

TOYOTA	Avalon	2015	LED Illumination Package (Interior & Exterior)
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**Part Number: 00016-00064**

**Accessory Code: LL1000**



## Conflicts

**Note:**

## **Kit Contents**

Item #	Quantity Req'd.	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	1	Trunk Light

## Hardware Bag Contents

Item #	Quantity Req'd.	Description
1	10	Wire Ties
2	4	Foil Tape
3	5	Foam Tape
4	14	Plastic Rivets
5	3	Red T-Taps
6	2	Blue T-Tap
7	1	Sealing Putty
8		

### Additional Items Required For Installation

Item #	Quantity Req'd.	Description
1	1	62217-06020

## Recommended Tools

<b>Safety Tools</b>	
<b>Special Tools</b>	
<b>Installation Tools</b>	
Phillips Screwdriver	Right angle drill
Trim Removal Tool	Rivet Gun
Pliers	Tape Measure
1" Hole Saw	Torque Wrench
5/32" Drill Bit	Needle-Nosed Pliers
5/8" Drill Bit	Fish Tape
Drill Stop	
Utility Knife	
10mm Socket/Ratchet	
<b>Special Chemicals</b>	
50/50 alcohol water mixture	
VPC Approved Sealant (opt.)	

### Color Applicability/Trim Level

[illegible]


## General Applicability


### 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.

 **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.

## 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.

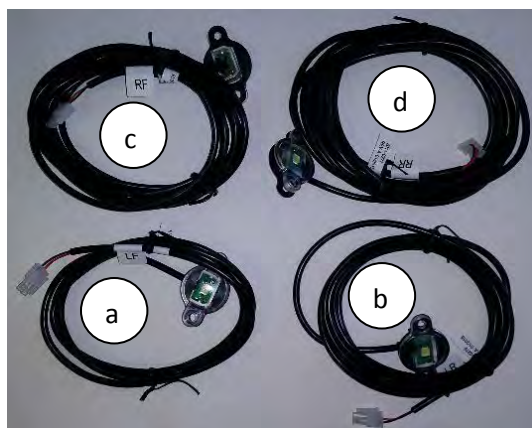
These guidelines can be found in the "Accessory Installation Practices" document.

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.).

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

1



2



3



5



4



7



6



**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.



## VEHICLE PREPERATION:

1. Remove the 6 center 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, align front corner on rocker tab.**
3. Using the 1" hole saw with a 1/4" stop, drill center hole.



Figure 1



Figure 2

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.**



Figure 3

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 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).

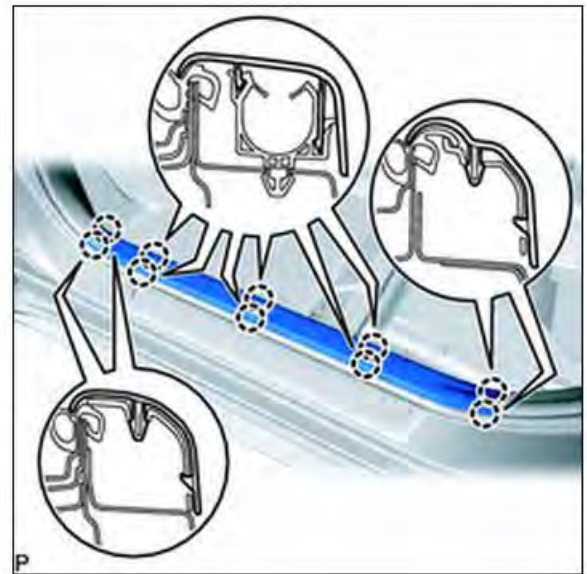


Figure 5

9. Remove the clip. Disengage the two clips and remove the cowl side trim sub-assembly, LH (Figure 6).

10. Repeat for RH side.

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.

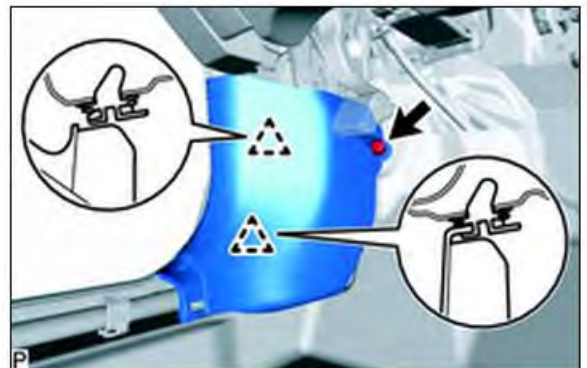


Figure 6

12. Lift carpet to gain access to the drain holes and route puddle light harnesses up and into the vehicle (Figure 7).



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).



Figure 8

15. Route harnesses from lower rockers to drain plugs (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).



Figure 9

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

17. Route harnesses toward the threshold and tape to threshold using foam tape (Figure 10).



Figure 10

18. Remove the forward most, white clip, at the threshold and wire tie harnesses forward to the factory harness (Figure 11).
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 above pedals using wire ties.
21. Route driver side harnesses in the same fashion to the driver side kick panel.
22. Remove Front Pillar Garnish (LH) (Figure 12).
  - (a) Pull the upper part of the garnish toward the inside of the cabin and disengage the garnish from the base of the 2 clips.

#### Text in Illustration

*1	Front Pillar Garnish Clip
----	---------------------------

#### HINT:

Let the front pillar garnish LH hang from the front pillar garnish clip.

- (b) Turn the end of the front pillar garnish clip 90° with needle-nosed pliers and pull the garnish in the direction indicated by the arrow (1) in the illustration to remove it from the front pillar garnish LH.

#### Text in Illustration

*a	Protective Tape
*b	90°

- (c) Remove the front upper garnish clip.

**This clip CAN NOT be reused. DESTROY and DISPOSE of clip.**  
See figure 13



**NOTE: Install a new A-Pillar garnish upper clip when replacing garnish at end of installation. A-Pillar clip 62217-06020 is not provided in the kit. This item must be ordered separately.**

**NOTICE: Do not apply excessive force using a tool.**

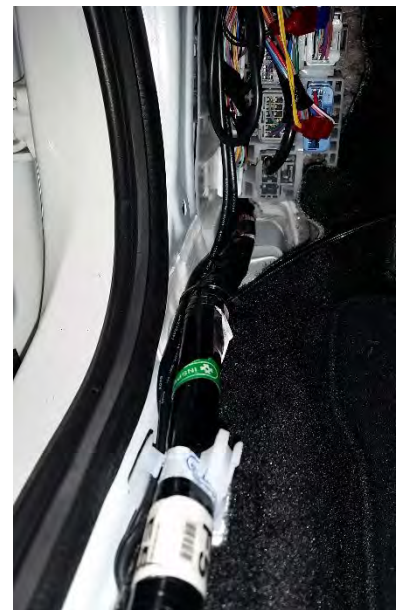


Figure 11

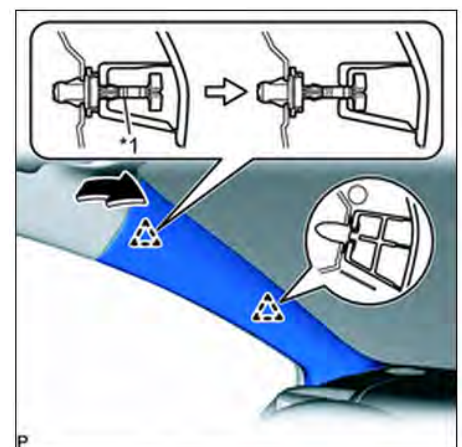


Figure 12

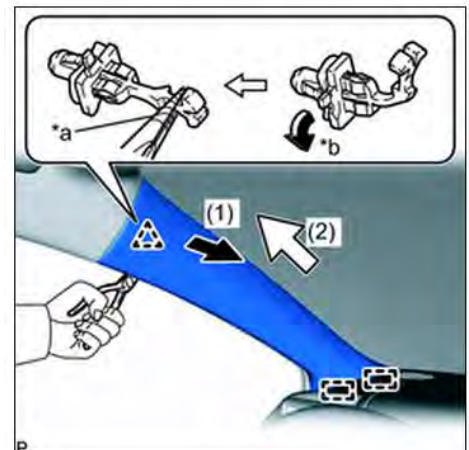


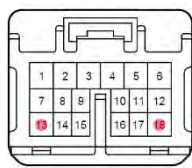
Figure 13



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.

**NOTE:** All connectors are shown from the wire side.

24. Using a red T-tap connect the **Red** power wire to the Light Green wire in **PIN 13** of the **DN1** connector in the A-pillar (Figure 14).



**DN1**

25. Using a red T-tap connect the **Black** ground wire to the Gray wire in **PIN 18** of the **DN1** connector (Figure 14).

26. Remove Instrument Side Panel LH

- (a) Using a molding remover, disengage the 2 claws and clip as shown in Figure 15.
- (b) Disengage the 3 guides and remove the instrument side panel LH as shown in Figure 16.

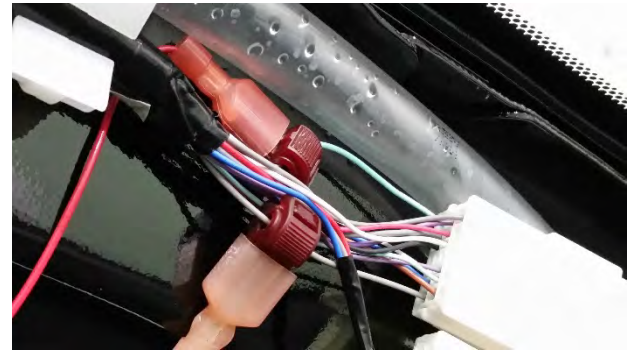


Figure 14

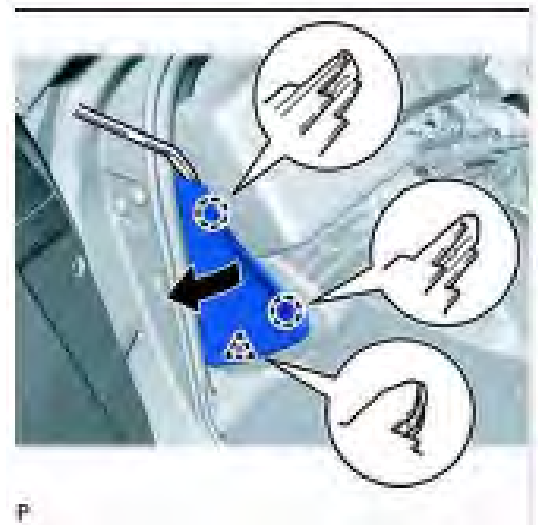


Figure 15

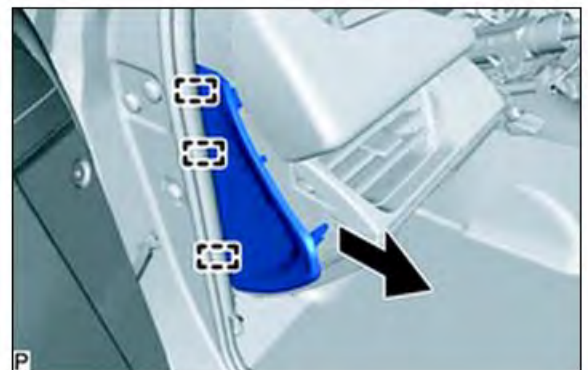


Figure 16



## Remove Lower No. 1 Instrument Panel Finish Assembly

27. Disengage the claw and 2 guides to disconnect the hood lock control lever assembly (Figure 17).

### Optional: Remove Hood Cable Only

28. Disengage the 2 most left Clips on the Lower Center Information Finish Panel (Figure 18).

29. Remove lower No. 1 Instrument panel finish assembly.

- (a) Remove the bolt and screw (Figure 19).

- (b) Disengage the 5 claws and 8 clips (Figure 20).

- (c) Disconnect each connector and remove lower No. 1 Instrument panel finish assembly.



Figure 17

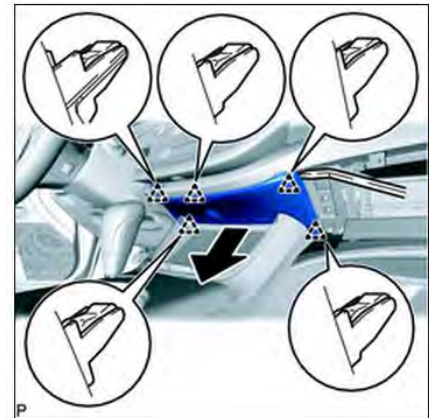


Figure 18



Figure 19

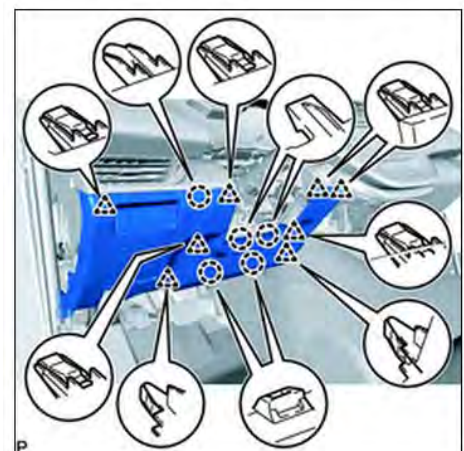


Figure 20



30. Mark where Driver side foot-well light will be mounted, 1 ¼" from rear edge. Drill one 5/8" hole where the connector will be located (Figure 21).

31. 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 21

32. Remove the No.2 Instrument panel under cover sub assembly in passenger side foot-well (Figure 22).

- a. Disengage the 4 claws and 2 guides.
- b. Disconnect each connector and remove the No. 2 instrument panel under cover sub-assembly.



Figure 22

33. Mark where Passenger side foot-well 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 23).

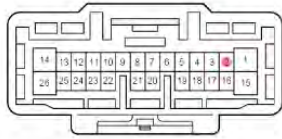
34. Align light with flat side facing seats and drill (2) 5/32" holes for mounting. Mount light pod using included rivets.

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.



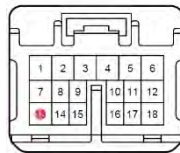
Figure 23

36. Secure harnesses to factory harness under steering column using wire ties routing down to the driver side kick panel (Figure 24).
37. Using a Red T-tap, connect the **Yellow** wire to the Pink wire in **Pin 2** of the blue **DA2** connector (Figure 24).



**DA2**

38. Using a Blue T-tap, connect the **Black** wire to the White/Black wire in **Pin 13** of the **GD1** connector (Figure 24).



**GD1**

39. Route long side of foot-well power harness, above pedals and secure to factory wiring harness. Fish over to passenger side foot-well and connect to corresponding light. Reinstall lower garnish with attached light.
40. Route additional connector to driver side foot-well light. Connect and wire tie in place.
41. Connect all harnesses and mount the control module to the factory harnesses, in front of the JB connector with wire tie (Figure 25).

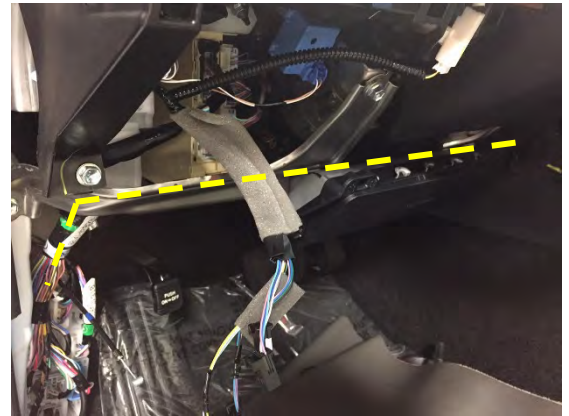


Figure 24

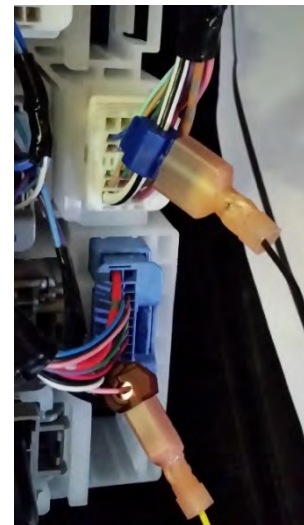


Figure 25



Figure 26

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

## Trunk Light Replacement

### **REMOVAL**

1. REMOVE NO.1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY (Figure 27).

- (a) Disengage the 2 claws.
- (b) Disconnect the connector and remove the No. 1 luggage compartment light assembly.

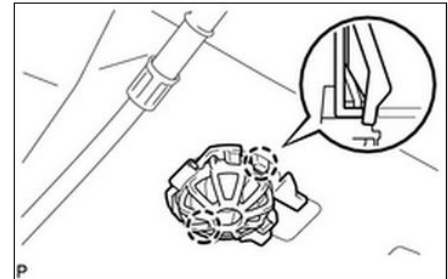


Figure 27

2. INSTALL LED REPLACEMENT HOUSING (Figure 28).

- (a) Connect the connector to trunk light.
- (b) Insert tab end and click into place.



Figure 28



## TESTING AND REASSEMBLY



1. REINSTALL ALL TRIM PANELS IN THE ORDER OF REMOVAL TAKING SPECIAL CARE TO MAKE SURE ALL HARNESSSES AND WIRING ARE PROPERLY SECURED. MAKE SURE HARNESSSES 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

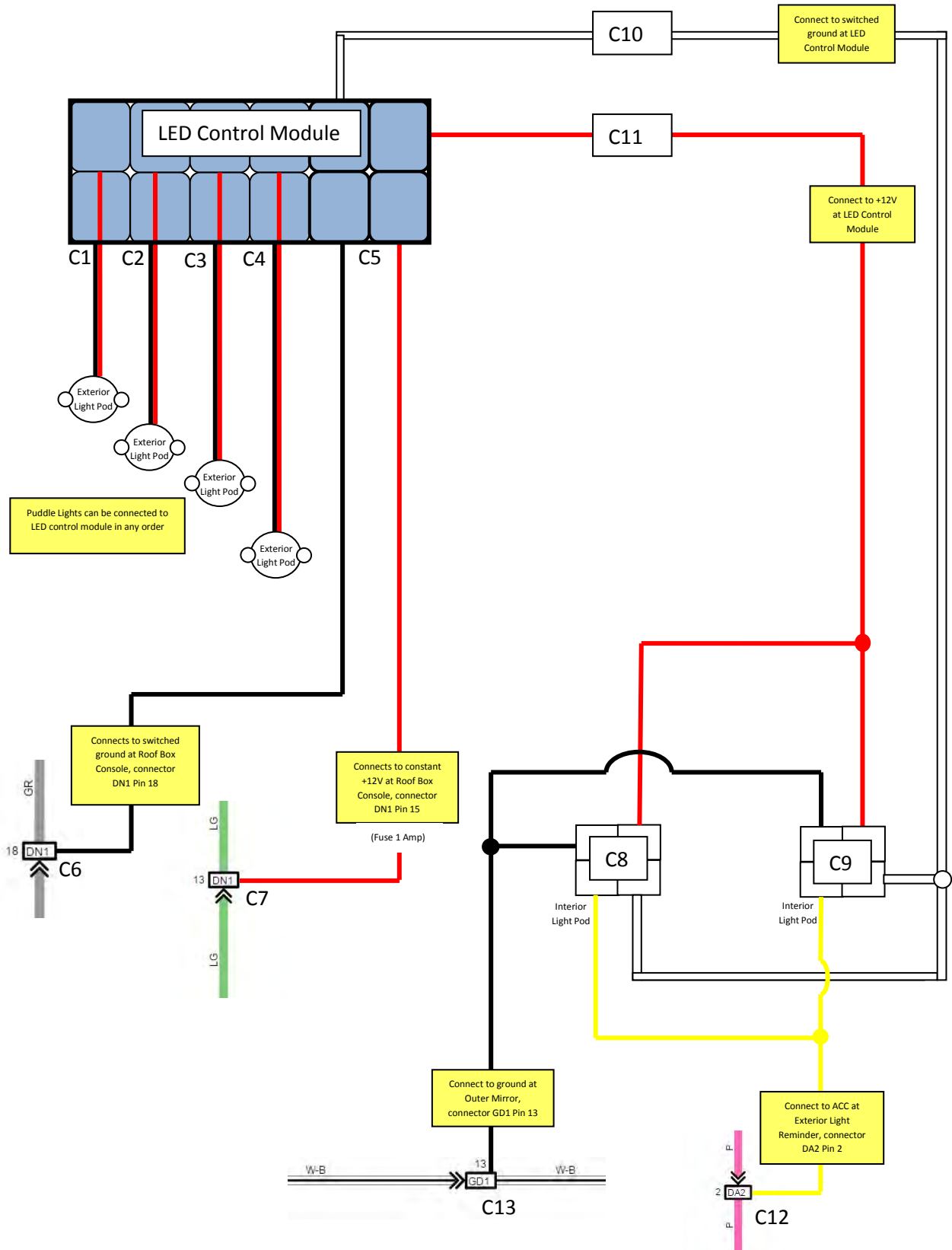
### ACCESSORY FUNCTION CHECK

	CHECK:		LOOK FOR:
	Test 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?
	Test for Low Light condition		Start vehicle, do puddle lights go out? Do the foot-well lights dim to low level?

### VEHICLE FUNCTION CHECK

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

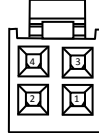
# Block Diagram Avalon Lighting Package





#### 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

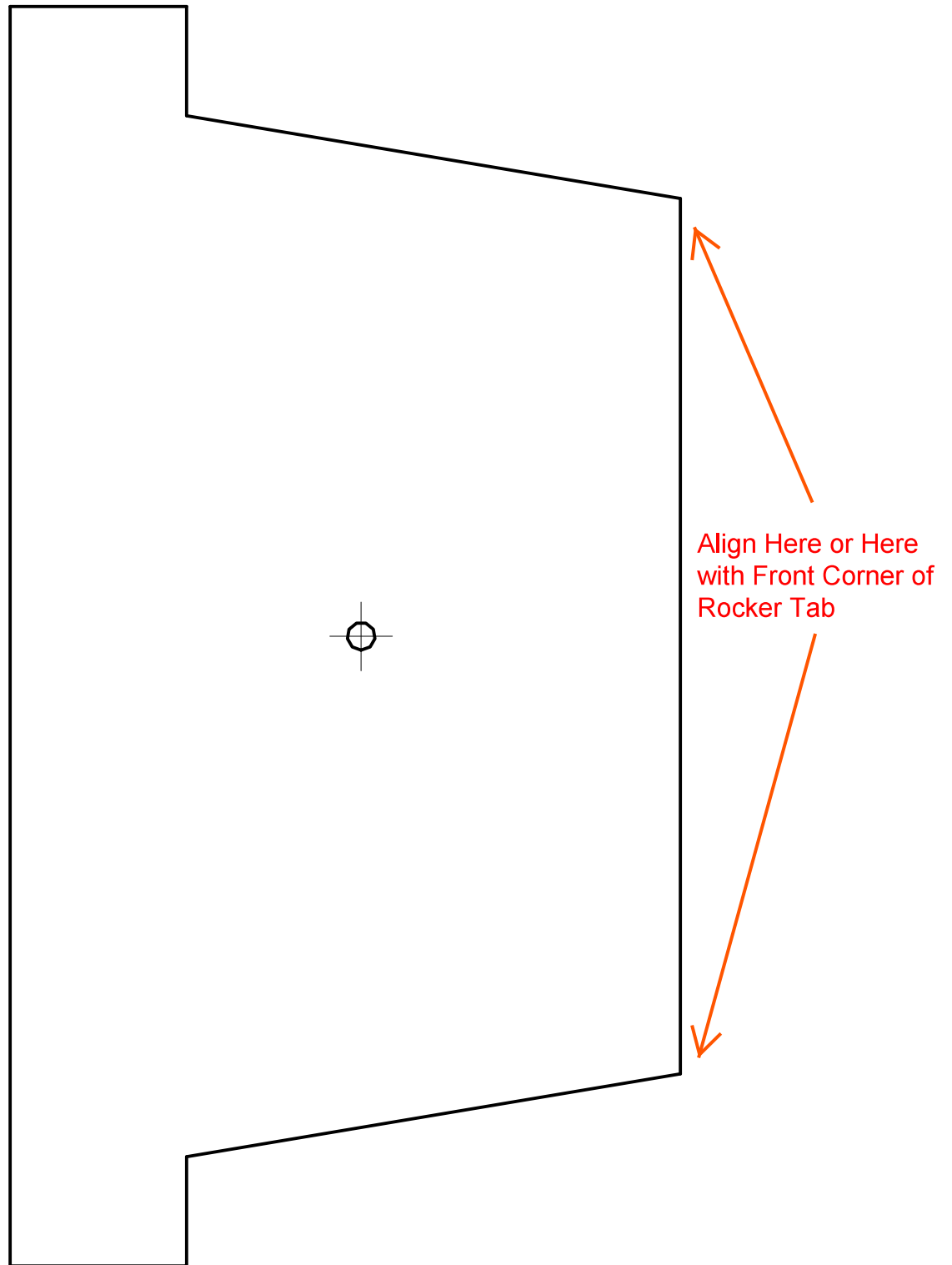


Pin	Wire Color	Test Reference	Proper Operation
1	Yellow	Pin 1 to Ground	Approximately 0 VDC ignition switch OFF +12 VDC when ignition ON

### Connector C13



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



## DRILL TEMPLATE