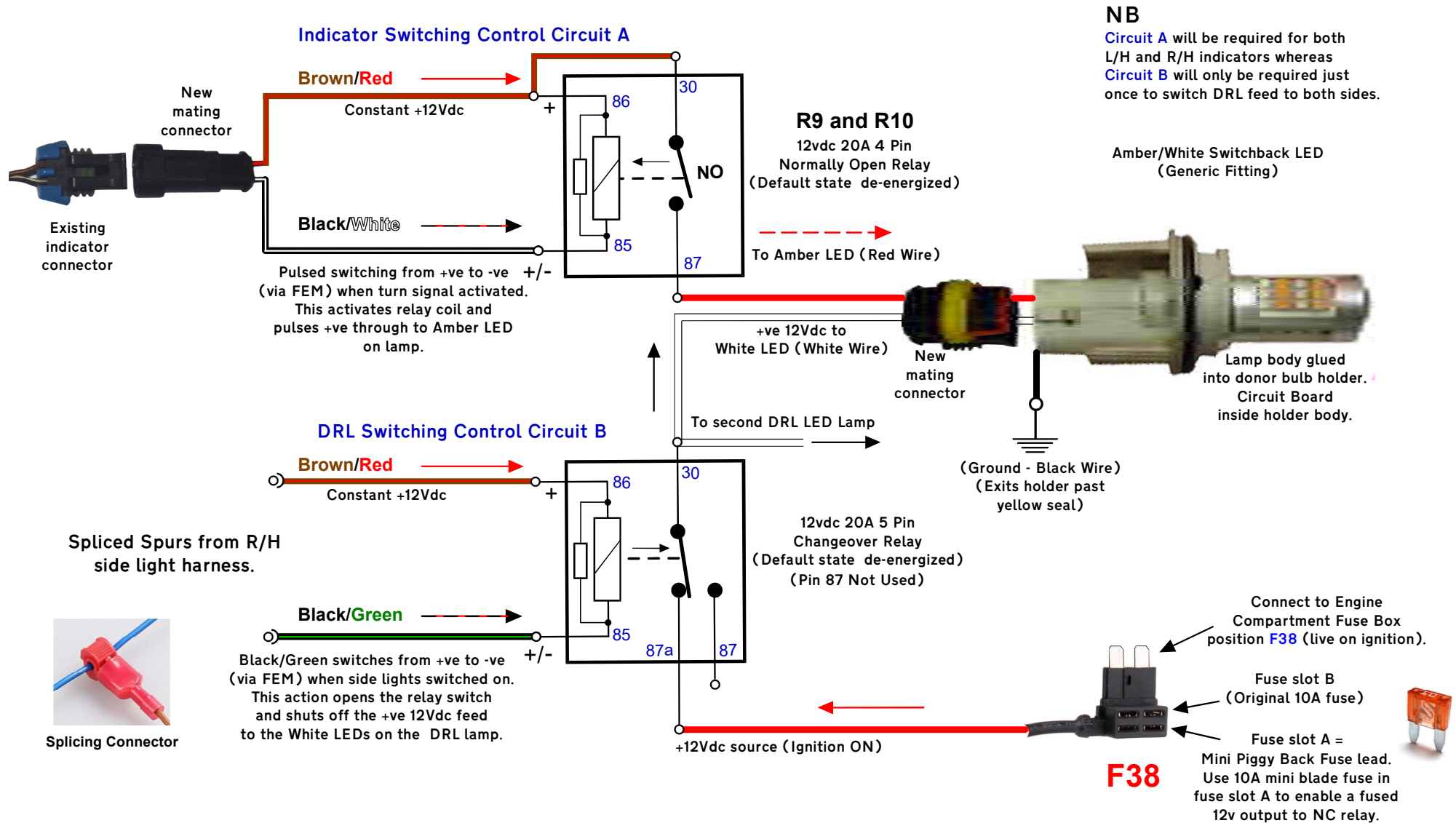


Introduction & Overview

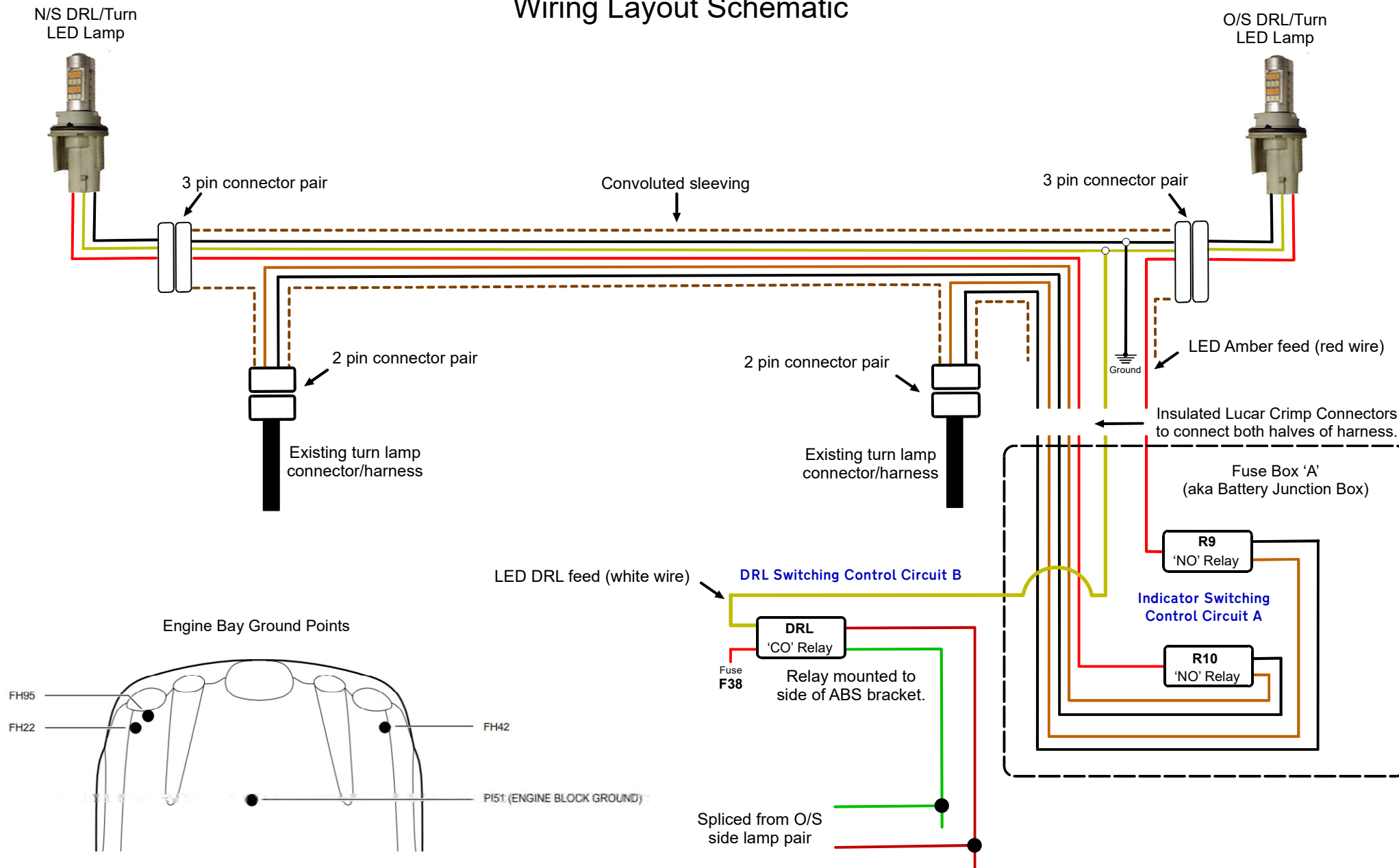
This document provides a hands-on (DIY) guide to upgrading from incandescent front turn signal lamps to high brightness LED ones with built in DRL capability. These lamps are known as “Switchback Lamps” and incorporate electronics within each lamp. The upgrade is performed on a Jaguar S Type SE 3.0L 2005MY. The resultant effect of this upgrade can be seen in the associated You Tube video clip.



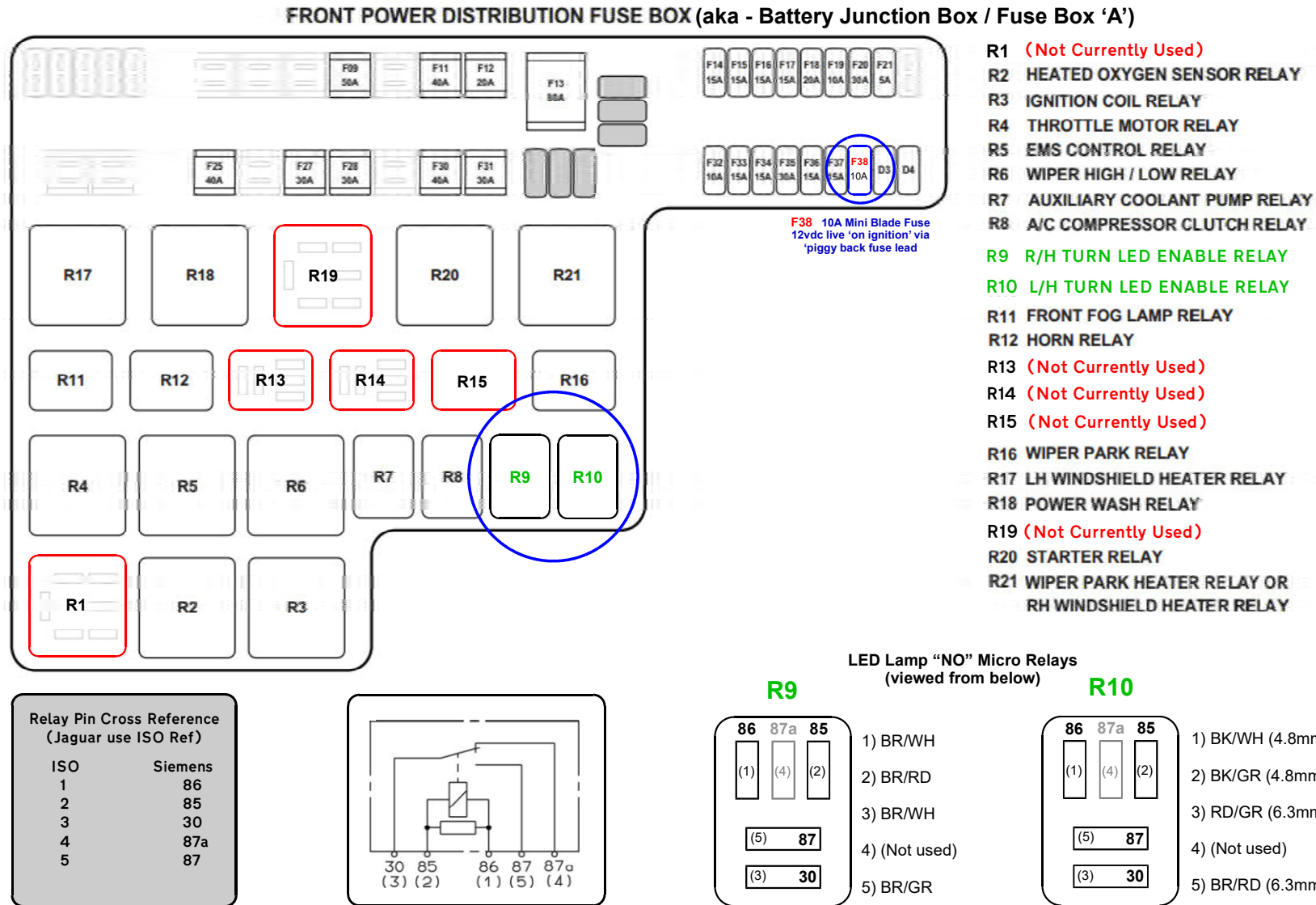
Connection Diagram for front DRL/Indicator Switchback LED Lamps (Diagram and Fuse references used here apply to Jaguar S Type 3.0 SE 2005MY VIN N20xxx)



Wiring Layout Schematic



(Diagram - Relay and Fuse references used here apply to Jaguar S Type 3.0 SE 2005MY VIN N20xxx)





1 x Pair Switchback LED Lamps.



2 x S Type Front Indicator Bulb Holder.
(These will need to be modified to accommodate the LED lamp and PCB)



2 x Pairs of 3 pin waterproof connectors (Pre-wired)



2 x Pairs of 2 pin waterproof connectors (Pre-wired)



1 x 10A Mini Blade Fuse.



1 x Mini Blade Fuse Piggy Back Holder.



Splicing Connector/s (side lamp pick up)



6.3mm crimp connectors Fuse box to harness connections.



Colour coded cable as required to match existing.



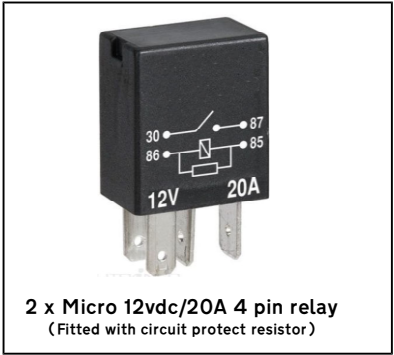
2way & 3way Superseal Connector Adaptors For Convoluted Sleeving



6.5mm Convoluted sleeving T pieces as required.



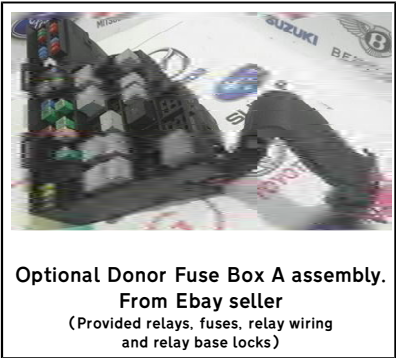
6.6mm Unsplit Convoluted sleeving as required.



2 x Micro 12vdc/20A 4 pin relay
(Fitted with circuit protect resistor)



1 x Micro 12vdc/20A 5 pin relay
(Fitted with circuit protect resistor)



Optional Donor Fuse Box A assembly.
From Ebay seller
(Provided relays, fuses, relay wiring
and relay base locks)



Black Silicone Waterproof Sealant
(LED lamp retention in bulb holder)



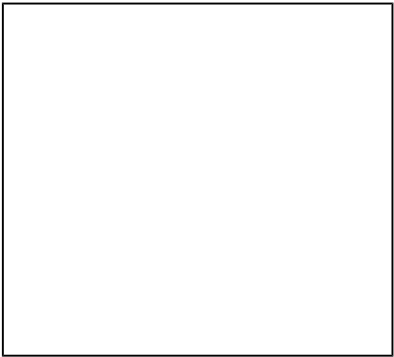
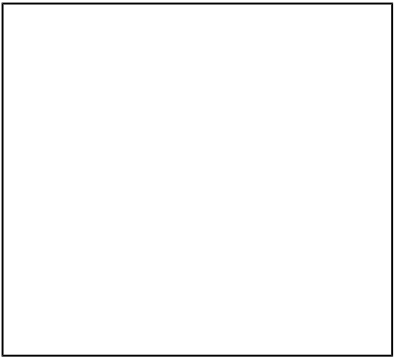
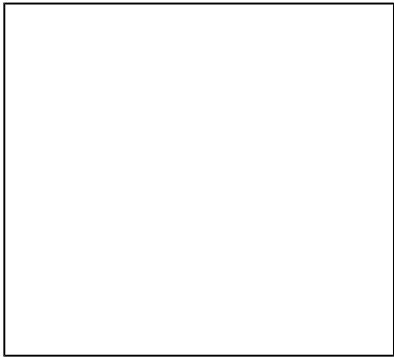
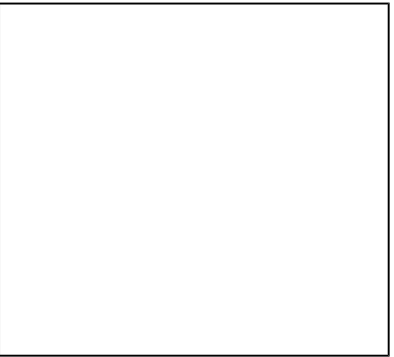
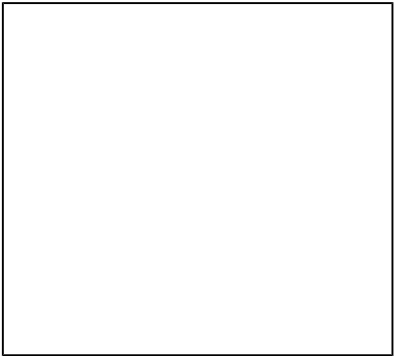
1 x Micro relay base



10 x 6.3mm crimp terminal
(with lock tag for relay base)



10 x 4.8mm crimp terminal
(with lock tag for relay base)



LED DRL/Turn Lamp conversion overview (Preparing lamp holders and Main Harness)



Carefully separate the lamp from the rubber circuit board housing. The lamp and PCB are fixed with black silicon sealer. The solder connections are fragile.



Fit circuit board and LED lamp to bulb holder.
(Bulb holder will need to be modified)



Modify connectors to suit fit as shown below.
(The circuit board wires pass through)



Modified connector fitted to holder
(switchback lamp wires fed through).



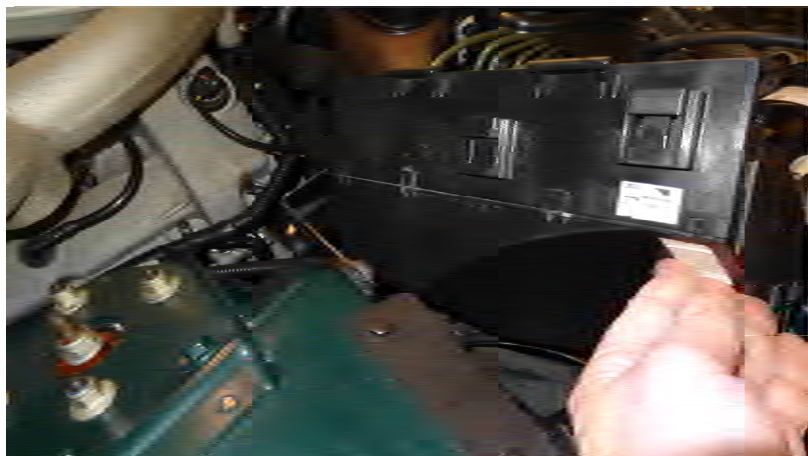
Modified lamp assemblies with new harness
and new 3 way connectors.



New fabricated engine bay harness with LED lamps
(coiled wires connect to 3 relays and Ground).

LED DRL/Turn Lamp conversion overview

(Preparing fuse box and relays)



For my conversion I removed the fuse box and loaded relay bases R9/R10 with cables from a Donor fuse box and then fitted 2 x NO micro relays from the same Donor fuse box. (It is a PIG to remove and access)



Showing relay bases R9/R10 after loading with cables.
(I was going to fit the DRL Control 5 pin relay to R15 - but that was very difficult to access so opted for external mounting)

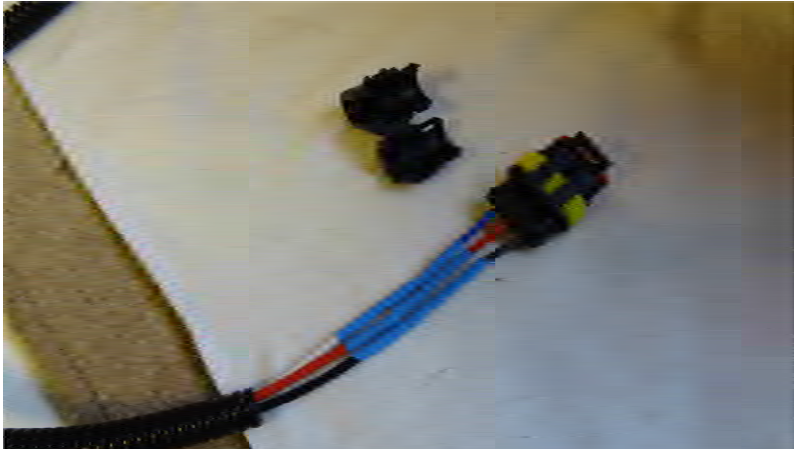


Two small harnesses shown for R9/R10 - These will link to new main harness.
(R9 Blue sleeving - R10 Red sleeving).



New 5 pin changeover Micro Relay fitted in base to side of ABS motor bracket.

LED DRL/Turn Lamp conversion overview (Preparing new Main Harness)



3 Way pre-wired connectors - one for each lamp.



Using Tee connectors for branching to original left and right turn signal harnesses.



Completed Main Harness including micro relay assembly for DRL Control.



Modified DRL/Turn Switchback lamps with new harnesses.

LED DRL/Turn Lamp conversion overview (Installation)



2 x relays (R9/R10) shown light grey. Harnesses for these can be seen lower left of fuse box. DRL live feed connected via Piggy Back fuse connector F38 (live on ignition) A slot has to be cut in lid to allow for Red Wire.



Pass main harness underneath air intake and both top radiator mountings.

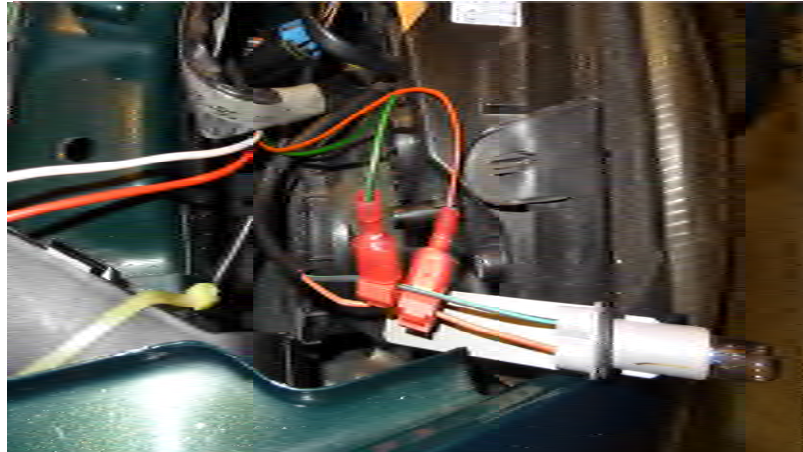


N/S main harness running below rad mount (shown removed).
Turn signal spur will run below cross member.



O/S Main Harness plus three relay harnesses shown
Connect as per diagrams.

LED DRL/Turn Lamp conversion overview (Installation)



Splicing into the O/S Side Lamp for DRL Relay switching.



Showing all connections to relays and fuse box.
(Note GROUND wire connected to radiator top mount bolt)



Showing N/S harness in place and connected to DRL lamp and original turn signal harness.



New harness/wiring stowed away ready for radiator top cover to be re-fitted.

Additional Notes

Please note that the guidelines provided in this document and related video apply specifically to the Jaguar S Type SE 3.0L 2005MY VIN N2022x range. Other models may be similar.

Always check that replacement parts are suitable/compatible before buying. Use your vehicle's VIN reference (Vehicle Identification Number) to correctly identify part suitability. This can normally be found in your vehicle registration document or quite simply by viewing the number on top of your dashboard cowl through the front windscreen