder the hot wires leading from the pickups to legs 1, 2 and 3 of the pickup.
Leg 1 bridge
Leg 2 middle
Leg 3 neck



Step two

Solder an earth wire between each of the 3 pots and the selector switch. Leave some extra wire so that you have some for later to connect to the back of the tremolo system.
I leave about 10 inches and then I can cut the excess off at the end of the project.

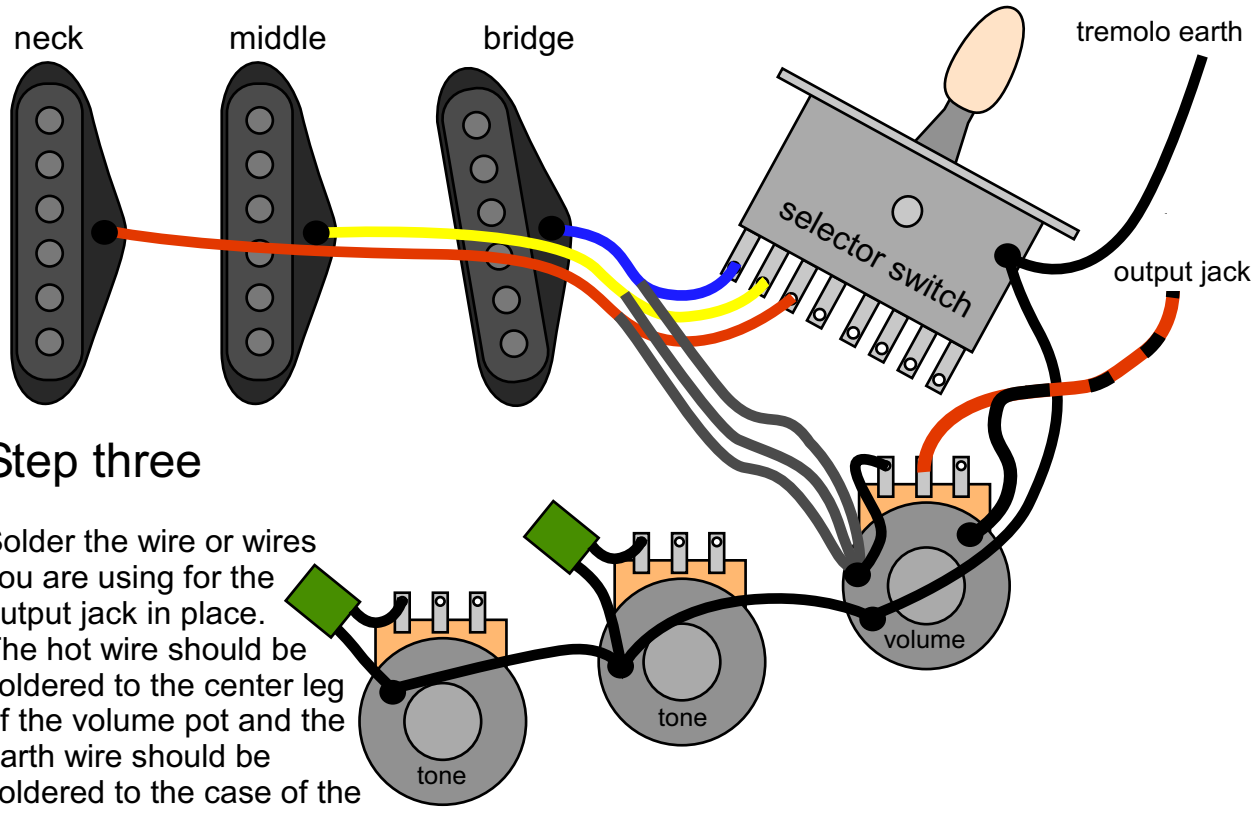
Solder the capacitors to the first leg of the tone pots and the body of the pots.



Alternative step two

It is common to use only 1 capacitor for the tone circuit, so if you would rather use this wiring method connect the capacitor to leg 1 of either tone pot and the body of the pot.

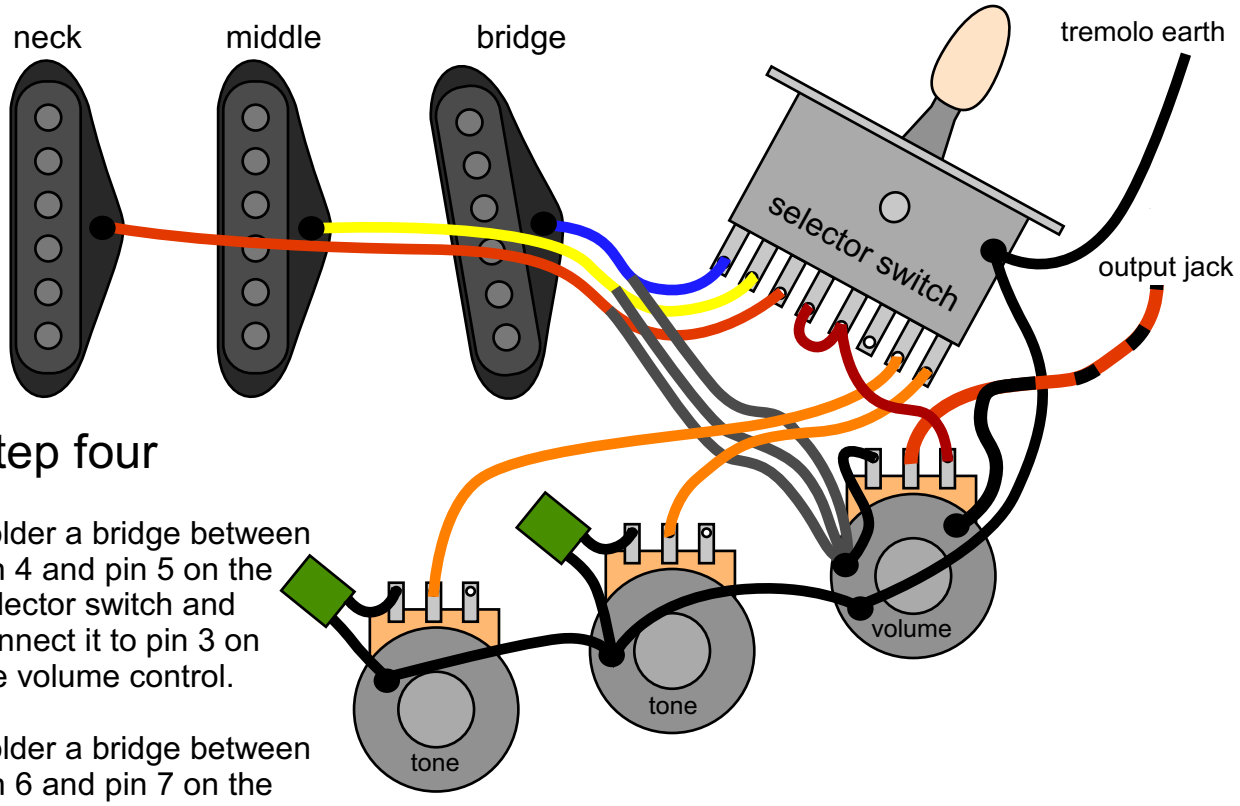
Then solder a bridging wire between leg one of the second capacitor and leg one of the first capacitor, this way both pots will function by using the same capacitor. A common capacitor value for this job is 0.022 micro farads.



Step three

Solder the wire or wires you are using for the output jack in place. The hot wire should be soldered to the center leg of the volume pot and the earth wire should be soldered to the case of the volume pot or any good earth.

Some people and companies like to use 2 single core wires for this job, but I like to use screened wire to added protection against external interference.



Step four

Solder a bridge between pin 4 and pin 5 on the selector switch and connect it to pin 3 on the volume control.

Solder a bridge between pin 6 and pin 7 on the selector switch and connect it to pin 2 on tone control 1 (the center pickup tone control).

Finally connect pin 8 on the pickup selector switch to pin 2 on tone control 2 (the neck pickup tone control).

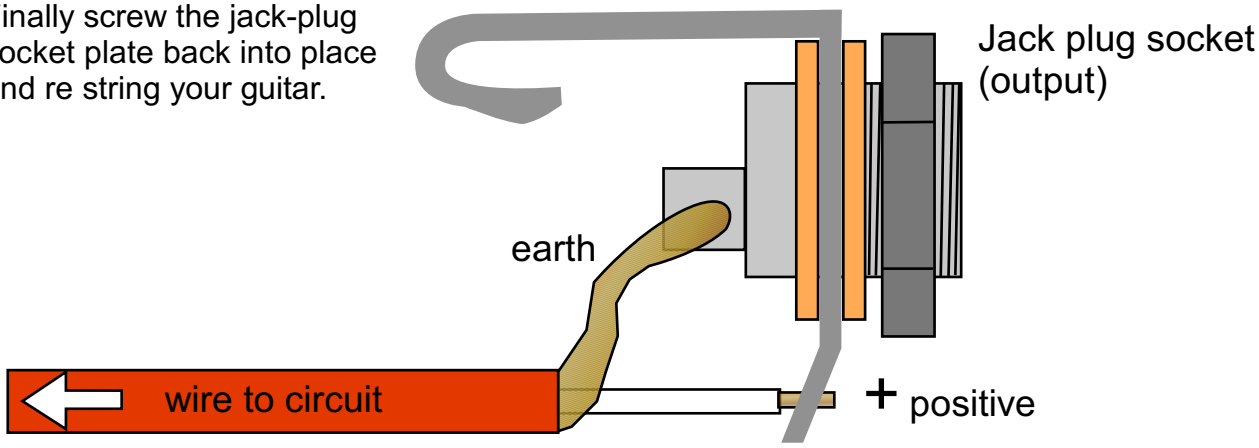
Step five

Thread the earth wire through the provided hole ready to be soldered to the spring retainer or tremolo system. Thread the output wire through the body to the intended location of the output jack-plug socket and then screw the scratch plate into place, taking care not to trap any wires. DO NOT OVER TIGHTEN THE SCREWS, the scratchplate and backplate crack easily if you over tighten the screws

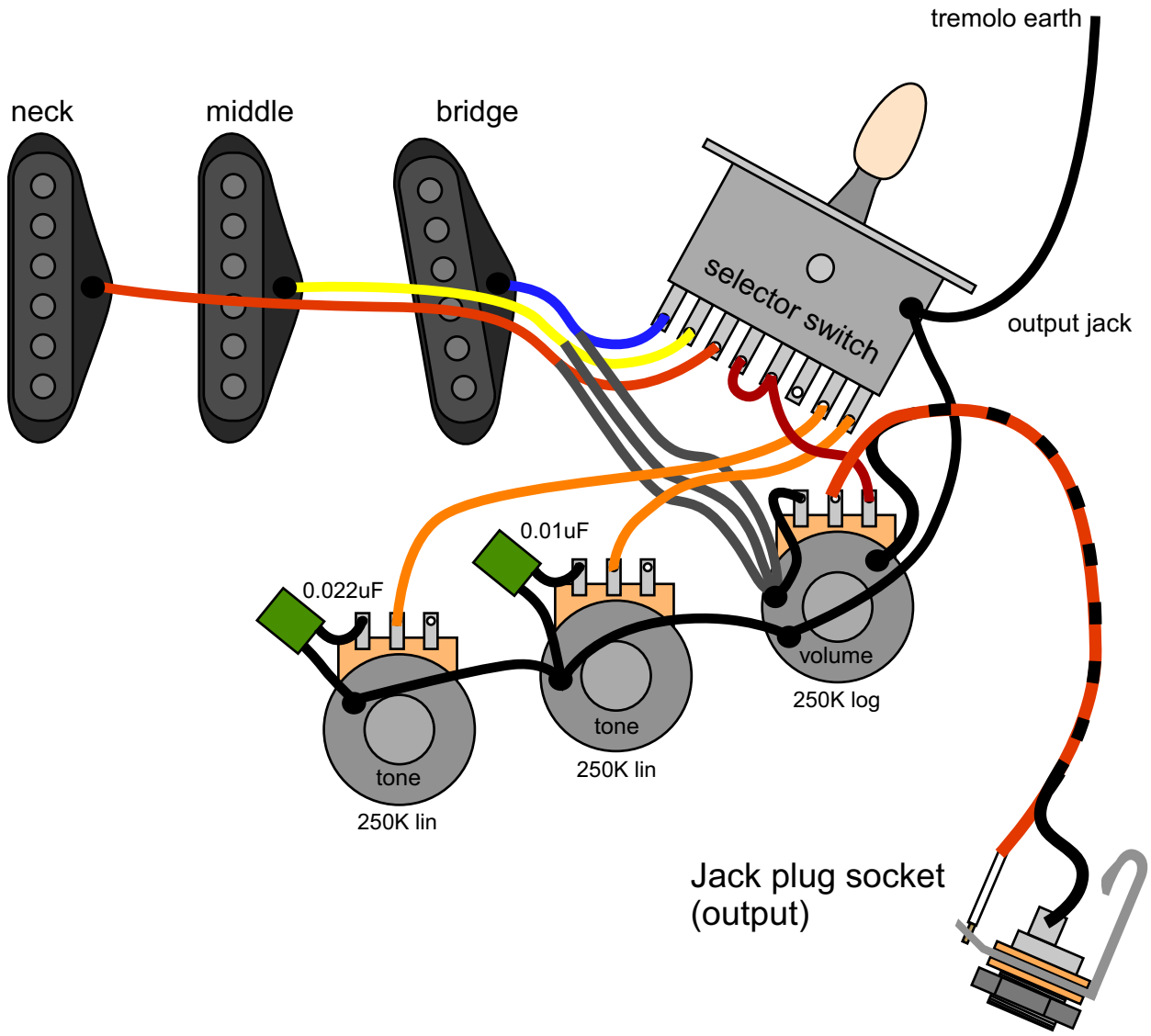
Solder the earth wire to the tremolo system where the original wire was joined.

Solder the hot output wire to the output socket, it should be soldered to the connection that comes in contact with the tip of the jack plug. Solder the output wire earth to the output socket contact that leads to the outside of the jack-plug socket.

Finally screw the jack-plug socket plate back into place and re string your guitar.



Complete circuit map



Useful Web sites

pickups	www.ironstone-pickups.co.uk
wiring	www.rcguitars.com/
scratchplate	www.guitarselectric.co.uk
knobs & switch tips	www.cdguitars.co.uk
circuit diagrams	www.seymourduncan.com/support/wiring-diagrams

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