

**Part Number: TTA-312 / TTA-812**



**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	1	Fuse w/connectors
6	3	2 Black & 1 Yellow T-Taps
7	4	Phillip Head Screws
8	2	LED Connectors (for TTA-812)

**Conflicts**

- Factory Installed Fog Lights
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**General Applicability**






Models:
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**Recommended Tools**

<b>Safety Tools</b>	
Safety Glasses	
Electrical Tape	
<b>Installation Tools</b>	
10mm Wrench	
Phillips Screw Driver	
Pliers	
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.
	<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.

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



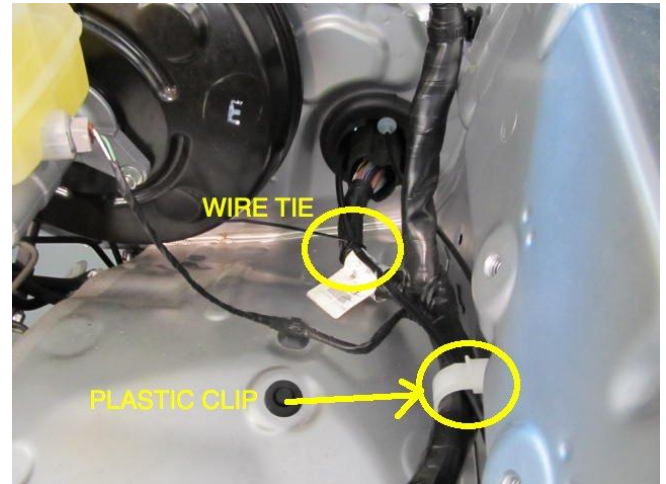
## Installation

1. Remove battery bracket and slide the battery towards the engine.
2. Attach the ring terminal with 2 black wires to the 10mm factory ground bolt at driver's side vehicle panel, next to battery (picture 1)



Picture 1

3. Route fog light's wire harness from battery to large vehicle grommet. Secure with wire ties (picture 2)



Picture 2: Note: run wire harness through the plastic clip

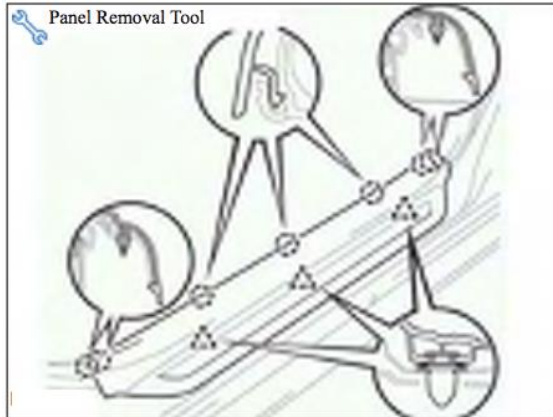
4. Locate the large vehicle harness grommet on the left side. If accessible, cut the auxiliary wiring access nipple off the grommet or cut 1/4" slit in grommet. Secure excess wires with wire ties to fuse block wire harness. Push the two red and gray/white wires through firewall. Note: Extra caution should be taken not to damage the connectors. Seal with 3M Silicone sealant (picture 3)



Picture 3

**Vehicle Disassembly**

- 5. Remove driver side door scuff plate. Disengage with panel tool and remove (picture 4 and 5)



Picture 4



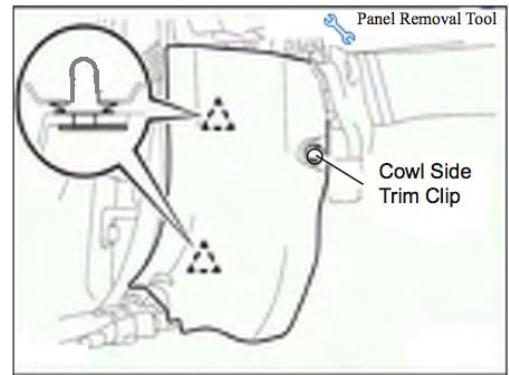
Picture 5

- 6. Remove the foot rest on the driver side (picture 6)



Picture 6

- 7. Remove kick panel on the driver side (picture 7 and 8)

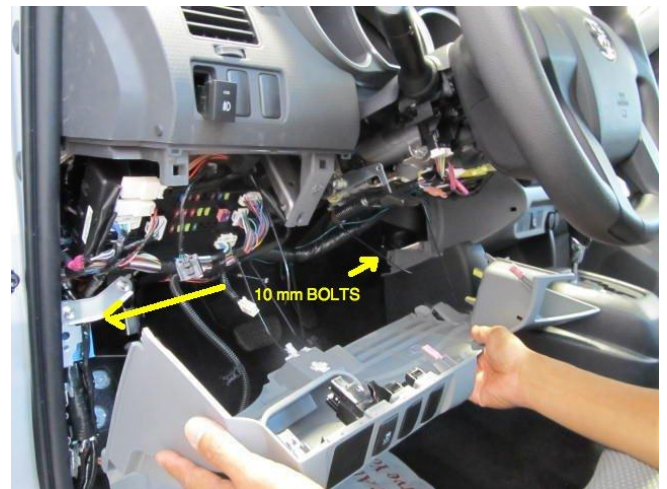


Picture 7



Picture 8

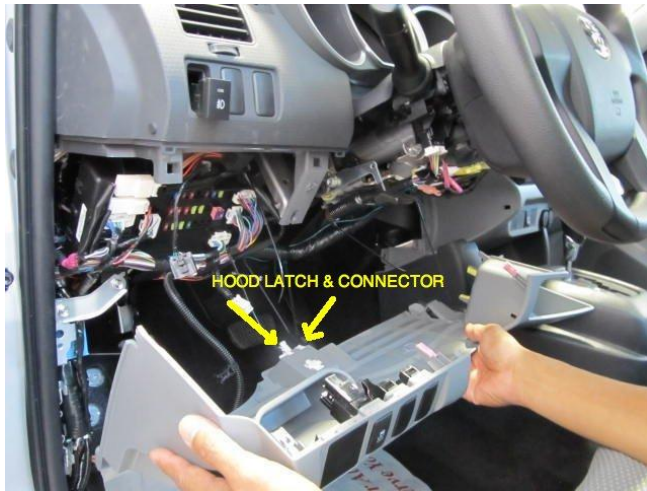
- 8. Remove the lower finish panel by removing two 10 mm bolts (picture 9)



Picture 9

- 9. Remove hood latch and connectors (pic 10)





Picture 10

10. Optional: Remove the metal lower knee panel by removing three 10 mm bolts (picture 11)



Picture 11

11. Pull top panel forward and remove dash switch plug (picture 12)



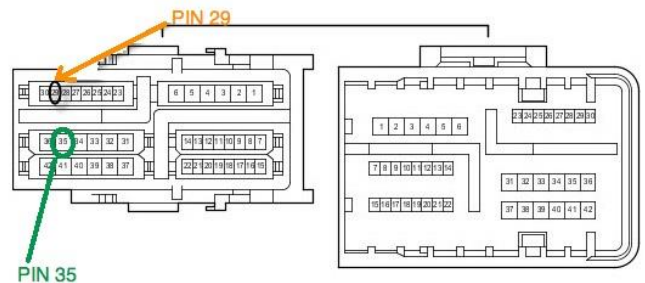
Picture 12

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



Picture 13

13. Note: Fog light kits with date code prior to 2/1/2013 require the use of a diode adapter that connects to the orange/black wire of the fog light harness. Fog light kits with date code after 2/1/2013 the diode is already incorporated into the fog light harness.
14. T-tap orange/black wire (with the diode adapter installed) from fog light harness to connector IA-1 pin 29, white wire. Connector IA-1 is located in the upper kick panel area (pictures 14 and 15)
15. T-Tap the green/black wire from fog light harness to connector IA-1, pin 35, red-black wire (picture 14 and 15)

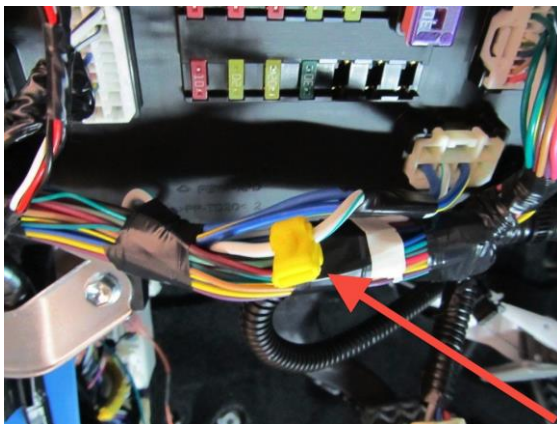


Picture 14

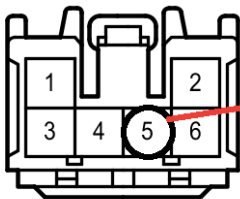


Picture 15

16. Secure the supplied yellow T-Tap to the white-green wire of connector 1A, pin 5. Connector 1A is next to the fuse block (picture 16 and 16A)

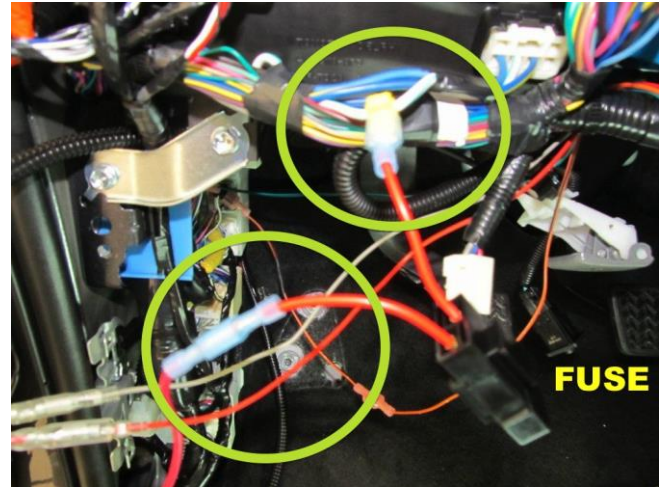


Picture 16: showing yellow t-tap



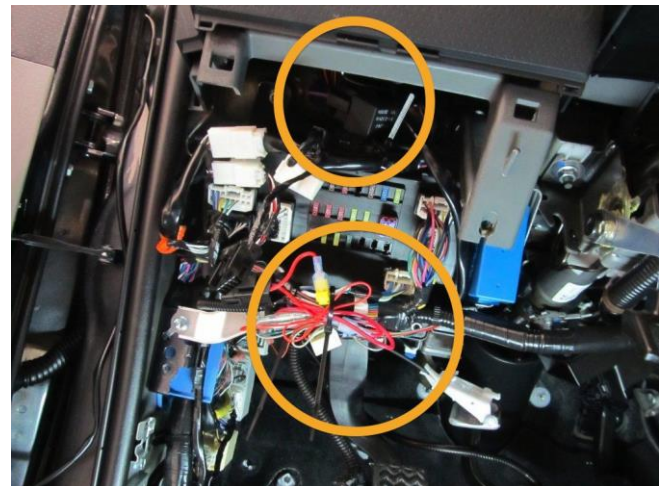
Picture 16A

17. Connect the red and gray/white wires with bullet connectors from outside harness to inside harness red and gray/white wires. Connect the 14 gage red wire from fog light harness to the supplied fuse. Connect the other end of the fuse to the yellow t-tap installed in step 16 (picture 17)



Picture 17

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 18)



Picture 18

19. Pull switch wire harness through switch opening. Connect switch and then install switch into panel (picture 19 and 19A)





Picture 19



Picture 19A

20. Reinstall dash panels and reconnect cables and connectors.

### ENGINE COMPARTMENT

21. Remove the radiator cover shield (pic. 20)



Picture 20

22. Drop the left side of fog light harness down on left side of vehicle, to reach fog light compartment area (picture 21)



Picture 21

23. Run the wire harness to the right side on top of the radiator housing and drop right side of wire harness to reach the right fog light compartment area (picture 22). Use wire ties as needed.

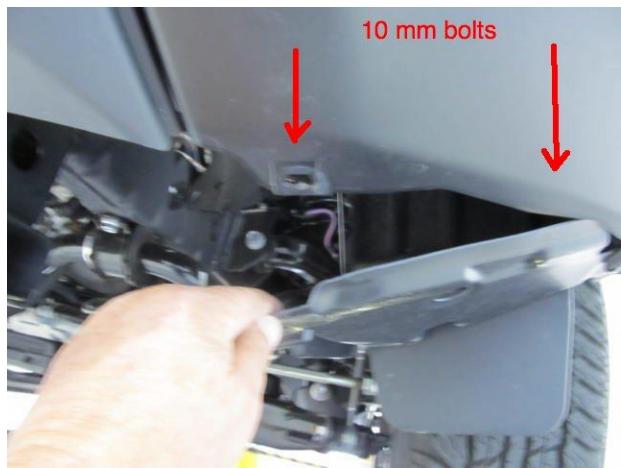


Picture 22

24. Remove push-pin on the fender liner and two splash shield 10 mm bolts under the fender liner. Pull fender liner back to access fog light area (pictures 23 & 23A).



Picture 23



Picture 23A

25. Remove fog light bezel cap and discard it. Save screws for next step (picture 24)



Picture 24

26. Insert one side of the fog light into the plastic sleeve through the open fender and

secure other side with removed factory Phillips screws (picture 25). Repeat this step for left and right fog lamps

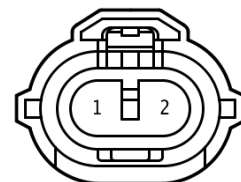


Picture 25

27. Note: For Halogen installations, proceed to step 28. 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 26 below.

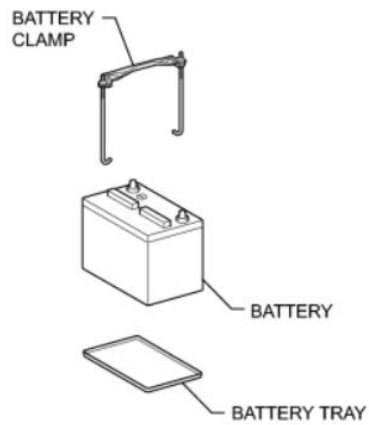


**LED Lights will NOT work if the polarity is reversed. Be sure the red positive wire of the harness matches the red positive wire of the light housing, and the black negative wire of the harness matches the black negative wire of the light housing.**



Picture 26

28. Plug in left and right side fog lights into harness plug and secure with wire ties
29. Reinstall lower splash shield and wheel liner
30. Put battery in position and reinstall battery bracket
31. Reinstall battery bracket (picture 27), reconnect negative battery cable and torque to 48 in-lbs



Picture 27



**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

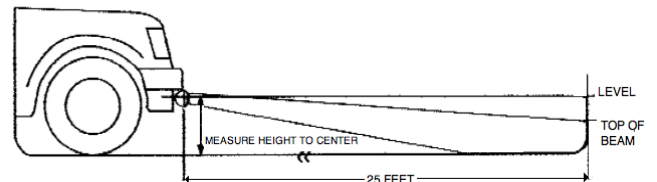


**NOTE:** Use only hand tools to adjust the fog light aiming screw. DO NOT use power assisted tools, as they will damage the fog light.

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 28)



Picture 28

**Check**

Accessory Functions Checks

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

Vehicle Function checks

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- Check all vehicle functions

**Look For:**

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- Inoperable fog light function
- Loose panels and switches
- Re-torque battery terminals to 61 in-lb