Ambient Lighting Lamp Package Installation (Instruction ID:23233479)

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Installation Instructions Part Number

23233479

Note: For the Footwell Lamp (Option :S0O) installation, follow steps 13 through 17 and 22.1 through 23. Connection to LH and RH Footwell lamps remains same in the bigger kit. For S0O, C70 Ambient Lighting Control Module (ALCM) must be present.

Note: For vehicles built between 1/MAY/16 and 1/DEC/16 a connector for the module may be present – **DO NOT USE**.

Kit Contents

Qty	Description	
1	Ambient Lighting Lamp Kit	
1	Installation Instructions	

Wire Color Chart

Circuit	Wire Color/Description
900	Purple (Lamp LIN)
910	Red (Battery)
915	White (BCM)
916	Purple (BCM)

Circuit	Wire Color/Description	
7558	Purple (BCM)	
1450 2150 2250	Black (Ground)	
340	Red (Power)	
6817	Purple (Switch Back Light)	
5699	Black (SW lo ref)	
622	(Switch Signal)	

Procedure

Right Door

1. Remove the right interior door trim panel and Sound Absorber. Refer to Vehicle Service Manual.



2. Using a flat-bladed plastic trim tool, release the retaining clips and remove the knee pad (1) from the right door interior trim panel (2).



3. On the back side of the right door trim panel (2) remove and retain the screws (1) securing the front door applique.



4. Using a flat-bladed plastic trim tool, release the retaining clips and remove the right door applique (1) from the right door interior trim panel (2).



Note: Light applique color as follows: • Silver for SJB

- Black for SIB
- Red for SIC

5. Position the new right door applique (1) to the right door trim panel (2) engaging the retaining clips.



6. On the back side of the door interior trim panel (2) re-install the retained screws (1) from step 3 to the door applique.



7. Re-install the knee pad (1) to the right door interior trim panel (2) engaging the retaining clips.



Note: Driver door shown (3), passenger side only has one single Black Connector for 2016. For 2017 and beyond there may be two. Use the Black connector.

8. Connect the 3-way connectors (1) from jumper harness to light applique (2) two places.



Note: Driver side shown in graphic. Left side of graphic shows connection of blunt end to Posi-Tap.

Note: Sequence 1 and 2 in show existing ground wire from cavity 16 in in Posi-Tap. Sequence 3 shows blunt lead.

9. Accessory Harness to Door Harness Connection

Note: Use Black Connector for Passenger Side and Gray Connector for Driver Side.

- 9.1. For passenger door only Black connector is present, for Driver side (shown) use the Gray (lower connector). Disengage, but do not fully remove the TPA.
- 9.2. Make connections as follows into the Black (Passenger) or Gray (Driver) as follows:
 - 9.2.1. Circuit 910 (RED) insert into cavity #1 (X308).
 - 9.2.2. Circuit 900 (PURPLE) insert into Cavity #2 (X308).
 - 9.2.3. Using supplied Posi-Tap splice, attach the blunt cut BLACK wire (Circuit 2150 Passenger Side) (Circuit 2250 Driver Side) into the Black wire exiting cavity #16 (X308) (refer to graphic).

Note: Tape back POSI-TAP splice to main harness using cloth tap. Repeat this step where ever this splice is used.



- 10. Fasten the accessory harness (1) to door trim and wiring with the tie straps (2) and sticky pad (3) provided in kit. Trim length off tie straps.
- 11. Repeat steps 1-11 for drivers side.
- 12. Set door interior trim panels aside for re-installation after test.
 - ⇒ For installation of S0O start here



13. Remove and retain the fasteners (1) and lower passenger side lower instrument panel trim (2).



14. Remove the right instrument panel outer trim cover (1).



- 15. Disengage the instrument panel compartment door hinge (1).
- 16. Disconnect the instrument panel compartment door dampener from the instrument panel compartment door.
- 17. Squeeze the sides of the compartment and lower the compartment past the stops and remove instrument panel compartment (2).



- 18. Identify 18-way connection on accessory harness, route harness along the engine side of the center console beneath HVAC Module, from BCM to the radio with 18-way connector on the passenger side (refer to graphic).
 - ⇒ Accessory Harness Connection to Radio



Note: To access connections on the radio, remove radio and bracket.

- 19. Locate radio, if equipped with BYOM Radio (Base Radio IOB or IOR):
 - 19.1. For 2018 and earlier models, remove connector X1 and using the included posi-tap, splice connect the accessory power lead (1) circuit **340 (RED)** to connector X1 cavity 1.
 - 19.2. For 2019 and later models, remove connector X1 and using the included posi-tap, splice connect the accessory power lead (1) circuit **340 (RED)** to connector X1 cavity 1.

For Vehicles Equipped with Up-Level Radios (Touch Screen IO5, IO6, IOS and IOT)

- 19.2.1. 2018 and earlier models, remove connector X3 and using the included posi-tap splice, connect the accessory power lead (1) circuit **340 (RED)** to connector X3 cavity 8.
- 19.2.2. 2019 and later models, remove connector from radio X2 and using the included posi-tap splice, connect the accessory power lead (1) circuit **340 (RED)** to connector X2 cavity 1.
- 20. Reinstall connectors, radio and bracket.



21. Install the auto lighting control module (3) to the radio bracket (1). Route auto lighting control module harness (2) to module.

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22. Locate 18-way connector on the ambient light control module. Disengage, but do NOT fully remove, the TPA.

Footwell Lamp Only (S0O) – Wiring Installation

Note: Steps 22.1 through 22.4 apply to Footwell Kit (RPO: S00) only.

- 22.1. Insert wire circuit terminal 900 (PURPLE) into Cavity-16 of auto lighting control module connector.
- 22.2. Posi-Tap wire circuit **910 (RED)** into Cavity-2 of the auto lighting control module connector.
- 22.3. Posi-Tap wire circuit **1450 (BLACK)** into Cavity-18 of the auto lighting control module connector.
- 22.4. Re-engage TPA.
- 22.5. Tape back Posi-Tap wires (step 22.2 and 22.3) into main harness.



23. Connect the auto lighting control module harness connector (1) to the auto lighting control module (2).



- 24. Remove bolt (1) from existing harness ground (2) and place accessory harness ground (3) behind existing ground and reinstall bolt and tighten.
 - ⇒ Body to Door Connector Passenger Side



25. On the door side of 48w inline connector (3) disengage the lever lock (2) and disconnect body connector X304 (1) and release TPA.



- 26. Insert accessory harness circuit terminal **910 (RED)** into Cavity 42 of passenger side body to door connector.
- 27. Insert accessory harness circuit terminal **900 (PURPLE)** into Cavity 43 of passenger side body to door connector. Re-engage TPA.
- 28. Re-connect the body connector (1) to door connector (3) and engage lever lock (2).
 - ⇒ Body to Door Connector Driver Side



29. On the door side of 48w inline connector X303 (3) disengage the lever lock (2) and disconnect body connector (1) and release TPA.



- 30. Insert accessory harness circuit terminal 910 (RED) into Cavity-42 of driver side body to door connector.
- 31. Insert accessory harness circuit terminal **900 (PURPLE)** into Cavity 43 of driver side body to door connector.
- 32. BYOM Radio (IOB) and (IOR) only Identify the wire entering Cavity 30 of body to door connector and tap blunt cut PURPLE wire circuit 6817 to this YELLOW wire circuit 6817 wire using the provided POSI-TAP.
- 33. Re-engage TPA, re-connect the body connector (1) to door connector (3) and engage lever lock (2).
 - ⇒ Accessory Harness Connection to BCM

Note: For vehicles built between 1/MAY/16 and 1/DEC/16 there may be circuits in X1:17 (915) and X6:26 (916). Remove these terminals from the connector and proceed to step 34.



- 35. Insert terminal accessory harness terminal circuit **915 (WHITE)** to Cavity-17 of BCM **X1** connector.
- 36. Insert terminal accessory harness terminal circuit **916 (PURPLE)** to Cavity-26 of BCM **X6** connector.
 - ⇒ Footwell Lamps and Switch



37. Install footwell lamp (1) **P/N 23343229** to passenger side lower instrument panel trim (2).



38. Connect accessory harness (1) to passenger side footwell lamp (2).



- 39. Install driver side footwell lamp (1) **P/N 23233470** to BCM bracket (2).
- 40. Connect accessory harness (3) to driver side footwell lamp.

Note: Secure accessory harness to I/P harness with a zip tie to prevent rubbing or coming in contact with any sharp edges.



Note: Steps 41 and 42 are for vehicles equipped with base (IOB), (IOR) radio only.

- 41. Install accessory lamp switch (1) to instrument panel.
- 42. Connect accessory harness (2) to accessory lamp switch (1).

\Rightarrow For up-level radios IO5, IO6, IOS and IOT program BCM and HMI

- 43. Program uplevel radio kits RPO IO5, IO6, IOS and IOT will need BCM and HMI programming after installation of complete kit.
 - **IOB and IOR** radio does not need programming, skip to step 45.
 - **SOO** (footwell) kit that is add on option to production lighting kit does not need programming.
- 44. Call TCSC (1–800–828–6860) with the authorization code (included in the kit) so that the correct calibrations can be pushed to the vehicle when programming the HMI and BCM. Failure to do so will not allow the new lighting to work properly. This is only needed for up-level radios IO5, IO6, IOS and IOT
- 45. Test the functions of accessory lamps.

$\Rightarrow \textbf{Secure Accessory Harness}$

46. Reinstall the instrument panel compartment, outer trim cover and any previously removed components. Reinstall door trim.



47. Secure accessory harness (1) to the instrument panel harness (3) and driver HVAC duct (4) using provided tie straps (2).





Annotated Wiring Harness Diagram – Under Dash for Base Radio (With Control Switch)

Item	Description	Cavity	Wire/Color
1	Backlight	30 (X303) Splice to door inline	6817 – 2TLH (Yellow/Violet)
2	LIN	42 (X303) Insert in door inline	910 – 2BLH (Red)
3	RGB Power	43 (X303) Insert in door inline	900 – 2BLH (Violet)
4	LED Lighting Control 1 (PWM)	17 (X1) Insert in BCM	915 – 2LH (Neutral/White)
5	LED Lighting Control 2 (PWM)	26 (X6) Insert in BCM	916 – 2LH (Pink/Violet)
6	Ambient 2	23 (X1) Splice to BCM	7558 – 2LH (Neutral/Violet)

Item	Description	Cavity	Wire/Color
7	Control Switch Connector	1	6817 – 2TLH (Violet)
		2	1450 – 2TLH (Black)
		3	56999 – 2TLH (Black)
		4	622 – 2TLH (Yellow)
8	V Batt	11 (X1) Splice to radio through 2018	340 – 2TMRH (Red)
9	RGB Power	43 (X304) Insert in door inline	900 – 2BRH (Violet)
10	LIN	42 (X304) Insert in door inline	910 – 2BRH (Red)
11	Ground – RH A Pillar Base	_	1450 – 2BRH



Annotated Wiring Harness Diagram – Under Dash for Up Level Radio (HMI Controlled)

Item	Description	Cavity	Wire/Color
1	LIN	42 (X303) Insert in door inline	910 – BLH (Red)
2	RGB Power	43 (X303) Insert in door inline	900 – BLH (Violet)
3	LED Lighting Control 1 (PWM)	17 (X1) Insert in BCM	915 – LH (Neutral/White)
4	LED Lighting Control 2 (PWM)	26 (X6) Insert in BCM	916 – LH (Pink/Violet)
5	Ambient 2	23 (X1) Splice to BCM	7558 – LH (Neutral/Violet)
6	V Batt	11 (X1) Splice to radio through 2018	340 – TMRH (Red)

Item	Description	Cavity	Wire/Color
7	RGB Power	43 (X304) Insert in door inline	900 – BRH (Violet)
8	LIN	42 (X304) Insert in door inline	910 – BRH (Red)
9	Ground – RH A Pillar Base	_	1450 – BRH



Annotated Wiring Harness Diagram – Door Harness

Item	Description	Cavity	Wire/Color
1	_	16 (X307) (Driver) Splice to door connetor 16 (X308) (Passenger) Splice to door connetor	2250 – 3T (Black)

Item	Description	Cavity	Wire/Color
2	RGB Power	2 (X307) (Driver) Insert in door connector 2 (X308) (Passenger) Insert in door connector	900 – 3T (Violet)
3	LIN	1 (X307) (Driver) Insert in door connector 1 (X308) (Passenger) Insert in door connector	910 – 3T (Red)