

Installing the 3rd brake light

Parts list

Caterham Sub-loom

http://www.caterhamparts.co.uk/product.php?id_product=345

LED 48 light

http://www.cbsonline.co.uk/product/48_LED_THIRD_BRAKE_LIGHT_LEDST6

Overview of process:

1. Remove fuel filler cover.
2. Disconnect existing brake loom/Connect the caterham sub-loom in its place.
3. Route loom up through fuel filler hole.
4. Cut off spade connects on caterham sub-loom and connect CBS 48-LED light loom
5. Attach CBS 48-LED light to rollbar with cable ties.
6. Route wiring under rollbar.
7. Cable tie and stow existing loom in fuel filler cover.

Step 1 - Remove the fuel filler cover

To the RHS corner you will see the fuel filler cover with 4 fixings. The front two fixings are easier to remove, the rear in my case were difficult to remove. Mine seemed to rotate as if they were attached but eventually they came free and the cover could be removed.



fig1 - Fuel filler cover showing fixings

Once removed you will see the fuel filler pipe and to the RHS a hole which leads down to the gap between wheel arch and the fuel tank (see Step 3 for pictures of routing).

Step 2 - Disconnecting existing brake loom and connect sub-loom

I was able to lie under the RHS rear of the car and see the brake loom connected. Connection is two large blocks. Disconnect the two blocks, pressing the button on the side to disconnect and substitute the corresponding blocks on the caterham high level brake loom in its place, as shown in fig2.



fig2 - Caterham sub-loom connected to brake loom

The problem is the hand access and you will have to do it with one hand. I found by removing the grommet in the wheel arch (shown in fig 3) gave me more room to connect, and then re-fit the grommet once finished.



fig3 - Grommet in wheelarch that was removed to help connection

Step 3 - Route loom up through fuel filler hole.

Once you have connected the loom, feed the cable up through the fuel filler hole. I was able to use the RHS of the filler, as shown in fig4. As I was making new connections, you could always cut off the spade connects that come with the sub-loom (see fig5).



fig4 - Caterham high-level sub-loom through the RHS of fuel filler hole

Step 4 - Cut off spade connects on caterham sub-loom and connect CBS 48-LED light loom

Remove the spade connects that come with the Caterham sub-loom (shown in fig5). I bought male and female connects from Halfords for a few quid, and will use those instead.

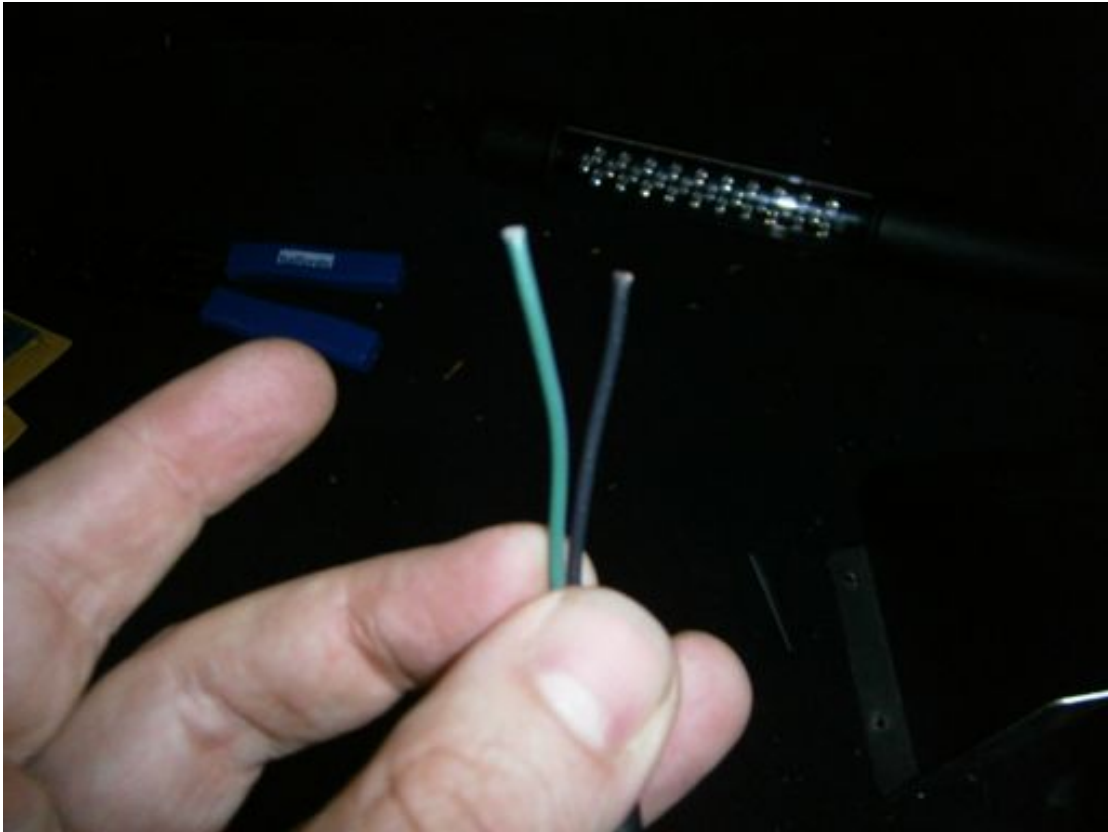


fig5 - Removed connectors from sub-loom

Remove half an inch of cable, leaving the wire. Insert into the female and male connectors. The male spade connects had an end stop as a guide. Crimp the male and female connectors to each loom. On each spade connect there was a "waist" that i used as I guide. Worth having a few spare for the failed attempts 😊

Connect the loom, and I used tape to protect the ends and taped the connection together as shown in fig6.

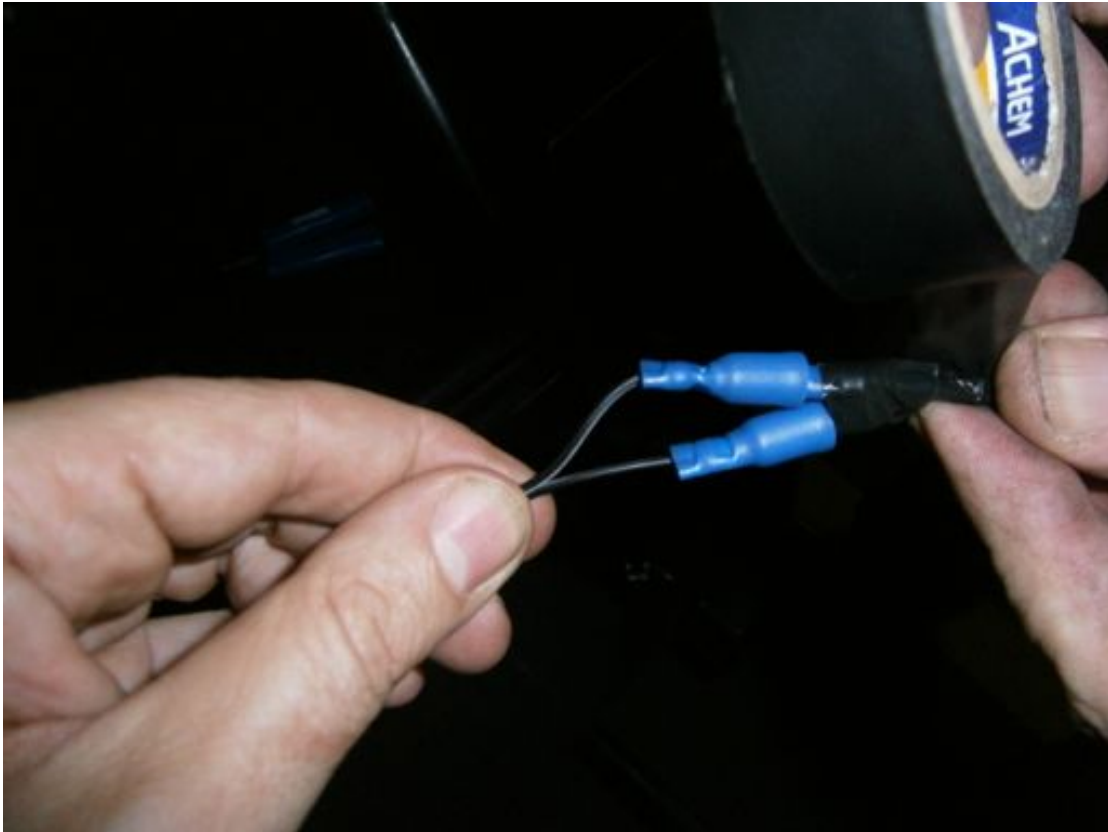


fig6 - Spade connects crimped and about to be masked in tape

Step 5 - Attach CBS 48-LED light to rollbar with cable ties.

Once the loom is connected, it is just a case of positioning the light on the underside of the rollbar and using cable ties, positioned until happy.

The intention is to use silicone sealer around the edges of the light but at the moment I am leaving as it is so I can easily remove light if faulty.



fig7 - 48-LED lights cable tied to underside of rollbar

I used the guiding features on the back of the light to position the cable ties. This seemed to work well. I might look into a bracket and use these fixings so left them on. A choice is to remove with a sharp knife.



Step 6 – Route cable under rollbar and stow excess in fuel filler hole

Route the cable from the light under the rollbar and use tape to secure and protect it. I fed my cable all the way down and then put the excess in the hole. I taped the sharp edges of the fuel filler hole to prevent and damage to brake loom cable, and also put extra tape on that section of the cable.

Stow the excess (cable tied) in the fuel filler hole and re-assemble fuel filler cover!