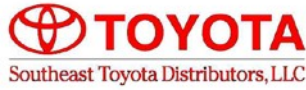


Part Number: 00016-07260

Accessory Code: LD3000



Conflicts

Limited models

Kit Contents

Item #	Quantity Req'd.	Description
1	2	DRL's bezels w/LED DRL
2	1	Driver Box
3	1	Harness bag
4	1	User's card
5	1	Switch
6	2	Drilling jigs

Hardware Bag Contents

Item #	Quantity Req'd.	Description
1	1	Hood Wire Harness
2	1	Cabin Wire Harness
3	25	Wire ties
4	2	T-Taps
5	1	14" wire tie
6	1	Relay

Additional Items Required For Installation

Item #	Quantity Req'd.	Description

Recommended Tools

Safety Tools	
Safety Glasses	
Protective tape	
Electrical Tape	
Installation Tools	
10mm Wrench	
Phillips Screw Driver	
Pliers	
Fish Tool	
Panel Tool Removal	
8 mm drill bit	
Side Cutters	
Torque Wrench	48 in-lb
Special Chemicals	
3M Silicon Sealant	

Accessory Service Parts

Service Part	DRL Housing LH	DRL Housing RH	Switch	Complete Wire Harness	Driver Box
Part Number					
00016-07260-02	X				
00016-07260-04		X			
00016-32270-05			X		
00016-32280-03				X	
00016-32270-06					X







General Applicability

--

Recommended Sequence of Application

Item #	Accessory
1	
2	
3	

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.
-  **CAUTION:** 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.
-  **TOOLS & EQUIPMENT:** Used in Figures calls out the specific tools and equipment recommended for this process.
-  **REVISION MARK:** This mark highlights a change in installation with respect to previous issue.
-  **SAFETY TORQUE:** 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:

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

Preparation



Remove negative battery cable

- a. Place the vehicle in Park with the parking brake set.

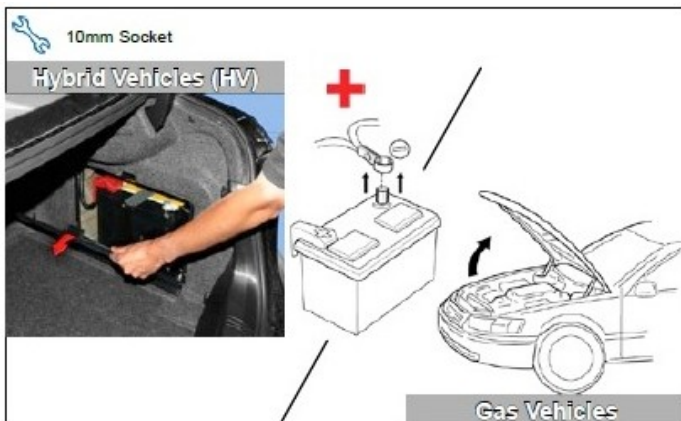
Hybrid vehicles, the battery is in the trunk

- b. Remove the Battery Cover (for hybrid vehicles only)

Gas vehicles, the battery is in the Engine compartment

- c. Disconnect the negative Battery terminal
- x Note the Battery Cable Position as it will be re-installed in the same position

CAUTION: do not touch the positive battery terminal



Picture 1: Non-Hybrid Models



Picture 1B: Hybrid Models

Installation

1. Route the DRL wire harness along the driver side from the battery (Hybrid: from left front) towards the firewall of the vehicle. Secure the wire harness with wire ties as needed (picture 1 & 1B: showing for regular and hybrid engine layout)

2. Optional step: Remove the air intake duct from intake manifold (pictures 2)



Picture 2

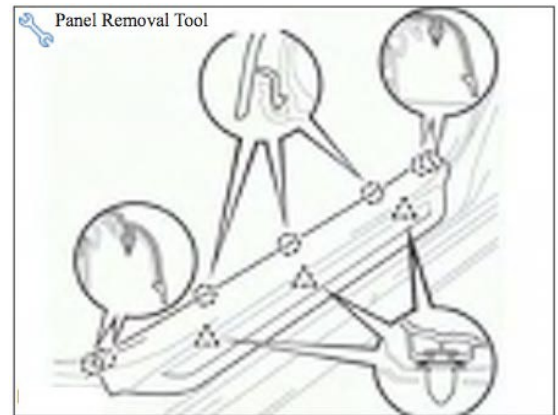
3. Locate the large vehicle harness grommet on the driver side. If accessible, cut the auxiliary wiring access nipple off the grommet or cut ¼' slit in grommet. Using fish tool push the red black, black-wire and red-white wires through firewall. Note: Extra caution should be taken not to damage the pins. Seal with 3M Silicone sealant from inside vehicle (picture 3).



Picture 3

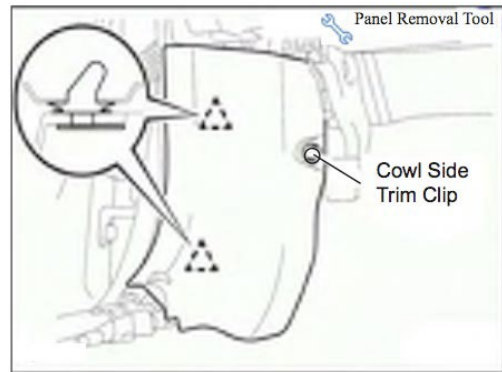
Vehicle Disassembly

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



Picture 4

5. Remove the driver side cowl side trim (see picture 5)
 - a. Unscrew the cowl side trim clip
 - b. Disengage two (2) clips and remove the cowl side trim (picture 5)



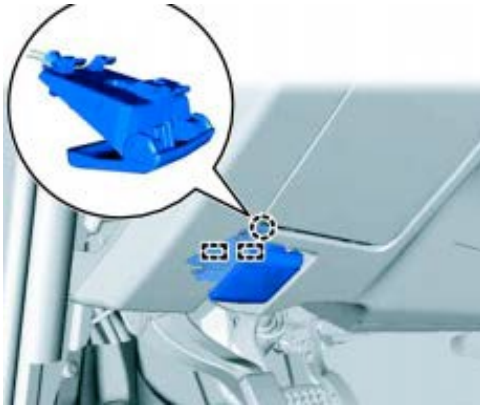
Picture 5

6. Remove the driver's side panel. Disengage with panel tool and remove (picture 6)



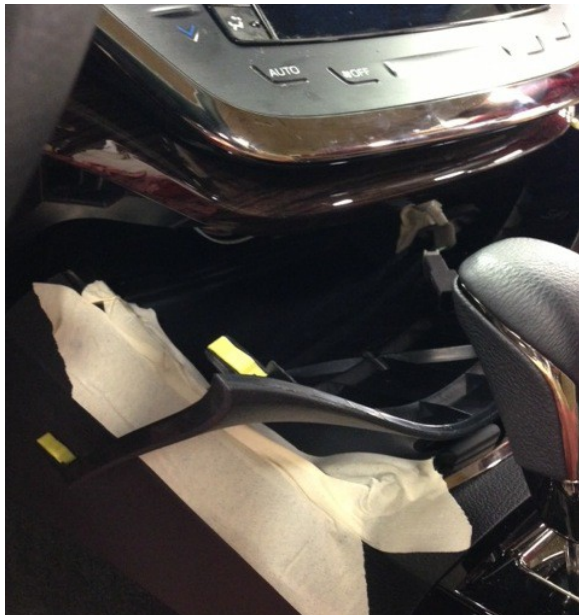
Picture 6

7. Disconnect the hood lock control lever. Disengage the claw and two guides (pic. 7)



Picture 7

8. Place masking tape on the center console panel prior to remove panel. Then loosen the center panel below a/c control (pic.8).



Picture 8

9. Remove lower left switch panel by removing a bolt, clips and a screw (picture 9)
Optional: remove 4 bolts holding the knee air-bag (picture 9A)



Picture 9



Picture 9A

10. Locate the wires that were pushed through the grommet in step 3. Route wire harness towards the left side of steering wheel. Use wire ties as needed (picture 10)



Picture 10

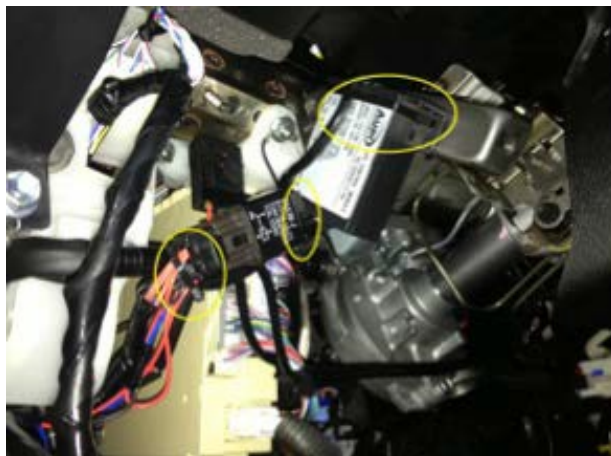
11. Using the driver box as a guide, push the pins of the DRL wire harness into the connector supplied in kit. Make sure that the wire colors of the connectors are aligned

with the wire colors of the driver box: black with black and red with red, etc (picture 11)



Picture 11

12. Connect the driver box to the wire harness (make sure wire colors are aligned).
13. Using a 14" wire tie, secure the driver box next to the main junction block (pic. 12).



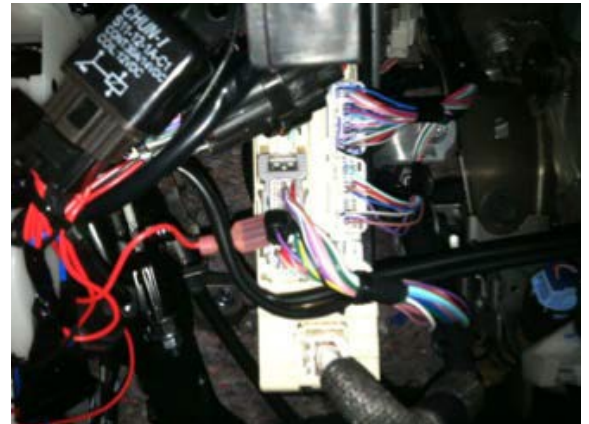
Picture 12

14. Secure the black wire with a ring terminal from DRL harness to ground location at top of main junction block (picture 13)



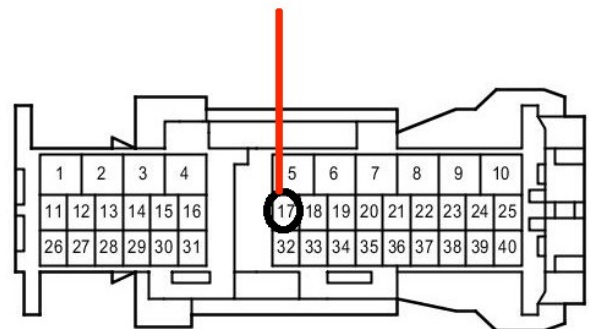
Picture 13

15. At connector 3D install a T-Tap to pin 17, violet wire. This is part of the traction contro circuit. Then connect the red wire from DRL harness to T-tap. Connector 3D is located at the main junction block (pictures 14, 15 and 16)

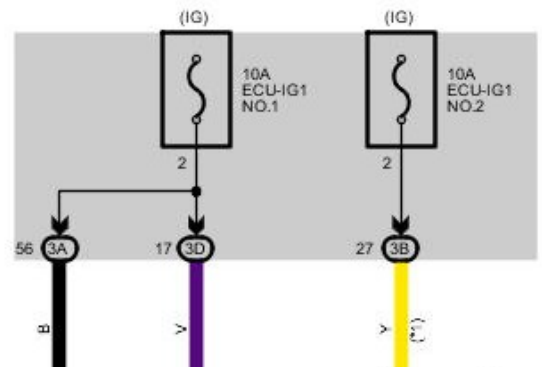


Picture 14

Red wire from DRL harness to pin 17 (violet wire)



Picture 15: Traction control connector

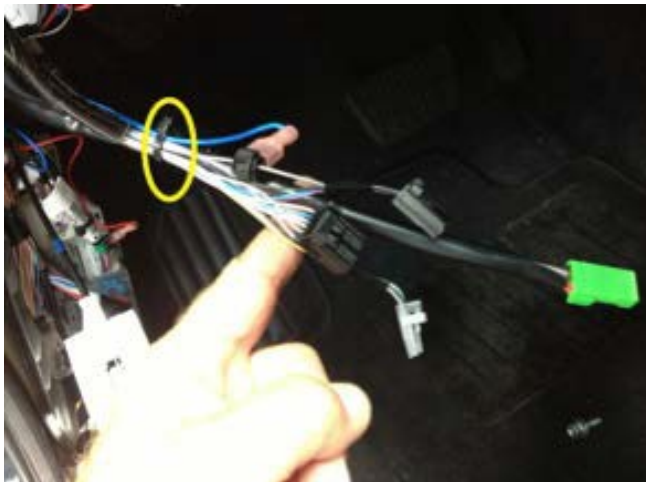


Picture 16: Traction control connector

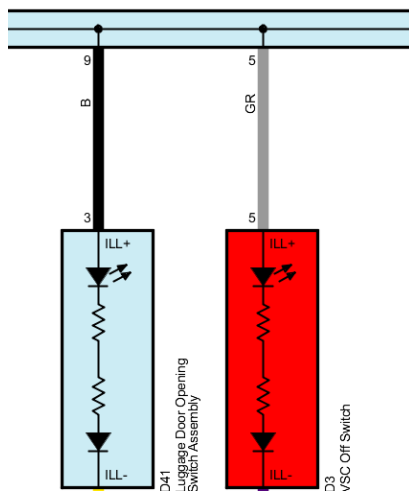
16. At VSC switch control connector D3, pin 5, install a T-Tap to the gray wire. Then

connect the blue wire from DRL harness to t-tap. Connector D3 is located at the VSC dash switch. (pictures 17, 18 and 19).

Note: Use a wire tie to secure blue wire to the wire harness as indicated in pic. 17. Leave enough lead for switch connector to reach DRL switch (green connector below).

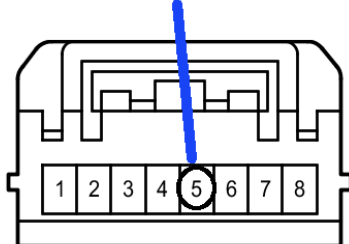


Picture 17



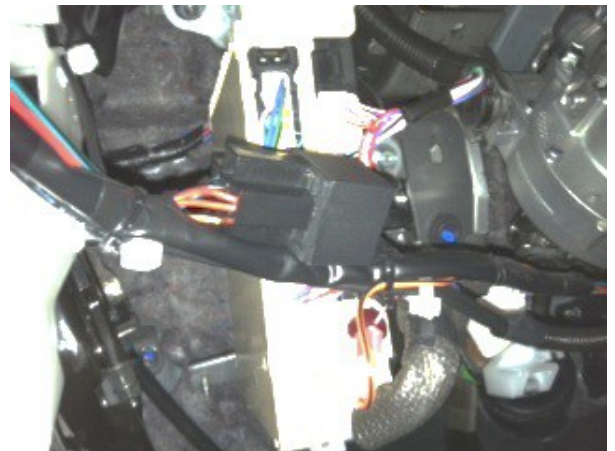
Picture 18: VSC Switch

Blue wire from DRL harness to pin 5 (gray wire)



Picture 19: VSC switch connector D3

- Secure any excess wire from t-taps, fuse and relay to main wire harness (picture 20 & 20A). Make sure to leave enough lead on the switch green connector.



Picture 20



Picture 20A

- If removed, reinstall knee airbag and torque the 4 bolts to 7 ft-lbs.
- Remove dash switch plug from switch panel and install DRL switch into dash (picture 21)



Picture 21

20. Reinstall all panels and connectors inside car, including DRL switch connector.

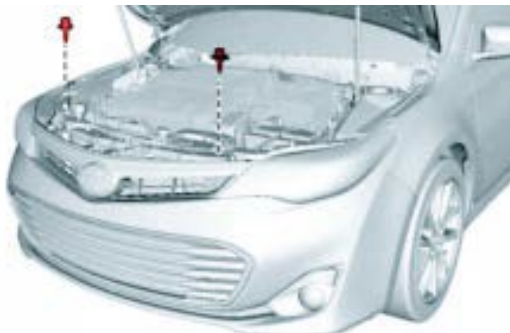
Engine Compartment

21. Remove cowl cover (top radiator cover). Remove the 9 push pins (picture 22)



Picture 22

22. Remove the hood center cushion on LH and RH sides (picture 23)



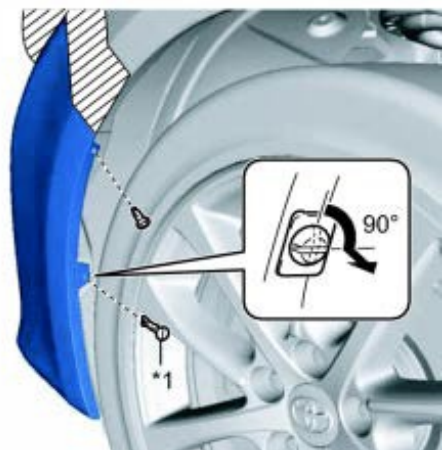
Picture 23

23. Put protective tape around front bumper (picture 24)



Picture 24

24. Remove the top screw securing fender lining. Then, using a screwdriver, turn clip 90 degrees and remove the pin/clip. Use same procedure for LH and RH sides (picture 25)



Picture 25

25. Remove lower splash shield 6 screws on the bottom of bumper (picture 26)



Picture 26

26. Remove lower splash shield by removing the remaining push pins at the bottom of splash shields (pictures 27 and 28)



Picture 27



Picture 28

27. Disengage the 3 claws on both sides of bumper (picture 29)



Picture 29

28. Pull back the side of front bumper and disconnect connectors on both sides.

29. Using a clip remover, remove 3 clips on top of bumper, then pull bumper off (pic. 30)



Picture 30

30. Remove the energy absorber from bumper.
 31. Place bumper on a workbench. On the front of the grill, place the LH drilling jig (supplied in kit) on grill. Refer to picture for location of holes (between 1st and 2nd slat of grill), then drill 3x 8 mm holes. Repeat step for RH side (picture 31 and 32).



Picture 31



Picture 32

- 32. Install DRL on grill with supplied screws (picture 33 and 33A). Tuck the DRL wire on the lower part of grill, so it can be easy retrieved after mounting grill into bumper.



Take extra care not to damage DRL connector while passing through grill.



Picture 33



Picture 33A

- 33. On the driver side, route the DRL wire harness to reach the driver side fog light area (picture 34)



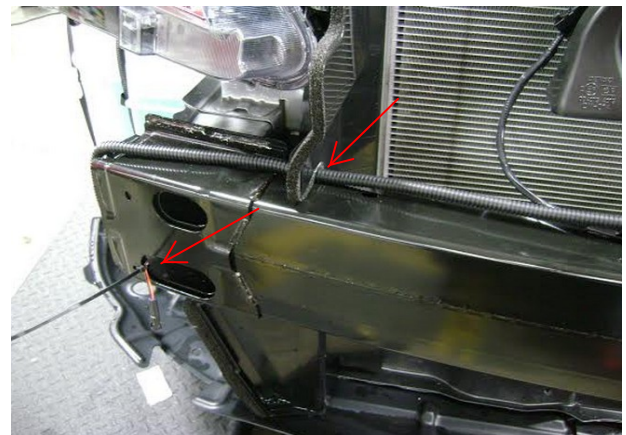
Picture 34

- 34. Route wire along top of the bumper brace left to right & zip tie in place. Run through end of tube, routing it out to front & zip tie. Pic. 35 & 35A

- 35. Wire tie DRL harness as needed. Leave enough lead to plug into DRL's.



Picture 35



Picture 35A

- 36. Reinstall lower radiator grill into bumper.
- 37. Remount energy absorber onto vehicle, then remount bumper onto car. Reconnect factory wires and connect DRL wire harness



Connect negative battery terminal.
Torque to 48 in/lbs

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

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

Vehicle Function checks

- Check functions all switch functions

Look For:

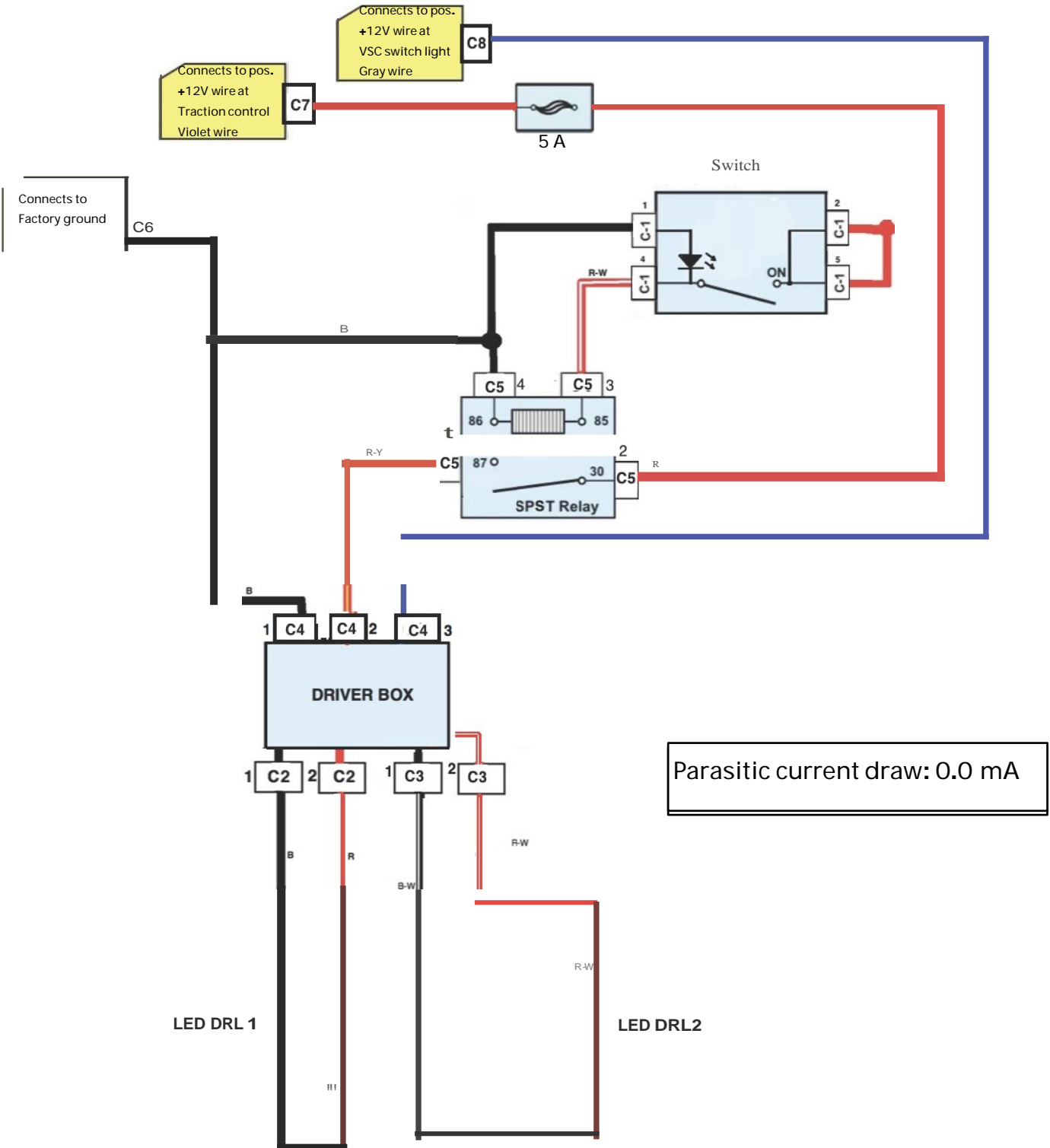
- .
x Loose panels and switches
- x Re-torque battery terminals to 48 in-lb,
- x Place DRL operation guide inside glove
box.

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

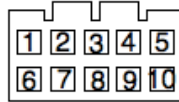
Block Diagram

LED DRL
Avalon 2013
00016-07260 Ver.04.07.2014



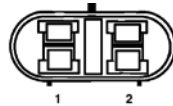
Pinout'test

Connector'C-1



Pin	Wire'Color	Test'Reference	Proper'Operation
1	Black	Pin'1'to'Ground	Approximately'0'VDC'
2	Red	Pin'2'to'Ground	Approximately'0'VDC'ignition'switch'is'OFF' '+12'VDC'when'ignition'switch'is'ON
4	RedIWhite	Pin'4'to'Ground	Approximately'0'VDC'ignition'switch'is'OFF' Approximately'0'VDC'ignition'switch'is'ON,'DRL'switch'is'OFF' +12'VDC'when'ignition'switch'is'ON'and'DRL'switch'is'ON
5	Red	Pin'5'to'Ground	Approximately'0'VDC'ignition'switch'is'OFF' '+12'VDC'when'ignition'switch'is'ON

Connector'C-2,'C-3



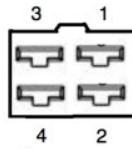
Pin	Wire'Color	Test'Reference	Proper'Operation
1	Red'or'RediWhite	Pin'1'to'Ground	Aproximately'0'VDC'when'ignition'switch'is'OFF Aproximately'0'VDC'when'ignition'switch'is'ON,'DRL'switch'is'OFF Aproximately'+18'to'+24'VDC'when'ignition'switch'is'ON,'DRL'switch'is'ON
2	Black'or'BlackIWhite	Pin'2'to'Ground	Aproximately'0'VDC

Connector'C-4



Pin	Wire'Color	Test'Reference	Proper'Operation
1	Black	Pin'1'to'Ground	Aproximately'0'VDC
2	RedIYellow	Pin'2'to'Ground	Approximately'0'VDC'ignition'switch'is'OFF' Approximately'0'VDC'ignition'switch'is'ON,'DRL'switch'is'OFF' +12'VDC'when'ignition'switch'is'ON'and'DRL'switch'is'ON
3	Blue	Pin'3'to'Ground	Aproximately'0'VDC'dash'panel'lights'are'OFF '+12'VDC'when'dash'panel'lights'are'ON

Connector C-5



FEMALE TERMINALS
TERMINAL VIEW

Pin	Wire Color	Test Reference	Proper Operation
1	Red/Yellow	Pin 1 to Ground	Approximately 0VDC ignition switch is OFF Approximately 0VDC ignition switch is ON, DRL switch is OFF +12VDC when ignition switch is ON and DRL switch is ON
2	Red	Pin 2 to Ground	Approximately 0VDC ignition switch is OFF +12VDC when ignition switch is ON
3	Red/White	Pin 3 to Ground	Approximately 0VDC ignition switch is OFF Approximately 0VDC ignition switch is ON, DRL switch is OFF +12VDC when ignition switch is ON and DRL switch is ON
4	Black	Pin 3 to Ground	Approximately 0VDC

Connector C-6



Pin	Wire Color	Test Reference	Proper Operation
1	Black	Pin 1 to Ground	Approximately 0VDC

Connector C-7



Pin	Wire Color	Test Reference	Proper Operation
1	Red	Pin 1 to Ground	Approximately 0VDC when ignition switch is OFF +12VDC when ignition switch is ON

Connector C-8



Pin	Wire Color	Test Reference	Proper Operation
1	Blue	Pin 1 to Ground	Approximately 0VDC dash panel lights are OFF +12VDC when dash panel lights are ON