

TOYOTA

Prius C

2014

Fog Light

Part Number: 00016-47160

Accessory Code: LF10



### Conflicts

NONE
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### Kit Contents

Item #	Quantity Req'd.	Description
1	2	Fog Lamps
2	2	Fog Lamp's bezels
3	1	Switch Assembly
4	1	Fog light operation guide

### Hardware Bag Contents

Item #	Quantity Req'd.	Description
1	1	Wire harness
2	1	Switch harness
3	2	Relays
4	21	Wire ties
5	4	Phillip head screws
6	2	T-Taps

### Additional Items Required For Installation

Item #	Quantity Req'd.	Description

### Recommended Tools

<b>Safety Tools</b>	
Safety Glasses	
Electrical Tape	
<b>Installation Tools</b>	
10mm Wrench	
Phillips Screw Driver	
Pliers	
Side Cutters	
Torque Wrench	48in lbs
<b>Special Chemicals</b>	
3M Silicon Sealant	

### Color Applicability/Trim Level

Service Part Part Number	Fog Light Housing LH	Fog Light Housing RH	Switch	Wire Harness	Relays	Bezel LH	Bezel RH
00016-32105-02	X						
00016-32105-01		X					
00016-32230-02			X				
00016-47160-01				X			
00016-32105-04					X		
00016-47160-02						X	
00016-47160-03							X

### General Applicability

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### Recommended Sequence of Application

Item #	Accessory
1	
2	
3	

### 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>CAUTION:</b> A process that must be carefully observed in order to reduce the risk of damage to the accessory/vehicle and to ensure a quality installation.
	<b>TOOLS &amp; EQUIPMENT:</b> Used in Figures calls out the specific tools and equipment recommended for this process.
	<b>REVISION MARK:</b> This mark highlights a change in installation with respect to previous issue.
	<b>SAFETY TORQUE:</b> This mark indicates that torque is related to safety.

### SPECIAL NOTE: Installation Sequences

After TMS and 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.

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. These guidelines can be found in the Accessory Installation Practices document.

This document covers such items as:

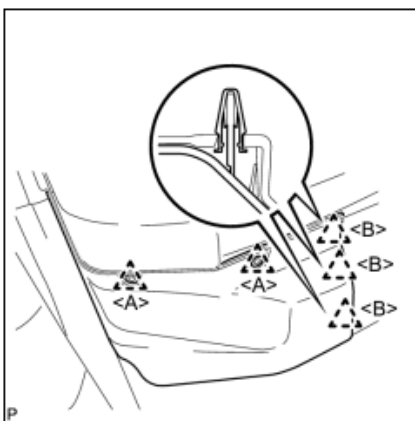
- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc)
- Safety (eye protection)
- Vehicle Disassembly / Reassembly (panel removal, part storage, etc)
- Electrical Component Disassembly/Reassembly

### Preparation



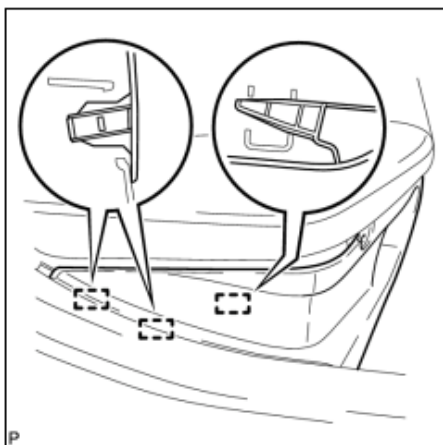
Remove battery from vehicle (Optional step) negative battery cable.

1. Remove the rear seat front floor covers:
  - a. On the driver side of vehicle, using a clip removal tool, remove the 2 clips <A>. Disengage the 3 clips <B>



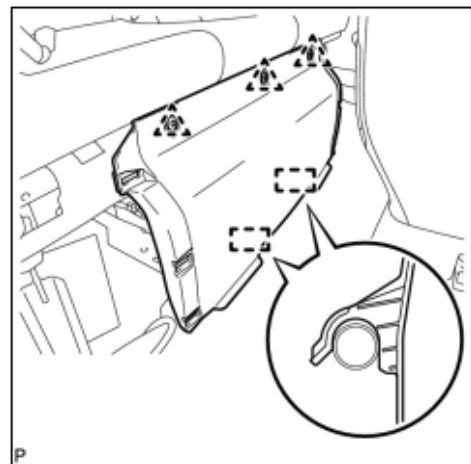
Picture 1

- b. Disengage the 3 guides and remove the front floor cover LH



Picture 2

2. Repeat step 1 for right side front floor cover
3. Remove front center floor cover
  - a. Using a clip removal, remove the 3 clips
  - b. Disengage the 2 guides and remove cover



Picture 3

4. Disconnect negative battery cable using a 10mm wrench (no not touch positive terminal with any tool when removing cable)



Picture 4

- Next to left fender of vehicle, secure the ring terminal with two black wires to the 10mm ground bolt attached to the frame of vehicle (picture 5)



Picture 5

- Using wire ties, secure fog light wire to vehicle wire harness (picture 6)



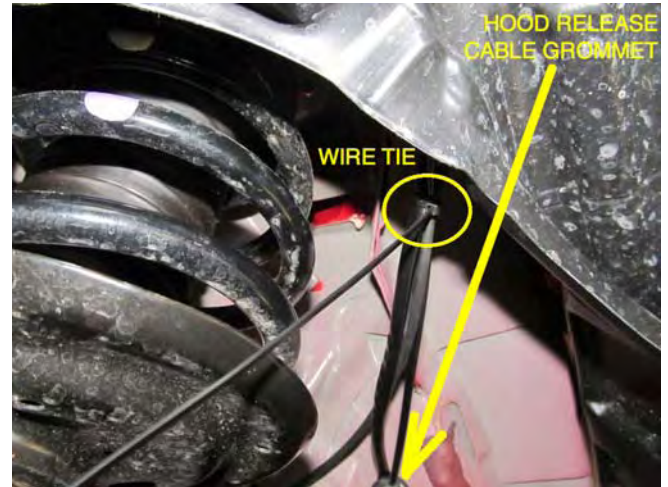
Picture 6

- Remove two push pins on the front left fender liner, and pull back (picture 7)



Picture 7

- Route the wire harness following the path of the hood release cable from engine compartment through wheel well (picture 8)

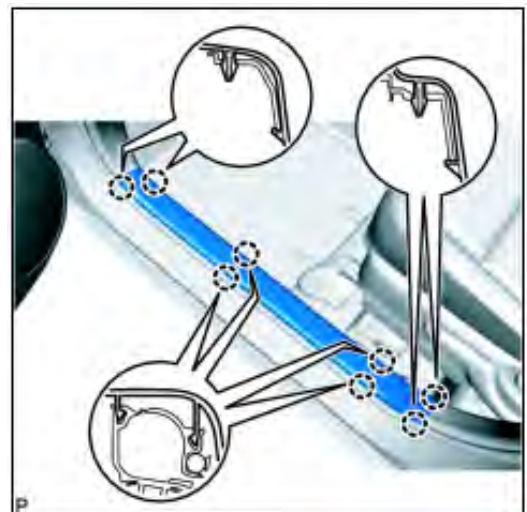


Picture 8

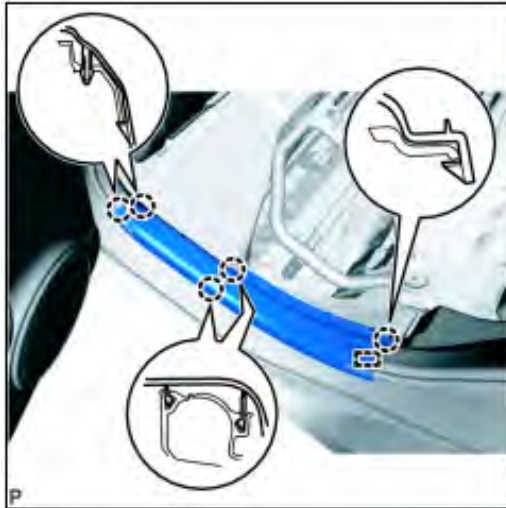
- Locate the hood release cable grommet behind fender liner. Cut a 1/4" slit in grommet and push the red, gray/white and red (16 ga.) wires through firewall. Note: Seal with 3M Silicone sealant

**Vehicle disassembly**

- Remove driver side front and rear door scuff plates. Disengage with panel tool and remove (see pictures 9 and 9A)

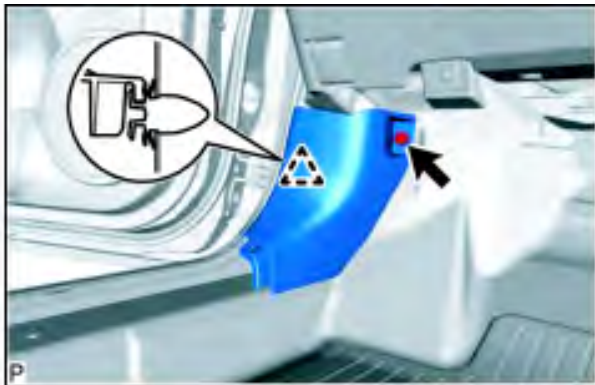


Picture 9: Front LH scuff plate



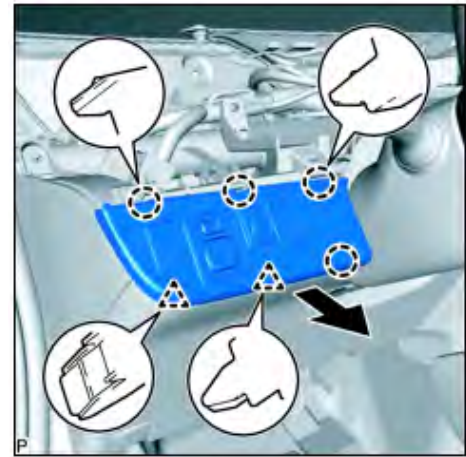
9A: Rear LH scuff plate

11. Remove the driver side cowl side trim: disengage clip and nut to remove the cowl side trim (picture 10)

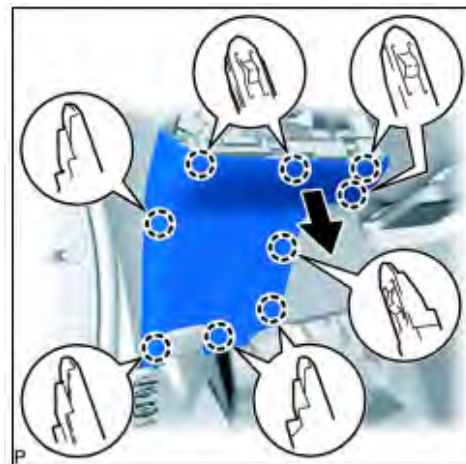


Picture 10

12. Remove left side dash panels from dashboard and unplug connectors. Extra caution should be taking not to pull too hard and damage connectors:
  - a. First, remove the switch hole base
  - b. Then remove the lower instrument panel finish (picture 11 and 11A)



Picture 11



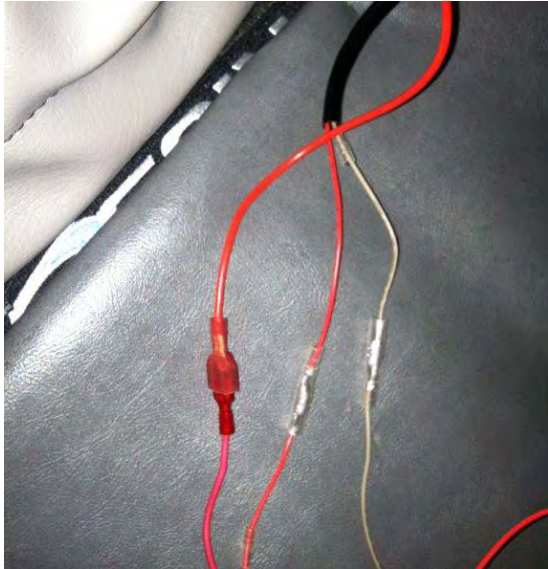
Picture 11A

13. Remove plastic cap from switch knockout of dash. Install switch in empty knockout of dash (picture 13)



Picture 13

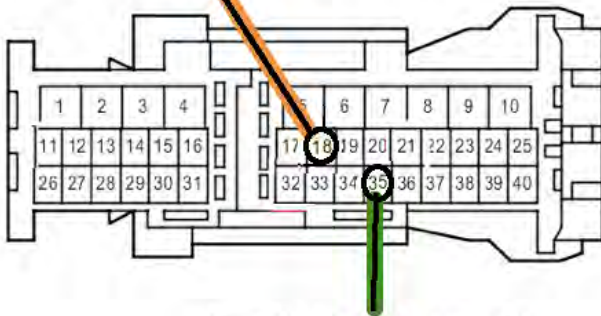
14. From inside the cabin, locate the wires that were pushed through in step 6 and plug them to the switch wire harness. It will be the hood release grommet on the left side of vehicle (picture 14)



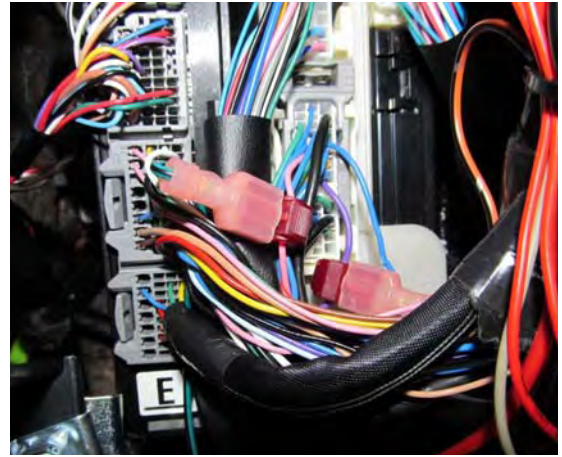
Picture 14

15. T-tap to connect the orange/black wire from fog light harness to connector 3C pin 18, purple wire. Connector 3C located left of the steering column (picture 15 and 16)
16. T-Tap, connect the green/black wire from fog light harness to connector 3C pin 35, pink wire (picture 15 and 16)

Orange-Black to Pin 18 (purple wire)



Green-Black to Pin 35 (pink wire)  
Picture 15: Pin side view



Picture 16

17. Install switch harness into switch and reinstall switch panel
18. Secure fog light wire harness and relay with wire ties and reinstall dash panels (pic. 17)



Picture 17

19. Route the red wire with the ring terminal (positive) along left side of vehicle, securing with factory clips and wire ties, towards the rear seat (pictures 18 and 19)

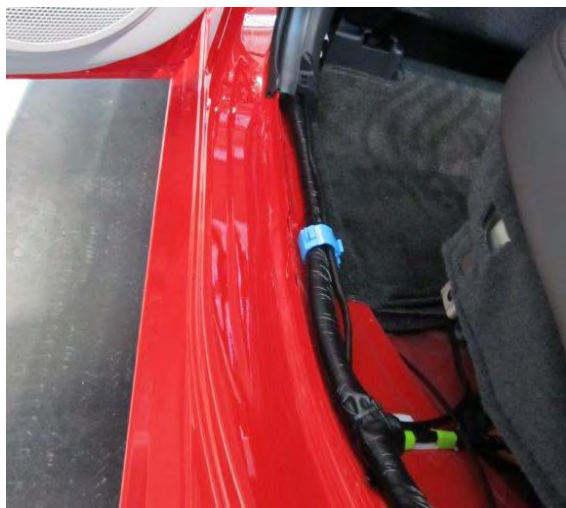


Picture 18



Picture 19

20. Push the red wire under the B pillar cover panel of the vehicle. Continue red wire towards rear seat through the rear left scuff plate (picture 20)



Picture 20

21. Run wire toward the side right side of the vehicle. Secure with wire ties. Attach the fog light wire harness & fuse to the positive battery terminal cover with wire ties. Pic. 21-23

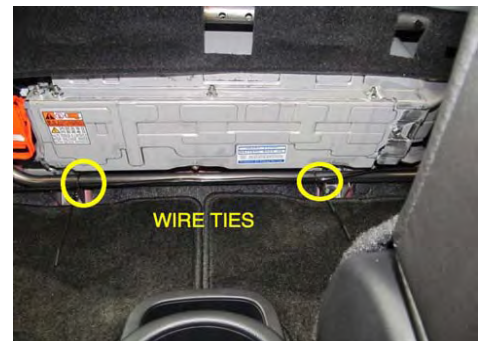
Attach foglight 12v red wire to battery side post. Pic 23

Attach the foglight wire harness & fuse to the positive battery terminal cover with wire ties. Fig. 23-A



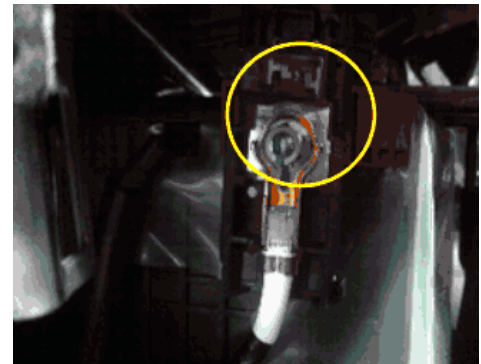
WIRE TIE

Picture 21

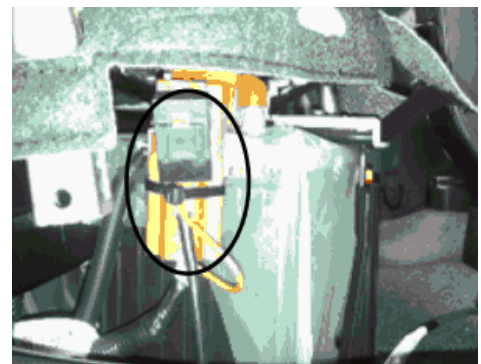


WIRE TIES

Picture 22



Picture 23



Picture 23-A

- 22. Do not connect ring terminal to positive terminal of battery at this point. It will be connected at the end of the process

**ENGINE COMPARTMENT**

- 23. Mount fog light housings into the bezels slide the fog light tab into slot and secure other side with supplied screw (picture 24)



Picture24

- 24. Remove right and left splash shields
- 25. Remove the retaining bolt at each fog light cover. pic. 25a



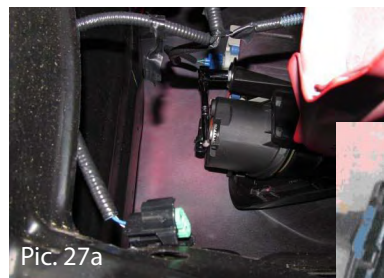
Release tabs holding the fog lights cover. Push the fog lamp covers toward the inside of the car. Pic. 25b

- 26. From underneath the vehicle, remove fog light cover. Repeat on other side (pic.26)

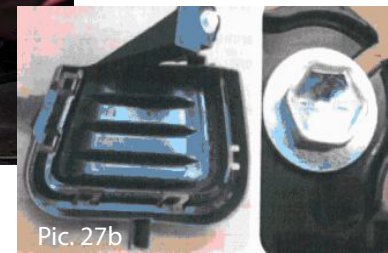


Picture26

- 27. On the driver side, route the fog light wire under car
- 28. From the inside out, install both the fog lights into the vehicle. Make sure that the tabs of the bezels click into the bumper. Pic. 27a



Pic. 27a



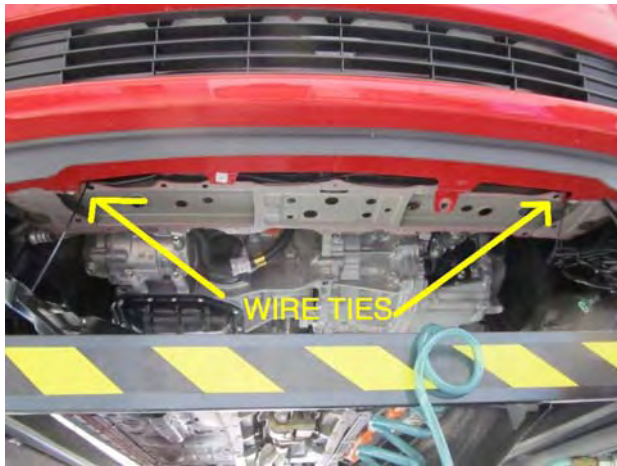
Pic. 27b

Install the retaining hardware and snug tight. Pic. 27b



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

- 29. Plug in left side fog light into harness plug and secure with wire ties
- 30. Run right side of wire harness under skid plate and secure with wire ties (picture 28, 29 and 30)



Picture 28



Picture 29



Picture 30

31. Plug in right fog light into harness plug and secure with wire ties to factory wire harness
32. On the driver side, secure excess wire harness with a wire tie and wire tie to factory wire harness (picture 31)



Picture 31

33. Reattach the lower splash shields
34. Attach fog light 12v red wire to battery (48 in-lb)
35. Re-install battery, bracket & assembly, if applicable.
36. Re-install battery negative terminal at 48 in lbs.
37. Reconnect battery positive terminal nut to 48in lbs, if applicable.
38. Avoid compressing relay against battery.
39. Reinstall under rear seat at panels and make sure all removed panels are secure.



## Check System for Operation

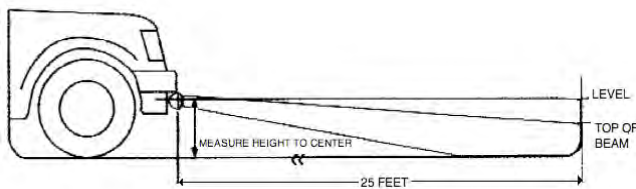
1. Reconnect battery negative terminal
2. Turn on the lamp low beams, then press fog light switch to "ON" position. Fog lights should be working. Fog lights will only work when the low beam headlamps are "ON". Fog lights will NOT work when the high beam headlamps are "ON"

## Fog Light Aiming

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 33)



Picture 33



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

**NOTE:**

**If installing the keyless upgrade security system in conjunction with the add-on fog light kit, you must wait 30 seconds after arming or disarming the system before proceeding to fog light function testing.**

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

**Check**

Accessory Functions Checks

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

Vehicle Function checks

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- Check functions all switch functions

**Look For:**

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- Confirm fog lights turn off if head lights are turned off with remote or 30 seconds delay with headlight switch left in "ON" position.
- Loose panels and switches
- Visually confirm lights are straight forward
- Re-torque battery terminals to 48 in-lb
  
- Place fog light operation guide inside glove box.

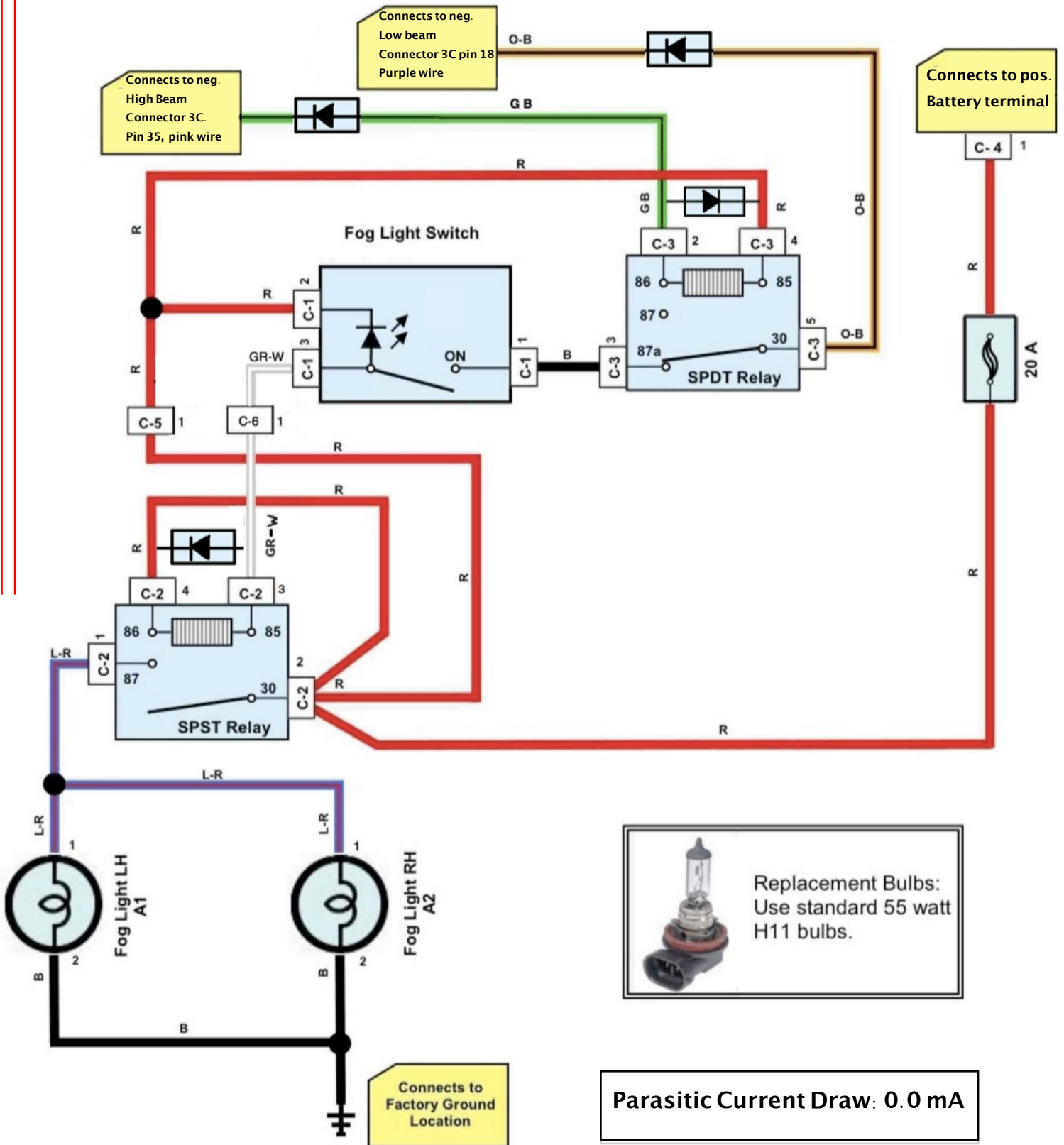
**VEHICLE FUNCTION CHECK**

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

# Block Diagram Fog Lights

Prius C 2012  
00016-47160

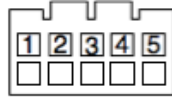
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# Pinout test

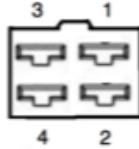
## Connector C-1

**\*\* Unplug connector from switch prior to testing pin outs**



Pin	Wire Color	Test Reference	Proper Operation
1	Black	Pin 1 to Ground	Aprox. +12 VDC when headlights are OFF or HIGH BEAMS ON 0 VDC when headlights are ON (LOW BEAM position)
2	Red	Pin 2 to Ground	Always +12 VDC
3	Gray - White	Pin 3 to Ground	Approximately +12 VDC when FOG LIGHT switch is OFF Approximately +12 VDC when headlights are OFF or HIGH BEAMS ON 0 VDC with FOG LIGHT switch ON and headlights are ON (LOW BEAM position)

## Connector C-2,

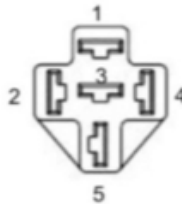


FEMALE TERMINALS (TERMINAL VIEW)

**\*\*Leave Relay connected while testing the pinouts**

Pin	Wire Color	Test Reference	Proper Operation
1	Blue - Red	Pin 1 to Ground	Approximately 0 VDC when FOG LIGHT switch is OFF Approximately 0 VDC when headlights are OFF or HIGH BEAMS ON +12 VDC with FOG LIGHT switch ON and headlights are ON (LOW BEAM position)
2	Red	Pin 2 to Ground	Always + 12 VDC
3	Gray -White	Pin 3 to Ground	Approximately +12 VDC when FOG LIGHT switch is OFF Approximately +12 VDC when headlights are OFF or HIGH BEAMS ON 0 VDC with FOG LIGHT switch ON and headlights are ON (LOW BEAM position)
4	Red	Pin 4 to Ground	Always + 12 VDC

## Connector C-3



FEMALE TERMINALS  
TERMINAL VIEW

**\*\*Leave Relay connected while testing the pinouts**

Pin	Wire Color	Test Reference	Proper Operation
2	Green - Black	Pin 2 to Ground	Aproximately 0 VDC when High beam switch is ON +12 VDC All other times
3	Black	Pin 3 to Ground	Aprox. +12 VDC when headlights are OFF or HIGH BEAMS ON 0 VDC when headlights are ON (LOW BEAM position)
4	Red	Pin 4 to Ground	Always +12 VDC
5	Orange-Black	Pin 5 to ground	Approximately +12 VDC when headlights are OFF or HIGH BEAMS ON 0 VDC when headlights are ON (LOW BEAM position)

### Connector C-4



Pin	Wire Color	Test Reference	Proper Operation
1	Red	Pin 1 to Ground	Always +12 VDC

### Connector C-5



**\*\* Leave connectors connected while testing pin outs**

Pin	Wire Color	Test Reference	Proper Operation
1	Red	Connector to Ground	Always +12 VDC

### Connector C-6

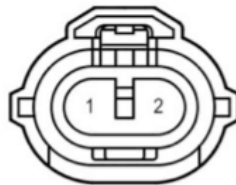


**\*\* Leave connectors connected while testing pin outs**

Pin	Wire Color	Test Reference	Proper Operation
1	Gray - White	Connector to Ground	Approximately +12 VDC when FOG LIGHT switch is OFF Approximately +12 VDC when headlights are OFF or HIGH BEAMS ON 0 VDC with FOG LIGHT switch ON and headlights are ON (LOW BEAM position)

### Connectors A-1, A-2

Fog Lamp connector at Bulb



FEMALE TERMINALS  
TERMINAL VIEW  
HARNES SIDE

Pin	Wire Color	Test Reference	Proper Operation
1	Blue Red	Pin 1 to Ground	Approximately 0 VDC when FOG LIGHT switch is OFF Approximately 0 VDC when headlights are OFF or HIGH BEAMS ON +12 VDC with FOG LIGHT switch ON and headlights are ON (LOW BEAM position)
2	Black	Pin 2 to Ground	Always continuity