

MS Design Daytime Running Lights

Ford Kuga



Parts List

- | | |
|------------------------------|----|
| • Digital Control Unit | X1 |
| • Wiring harness | X2 |
| • LED Daytime Running Lights | X2 |
| • Fuse assembly | X1 |
| • DRL Frames | X2 |
| • Shim (Washers) | X2 |
| • M6 Screws | X4 |
| • Mounting Instructions | X1 |

Tools / Extras Required

- Philips 2 Screwdriver
- 4mm flat Screwdriver
- Crimper
- Long Nose Pliers
- Spoon
- 10mm Socket / Spanner
- Cable Ties
- Snap Connectors Blue & Red
- Heat Shrink Butt Connector
- Blue Spade Crimp



- The MS Design DRL Kit for the Ford Kuga Comes With everything needed for simple installation straight out of the box.

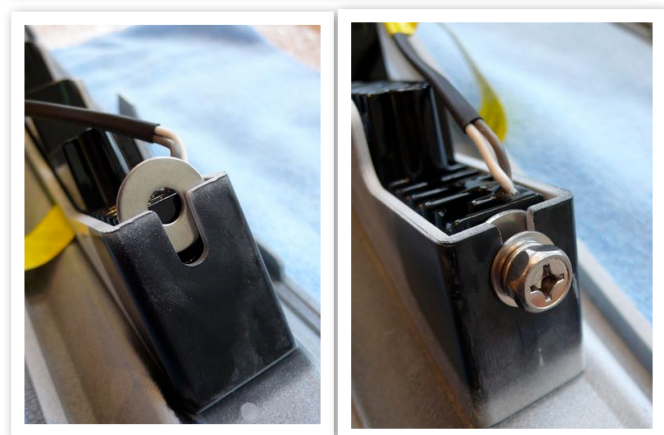


- Now the fun starts. The LED DRL is one solid weatherproof component which slots into the DRL Frame and secured in place by a shim (washer) and two M6 Stainless Steel Screws.

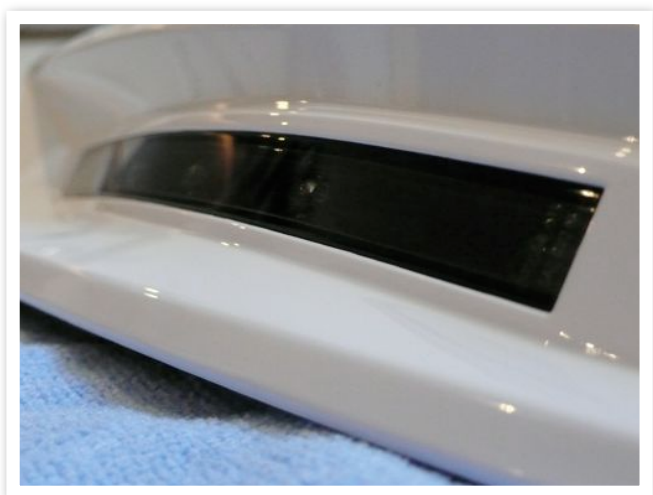
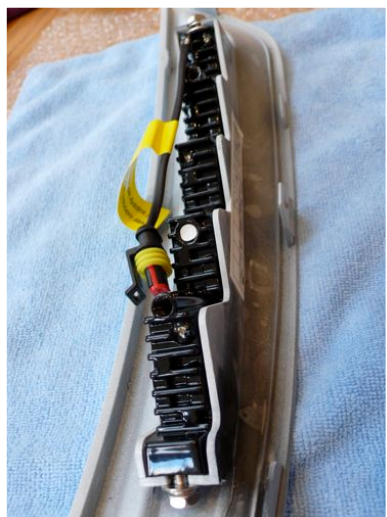


- Start by slotting the DRL into the frame making sure you have the DRL the right way round (thick end inwards) with the cable innermost. Push the sealed LED unit into the frame. It will be an interference fit so a steady pressure is needed until you feel it click into place. It will now be flush to the front.

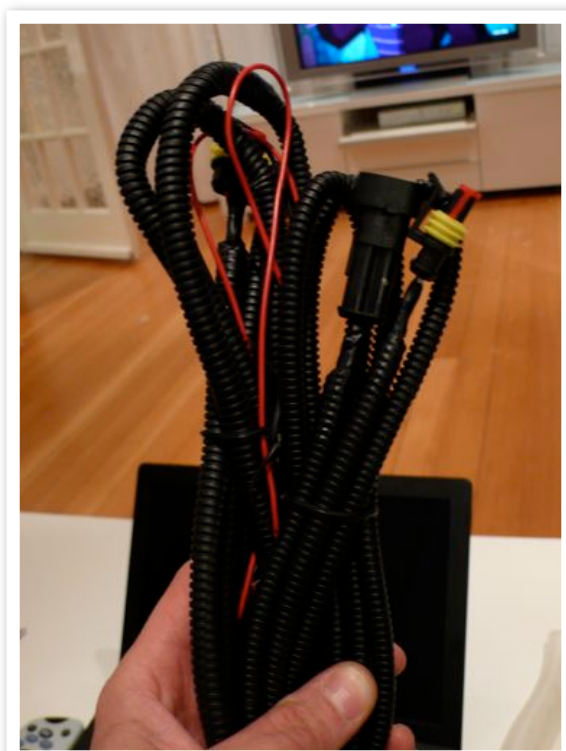
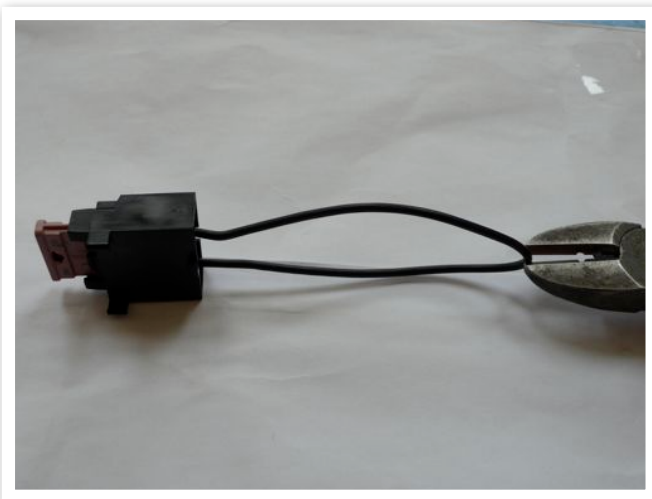
- Insert the Shim at the thick end (innermost) of the housing and loosely tighten the stainless M6 Screw, washer and lock ring in place



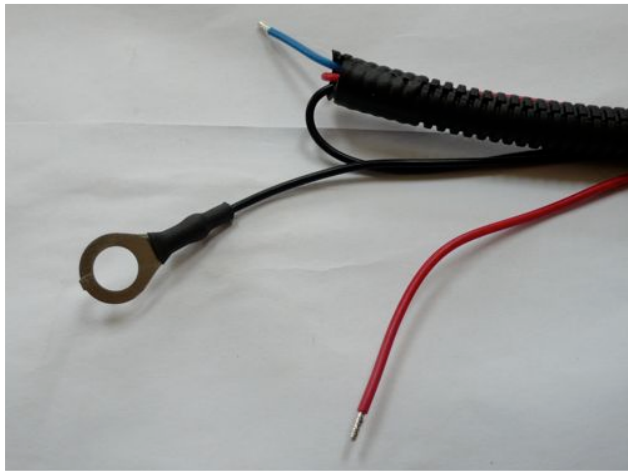
- Repeat the other side excluding the shim.



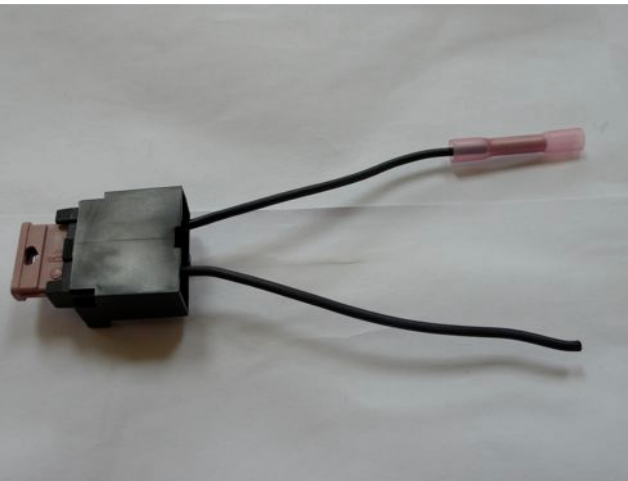
- The thin end of the housing can be tricky as there isn't a lot of room to tighten the screw. Loosely tighten the stainless M6 Screw, washer and lock ring in place THEN push the DRL unit flush again making sure the screw washer is on the outside ready to tighten. You cannot use a driver as there is no room, now use the pliers or 10-mm spanner to screw the nut tight.
- Repeat exactly the same steps for the other DRL Sealed unit and frame assembly.
- The DRL's are now ready to "plug and play". Set them aside carefully ready for the next stage.
- Next we will prepare the wiring and find the various locations for the connections. Don't worry we are only going to make two connections, one will be the 12v "power" supply to run the DRL's and the other connection will be to the headlight / side lights which will send the "signal" to the digital control box when the lights come on.
- The "Signal" from the headlights / sidelight activation will dim the DRL's by 50% when the side and low beam headlights are activated (a legal requirement)



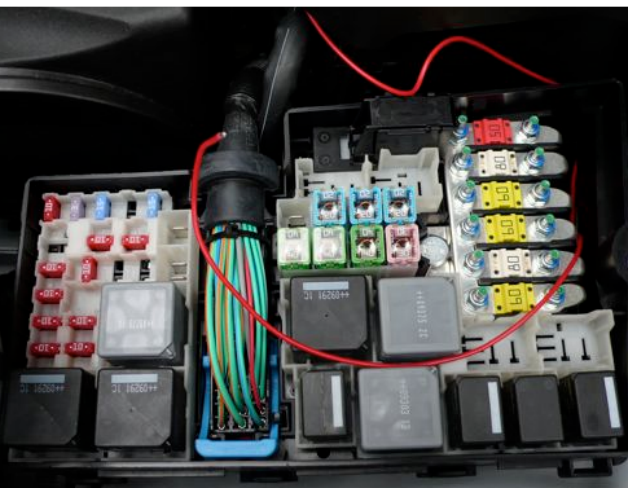
- Locate the Fuse box in the engine bay. On RHD Cars this will be on the passenger side. Pop the cover and have a look inside.
- If you look at the diagram to the right, you will see a load of RED 10-amp fuses and a grey box fuse, now reference the grey box fuse. To the right of the grey fuse you will see the top row of red fuses (x2).
- The left fuse of the two, (top left) is where the feed to the DRL's is meant to be taken according to the instructions. Now because I have Dual Zone Climate control the fuse is in use.
- If you have the same NO WORRIES we can work round it by using a blue snap connector on a 12v feed. If the fuse isn't there on your model then we can use a spade crimp to plug into the fuse holder and gain the 12v power needed.
- Before we do this, take hold of the fuse assembly and cut the middle of the loop
- Now take the wiring harness that comes with the kit and have a look for reference.



- One end will have a plug to connect to the Digital control unit, the other end will have three wires. A long red (12v power from fuse box via supplied fuse). A long black with a ring crimp (The earth, connect to battery earth above fuse box) and a short blue (Connected to lights to send signal to dim the DRL's once they turn on).



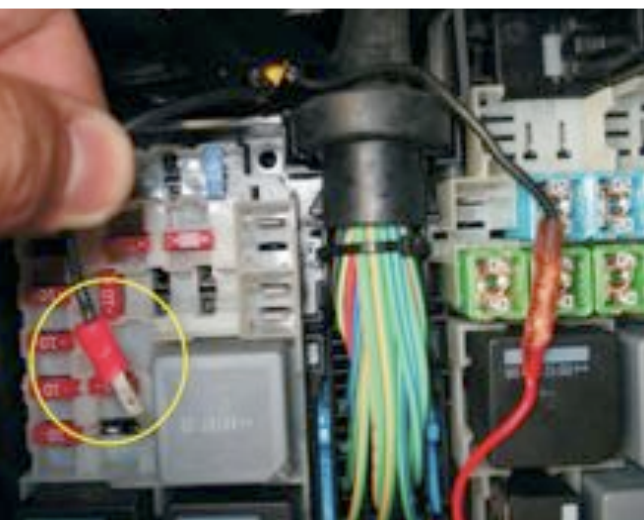
- Take the fuse. One side will be crimped with the through crimp to the long red cable of the DRL wiring harness, see above diagram. The other side will have the blue spade connector crimped on and plugged into the fuse holder as described before. If there is a fuse there already, we will use a blue connector to a 12v supply.



- Feed the wiring harness red cable through the opening at the bottom of the fuse box (windscreen side) there will be a large group of cables there. Crimp the fuse assembly on the red cable and shrink the sleeving with a lighter.

- Connect the wiring harness earth by undoing the battery earth on the bulkhead above the fuse box with 10-mm spanner or socket and re-tighten.





- Look at the top row of fuses in your fuse box as per image left. If there are two fuses at the top next to the grey box you need to follow the 12v power connection below, if the top left fuse is missing proceed to the bottom of page.
- Look at the wiring loom as per the image left. Locate the **blue and green cable** which is ignition controlled. It will be the top right cable. This will be our 12V Feed to the DRL's. We will connect the other side of the fuse assembly to this.
- Now my picture shows a red snap connector this was very tight to crimp shut and not suitable really as it is only rated to 5 amps. I swapped this for a BLUE connector instead for this termination. So go Blue!
- Offer up the connector to the blue and green cable the insert the black fuse assembly cable and crimp tight with a pair of pliers, shut the snap connector cover and were good to go!
- If the fuse is missing forget the above steps and crimp the blue spade onto the free end of the fuse assembly, insert into fuse holder as per image left.
- neatly arrange cables and shut fuse box cover.



- We have nearly finished the wiring, just one more connection to do at the headlight below the fuse box.



- Run the DRL wiring loom cabling with the flexi protector to the headlight. Use a cable tie to fix to the flexi protector already there. We will have just the blue cable left to terminate. Locate the headlight connector and select the cable as shown left. (second cable down on the left) offer up a red crimp, insert the blue and crimp shut with pliers. Snap the cover shut and were done!!!!!!

- Tidy cables, plug the second drl loom into the Digital control box and cable tie.





- If you prefer you could install the DRL's first and get the worry out of the way. How do I remove the inserts I hear you ask. Simple.
- You will need a spoon handle or anything flat and strong and a micro-fibre cloth to protect the plastic and guard against any stress marks or dings. Don't worry. The housing comes away easily if done right.
- Start at the thin end corner of the housing and insert the spoon handle at the top between the light cluster and the Insert with the cloth behind. There are four tabs that need to be popped out. The two end tabs have raised nipples which need to be eased out with gentle pressure (sounds sexual I know lol.)
- Now lever outwards using the light cluster as leverage. If you look at the image left, the retaining tab with the nipple is shown, this will just pop out.
- Once out gently apply pressure and slide the spoon handle along the top applying pressure. When you can get your fingers in just pull outwards **easing** the plastic tabs out as you go.



- Feed the LED connector through and connect to the DRL wiring loom.
- To fit the DRL's do the exact opposite of removal. Line each tab up and push until you hear the audible clicks. the end tabs at either end require an asserted effort to engage into place.
- Once done move to the other side and repeat the process.
- Start car, stand back and admire your work!
- Now get in and go for a drive!

