

Part Number: TRA-301 / TRA-810



Kit Contents

Item #	Quantity Req'd.	Description
1	2	Fog Lamps
2	1	Switch Assembly
3	1	Fog light operation guide
4	1	Harness Bag

Hardware Bag Contents

Item #	Quantity Req'd.	Description
1	1	Wire harness
2	1	Switch harness
3	2	Relays
4	25	8" Wire ties
5	4	Phillip head screws
6	2	Black T-Taps
7	2	LED Connectors (for TRA-810)

Conflicts

- Factory Installed Fog Lights

General Applicability






Models:

Recommended Tools

Safety Tools	
Safety Glasses	
Electrical Tape	
Installation Tools	
10mm Wrench	
Phillips Screw Driver	
Pliers	
Side Cutters	
Special Chemicals	
3M Silicon Sealant	

Mandatory

Legend

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

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. Secure the relay and fuse to the negative battery harness next to the battery. Secure top and bottom with wire ties (picture 1).



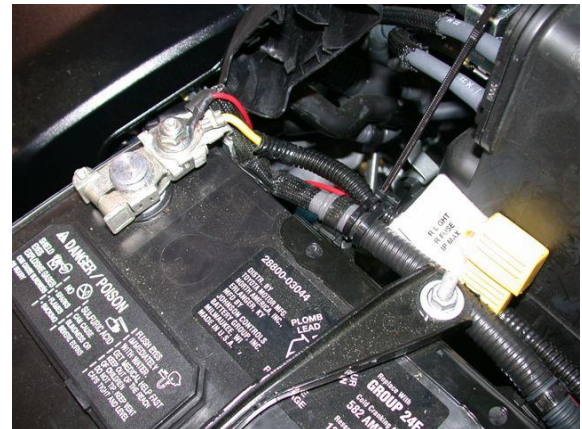
Picture 1

2. Attach the ring terminal with 2 black wires to the 10mm bolt at factory ground next to battery (picture 2)



Picture 2

3. Connect the ring terminal from the relay (12v red wire) routing it through positive red terminal cover (picture 3)

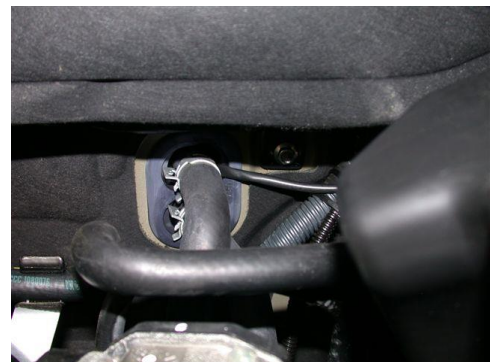


Picture 3

4. Locate the rubber grommet that seals the heater hoses on the firewall. Cut 1/4" slit in outer edge of the grommet. Secure excess wires with wire ties to fuse block wire harness. Push the red and gray/white wires through firewall.

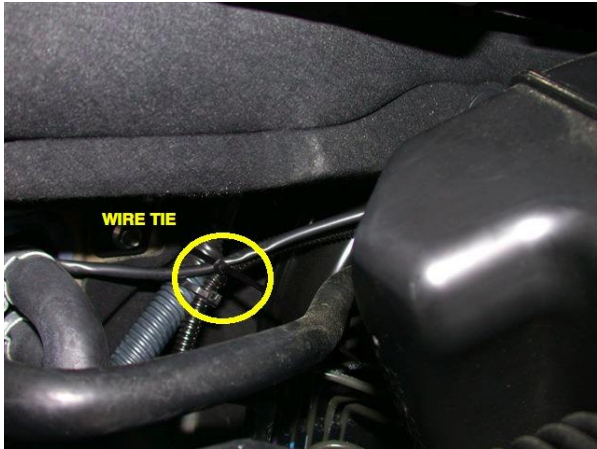


Extra caution should be taken not to damage the bullet connectors. Seal with 3M Silicone sealant (picture 4)



Picture 4

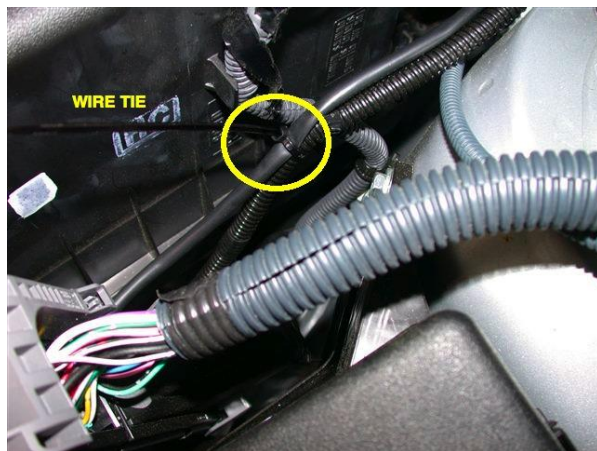
5. Route wire to the left side of the vehicle and secure with wire ties (pictures 5A, 5B and 5C)



Picture 5A



Picture 5B



Picture 5C

Vehicle Disassembly

6. Remove the driver's side lower dash panel: remove two lower screws (picture 6)



Picture 6

7. From underneath the left panel, push out the switch knockout. Mount switch into switch knockout on left side of dash (see picture 7 and 7A)

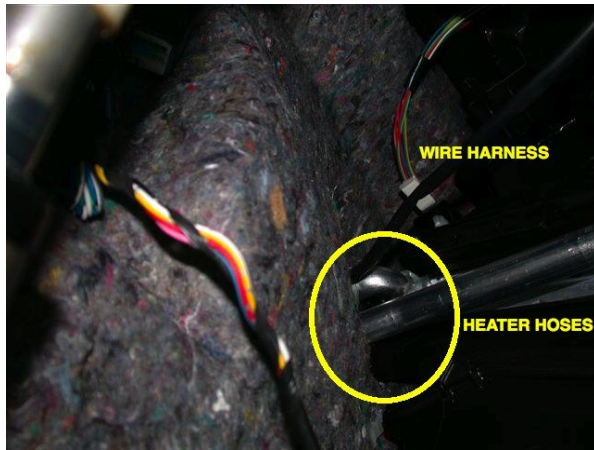


Picture 7



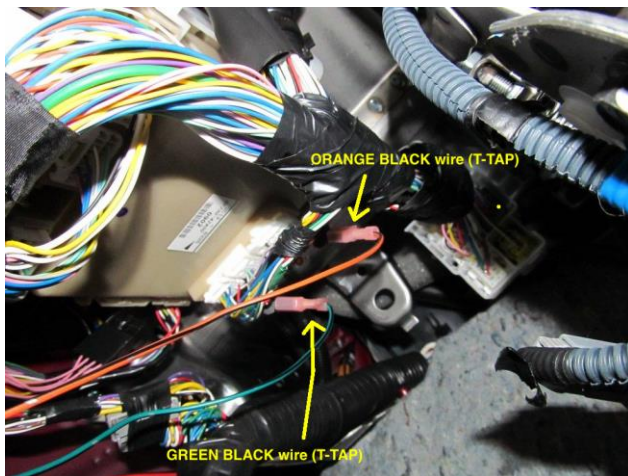
Picture 7A

- 8. From inside the cabin, locate the wires that were pushed through in step 4 (picture 8)



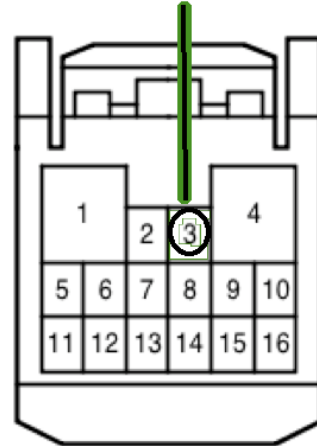
Picture 8

- 9. T-tap green/black wire from fog light harness to connector E16 pin 3, light green. Connector E16 is located behind the ECU, left to the steering wheel (pictures 9 & 10)



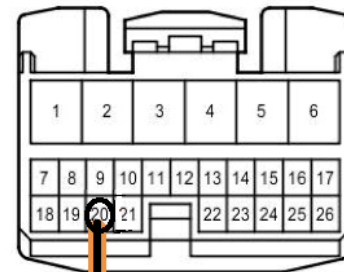
Picture 9

Green-Black to Pin 3 (light green wire)



Picture 10

- 10. T-tap orange/black wire from fog light harness to connector E15 pin 20, brown wire (pictures 11 and 12). Connector E15 is located behind the vehicle ECU, left to the steering wheel (pictures 9, 11 and 12)



Orange-Black to Pin 20 (brown wire)

Picture 11



Picture 12

- Secure fog light relay and excess wires to OE harness (see picture 13)

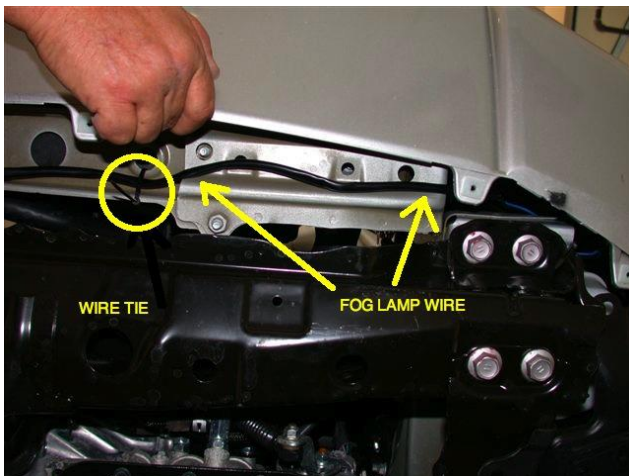


Picture 13.

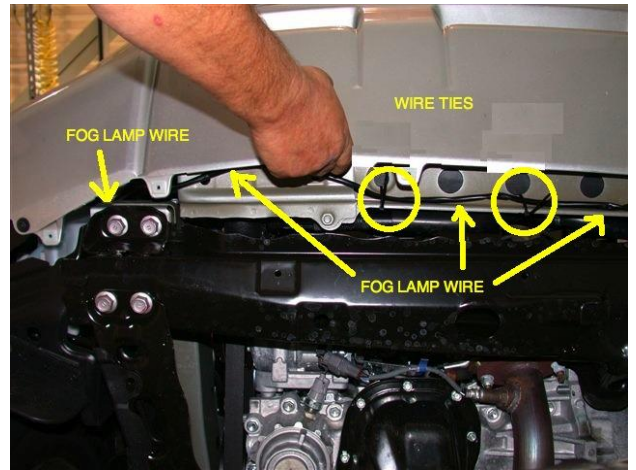
- Connect switch harness to switch
- Reinstall dash panels and connectors

ENGINE COMPARTMENT

- Remove lower splash panels
- On the left side of the vehicle, drop wire harness to reach out the left fog lamp compartment. Route fog lamp wire under the car to the right side of the vehicle (picture 14 and 15)



Picture 14



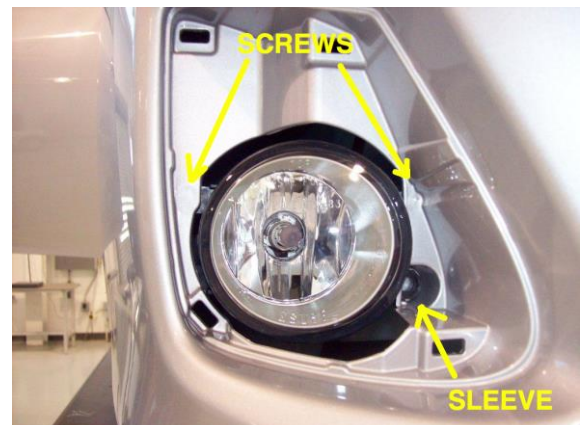
Picture 15

- Remove fog light cover plates on both sides of vehicle (picture 16)




Picture 16

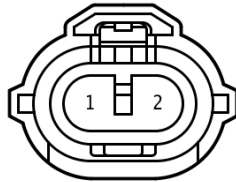
- Insert one side of the fog light into the plastic sleeve and secure with 2 supplied Phillip screws (picture 17). Repeat this step for other side of vehicle.



Picture 17

18. Note: For Halogen installations, proceed to step 19. For LED installations; The LED fog light wires may not be pushed into their connectors. If not, push the negative wire (black or black-white) into Pin 2 of the connector. Then, push the positive wire (red or red-white) into Pin 1 of the connector. See Picture 18 below.

 **LED Lights will NOT work if the polarity is reversed. Be sure the red positive wire of the harness matches the red positive wire of the light housing, and the black negative wire of the harness matches the black negative wire of the light housing.**



Picture 18

19. Plug in left and right side fog light into harness plug and secure with wire ties
20. Snap on both fog light bezels (picture 19)



Picture 19

21. Reinstall splash panels
22. Reconnect negative battery cable. Torque to 36 in-lbs.

Checklist – these points MUST be checked to ensure quality installation

Check System for Operation

1. Turn on headlamp low beams, then press fog light switch to “ON” position. Fog lights should be working. Fog lights will only work when the low beam headlamps are “ON”. Fog lights will NOT work when the high beam headlamps are “ON”

Fog Light Aiming

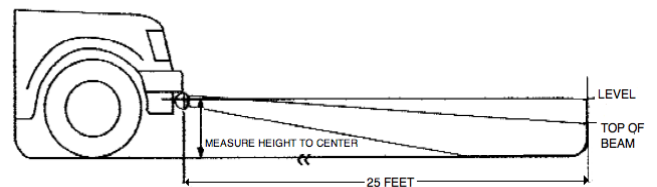


NOTE: Use only hand tools to adjust the fog light aiming screw. DO NOT use power assisted tools, as they will damage the fog light.

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 driver’s 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 20)



Picture 20

Check

Accessory Functions Checks

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

Vehicle Function checks

- Check all vehicle functions

Look For:

- Inoperable fog light function
- Loose panels and switches
- Re-torque battery terminals to 36 in-lb

VEHICLE FUNCTION CHECK

AFTER ALL PANELS, COVERS AND COMPONENTS THAT WERE REMOVED HAVE BEEN REINSTALLED, TEST THOROUGHLY ALL MECHANICAL AND ELECTRICAL COMPONENTS DISCONNECTED AND/OR REMOVED FROM THE VEHICLE DURING THE INSTALLATION OF THIS ACCESSORY