



ATTENTION: This Technical Service Bulletin was issued by Southeast Toyota Distributors, LLC.

For Toyota Dealers located within the Southeast Region: Please refer to SET Dealer Daily to obtain instructions on how to order parts and submit a warranty claim (If applicable).

For Lexus Dealers or Toyota Dealers NOT located in Florida, Georgia, Alabama, South Carolina or North Carolina: For Repair Authorization, Parts Ordering, and Warranty Claims please contact Southeast Toyota Distributors Warranty Claims Department:

(888)851-2722

Press 5, then Press 4 for Out of Region SET Repairs

Accessory.Warranty@SEToyota.com

Thank you for your continued support.

Highlander water intrusion grommet damaged during accessory installation

Applicability

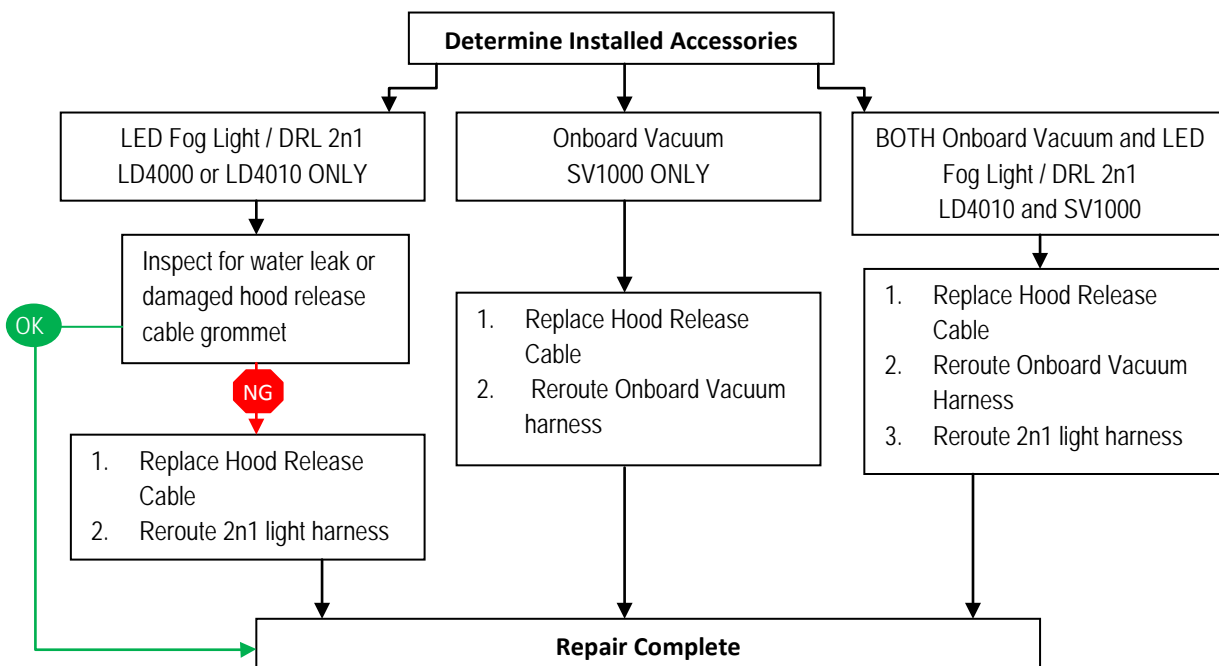
YEAR(S)	MODEL(S)	INSTALLED ACCESSORY INFORMATION		
		DESCRIPTION	ACCESSORY CODE	KIT PART NUMBER
2016	Highlander	Onboard Vacuum	SV1000	00016-48017-01
				00016-48017-02
				00016-48017-04
2016	Highlander	LED Fog Light & DRL 2n1	LD4000 or LD4010	00016-00081
				00016-48011

****This Publication does not apply to Vehicles Equipped with an accessory from the factory or Systems added by other manufacturers.**

Introduction

Southeast Toyota (SET) offers onboard vacuum and LED fog & DRL 2n1 Light accessories as port or dealer installed options. The hood release cable grommet may be damaged during the installation of onboard vacuum cleaner or LED fog & DRL 2n1 light on 2016 Highlander vehicles. Should the hood release cable grommet be damaged water intrusion may occur during heavy rains. This Bulletin addresses the inspection and repair procedures for water intrusion concerns on vehicles equipped with SET accessories: onboard vacuum and/or LED fog & DLR light.

Work Flow Overview



SET Accessory Highlander water intrusion (Cont.)

Warranty Information

For Dealers located in the Southeast Region, Florida, Georgia, Alabama, South Carolina, or North Carolina, Submit Warranty claim utilizing the information below.

Accessory	OP CODE	DESCRIPTION	TIME	OFFP	T1	T2
LD4000 or LD4010	INSGRO	Inspect Grommet	1.2	00016-SPECL	99	99
LD4000 or LD4010	RRHRC1	R&R Hood Release Cable with 2n1 harness	1.4	00016-SPECL	99	99
SV1000	RRHRC2	R&R Hood Release Cable with Vacuum harness	2.4	00016-SPECL	99	99
LD4010 and SV1000	RRHRC3	R&R Hood Release Cable with 2n1 and Vacuum harness	2.6	00016-SPECL	99	99
Port Installed Option (PIO) - is in effect for 36 months or 36,000 miles from the vehicle's in-service date, whichever occurs first. <i>Unless otherwise specified in vehicle VIN inquiry.</i>						
Dealer Installed Option (DIO) - is in effect for 12 months, regardless of mileage, from the date the part(s) was installed on the vehicle or the remainder of any applicable New Vehicle Limited Warranty, whichever provides greater coverage.						
Over the Counter Sale (OCS) - is in effect for 12 months, regardless of mileage, from the date the part(s) were sold. Labor is not warranted for over-the counter service part replacements.						
If you are a dealer located outside of the Southeast Region, please contact the SET Accessory Warranty Department at (888) 851-2722, press 5 then 4 or email Accessory.Warranty@SEToyota.com for claim payment instructions.						

Parts Information

PART NUMBER	DISCRIPTION
53630-0E050	Cable Assembly, Hood Lock Control (as needed)

SET Accessory Highlander water intrusion (Cont.)

SECTION A: Inspection

Verify Vehicle is equipped with SET accessory.

- Port installed Onboard Vacuum (Fig. 1) can be identified by "SV1000" option code appearing in TIS VIN inquiry vehicle accessory codes.
- Dealer installed units can be identified by reviewing service history for 00016-48017-0X.



- Port installed LED Fog Light & DRL 2n1 (Fig.2) can be identified by "LD4000" or "LD4010" option code appearing in TIS VIN inquiry vehicle accessory codes.
- Dealer installed units can be identified by reviewing service history for 00016-00081 or 00016-48011



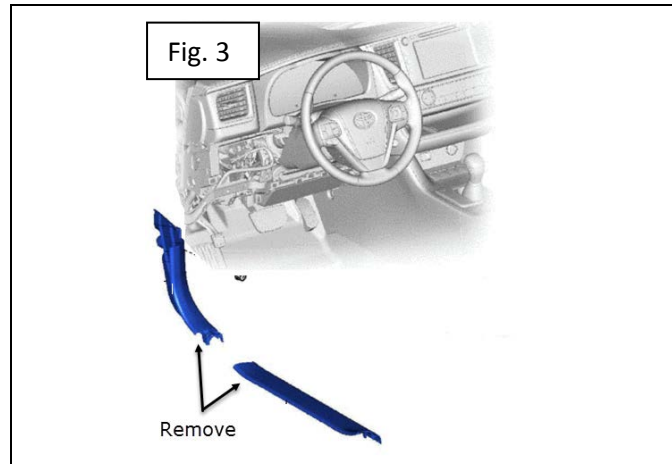
- Vehicle equipped with LED Fog Light & DRL 2n1 LD4000 or LD4010 **ONLY**.
 - Proceed to **step 1** starting on page 4.
- Vehicle equipped with Onboard Vacuum SV1000 **ONLY**.
 - Perform repairs as listed in **Section C** starting on page 12.
- Vehicle equipped with **BOTH** LED Fog Light & DRL 2n1 LD4000 or LD4010 **AND** Onboard Vacuum SV1000.
 - Perform repairs as listed in **Section B** starting on page 6 and **Section C** starting on page 12.
- Vehicle is not equipped with SET accessories listed
 - This TSB does not apply

SET Accessory Highlander water intrusion (Cont.)

Inspect for water intrusion and grommet condition.

1. Remove front door scuff plate LH and cowl side trim sub-assembly.

Fig. 3

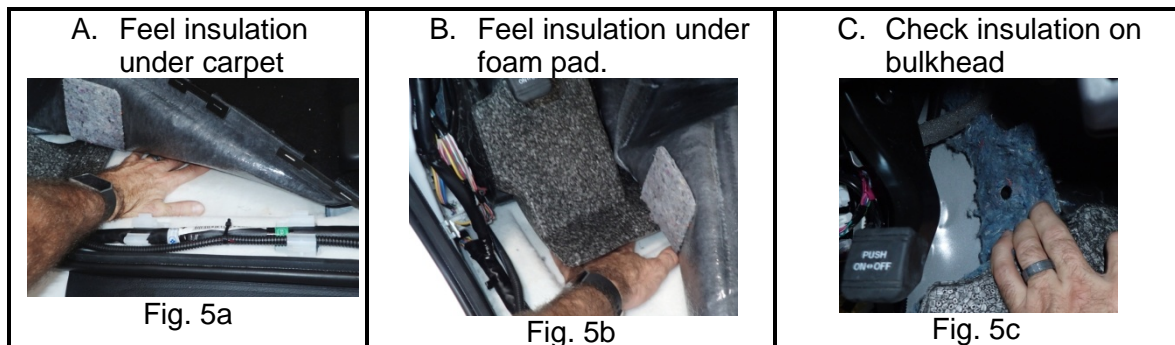


2. Pull carpeting away from floor board in area behind parking brake pedal.

Fig. 4



3. Check Driver's floor board for dampness.

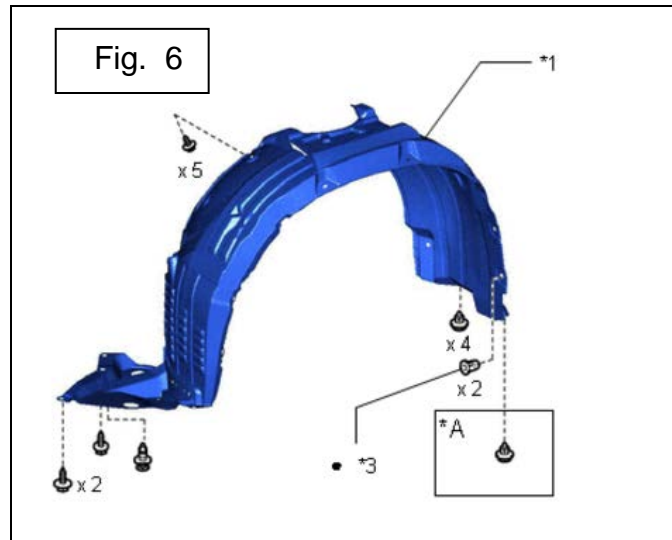


Note: If uncertain of water intrusion, perform water leak test while monitoring the area behind the parking brake in the area of the hood release cable grommet.

SET Accessory Highlander water intrusion (Cont.)

4. Remove left front tire.
5. Remove front fender wheel opening molding sub-assembly LH.
6. Remove front fender liner LH.

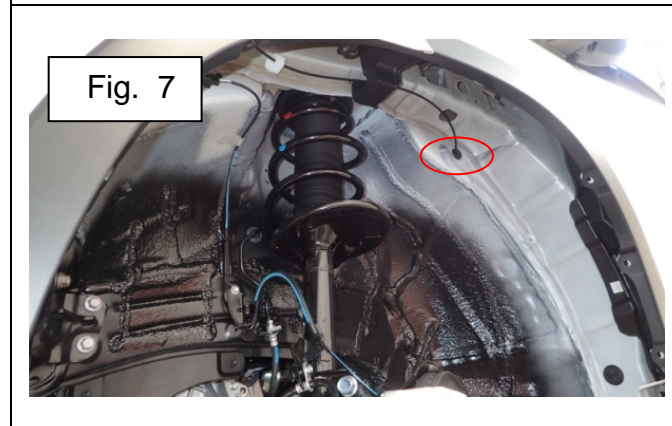
Fig. 6



7. Inspect the hood release cable grommet. Grommet should be:

Fig. 7

- Correctly positioned in fender well.
- Not ripped or torn.
- Sealed with silicon.



- If water intrusion is detected or Grommet is damaged proceed to **Section B** starting on page 6 for repair instructions.
- If Water intrusion is not found and the grommet is not damaged, inspection is complete. No repairs required.

SET Accessory Highlander water intrusion (Cont.)

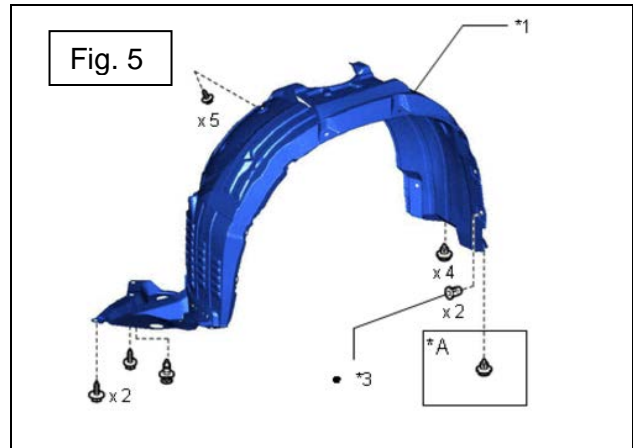
SECTION B: LD4000 or LD4010 LED Fog Light & DRL 2n1

A. LED FOG LIGHT & DRL 2N1 HARNESS REMOVAL.

1. Disconnect negative battery terminal.
2. Remove left front tire.
3. Remove front fender wheel opening molding sub-assembly LH.
4. Remove front fender liner LH.

TIS INFO

Fig. 5



5. Remove front door scuff plate LH.
6. Remove cowl side trim sub-assembly LH.

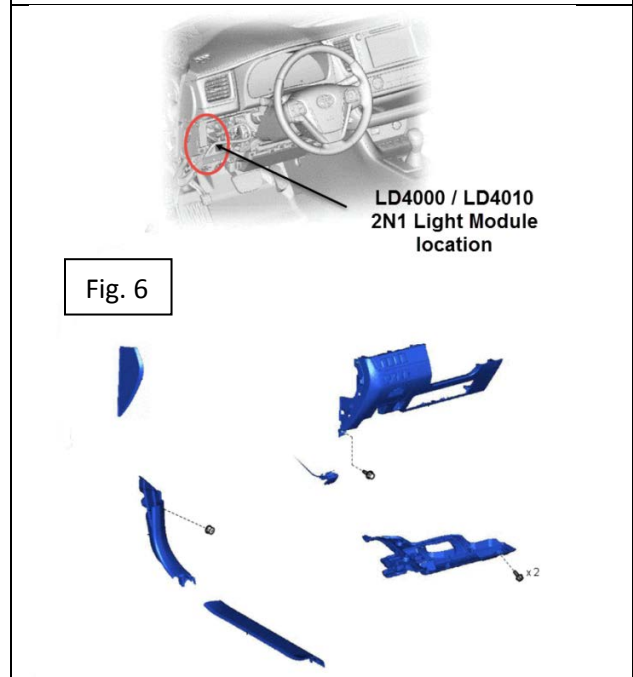
TIS INFO

7. Remove no. 1 instrument panel under cover sub-assembly.
8. Remove lower instrument panel finish panel sub-assembly.

TIS INFO

9. Locate DRL module behind left side of lower instrument panel finish panel sub-assembly.

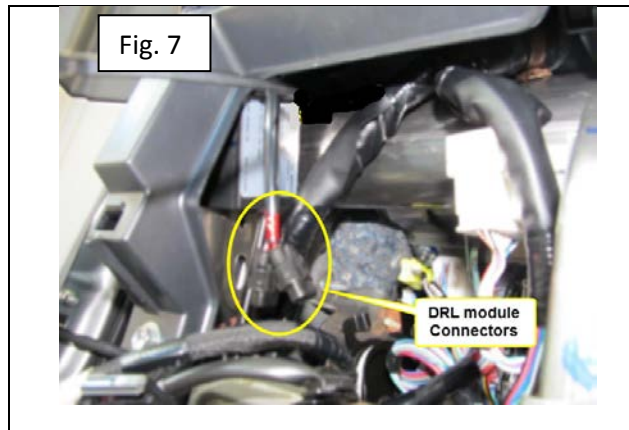
Fig. 6



SET Accessory Highlander water intrusion (Cont.)

10. Disconnect DRL harness from module.

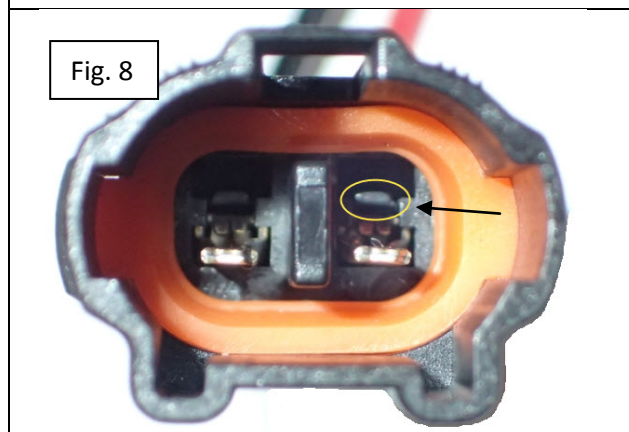
Fig 7



11. Disassemble harness connectors.

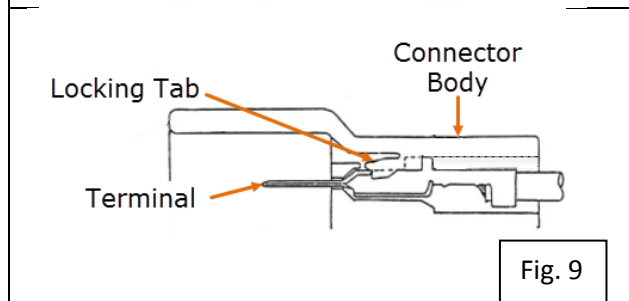
- a. Locate the plastic terminal locking tab in the connector housing.

Fig 8



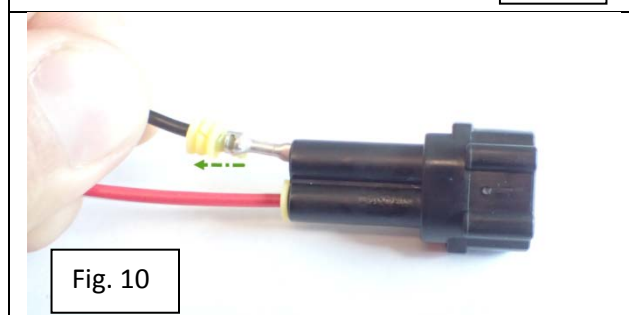
- b. Using a terminal release tool, disengage locking tab from terminal to release from connector body.

Fig. 9



- c. With locking tab disengaged, lightly pull wire with terminal from rear of connector body.

Fig. 10



12. Cut all cable ties retaining excess accessory harness under dash.

13. Remove accessory harness through hood release cable grommet.

SET Accessory Highlander water intrusion (Cont.)

Note: If this vehicle is also equipped with onboard Vacuum. Remove Onboard Vacuum harness as outlined in Section C starting on page 13, step 10, before continuing.

B. HOOD RELEASE CABLE REPLACEMENT

14. Per TIS instructions remove Hood release cable with grommet.

TIS INFO

15. Per TIS instructions install new Hood release cable with grommet.

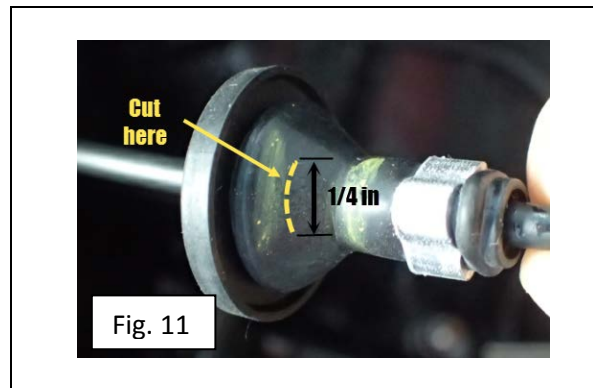
TIS INFO

Note: See next steps before completely installing the Hood Release cable grommet.

C. LED FOG LIGHT & DRL 2N1 HARNESS REVISED INSTALLATION PRIOR TO INSTALLING HOOD RELEASE CABLE GROMMET INTO BODY.

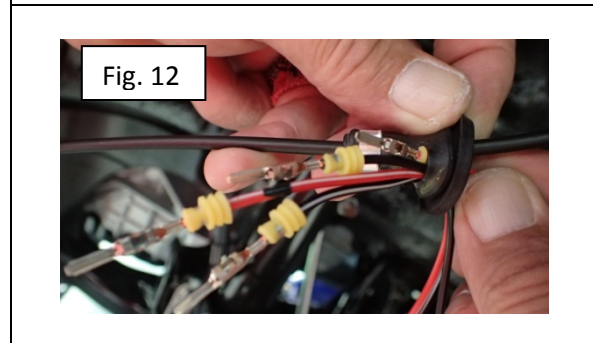
16. Make a ¼ inch long incision in the hood release cable grommet in the area shown.

Fig. 11



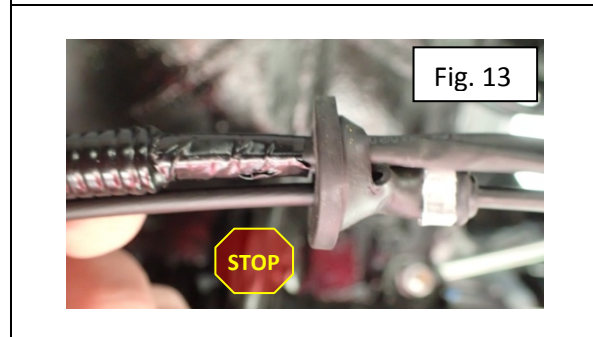
17. Route accessory wiring harness through grommet. One Terminal at a time.

Fig 12



Note: Do not damage new hood release cable grommet.

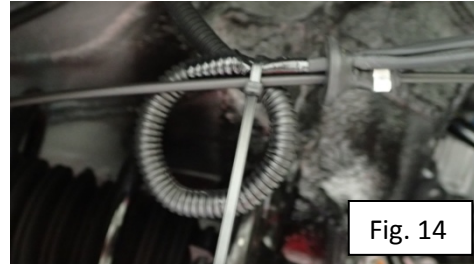
18. Pull harness through grommet. Do not let existing electrical tape or harness conduit to pass through grommet.



SET Accessory Highlander water intrusion (Cont.)

19. Make a small loop in accessory wire harness and wire tie to hood release cable.

Fig. 14



20. Push Hood Release cable into position. Ensure grommet is flush against bulkhead.

Fig. 15



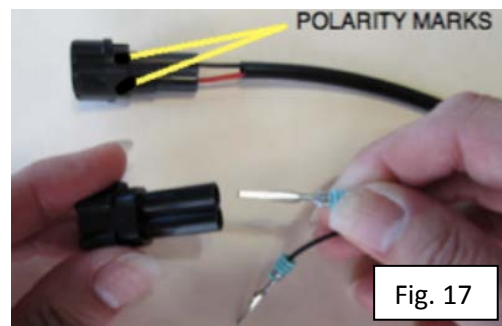
21. Extra harness can be pulled to the front of the wheel well and secured near left front fog light housing.

Fig. 16



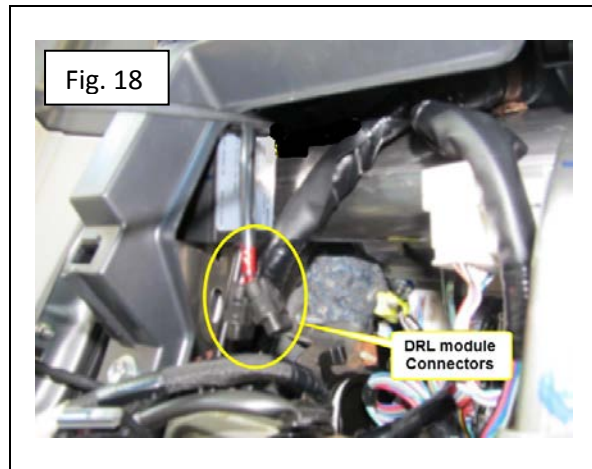
22. Reassemble connectors under dash. Note: Connectors have polarity markings. Push terminals into connector as shown. Fig. 17

- Red wire goes to “+” connector cavity.
- Black wire goes to “-” connector cavity.



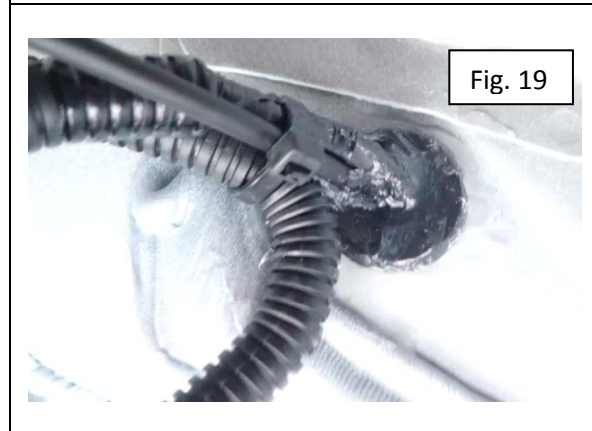
SET Accessory Highlander water intrusion (Cont.)

23. Connect accessory harness to DRL module. Fig. 18



24. Seal Grommet with 3M silicone or equivalent. Fig. 19

- Apply silicone between harness and release cable.
- Ensure incision made to grommet is completely sealed.
- Apply silicone around edges of grommet



Note: If vehicle is also equipped with SV1000 onboard vacuum, proceed to Section C prior to Reassembly.

D. VEHICLE REASSEMBLY (FOR 2N1 FOG DRL LIGHT)

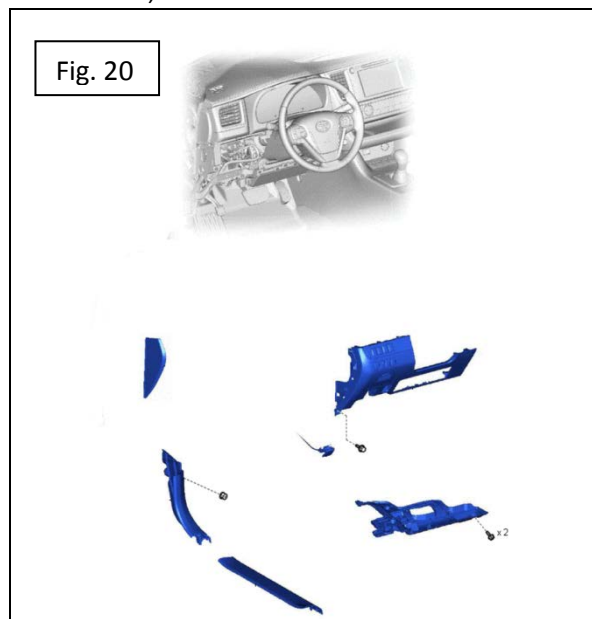
25. Install lower instrument panel finish panel sub-assembly.

26. Install no. 1 instrument panel under cover sub-assembly.

27. Install cowl side trim sub-assembly LH.

28. Install front door scuff plate LH.

Fig. 20

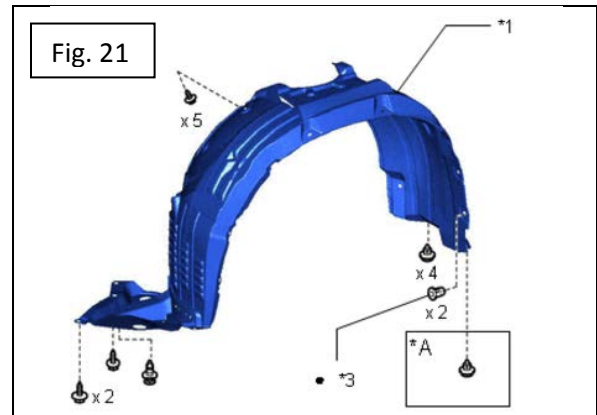


SET Accessory Highlander water intrusion (Cont.)

- 29. Install front fender liner LH.
- 30. Install front fender wheel opening molding sub-assembly LH.

TIS INFO

Fig. 21



- 31. Install left front tire.
- 32. Reconnect negative battery terminal.

Repair complete for vehicles with LD4000/LD4010 Fog and DRL light vehicles. Proceed to next section if vehicle is also equipped with SV1000 onboard vacuum.

SET Accessory Highlander water intrusion (Cont.)

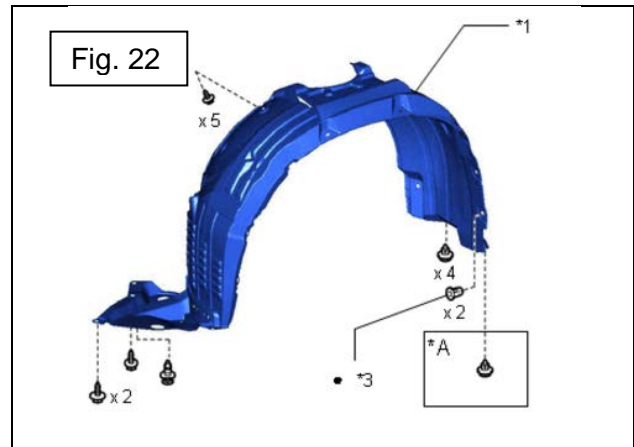
SECTION C: SV1000 Onboard Vacuum

A. ONBOARD VACUUM HARNESS REMOVAL

1. Disconnect negative battery terminal.
2. Remove left front tire.
3. Remove front fender wheel opening molding sub-assembly LH.
4. Remove front fender liner LH.

TIS INFO

Fig. 22



5. Remove front door scuff plate LH.
6. Remove cowl side trim sub-assembly LH.

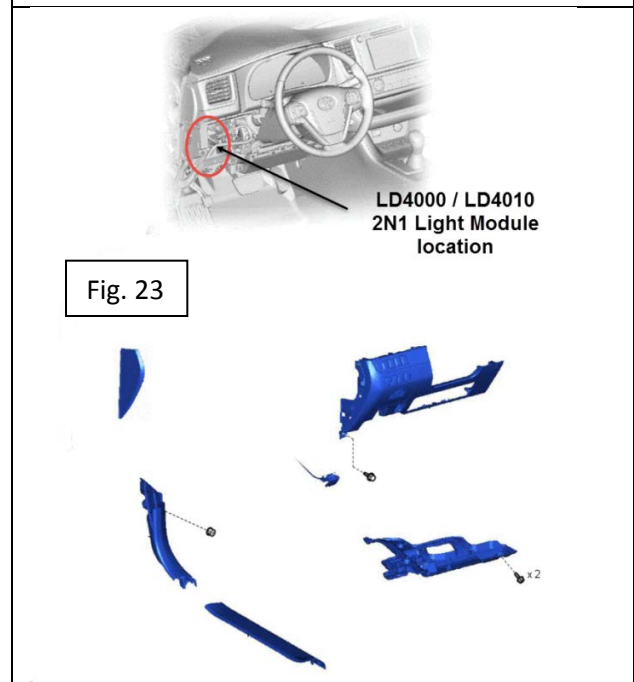
TIS INFO

7. Remove no. 1 instrument panel under cover sub-assembly.
8. Remove lower instrument panel finish panel sub-assembly.

TIS INFO

9. Locate DRL module behind left side of lower instrument panel finish panel sub-assembly.

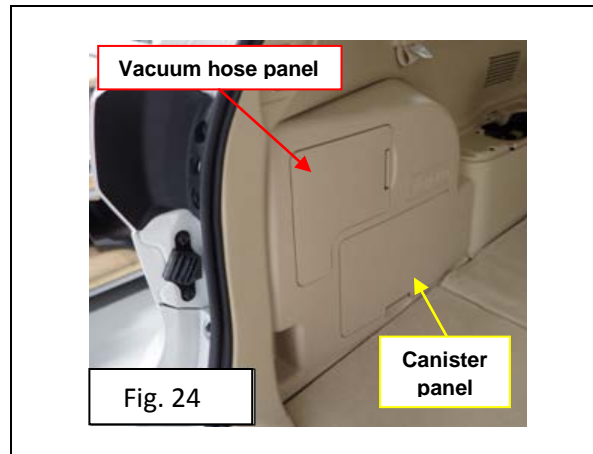
Fig. 23



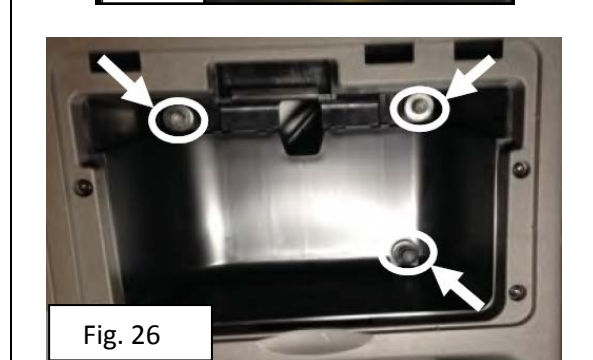
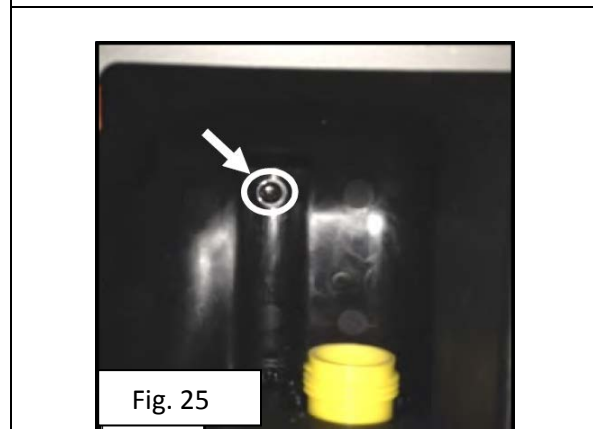
SET Accessory Highlander water intrusion (Cont.)

10. Remove vacuum hose panel.
11. Remove hose assembly by unthreading nut on hose end onto hose attachment point inside hose storage cavity.
12. Remove vacuum canister panel and canister assembly.

Fig. 24

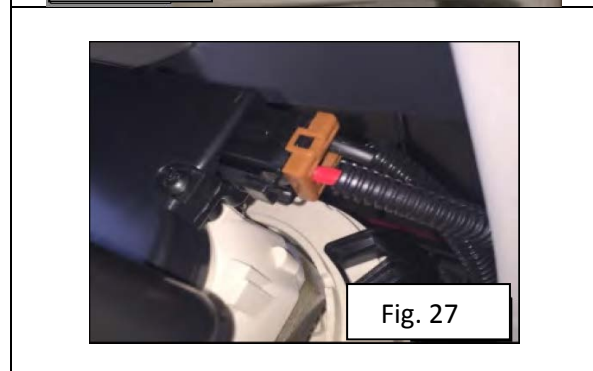


13. Remove 8mm screw in the hose storage compartment (Fig. 25) and 3 10mm bolts in the vacuum canister compartment (Fig. 26) holding on board vacuum to quarter panel trim panel as shown in illustration.



14. Tilt vacuum inward and disconnect the electrical connector.

Fig. 27

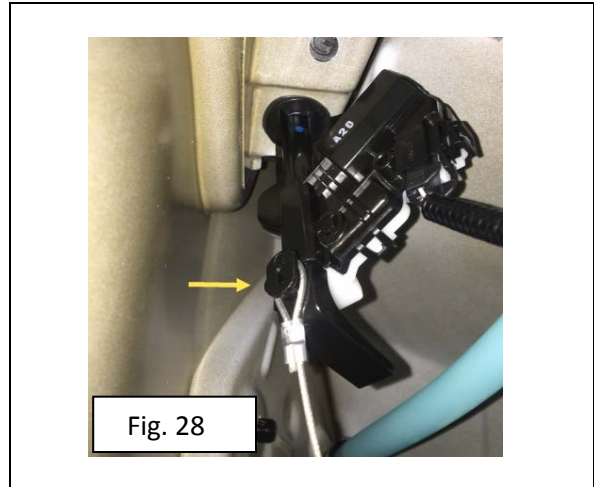


SET Accessory Highlander water intrusion (Cont.)

15. Tilt vacuum inward and disconnect secondary fuel door release cable from fuel door solenoid.

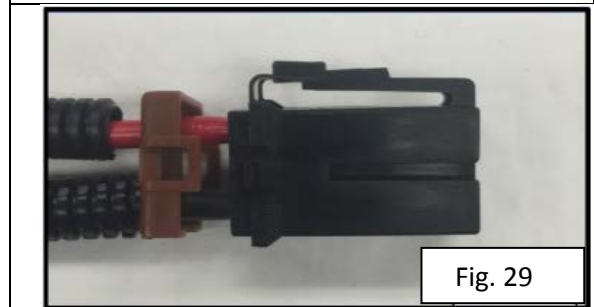
Fig. 28

Note: *If vacuum is not equipped with secondary fuel door release cable see SET-TSB-16-005 for additional instruction.*



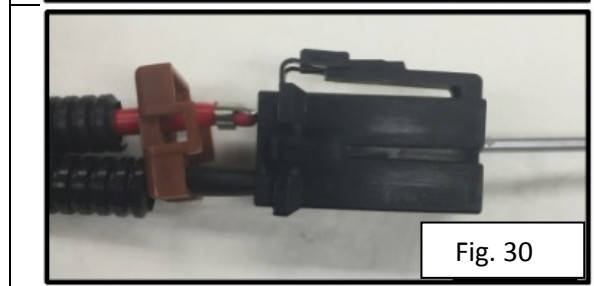
16. Remove the wire retainer on the back of the harness power connector by prying clips away from housing body and sliding back.

Fig. 29



17. Insert narrow flat blade screwdriver into mating end of connector, just under the top terminal. Apply pressure down and pull back on the top wire from the back of the housing.

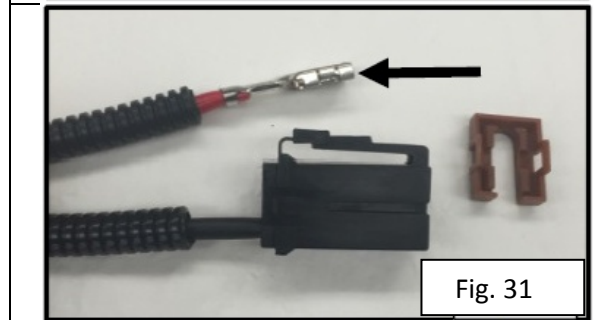
Fig. 30



18. Fully remove the top wire from the connector housing.

Fig.31

19. Use Electrical tape to protect terminal during procedure.



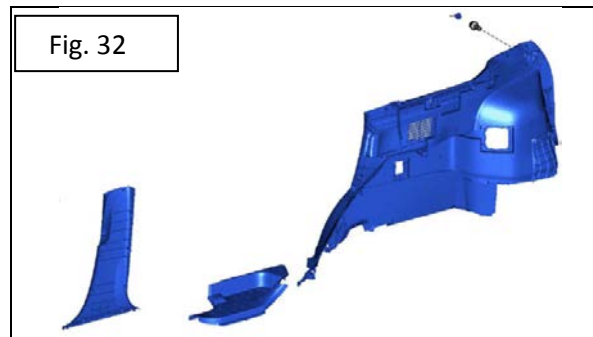
Note: *Onboard vacuum power wire is connected to B+ and has 12V at all times. Battery cable must be disconnected to prevent damage.*

SET Accessory Highlander water intrusion (Cont.)

20. Remove LH rear quarter panel trim.

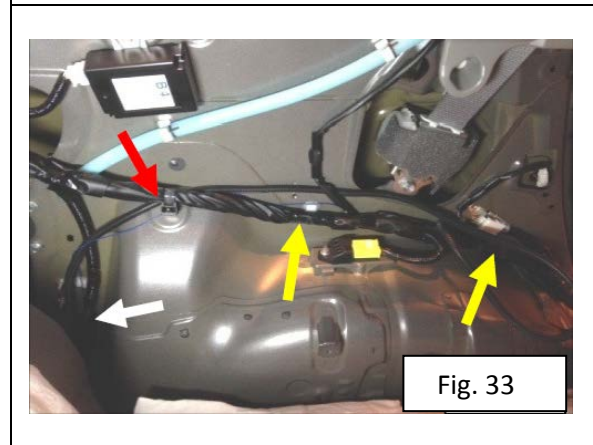
TIS INFO

Fig. 32



21. Locate vacuum power harness behind left rear quarter panel interior trim routed along factory harness. Cut all cable ties securing harness.

Fig. 33



22. Remove Vacuum power harness by pulling through the hood release cable grommet.

B. HOOD RELEASE CABLE REPLACEMENT

23. Per TIS instructions remove Hood release cable with grommet.

TIS INFO

24. Per TIS instructions install new Hood release cable with grommet.

TIS INFO

Note: If vehicle is also equipped with LD4010 fog and DRL 2m1 light, refer to section B before completely installing the Hood Release cable grommet.

SET Accessory Highlander water intrusion (Cont.)

C. REVISED VACUUM POWER HARNESS ROUTING

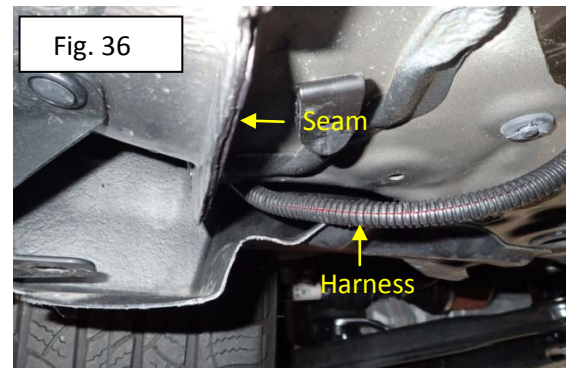
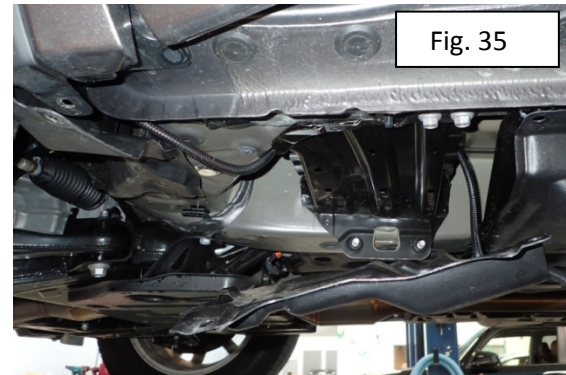
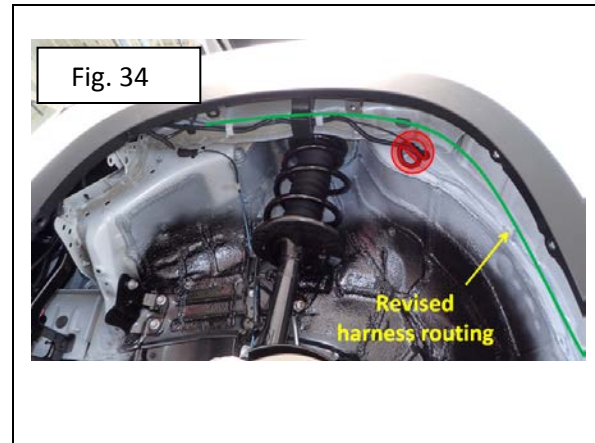
- **OVERVIEW-** The harness will run down the back of the wheel well. Then routed on to the inside of the body seam to a body plug in the driver's side floor board. Once inside the vehicle the harness is to be routed the driver's side of the vehicle to its original location. Vacuum harness is not to be routed through hood release cable grommet. Fig. 34

25. Loosen underbody splash shields behind left front tire.

Fig. 35

26. Route harness down back of wheel well and to the inside of the body seam.

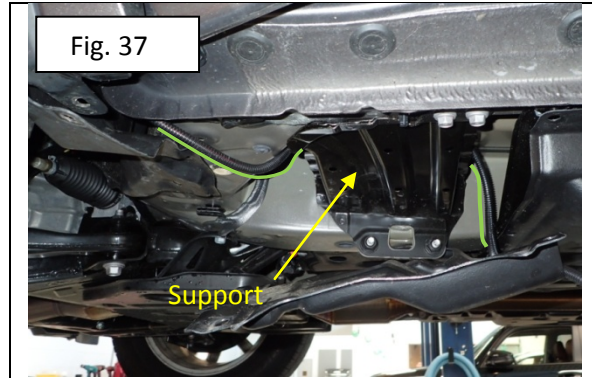
Fig. 36



SET Accessory Highlander water intrusion (Cont.)

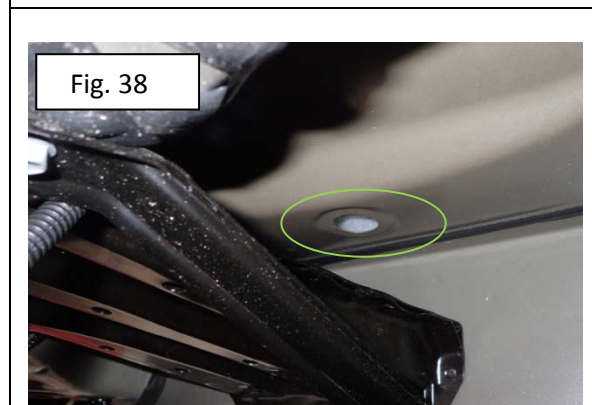
27. Route harness above frame support.

Fig. 37



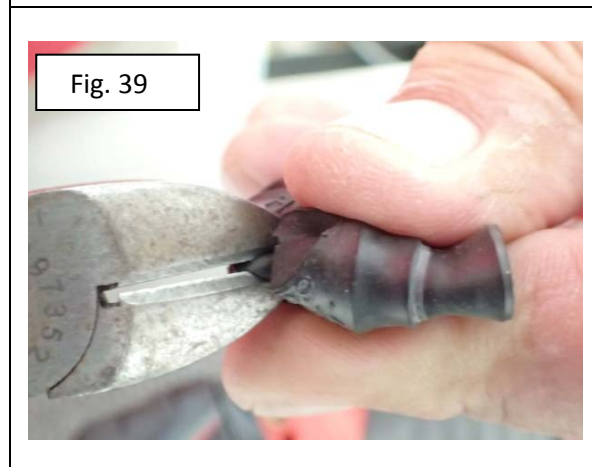
28. Locate and temporarily remove floor pan plug above support.

Fig. 38



29. Make a cut in the center of body plug by folding and using side cuts or equivalent to make an incision in center of plug.

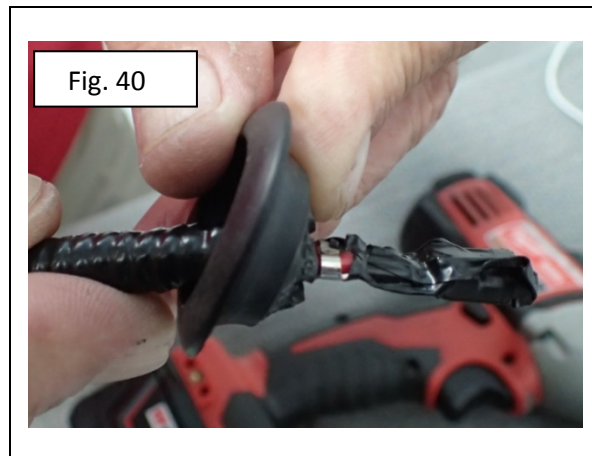
Fig. 39



SET Accessory Highlander water intrusion (Cont.)

30. Route Harness through body plug as shown. Pull harness through body plug.

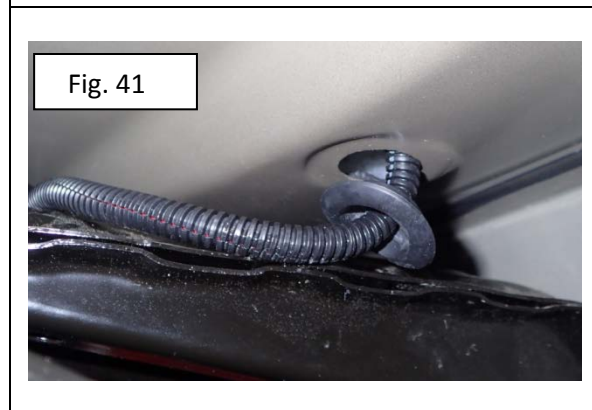
Fig. 40



31. Push Harness into body through body plug hole.

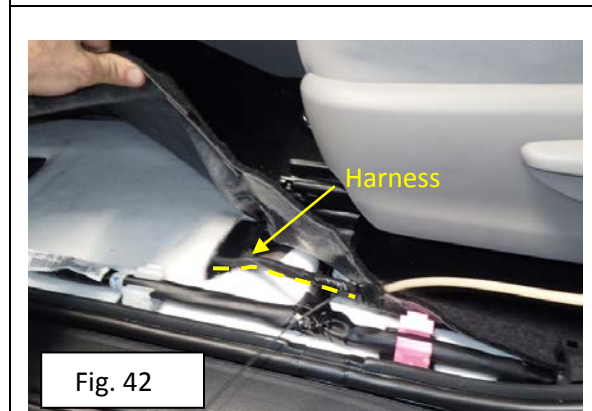
Fig. 41

TIP: Mechanics wire or fish tool may be helpful in routing wire under floor insulation.



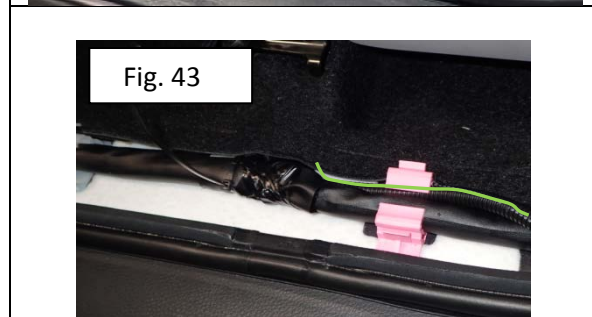
32. Locate the harness in the driver's floor pan under carpet. Pull harness into vehicle.

Fig. 42



33. Route Harness with factory harness along left side of vehicle to rear quarter on board vacuum location.

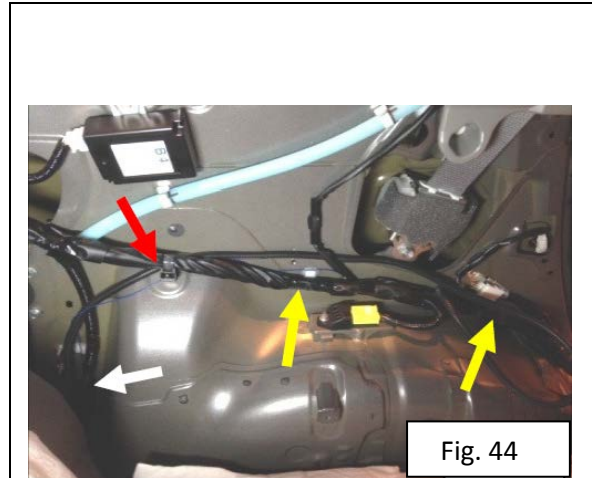
Fig. 43



SET Accessory Highlander water intrusion (Cont.)

D. VEHICLE REASSEMBLY (FOR ONBOARD VACUUM)

34. Route the harness up through the inner structure of the driver's side quarter panel, using 2 cable ties to secure to the existing harness. Continue routing the harness up over the wheel well, following the path of the existing harness. There will be extra harness length, so from the point marked by the red arrow, keep 3 feet of harness length for finishing the run. Attach a cable tie at the locations of the red and white arrows and tighten. The length of harness left over should be bunched up and secured between the areas marked by the two yellow arrows, which will be the two cable ties used to secure each end of the bunched harness to the existing harness. Fig 44



35. Remove electrical tape from routed wire terminal. Connect positive wire back into wiring harness connector - terminal is polarized and will only latch in when inserted correctly. Pull back on wire once inserted to test connection. Replace wire retainer on back of connector

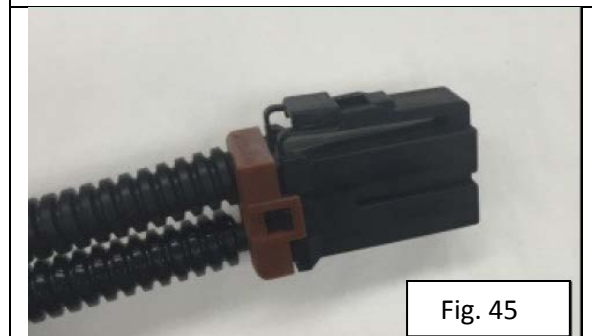
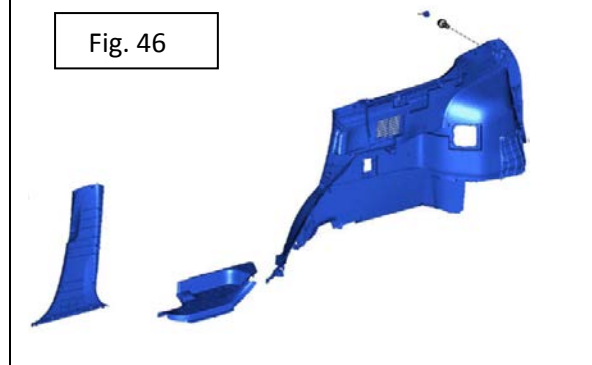


Fig. 45

36. Install Left rear quarter panel trim.

TIS INFO

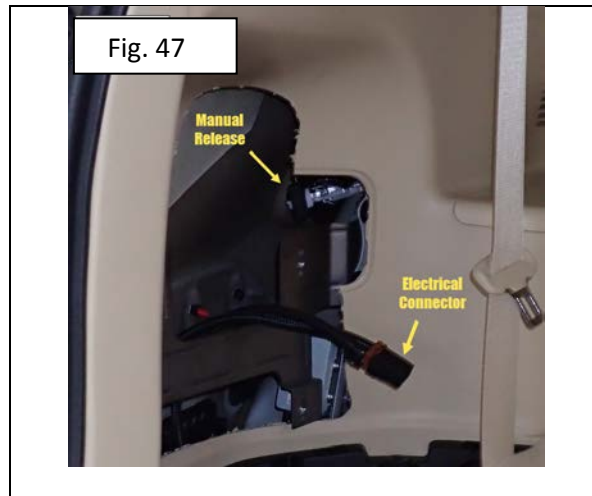
Fig. 46



SET Accessory Highlander water intrusion (Cont.)

TIP: Before proceeding with assembly, locate the manual fuel door release and electrical connector in the left rear interior trim panel. Fig. 47 Locate cable tab on manual release where cable is to be attached.

Note: If vacuum is not equipped with secondary fuel door release cable see SET-TSB-16-005 for additional instruction prior to assembly.

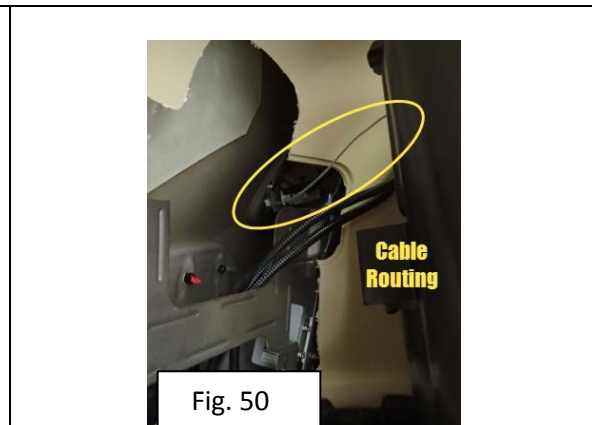
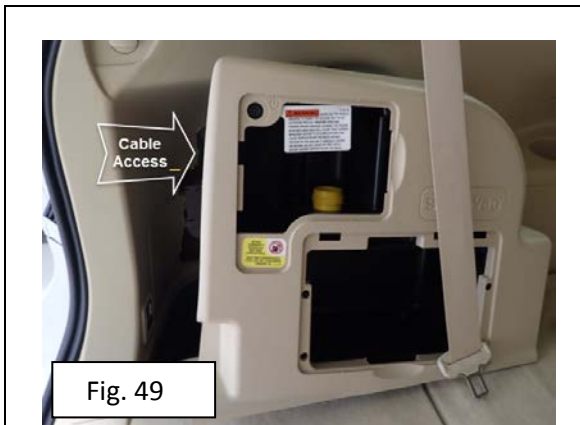


37. Position vacuum in rear of vehicle as pictured. Reconnect electrical connector.

Fig. 48



38. Slide vacuum towards panel and forward (Fig. 49) allowing access to route cable from rear of unit to manual release (Fig. 50).

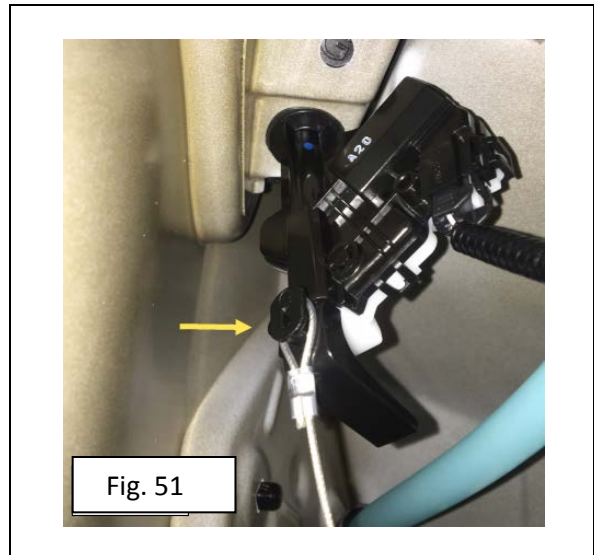


SET Accessory Highlander water intrusion (Cont.)

39. Affix cable loop to tab on manual fuel door release lever.

Fig. 51

Note: *If vacuum is not equipped with secondary fuel door release cable see SET-TSB-16-005 for additional instruction prior to assembly.*



40. Properly position on board vacuum in it's mounting position.

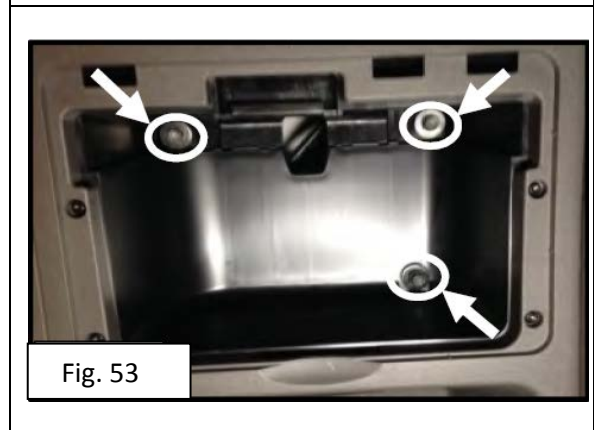
Fig. 52

- Verify operation of fuel door release by pulling release cable
- Temporarily connect negative battery terminal and verify operation of vacuum by pressing the power button.



41. Install vacuum assembly with 10mm socket and ratchet using hardware provided to mounting holes on bracket.

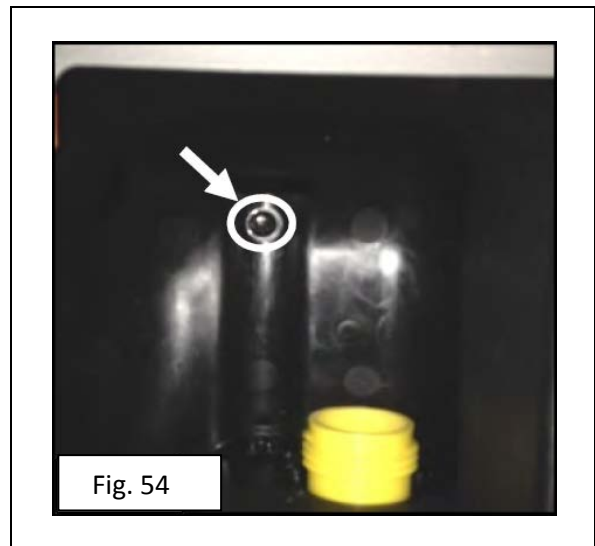
Fig. 53



SET Accessory Highlander water intrusion (Cont.)

42. Install self tapping screw in hole inside hose storage cavity. Tighten with 8mm socket.

Fig. 54

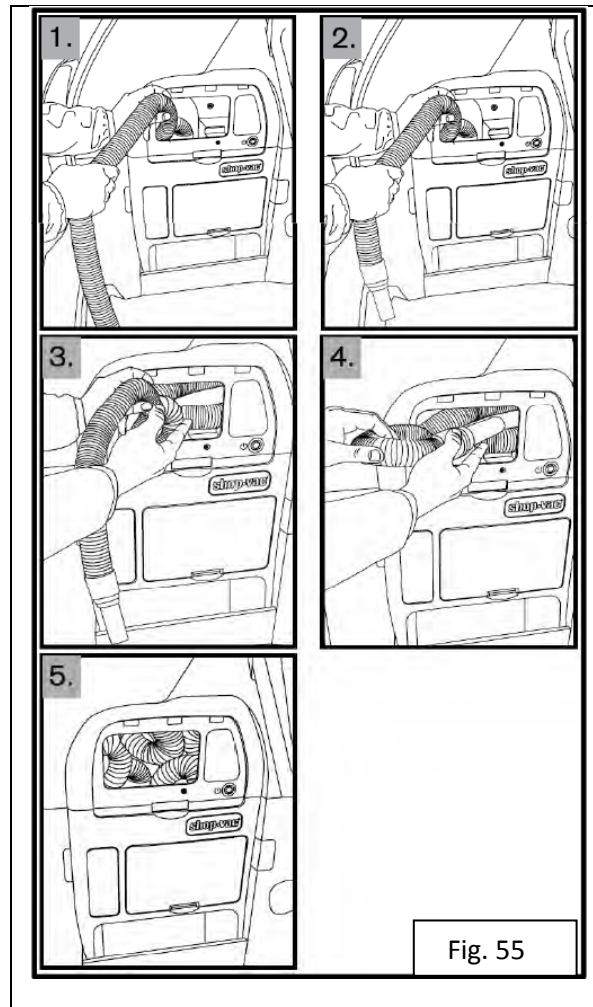


43. Install hose assembly by threading nut on hose end onto hose attachment point inside hose storage cavity. Press power button again to test vacuum air path connections - suction should be felt at end of hose assembly. Turn vacuum off using power button.

SET Accessory Highlander water intrusion (Cont.)

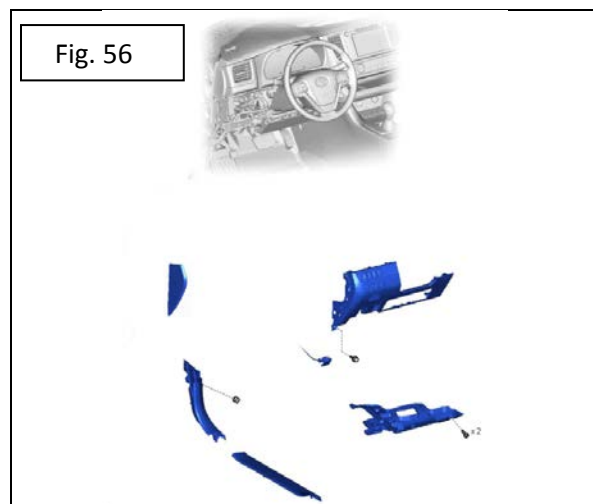
- 44. Insert hose assembly into hose storage cavity following steps shown.

Fig. 55



- 45. Install hose storage and vacuum canister compartment panels.
- 46. Install lower instrument panel finish panel sub-assembly.
- 47. Install no. 1 instrument panel under cover sub-assembly.
- 48. Install cowl side trim sub-assembly LH.
- 49. Install front door scuff plate LH.

Fig. 56

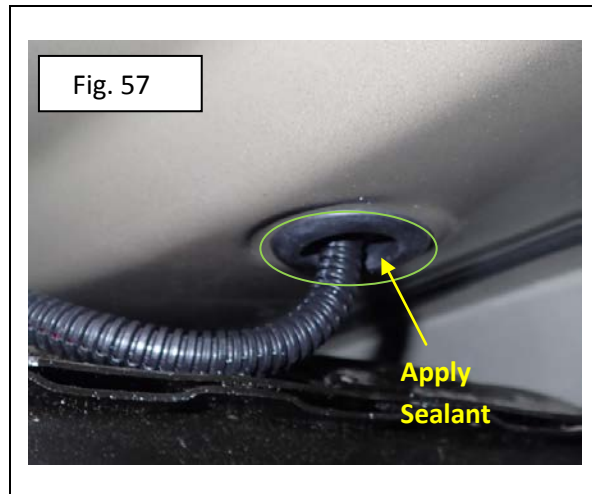


SET Accessory Highlander water intrusion (Cont.)

50. Seat body plug in floor panel and seal with 3M silicone or equivalent.

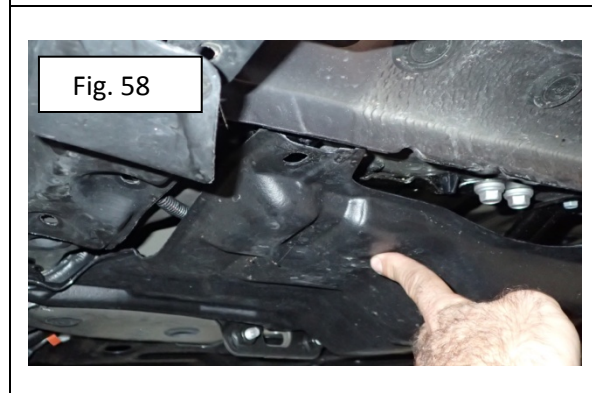
- Apply silicone between harness and body plug.
- Ensure incision made to body plug is completely sealed.

Fig. 57



51. Install and secure underbody splash shields.

Fig. 58

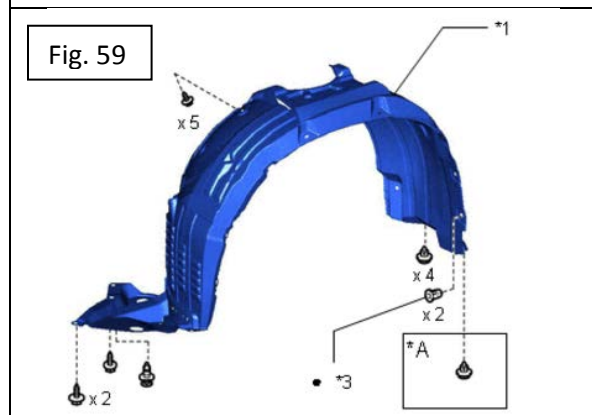


52. Install front fender liner LH.

53. Install front fender wheel opening molding sub-assembly LH.

TIS INFO

Fig. 59



54. Install left front tire.

55. Reconnect negative battery terminal.