Charge Cooler Pump Wiring - Rally style.

There are any number of ways of wiring the pump. The scheme detailed below has the advantage that all the additional wiring is kept short and contained alongside the existing wiring in the boot. You only require one longer wire to power the pump. Also, since you have the clam off anyway, it makes for easy access to the wires. I strongly recommend following the existing colour coding - if you tap into a green wire, use a green wire. It will make things so much easier to follow at a later date should you need to.

The left hand boot area houses three relays: K16 (fuel pump); K18 (ECU); K24 (start & charging) and two fuses FR1 (cigarette lighter) and FR2 (fuel pump). We are going to add our charge cooler relay and fuse.

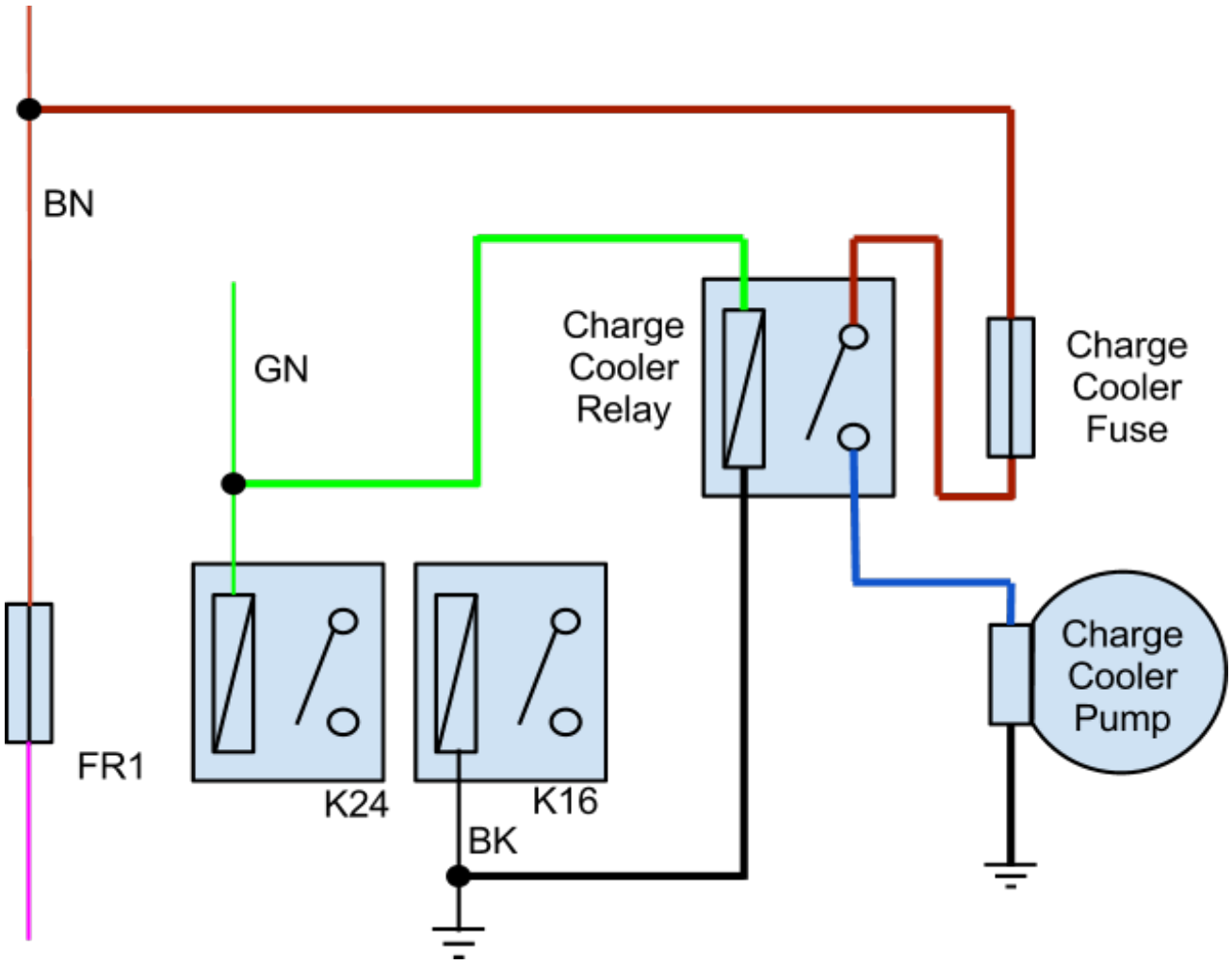
We want our CC pump to switch on with the ignition so our relay solenoid requires a switched supply. We get this from the green wire that does the same job for the K24 relay. The other side of the solenoid needs to be earthed which we get from the black wire on K16. Tap into these wires, hook up the CC relay solenoid terminals and now, when you turn the ignition on, the relay will click into life.

The power for the pump we will get from the battery side of FR1 which is the brown wire. This is a non-switched feed that comes from the battery via the 40 amp FL4 fuse at the front of the car. It supplies the cigarette lighter via the 10 amp FR1 so there is plenty of capacity left to power the CC pump. Tap into the brown wire and run it to our CC fuse and then onto the switch side of the CC relay. We can then run the relay switched, fused supply to the pump using loom tape to add it to the rest of the wires heading back to the engine bay via the big grommet.

The final piece is to earth the negative side of the pump and you will find there is a handy earthing point on the left hand side rail under where the expansion tank sits so you can add it to that.

Diagram on the next page - thin lines are existing wires, thicker lines are our new wires.

The CC pump should only draw about 3.5 amps, so a 5 amp fuse should do fine.


BN
GN
Charge
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Charge
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Charge
Cooler
Pump
FR1
K24
K16
BK