

TOYOTA

4RUNNER

2014-2017

2 in 1 LED UPGRADE KIT

Part Number: T4R-2N1



**Kit Contents**

Item #	Quantity Reqd.	Description
1	2	DRL + Fog Light Housing
2	1	Driver Box
3	1	Harness bag
4	1	User's card
5	1	Switch

**Hardware Bag Contents**

Item #	Quantity Reqd.	Description
1	1	Hood Wire Harness
2	1	Cabin Wire Harness
3	25	8" Wire ties
4	2	Black T-Taps
5	1	14" wire tie
6	1	Relay
7	2	Phillip Head Screws
8	2	DRL Connectors

**General Applicability**

SR5, Trial, Limited, TRD Pro

**Conflicts**

**IMPORTANT NOTICE!!**  
 This LED Upgrade Kit Requires the Vehicle to be Equipped with Factory Installed Halogen Fog Lights

**Recommended Tools**

<b>Safety Tools</b>	
Safety Glasses	
Protective tape	
Electrical Tape	
<b>Installation Tools</b>	
10mm Wrench	
Phillips Screw Driver	
Pliers	
Panel Tool Removal	
Side Cutters	
Torque Wrench	
<b>Special Chemicals</b>	
3M Silicon Sealant	

Mandatory

Legend

	<b>STOP:</b> Damage to the vehicle may occur. Do not proceed until process has been complied with.
	<b>OPERATOR SAFETY:</b> Use caution to avoid risk of injury
	<b>CRITICAL PROCESS:</b> Proceed with caution to ensure a quality installation. These points will be audited on a completed vehicle installation
	<b>TOOLS &amp; EQUIPMENT:</b> This calls out the specific tools and equipment required for this process
	<b>REVISION MARK:</b> This mark highlights a change in installation with respect to previous issue.

**SPECIAL NOTE:**  
 After **Auer Automotive Safety** mandated preparatory steps have been taken, the installation sequence is the suggested method for completing the accessory installation. In some instances the suggested sequence is written for one associate to install and in others the sequence is given as part of a team accessory installation. Unless otherwise stated in the document, the associates may perform the installation steps in any order to make the installation as efficient as possible while maintaining consistent quality. Also some items listed to be removed may not need to be removed if caution is taken to not damage vehicle.

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure quality installation.

## Preparation



Remove negative battery cable

## Installation

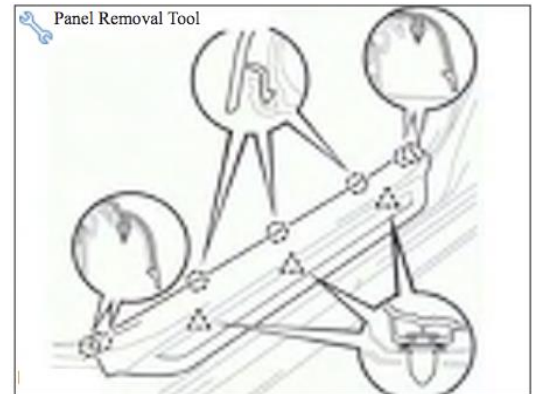
1. From front of vehicle, lay the DRL's wire harness on the engine compartment, left side from the battery towards the firewall of the car.
2. Locate the large vehicle harness grommet on the left side. If accessible, cut the auxiliary wiring access nipple off the grommet or cut ¼" slit in grommet and push the red, black, black-white and red-white wires through firewall. Note: Extra caution should be taken not to damage the connector's pin. Seal with 3M Silicone sealant (picture 1)



Picture 1

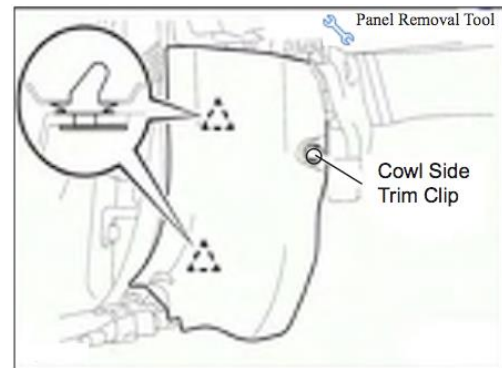
## Vehicle Disassembly

3. Remove driver side door scuff plate: Disengage with panel tool and remove (pic.2)



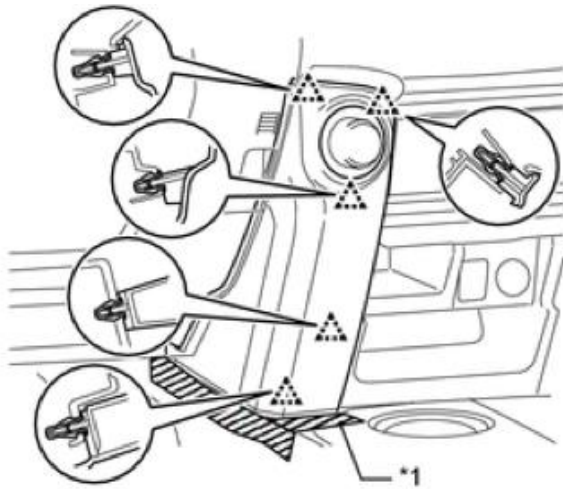
Picture 2

4. Remove the driver side cowl side trim. Unscrew the cowl side trim clip. Disengage two (2) clips and remove the cowl side trim (picture 3)



Picture 3

5. Using a pry tool, loosen the instrument cluster finish panel garnish located at the left of the steering wheel (picture 4-4B). Grip the instrument cluster finish panel garnish and pull it diagonally upward toward the rear to detach the 5 clips.

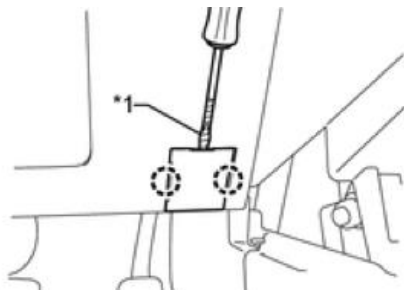


Picture 4A

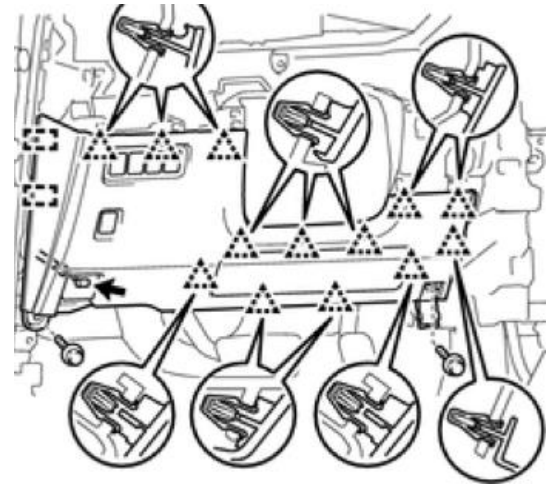


Picture 4B

6. Remove the driver's side lower instrument panel finish sub-assembly:
  - Using a screwdriver, detach the 2 claws to open cover (picture 5). Remove 2 bolts (picture 5A) and detach the 13 clips and 2 guides. Then disconnect each connector and hood lock control cable assembly.

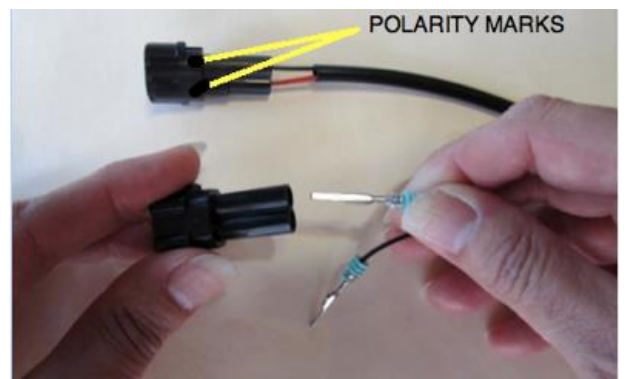


Picture 5



Picture 5A

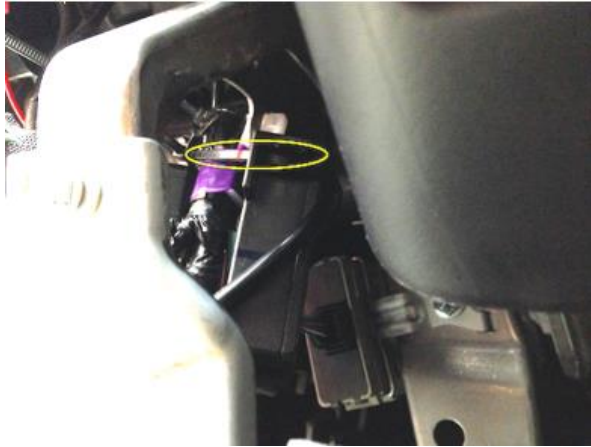
7. Locate the wires that were pulled through the grommet in step 2. Route wire harness towards the left side of steering wheel. Use wire ties as needed
8. Push the pins of the DRL wire harness into the connector supplied in kit. The connector has a "+" and "-" marks. So connect the red wire into the "+" side and black wire into the "-" side. You may use the driver box as a guide: wire colors must be aligned with the wire colors of the driver box: black with black and red with red, etc (picture 6)



Picture 6

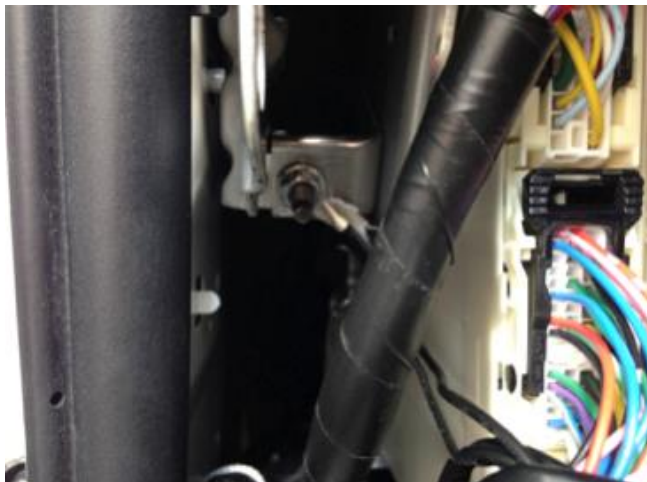
9. Connect the driver box to the wire harness (make sure wire colors are aligned).

- 10. Using a 14" wire tie, secure the driver box to factory harness, left of the steering wheel column (pic. 7).



Picture 7

- 11. Secure the black wire with a ring terminal from DRL harness to ground location behind kick panel (picture 8)

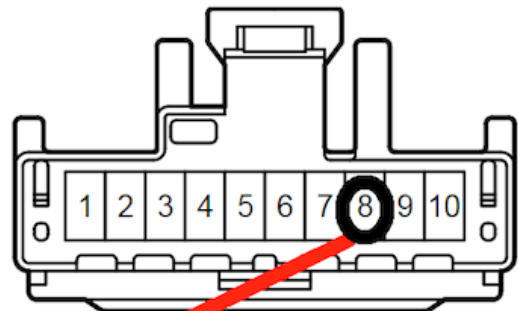


Picture 8

- 12. Install a black T-Tap to connector F4 pin 8, pink wire. Then connect the red wire from DRL harness to T-tap. Connector F4 is located at the back of mirror control switch. (pictures 9, 9A and 9B)

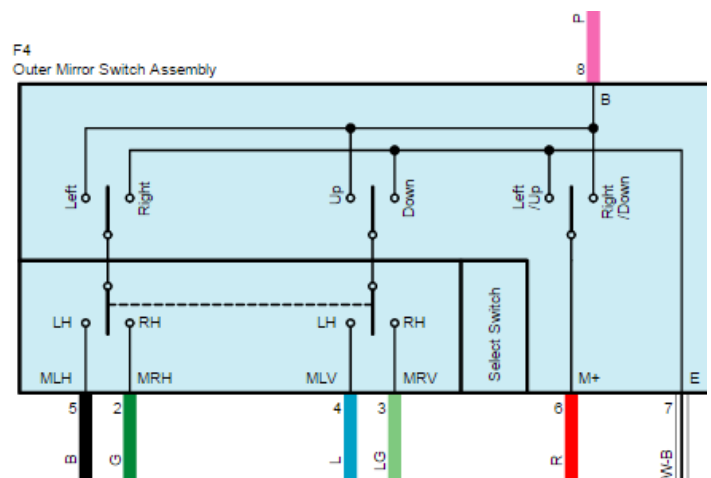


Picture 9: Mirror control switch



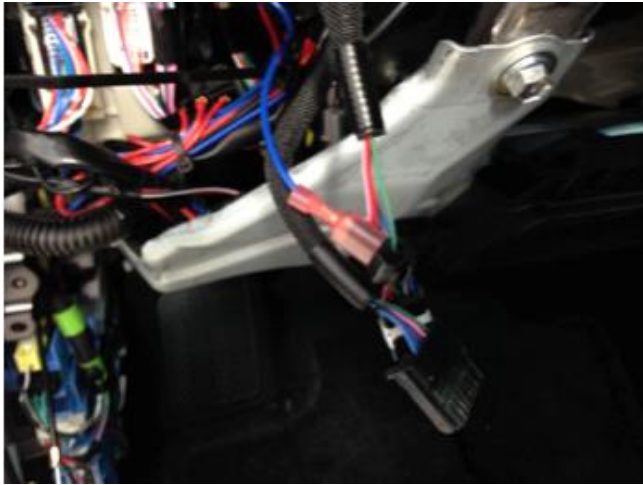
DRL's red wire to connector F4, pin 8, pink wire (7.5A Acc. Fuse)

Picture 9A:

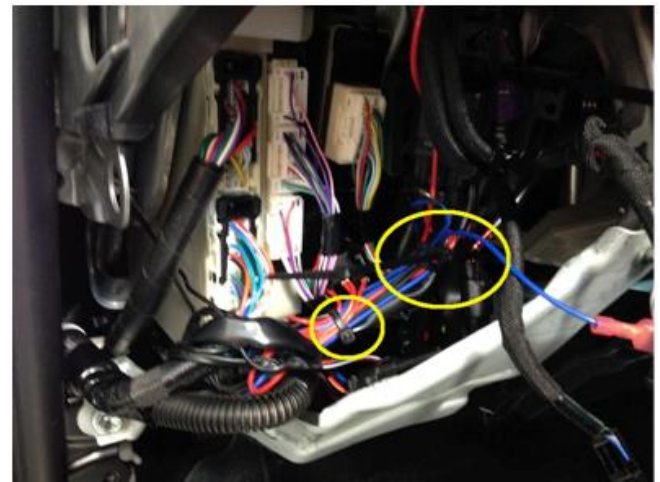


Picture 9B

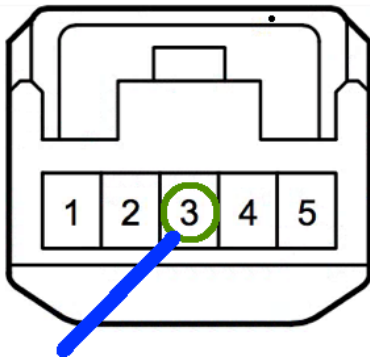
- 13. Install a black T-Tap to connector F3, pin 3, green wire. Then connect the blue wire from DRL harness to t-tap. Connector F3 is located at the front window deicer dash switch (pictures 10, 10A and 10B).



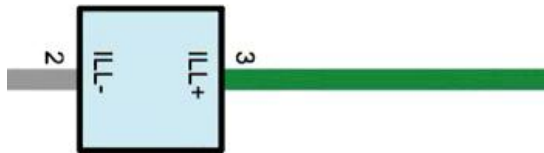
Picture 10



Picture 11



Picture 10A  
(7.5A Panel Fuse)



F3  
Front Window Deicer Switch  
(Outer Mirror Heater Switch Assembly)

Picture 10B

- Secure any excess wire from t-taps, fuse and relay to main wire harness (picture 11). Make sure to leave enough lead on the switch green connector.

- Route DRL switch connector through switch knockout. Use the switch knockout located at the left of the steering wheel (picture 12)



Picture 12

- Connect the switch wire harness to switch, then mount switch into dash panel (pic 13).



Picture 13

- Reinstall panels and connectors

ENGINE COMPARTMENT

- 18. Remove the radiator grill protector by removing the push pins on top (picture 14)



Picture 14

- 19. Run DRL's wire harness on the left side of vehicle, from the firewall towards the driver's side fog lamp area. Then route the passenger side end of the wire harness under hood latch safety. Use wire ties as shown (pictures 15~15B).



Picture 15



Picture 15A: on left side behind battery



Picture 15B: Securing harness under the hood latch

- 20. Drop the driver side end of the wire harness towards the fog light area, and secure with wire ties (picture 16). Repeat this step on the passenger side.



Picture 16

- 21. From under the car, remove driver side lower splash shield: Using a pry tool to remove push pins (picture 17)

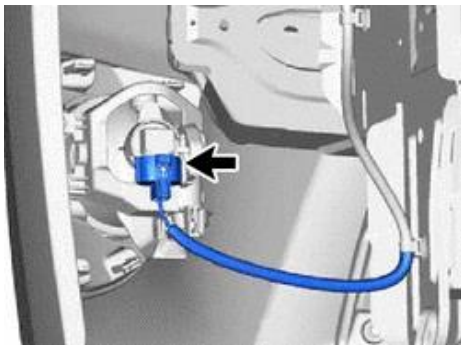


Picture 17



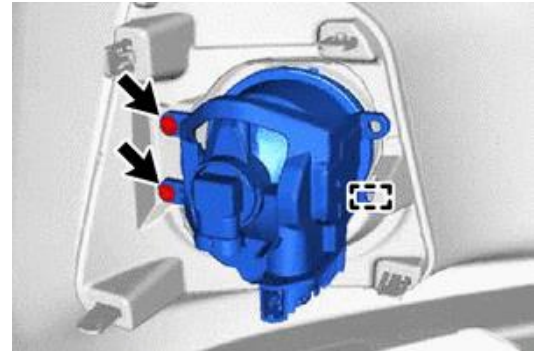
Picture 18

- 22. Unplug driver side fog lamp (picture 19)



Picture 19

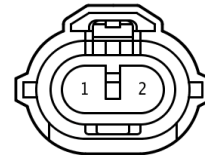
- 23. Remove driver side fog lamp, by 2 factory screws. Note: screws will be used on installation. Do not discard them (pic. 20).



Picture 20

**Note:** If the fog light connector is pre-installed in the kit, proceed to step 27

- 24. The factory fog light harness polarity is shown in picture 21. Pin 1 is negative. Pin 2 is positive



Picture 21: Factory Fog Light harness.  
Pin 1: Negative  
Pin 2: Positive



Picture 21A

- 25. Push the wires from LED fog light housing into the supplied connector, to match the polarity of the factory wire harness (pic. 22).

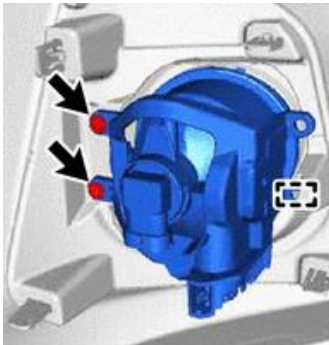


Picture 22: 2in1 Fog Light wire terminal.



Picture 22A: Showing Fog light terminal connected

26. Before connecting the LED Fog light, make sure that wires are aligned
  - LED Fog light red (+) with factory white (+)
  - LED Fog Light black (-) with factory white-black (-)
27. Insert one side of the 2in1 light housing into the plastic sleeve and secure other side with factory screws.



Picture 23

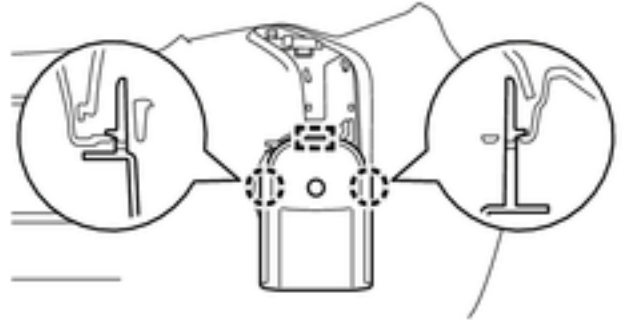
28. Plug the factory fog light connector into 2in1 fog light terminal (picture 24), and then connect the DRL harness to the 2 in 1 light DRL terminal.



Picture 24

29. Secure excess wire from DRL harness with wire ties.

30. Repeat steps 22~28 on the passenger side. Prior to the removal of factory fog light, remove front bumper reinforcement stopper (picture 24). This will allow easier access to screws.



Picture 24

31. Reinstall lower splash shield.



32. Reconnect negative battery terminal. Torque terminal to 48 in-lbs.



Left: showing LED Fog Light "ON"  
Right: Showing DRL "on"

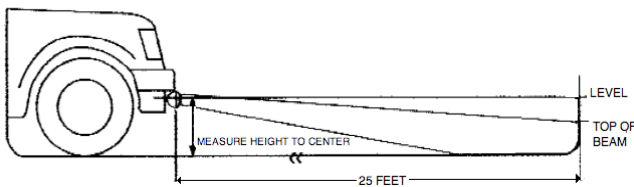


## Fog Light Aiming

Traditional fog lights are usually mounted in the front bumper about 10-24 inches from the ground. There are two important issues to address when installing fog lights: the first is to minimize the amount of return glare into the drivers eyes, and the other is to minimize the glare into oncoming eyes. Both of these issues must be accomplished while putting as much light as possible on the road.

These fog weather light aiming instructions are suggestions taken from common practice and the S.A.E. standard J583. Some modifications to these instructions may be necessary to minimize glare.

Visual aim is made with the top of the beam 4 inches below the lamp center at 25 feet with the lamp facing straight forward (see picture 25)



Picture 25

**⚠ NOTE:** Use only hand tools to adjust the fog light aiming screw. DO NOT use automatic tools, as they will damage the fog light

**Checklist** – these points MUST be checked to ensure quality installation

**Check System for Operation**

1. DRL will work at full power when ignition switch is ON. DRL will dim out to DOT specifications when lights are ON.
2. If DRL switch position is off, DRL will not work at any time.

**Check**

Accessory Functions Checks

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- DRL function.....
- Fog Lights function.....
- All Panels snapped into place.....
- Fog Lights.....
- Battery Terminal.....
- Operation Guide.....

Vehicle Function checks

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- Check functions all switch functions

**Look For:**

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- ....
- ....
- Loose panels and switches
- Visually confirm lights are straightforward
- Re-torque battery terminals to 48 in-lb
- Place DRL operation guide inside glove box.