

Part Number: TSI-312 / TSI-812



Kit Contents

Item #	Quantity Req'd.	Description
1	2	Fog Lamps
2	2	Fog Light bezels
3	1	Switch Assembly
4	1	Fog Light Operation guide
5	1	Harness Bag

Hardware Bag Contents

Item #	Quantity Req'd.	Description
1	1	Wire harness
2	1	Switch harness
3	2	Relays
4	25	Wire ties
5	4	Phillip head screws
6	2	Black T-Taps
7	2	LED Connectors (for TSI-812)

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. Optional step: remove battery from vehicle.

Installation

1. Remove battery tray (optional). Secure the relay and fuse to negative battery cable. Secure top and bottom with wire ties (picture 1).



Picture 1

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



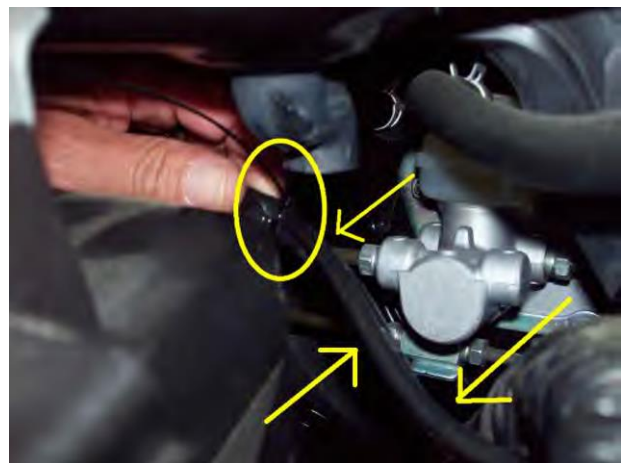
Picture 2

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



Picture 3

4. Route wire to large vehicle grommet and secure with wire 3 wire ties (picture 4)



Picture 4

5. Locate the large vehicle harness grommet on the left side. If accessible, cut the auxiliary wiring access nipple off the grommet or cut 1/4" slit in grommet. Secure excess wires with wire ties to fuse block wire harness. Push the red and gray/white wires through firewall.



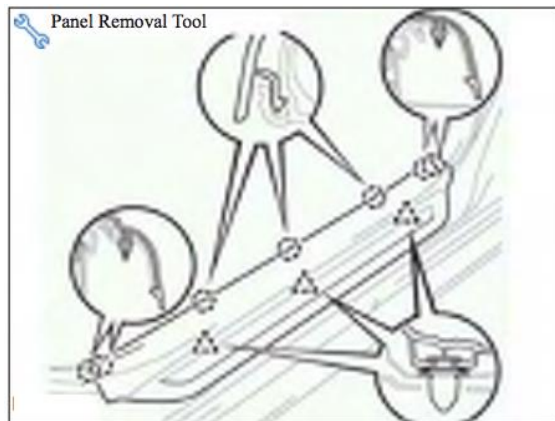
Extra caution should be taken not to damage the bullet connectors. Seal with 3M Silicone sealant (picture 5)



Picture 5

Vehicle Disassembly

6. Remove driver side door scuff plate. Disengage with panel tool and remove (picture 6 and 6A)

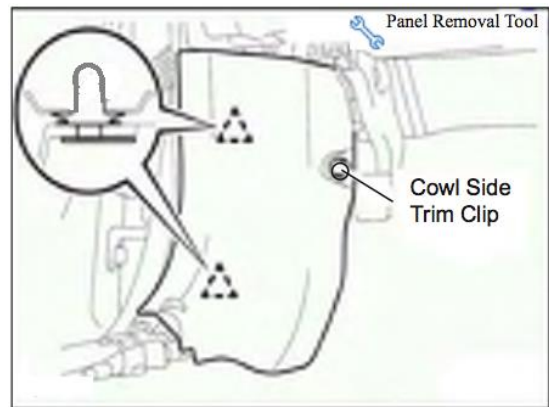


Picture 6



Picture 6A

- a. Remove the driver side cowl side trim (picture 6). Unscrew the cowl side trim clip. Disengage two (2) clips and remove the cowl side trim (picture 7)



Picture 7

7. Remove the finish panel covering the knee airbag (picture 8)



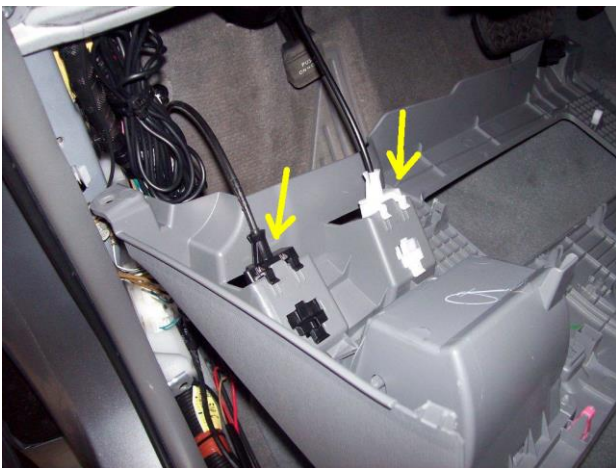
Picture 8

8. Remove the lower finish panel (picture 9)



Picture 9

9. Remove hood latch and gas door cables (see picture 10)



Picture 10

10. Remove switch panel left of steering wheel (picture 11)



Picture 11

11. Remove far right dash panel switch plug
12. Install switch into switch knockout (picture 12)



Picture 12

13. From inside the cabin, locate the wires that were pushed through in step 5. It will be the grommet above the gas pedal (picture 13)

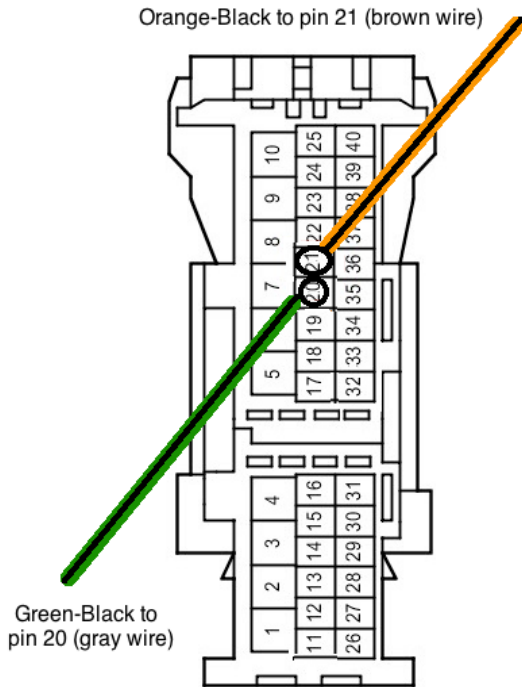


Picture 13

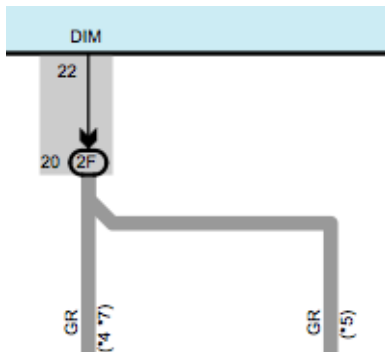
2015 models, skip steps 15 and 16, and go to step 17.

2014 or before, do not use steps 17 and 18.

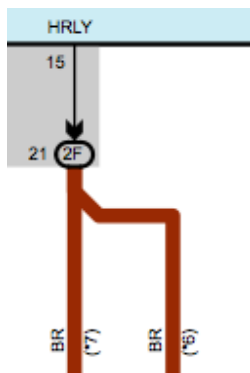
14. T-tap green/black wire from fog light harness to connector 2F pin 20, gray wire. Connector 2F is located by the main junction block (pictures 15 & 16)
15. T-tap orange/black wire from fog light harness to connector 2F pin 21, brown wire (pictures 15 ~15C)



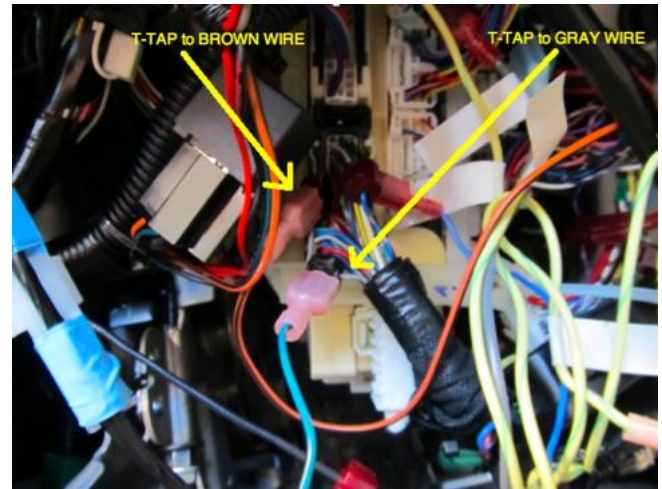
Picture 15



Picture 15A: Connector 2F, Pin 20, gray wire

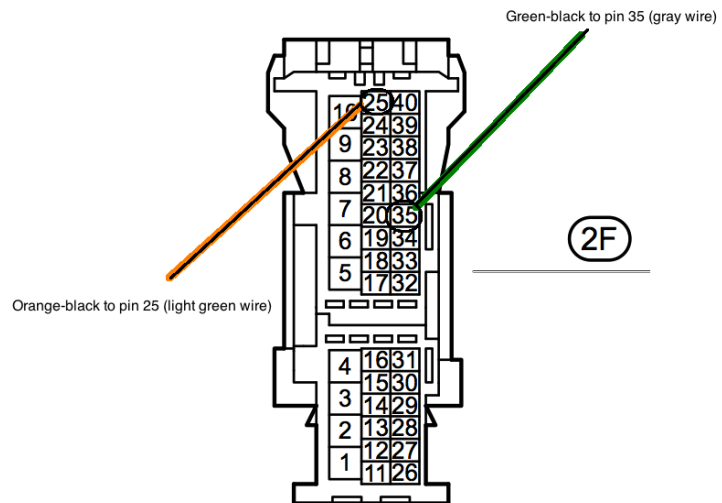


Picture 15B: Connector 2F, Pin 21, Brown wire



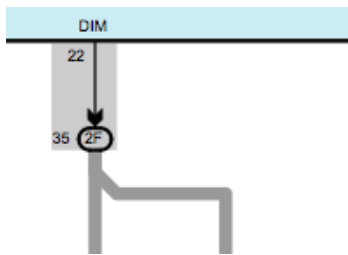
Picture 15C

16. **(2015 MODEL)** Install a black T-tap to connector 2F pin 35, gray wire. Connector 2F is located by the main junction block (pictures 16, 16A, 16B & 16C). Then connect the green/black wire from fog light harness.
17. **(2015 MODEL)** Install a black T-tap to connector 2F pin 25, light green wire (pictures 13, 13B, 16B & 16C). Then connect the orange/black wire from fog light harness

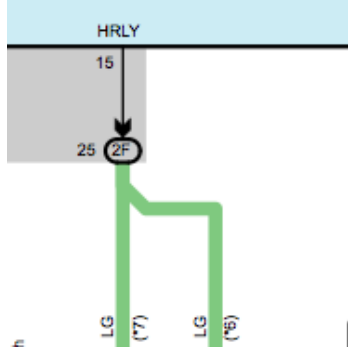


(from Engine Room Main Wire)

Picture 16



Picture 16A: High Beam to connector 2F, pin35, gray wire



Picture 16B: Low beam to connector 2F, pin 25, light green wire



Picture 16C

18. Secure fog light wire and relay with wire ties. Run wire to switch location on finish panel and secure any excess wire with wire ties (picture 17)



Picture 17

19. Connect switch harness to switch
20. Reinstall dash panels and reconnect cables

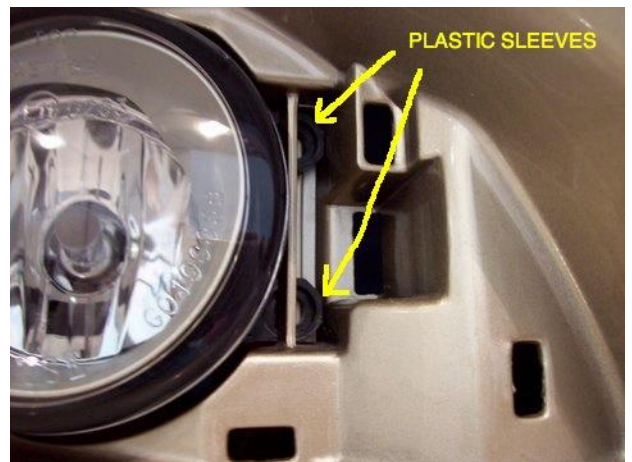
ENGINE COMPARTMENT

21. Drop fog light harness down on left side of vehicle
22. Loosen part of lower splash shield with 6x10mm bolts and 4 push pins and remove fog light cover plates (picture 18)



Picture 18

23. Insert one side of the fog light into the plastic sleeve and secure other side with supplied Phillip screws (see picture 19). Repeat this step for the other fog lamp.

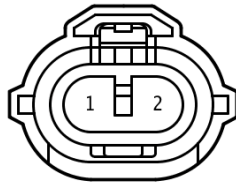


Picture 19

24. Note: For Halogen installations, proceed to step 25. 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 20 below.

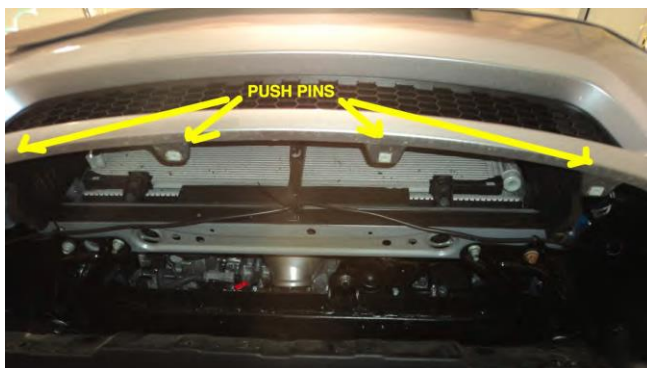


LED Lights will NOT work if the polarity is reversed. Be sure the red positive wire of the harness matches the red positive wire of the light housing, and the black negative wire of the harness matches the black negative wire of the light housing.



Picture 20

25. Plug in left side fog light into harness plug and secure with wire ties
26. Run harness to right fog light and secure with 3 wire ties (picture 21)



Picture 21

27. Plug in right fog light harness into fog light
28. Snap on both fog light bezels
29. Reinstall lower splash shield
30. Replace Battery and/or reconnect negative battery cable. Torque to 48 in-lbs.

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

Check System for Operation

1. Reconnect battery terminals
2. 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

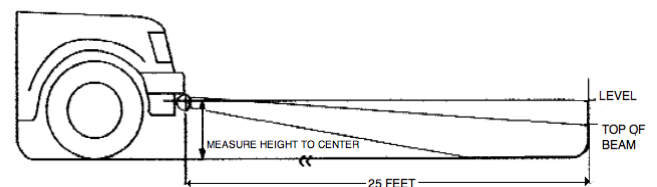


NOTE: Use only hand tools to adjust the fog light aiming screw. DO NOT use power assisted tools, as they will damage the fog light.

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 22)



Picture 22

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 48 in-lbs.