Installation Guide for 15-17 Ford F150 Headlights

Step 1

Tools Needed:

Clip Remover/Screwdriver, 10mm Socket, 8mm Socket, 7mm Socket, 1/4″ Drill Bit

Remove (2) push pins

Step 2

Remove (2) 7mm bolts.

Step 3

Pull outwards to remove the outer trim piece.

Step 4

Remove (6) 10mm bolts, (1) 8mm bolt, and (1) plastic clip.


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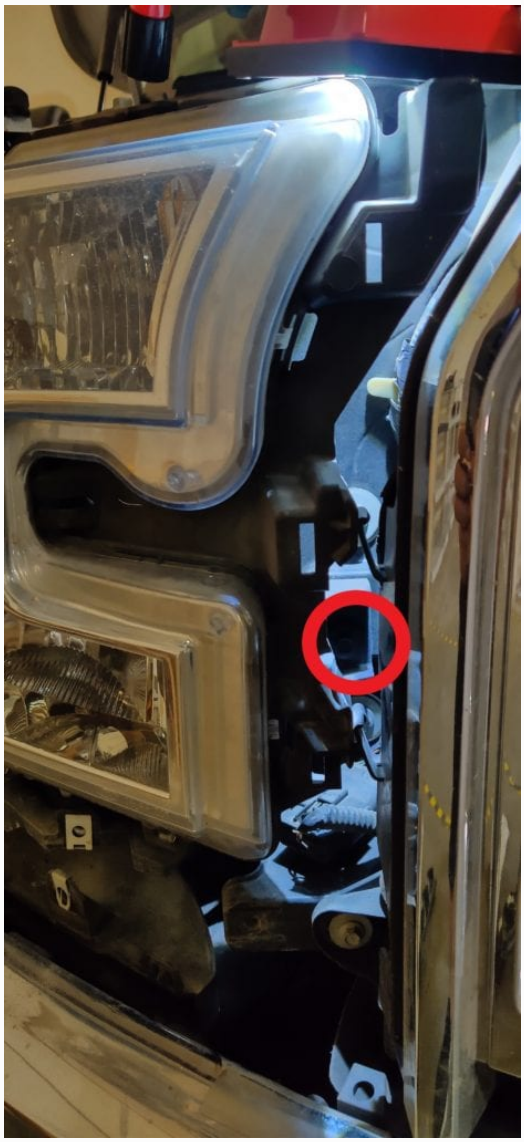
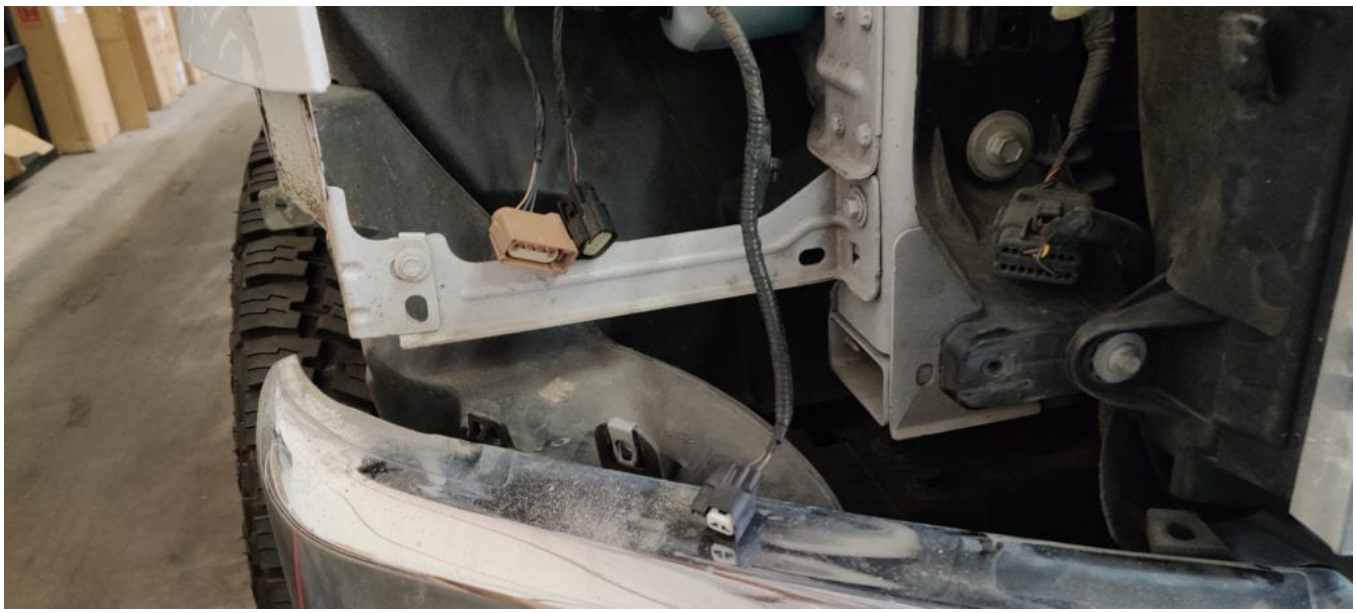
Step 5

To take out the headlights, you will need to remove (3) 10mm bolts. The center bolt will require an extension.



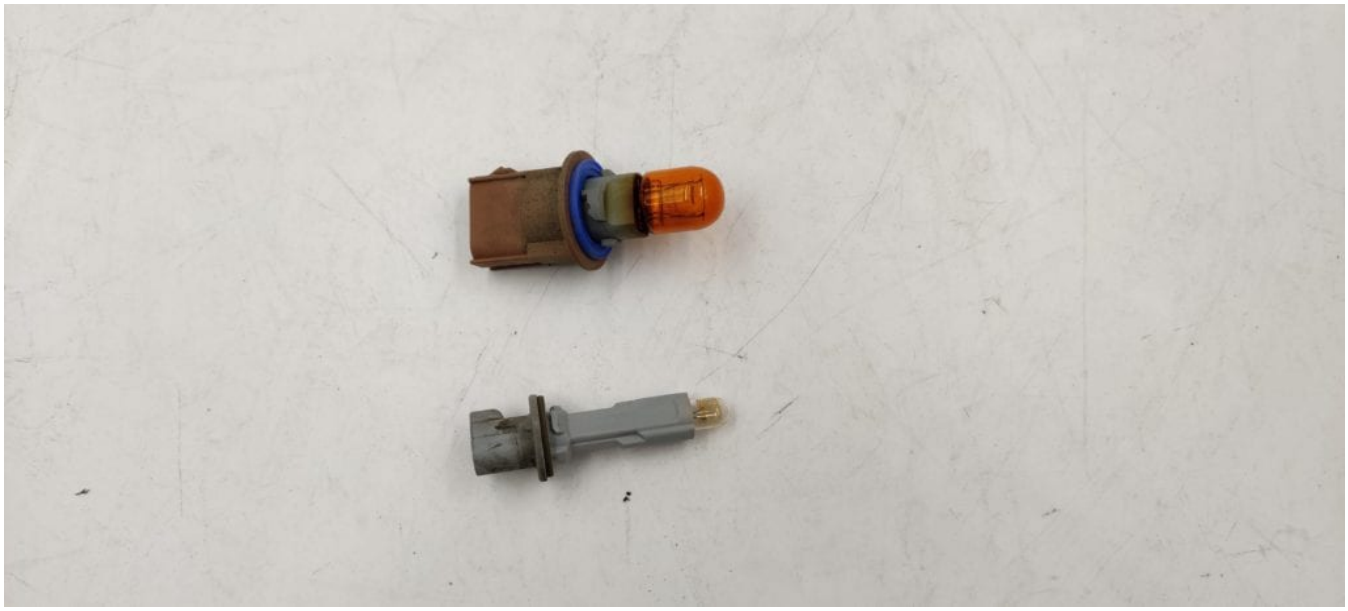
Step 6

Once the headlights are off, you should be left with these 3 connections.



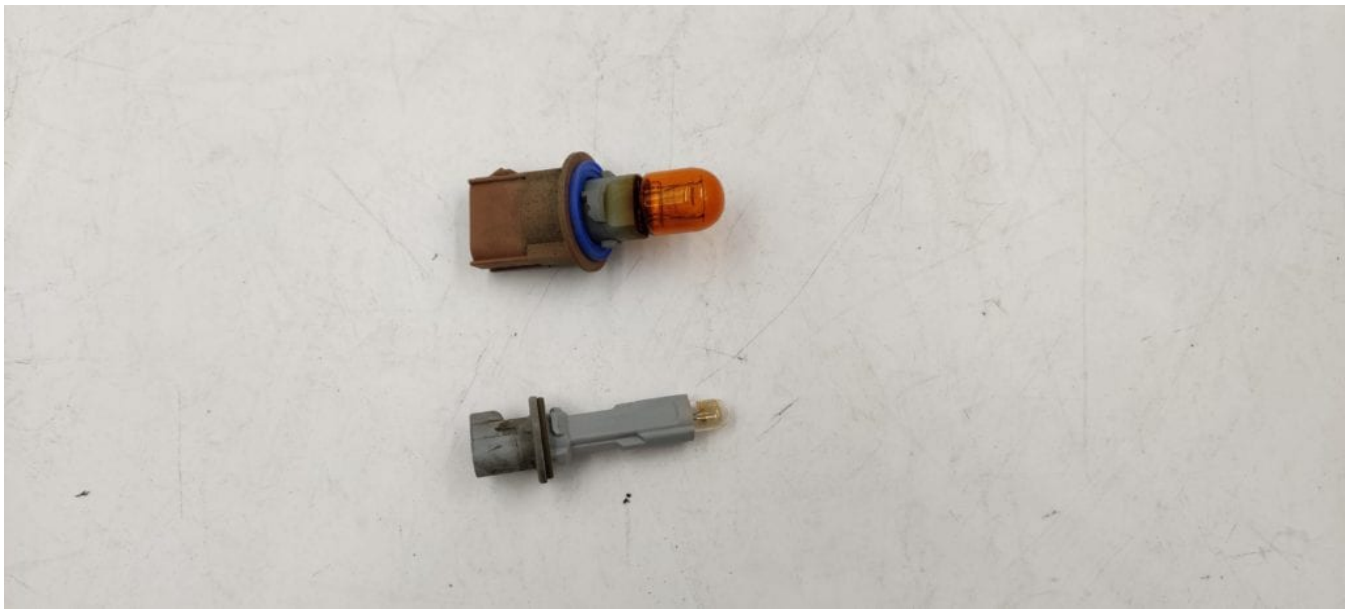
Step 7

Once the headlights are off, you should be left with these 3 connections.



Step 8

Once the headlights are off, you should be left with these 3 connections.



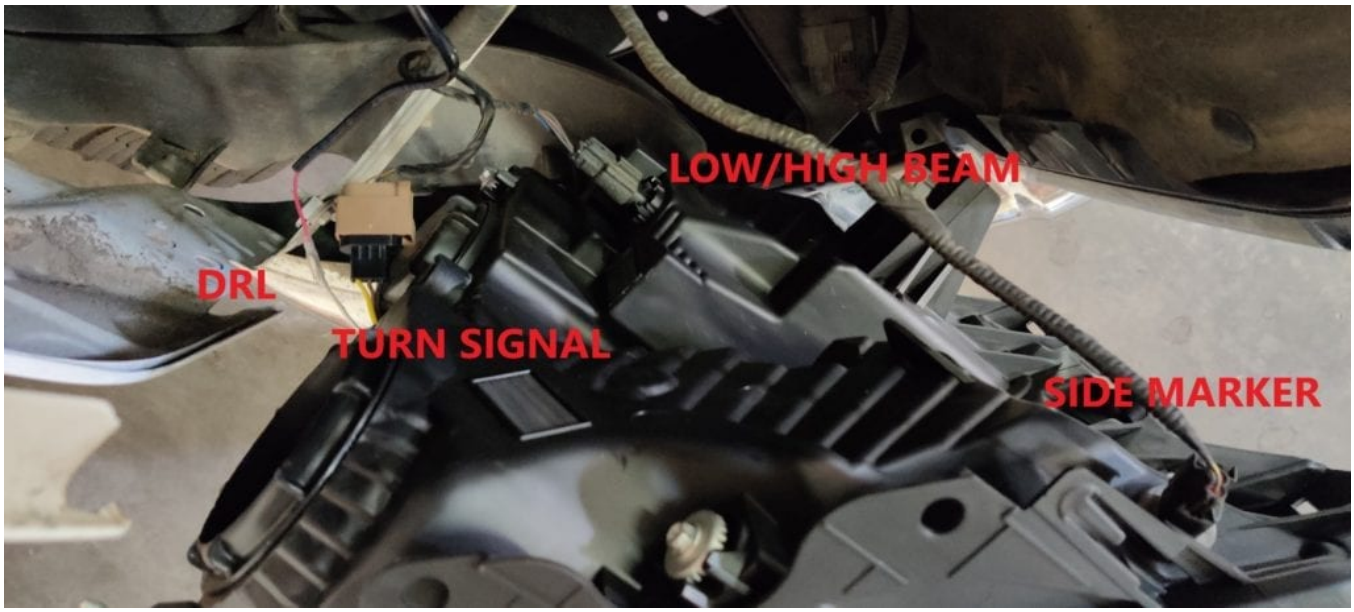
Step 9

Plug the turn signal socket into the female connector. Lock the socket in place.

Step 10

Reconnect all connections, and be sure to connect the white wire to the optional DRL harness.

***** Test all functions with engine On before you put everything back together ****



Step 11

When you have everything put back together; you will need to drill a 1/4″ hole in order to reuse the push pin for the outer trim piece.

Step 12

If you are planning to install the optional DRL harness, connect the red wire from the DRL harness (short end to driver side, long end to passenger side).

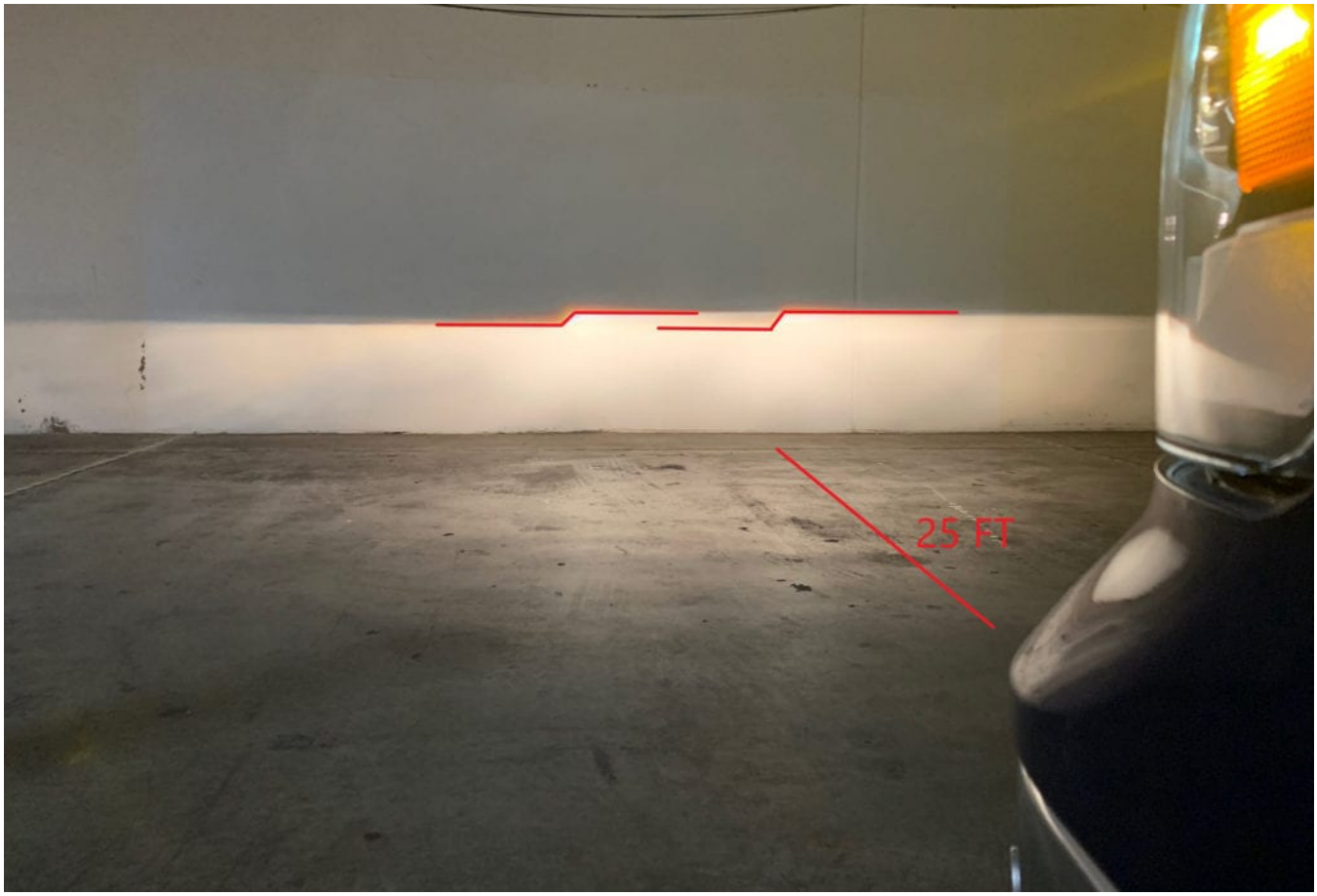
In order for the DRL to function during the day, you will need to tap the grey wire into fuse #97

Step 13

Mount and secure headlights to vehicle and test all functions.

Step 14

You will next aim the headlights at about 25ft against a wall on a level surface.

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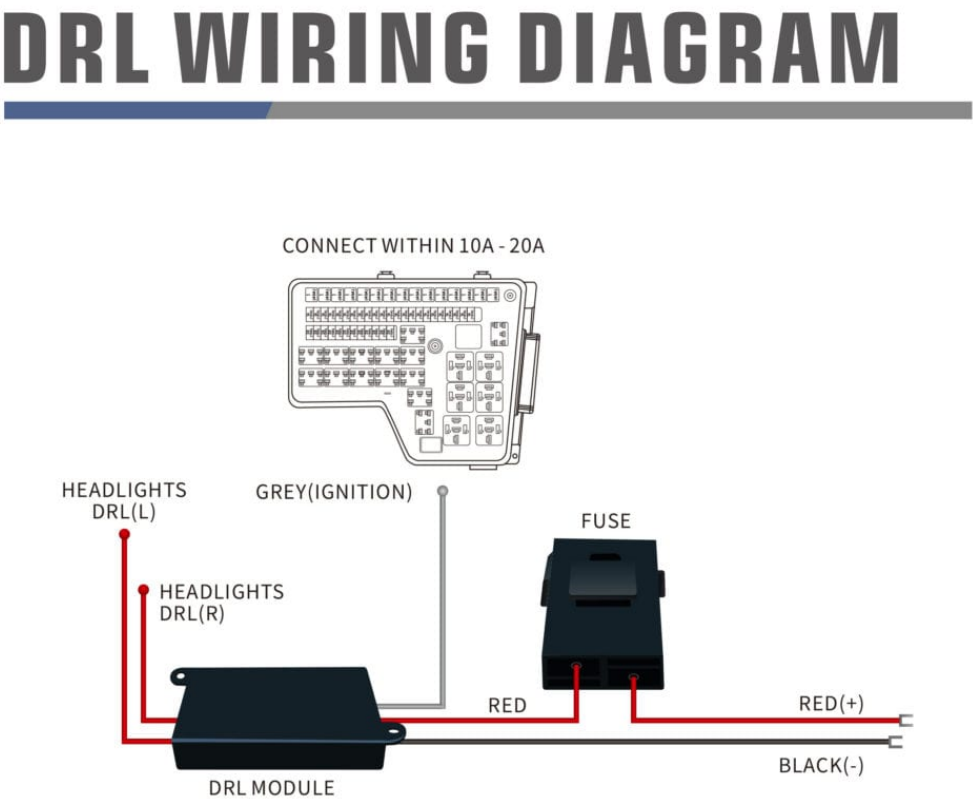
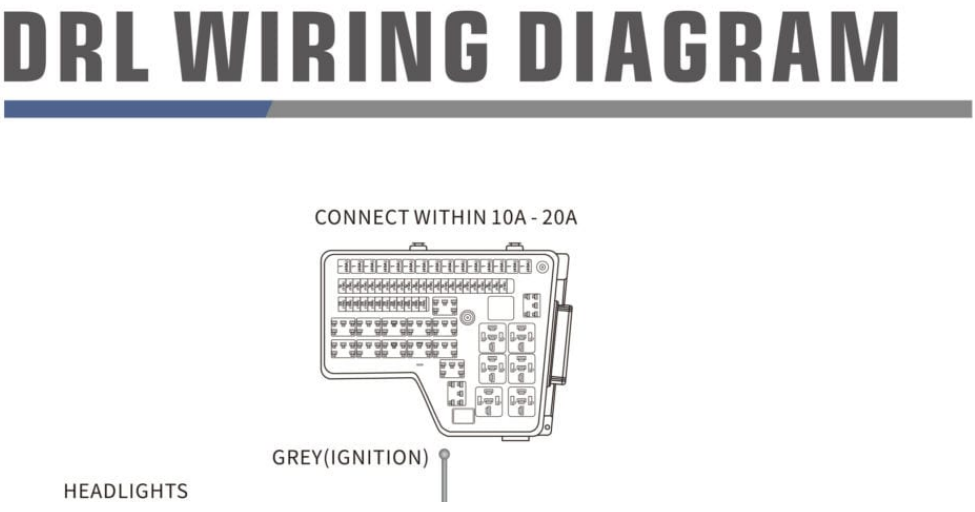
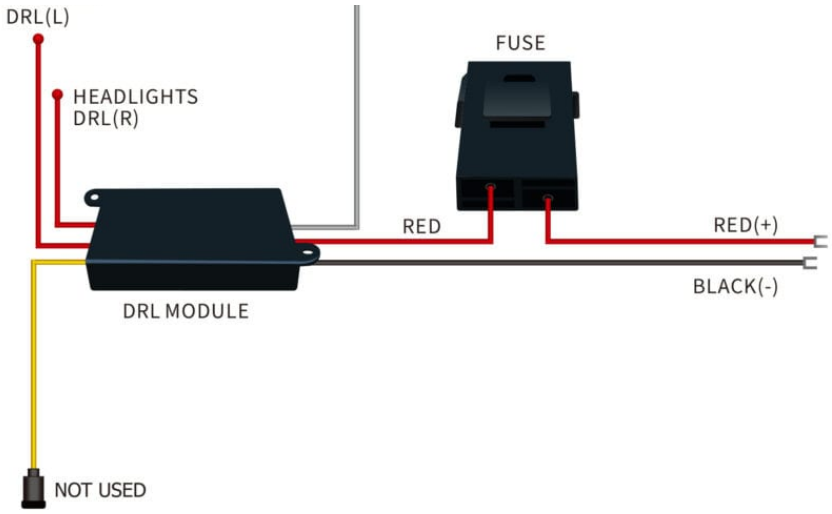
Wiring the DRL harness

One of the key features of our headlights is to have the ability to run the DRL strips in the day without having to activate any of your lighting controls manually. The way to do this is by wiring the harness that is included with your headlights.

Depending on the headlights feature you get, there will be two types of DRL harness. For headlights with activation light and sequential signal feature, there will be an extra yellow wire from the harness, and that wire is for manufacturer to use as decode purpose and you can ignore it during installation.







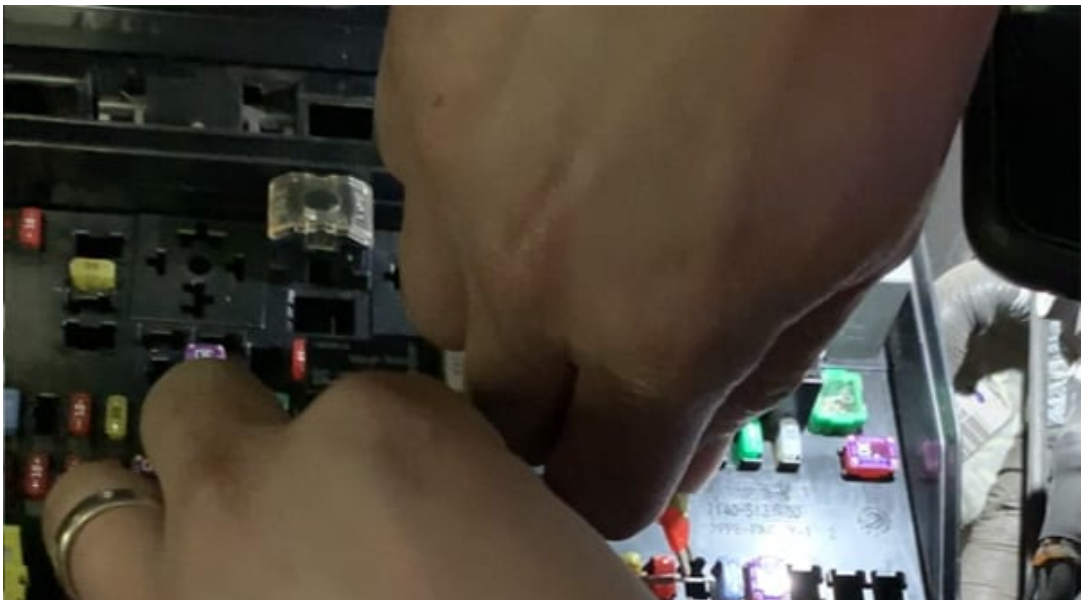
The function of the DRL harness is to allow the DRL with different intensity during daytime and night time. Basically, the DRL harness will supply extra power to the DRL for brighter output during daytime, and when the parking light is on, the DRL will be at reduced intensity. With the optional harness installed, the headlights will function as follows with most vehicles:

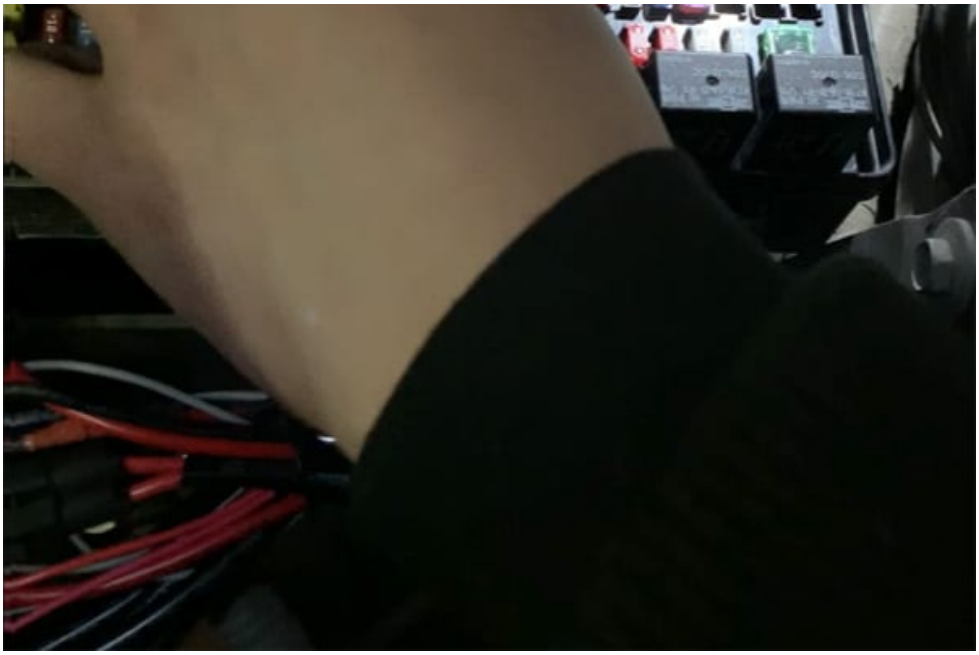
Ignition/Engine ON	– DRL at High intensity
Parking Light ON	– DRL at reduced intensity – amber side marker
Low Beam ON	– DRL at reduced Intensity – Amber side marker – Low beam on
High Beam ON	– DRL at reduced Intensity – Amber side marker – Low beam on – High beam on
Automatic Function	– Will function as normal

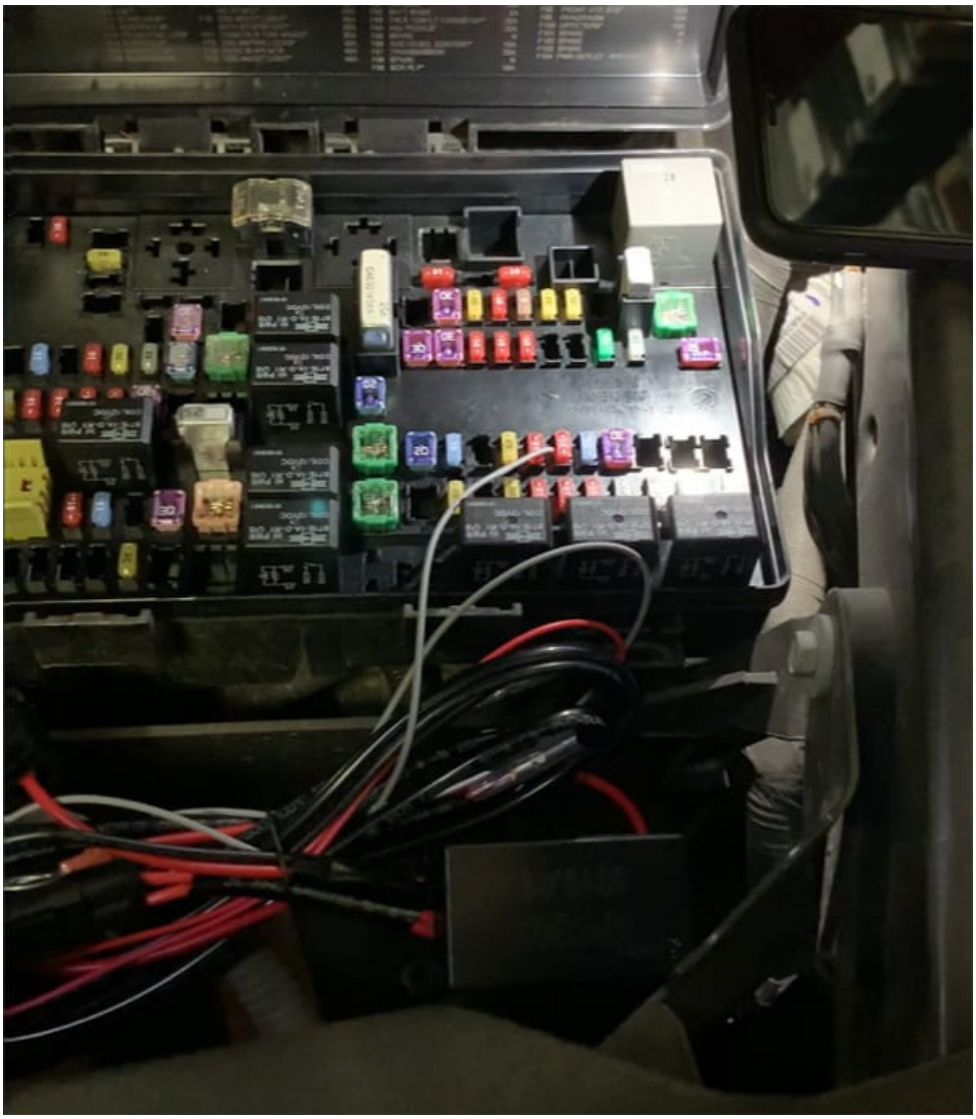
If you do not wish to install the harness, the only function you will be missing is to have the DRL run at high intensity while your headlights are set in the off position and the engine/ ignition is on. If your vehicle’s lighting is set to the automatic setting, all functions will work as normal.

Tapping the grey wire to ignition

With the grey wire, you will need to tap it into a switched fuse under the hood. We recommend that you use a fuse tap similar to the picture below.







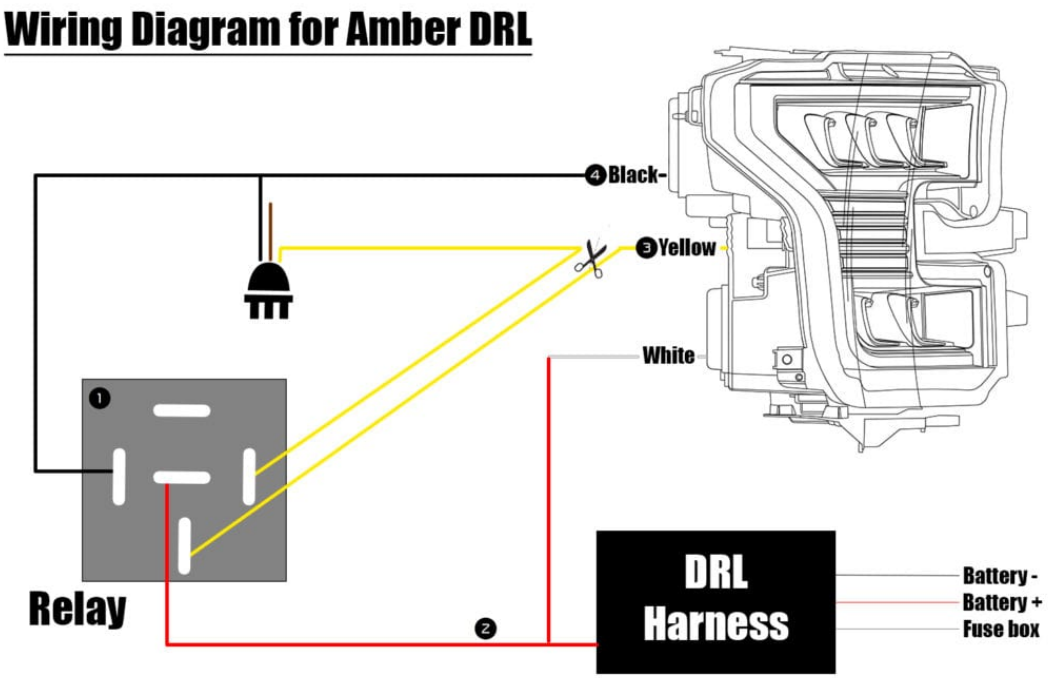
2009-2014 Ford F150 – #97

2015-2017 Ford F150 – #97

2018-2019 Ford F150 – #36

2017-2019 Ford Super Duty – #35

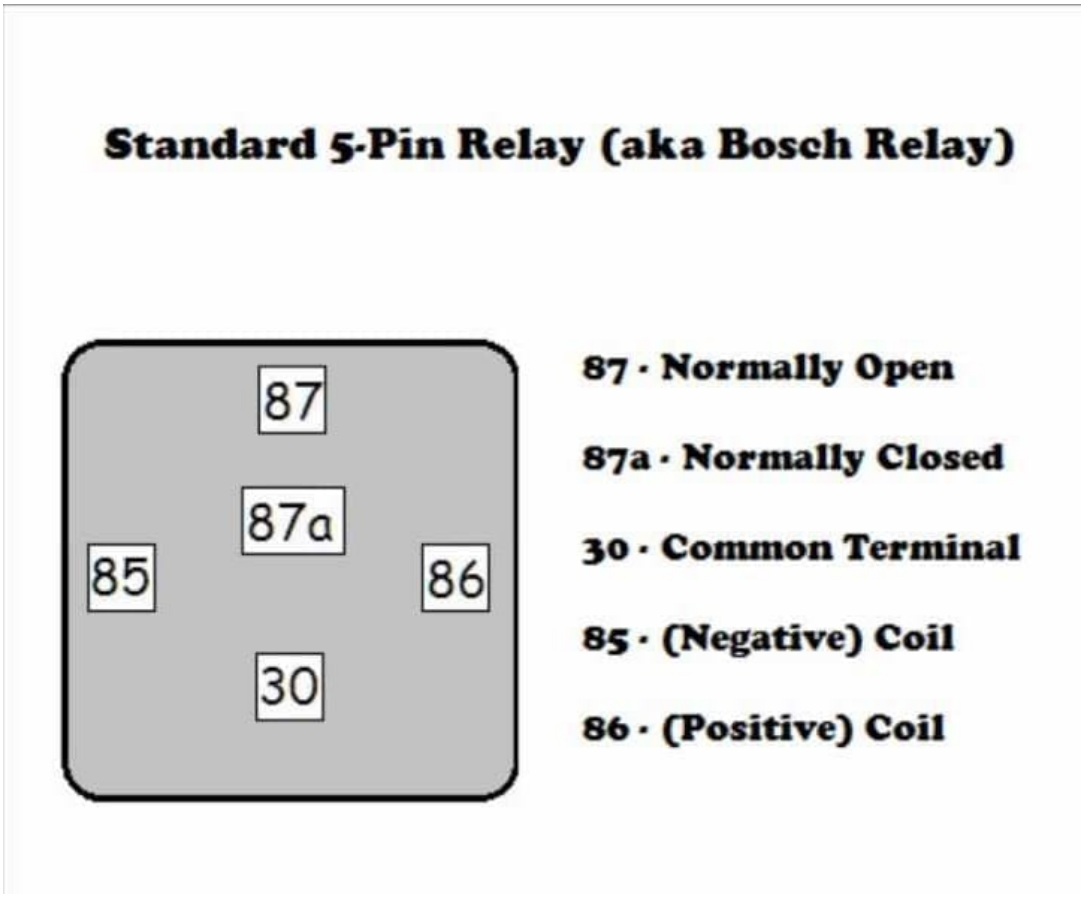
2009-2019 Ram – #F66



2015-2017 and 2018-2019 Ford F150 PRO-Series and NOVA-Series headlights original setting is with white DRL and amber turn signal. There are three wires coming out from the headlights: white (DRL), yellow (signal) and black (ground). In order to make the headlights with amber DRL, we want to constantly provide power to amber LED, and use a relay to switch the amber LED to signal, and white LED is only for activation light purpose, so we change the function of the wire to white (white LED), yellow (amber LED) and black (ground). Let's look at the wiring diagram below:

1.Relay

We need a 5 pin relay in order to control the amber LED to be DRL or signal light. Here is a picture of a 5 pin relay you will need to get:

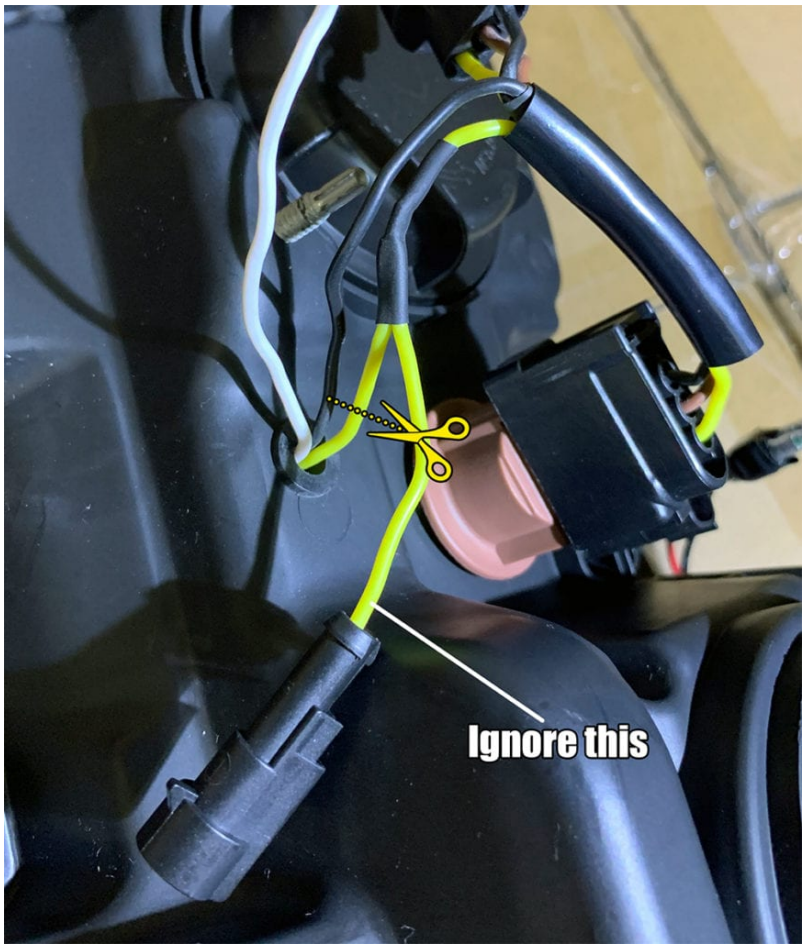


2.Red wire from DRL harness

The red wire from the DRL harness supply power to the white LED. We need to connect the red wire from the DRL harness to the white wire coming out from the headlights. We also tap a wire from the red wire to the pin 87a of the relay. This purpose is to maintain the white LED function on the activation light, but disable white LED as DRL.

3.Yellow wire from headlights

The yellow wire coming out from the headlights supply power to the amber LED. First thing we need to do is we need to cut the yellow wire into two sections. Please note that there is another yellow wire with a small plug, that wire is for factory decoding purpose and you can disregard that.



Cut the yellow wire at the position shown above, so you will have “yellow wire A” that is coming out from the headlights and “yellow wire B” that is connected to the plug. “Yellow wire A” should go to pin 30 of the relay, and “Yellow wire B” should go to pin 86.

4. Black wire from headlights

Tap a wire from the black wire to pin 85 of the relay.

Now you can test the functions as shown below, make sure that the activation sequence is complete, then it should have amber DRL. Try left and right turn signal and see if it works, make sure the sequential signal sequence is complete. Turn on the low beam and make sure amber DRL is on, and try turn signal with low beam is on.

Learn more about custom and factory headlights we have.