Doc. 02.189.00

**Business Partner: L28** 

PIO / DIO

08/24/15

**TOYOTA** 

**Camry 2016** 

**LED Illumination Package (Interior & Exterior)** 

Part Number: 00016-00064 Accessory Code: LL1000



**Conflicts** 

Note:

#### **Kit Contents**

Item#	Quantity Reqd.	Description
1	4	Puddle Lights and Harnesses
2	1	Control Module
3	1	Power Harness
4	1	Hardware bag
5	2	Foot-well Lights
6	1	Foot-well Harness
7	<b>1</b>	<del>Trunk Light</del>

# **Hardware Bag Contents**

	U	
Item#	Quantity Reqd.	Description
1	10	Wire Ties
2	4	Foil Tape
3	5	Foam Tape
4	14	Plastic Rivets
5	4	Red T-Taps
6	2	Blue T-Tap
7	1	Sealing Putty
8		

**Additional Items Required For Installation** 

Additional Items Acquired I of Instantation						
Item#	Quantity Reqd.	Description				
1	1	A-Pillar Clip (62217-06050)				

#### **Recommended Tools**

Safety Tools	
Special Tools	
Installation Tools	
Phillips Screwdriver	Rivet Gun
Nylon Removal Tool	Tape Measure
Pliers	Torque Wrench
1" Hole Saw	Right Angle Drill
5/32" Drill Bit	
Drill Stop	
Fish Tape	
Utility Knife	
10mm Socket/Ratchet	
<b>Special Chemicals</b>	
50/50 alcohol water mixture	
VPC Approved Sealant (opt.)	

	Co	lor	Ap	plic	abil	lity/	Tri	m L	eve
Color Color Vehicle/Trim Color									
veinere, rriin coror									

# **General Applicability**

Recomm	Recommended Sequence of Application							
Item#	Accessory							
1								
2								
3								

\*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.



<u>CAUTION:</u> 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.



<u>TOOLS & EQUIPMENT:</u> 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.

#### Procedure

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 a quality installation.

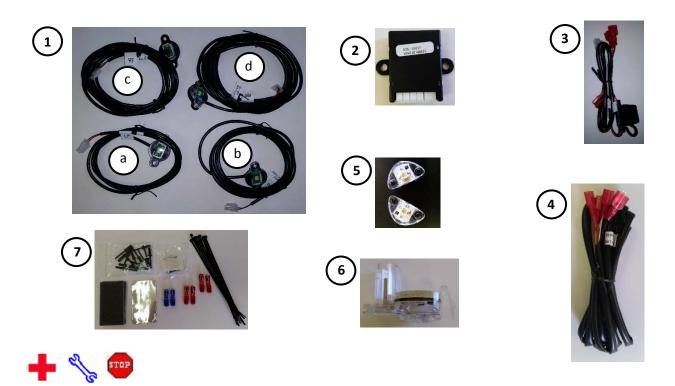
These guidelines can be found in the "Accessory Installation Practices" document.

This document covers such items as:

- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, re-checking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

#### Service Parts:

Item	Quantity	Description	Part Number
1.	4	Puddle Lights and Harnesses	
(a)	1	LF (4.9') Puddle Light	00016-00064-05
(b)	1	LR (7.8') Puddle Light	00016-00064-06
(c)	1	RF (10.8') Puddle Light	00016-00064-07
(d)	1	RR (13.8') Puddle Light	00016-00064-08
2.	1	Control Module	00016-00064-04
3.	1	Power Harness	00016-00064-01
4.	1	Foot-well Harness	00016-00064-02
5.	2	Foot-well Lights	00016-00064-03
6.	1	Trunk Light	00016-00064-09
7.	1	Hardware Bag	



CAUTION: It is advisable to disconnect the negative battery cable for 3 minutes before beginning installation, to avoid unintended air bag deployment. Note and record any anti-theft radio codes prior to disconnecting.



- 1. Remove the 5 rear most clips along each side of the lower rocker covers (Figure 1).
- 2. Measure drill locations for all four light pods. They should be centered in the rocker tab below each door and 2" in from the inside edge (Figure 2). Templates are provided on last page of document.
- 3. Using the 1" hole saw with a ¼" stop, drill center hole.
- 4. Temporarily align puddle light. Using the 5/32" drill bit, drill the 2 mounting holes.

NOTE: Arrow on puddle light lens must face out, away from vehicle.

- 5. Thread appropriate puddle light harness through corresponding 1" hole and secure in place with plastic rivets.
- 6. Route rear harnesses forward along the inside of the plastic rocker trim to just past the front puddle lights. Tuck harnesses back behind foam the entire length (Figure 3).
- 7. Remove Drain plugs from both left and right front floor pans (Figure 4).

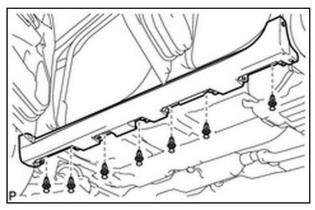


Figure 1



Figure 2



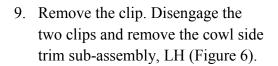
Figure 3



Figure 4

# Remove Front Door Scuff Plates and Cowl Side Trim

8. Disengage the 10 claws and remove the front door scuff plate, LH (Figure 5).



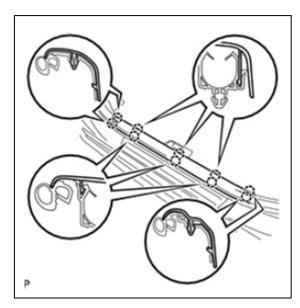


Figure 5

10. Repeat for RH side.

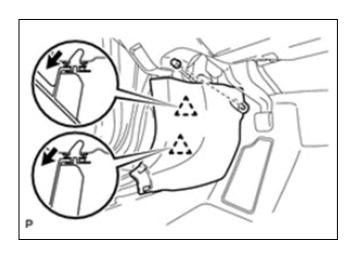


Figure 6

- 11. Using a sharp blade, cut an 'X' in the middle of each drain plug, in order to route harnesses through and into the vehicle.
- 12. Lift carpet to gain access to the drain holes and route puddle light harnesses up and into the vehicle (Figure 7).
- 13. Re-install drain plugs, with both front and rear harnesses threaded through plugs.
- 14. Secure front and rear harnesses together with a wire tie, just to the outside of the pinch weld (Figure 8).
- 15. Route harness from lower Rocker cover to drain plug (Figure 9).
- 16. Seal harnesses to drain plugs using half of included sealing putty per side. Make sure to work putty completely around and in between both wires for a water tight seal (Figure 9).

NOTE: The use of VPC approved sealant can be used for sealing grommets.



Figure 7



Figure 8



Figure 9

- 17. Route harnesses toward the threshold and tape to threshold using foam tape (Figure 10).
- 18. Remove the forward mostwhite clip, at the threshold and wire tie harnesses forward to the factory harness
- 19. Repeat for passenger side harnesses and route under the carpet at the upper side of the factory foam
- 20. Secure harnesses to factory harness under steering column using wire ties routing down to the driver side kick panel. Fig. 10.1
- 21. Route driver side harnesses in the same fashion to the driver side kick panel.
- 22. Remove Front Pillar Garnish (LH) (Figure 11).

Pull the upper part of the garnish toward the inside of the cabin and disengage the garnish from the base of the 2 clips (Figure 11).

HINT: Make the A-Pillar garnish LH hang down from the front pillar garnish clip.

While pushing the tabs on the A-Pillar garnish clip in the direction indicated by the arrow (A) shown in the illustration, disengage the A-Pillar garnish clip.

Remove the front upper garnish clip.

This clip CAN NOT be reused.

DESTROY and DISPOSE of clip.
See figure 11.

STOP

NOTE: Install a new A-Pillar garnish upper clip when replacing garnish at end of installation. A-Pillar clip 622-17-06050 is not provided in the kit. This item must be ordered separately.

NOTICE: Do not apply excessive force using a tool.



Figure 10



Figure 10.1

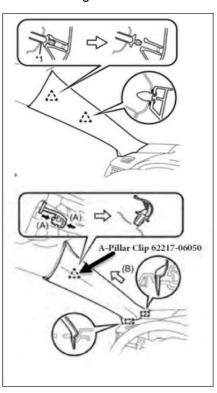


Figure 11

Route harness

under steering

- 23. Drop the fused end of the power harness from the lower corner of the A-pillar down towards the driver's kick panel, securing in existing wire locations.
- 24. Using a red T-tap connect the **Red** power wire to the white wire in **PIN 15** of the **IS1** connector located in the A-pillar (Figure 12).

NOTE: The white wire may have a blue trace. Make sure to confirm PIN placement (Figure 12).



IS1

- 25. Using a red T-tap connect the **Black** wire to the white or purple wire in **PIN 17** of the **IS1** connector (Figure 12).
- 26. Using a nylon tool, disengage the 4 claws (Figure 13).
- 27. Disengage the 3 guides and remove the instrument side panel, LH. (Figure 14)



Figure 12

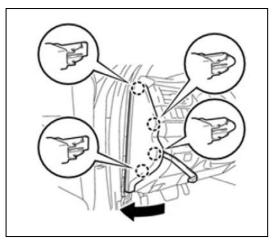


Figure 13

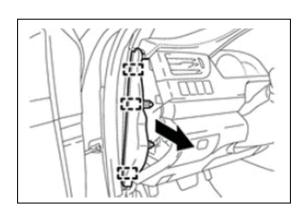
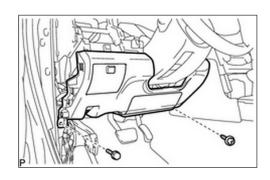


Figure 14

- 28. Remove lower No. 1 Instrument panel finish assembly (Figure 15).
  - (a) Remove the bolt and screw.
  - (b) Disengage the 4 claws, 9 clips and 3 guides to remove the lower No. 1 instrument panel finish panel assembly.
- 29. Disengage the claw and 2 guides to disconnect the hook lock control sub-assembly (Figure 16).
- 30. Mark where Driver side foot-well light will be mounted (Figure 17).
- 31. Drill one 5/8" hole where the connector will be located. Align light with flat side facing seats and using 5/32" drill bit, drill two mounting holes. Mount light pod using included plastic rivets.



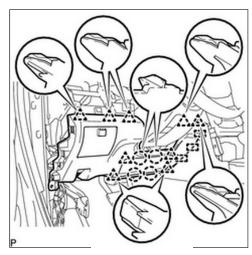


Figure 15

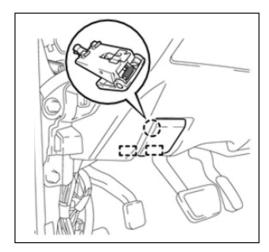


Figure 16



Figure 17

- 32. Remove the No.2 Instrument panel under cover sub assembly in passenger side foot-well (Figure 18).
  - a. Disengage the 4 claws.
  - b. Disengage the 2 guides to remove the No. 2 instrument panel under cover subassembly.
- 33. Mark where Passenger side footwell light will be mounted.

  Measure 2 ¾" down from rib as shown in image. Drill one 5/8" hole where the connector will be located (Figure 19).
- 34. Align light with flat side facing seats and drill (2) 5/32" holes for mounting. Mount light pod using included rivets.
- 35. Connect the **Red** wire from the foot-well harness to the red wire from the puddle light control module. Connect the **White** wire from the foot-well harness to the white wire from the puddle light module.

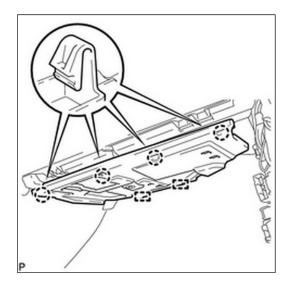


Figure 18

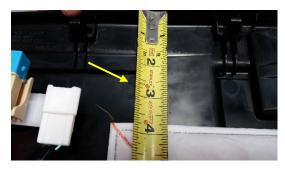


Figure 19

36. Using a Red T-tap, connect the Yellow wire to the Blue wire in Pin 2 of the blue IA3 connector (Figure 20).



IA3

37. Using a Blue T -tap, connect the Black wire to the White/Black wire in Pin 13 of the KI1 connector Figure 20).



Route harness under steering column



- 38. Route long side of foot-well power harness, under steering column & secure to factory wiring harness. Fish over to passenger side foot-well and connect to corresponding light.

  Reinstall lower garnish with attached light. Fig. 20.1
- 39. Route additional connector to driver side foot-well light. Connect and wire tie in place.
- 40. Mount the control module to the factory harnesses, in front of the JB connector with 2 wire ties (Figure 21).
- 41. Connect all harnesses to the control module. Fig. 21.1

NOTE: Prior to buttoning up, please verify the emergency brake function. Confirm the wires do not interfere with the operation.

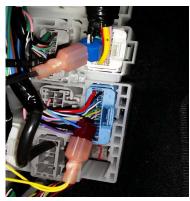


Figure 20



Figure 20.1



Figure 21



Figure 21.1under

# **Trunk Light Replacement**

# **REMOVAL**

- 1. REMOVE NO.1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY
  - (a) Disengage the 2 claws.
  - (b) Disconnect the connector and remove the No. 1 luggage compartment light assembly.

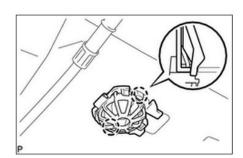


Figure 22

- 2. INSTALL LED REPLACEMENT HOUSING
  - (a) Connect the connector to trunk light.
  - (b) Insert tab end and click into place.



Figure 23

# TESTING AND REASSEMBLY



1. REINSTALL ALL TRIM PANELS IN THE ORDER OF REMOVAL TAKING SPECIAL CARE TO MAKE SURE ALL HARNESSES AND WIRING ARE PROPERLY SECURED. MAKE SURE HARNESSES ARE NOT PINCHED OR BOUND BY TRIM PIECES.



2. RECONNECT NEGATIVE BATTERY CABLE AND TORQUE TO 48 IN/LBS.

# CHECKLIST - THESE POINTS MUST BE CHECKED TO ENSURE A QUALITY INSTALLATION

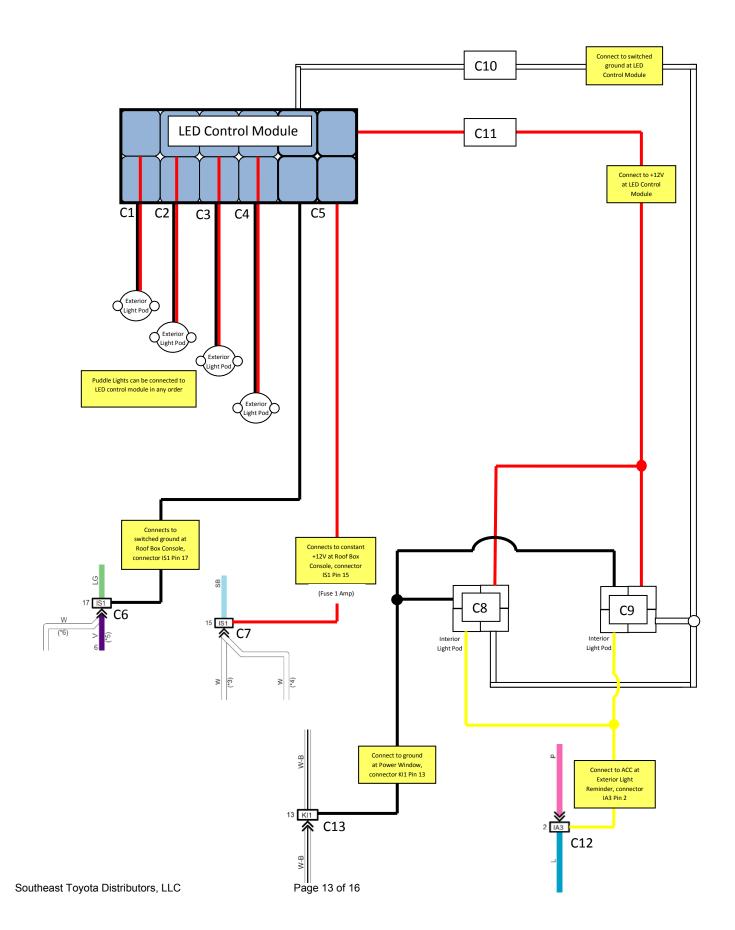
#### ACCESSORY FUNCTION CHECK

С	CHECK:	LOOK FOR:
T	est for Full Light condition	Close all doors and lock vehicle, do foot-well and puddle lights go out? Unlock vehicle do foot-well lights come on full brightness do puddle lights come on?
Te	est for Low Light condition	Start vehicle, do puddle lights go out, do the foot-well lights dim to low level?

#### VEHICLE FUNCTION CHECK

VEHICLE FUNCTIO	N:	VEHICLE FUNCTION DETAIL:
IGNITION		VERIFY THAT THE VEHICLE WILL CRANK.
SRS WARNING LIG	HT	CONFIRM SRS WARNING LIGHT ILLUMINATES FOR APPROXIMATELY 6 SECONDS WITH THE IGNITION ON, AND THEN GOES OUT.

# Block Diagram Camry Lighting Package





# Connector C-1 thru C-4

Pin	Wire Color	Test Reference	Proper Orientation
1	Black	Pin 1 to Ground	Exterior LEDs (-)
2	Red	Pin 2 to Ground	Exterior LED (+)



# **Connector C5**

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 when Dome Light is ON +12 VDC when Dome Light is OFF
3	White	Pin 3 to Ground	Approximately 0 VDC (when disconnected from control module)
4	Red	Pin 4 to Ground	Approximately 0 VDC (when disconnected from control module)

# **Connector C6**





Pin	Wire Color	Test Reference	Proper Operation
1		Pin 1 to Ground	Approximately 0 VDC when Dome Light is ON
			+12 VDC when Dome Light is OFF

# **Connector C7**





Pin	Wire Color	Test Reference	Proper Operation
1			+12 VDC



# Connector C8 & C9

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

# **Connector C10**



Pin	Wire Color	Test Reference	Proper Operation
1	White	Pin 1 to Ground	Approximately 0 VDC when Dome Light is ON
			+12 VDC when Dome Light is OFF

# Connector C11



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

# Connector C12





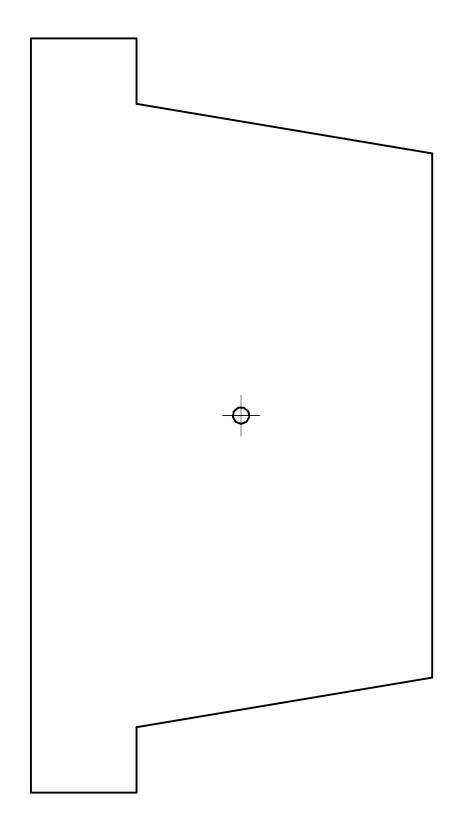
Pin	Wire Color	Test Reference	Proper Operation
1	Yellow	Pin 1 to Ground	Approximately 0 VDC ignition switch OFF
			+12 VDC when ignition ON

#### Connector C13





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



# DRILL TEMPLATE