

## Section I – Installation Preparation

**Part Number: PT611-50010-XX**

## Section I – Installation Preparation

**Kit Contents**

Item #	Quantity Req'd.	Description
1	1	Rear deck lid spoiler
2	2	6 mm locking nuts
3	2	Hardware bag(s)

**Hardware Bag (s) Contents**

Item #	Quantity Req'd.	Description
1	2	Torsion rod spacers
2	1	Felt tape
3	1	Wire harness

**Additional Items Required For Installation**

Item #	Quantity Req'd.	Description
1	1	Stop lamp failure sensor, P/N - PT611-50011
2	1	CHMSL cover - XL, P/N - PT611-5001C-01/12/42 CHMSL cover - XLS, P/N - PT611-5001C-11/22/52
3	1	DIO installation kit, P/N - PT611-50013

**Conflicts**

Note: None

**Recommended Tools**

<b>Safety Tools</b>	
Safety glasses	
Vehicle Protection	Blankets, Masking Tape
<b>Special Tools</b>	
Torque Rod Tool:	Toyota SST #09804-24010
<b>Installation Tools</b>	
Drill Motor	
Drill Bits with drill stops:	9 mm, 10 mm, & 3/4"
Ratchet W/Extensions:	1/4" Drive
10 mm Deepwell Socket:	1/4" Drive (magnetic tip)
Torque Wrench (in.-lbs.):	1/4" Drive(0-60 in-lb. range)
Hole deburring tool	Magnet W/Flex Shaft
Wiping cloth(s):	Lint free, non-scratch
Plastic clip removal tool	
Shop vacuum	
Small flat blade screw driver	
Phillips screw driver	
Nylon Trim Removal Tool	
Optional 1/4" nut driver	
Hammer / Mallet	
Center Punch	

**Special Chemicals**

3M Ultra Pro Sealant

3M Prep Solvent - 70

White Lithium Grease

**General Applicability**

Note: Applicable to all Avalon Models

**Recommended Sequence of Application**

Item #	Accessory	




\*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**CRITICAL PROCESS:** Proceed with caution to ensure a quality installation.**GENERAL PROCESS:** This highlights specific processes to ensure a quality installation.**TOOLS & EQUIPMENT:** This calls out the specific tools and equipment required for this process

## Section II – Installation Procedure

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**A. VEHICLE PREPARATION**

-  1. Verify kit part number and kit contents
-  2. Ensure trunk lid is clean and free from any dirt or debris
-  3. Lay protective covers on the trunk floor, rear bumper, and rear quarter panels to protect the vehicle during disassembly and from metal debris created in the drilling process. (Fig. A-1)
4. Disconnect the battery cable from the negative terminal.

**B. VEHICLE DISASSEMBLY**

1. Using the proper tools, remove and save the 15 fasteners holding the trunk lid carpet trim panel, (Fig. B-1). Then remove the 3 fasteners for the right side trunk liner and the 3 fasteners for the left side trunk liner, (Fig. B-2). Then remove the 2 fasteners & 1 Phillips screw for each of the right and left tail light covers.
2. Remove the trunk lid carpet trim panel, the right and left side trunk liners, and the right and left side tail light covers and set aside where they will not be damaged.

**C. TORSION ROD SPACER INSTALLATION**


1. Starting on either side of the vehicle, position Toyota SST #09804-24010 on the torsion rod. (Fig. C-1) Press down on the tool to disengage the U-shaped end of the torsion rod from the hinge arm bracket. Lower the hinge arm and gently release pressure on the tool.
-  2. Apply a small amount of grease to the bottom of the U-shaped slot on the Torsion Rod Spacer.



Fig. A-1



Fig. B-1



Fig. B-2



Fig. C-1

Toyota SST  
09804-24010

- ➡ 3. Slip the Torsion Rod Spacer onto the end of the hinge arm bracket and hold the spacer in place if necessary.

**NOTE:** If the spacer is slightly loose on the hinge arm bracket, the torsion rod will hold the spacer in place. If the spacer is slightly tight on the hinge arm bracket, the spacer may be tapped into place using a small mallet. The spacer will be fully seated when the torsion rod is installed.

4. Press down on Toyota SST #09804-24010 and raise the hinge arm bracket with attached spacer and re-engage the torsion rod. (Fig. C-2)
5. Repeat steps C1 through C4 to install the spacer bracket on the other side of the vehicle.

#### **D. STOP LAMP FAILURE MODULE**

- ➡ 1. Remove the Stop Lamp Failure Module from behind the right side inner support panel located inside the trunk (Fig. D-1) and disconnect the existing module from the wiring harness.
- ➡ 2. Connect the new Stop Lamp Failure Module (P/N PT611-50011) into the wiring harness and re-install assembly to the support panel.

#### **E. THIRD STOP LAMP REMOVAL AND CHMSL COVER INSTALLATION**

- ➡ 1. From the back seat, using trim removal tool, or with fingers along each side and thumbs on base surface, (Fig. E-1) push on both sides and lift up the rear of the Third Stop Lamp Housing to clear locating pins. Then pull the Stop Lamp Housing towards you to disengage the front locating clip.

**NOTE:** XLS Model shown in Fig E-1, XL Model shown in Fig E-2.



Fig. C-2



Toyota SST  
09804-24010



Fig. D-1



Fig. E-1



Fig. E-2

## Section II – Installation Procedure

- ➡ 2. Tip the Stop Lamp Housing up and push the connector release button to remove the wire harness from the socket. Remove the Stop Lamp Housing from the vehicle.
- ➡ 3. Install the CHMSL Cover - XLS Model (Fig. E-3.) Remove the two screws holding the Stop Lamp Socket Assembly to the Housing. Remove the Socket Assembly and install the CHMSL Cover (Fig. E-3) re-using the two screws to secure the CHMSL Cover to the Third Stop Lamp Housing.
4. On XL Models, the complete Third Stop Lamp Assembly is replaced with the new CHMSL cover. (Fig. E-4)
5. Leave the Third Stop Lamp Housing off at this time to facilitate the installation of the Spoiler Wire Harness Extension.

#### F. SPOILER WIRE HARNESS EXTENSION INSTALLATION

- ➡ 1. Remove the trunk light by using a small, flat blade screwdriver to release the locking tab. (Fig. F-1) Disconnect the light from it's wire harness and set the light aside for re-installation later.
- ⚠ 2. Route the Spoiler Wire Harness Extension through the existing body opening inside the trunk just behind the left side trunk lid hinge. (Fig. F-2)
3. Continue to push the Spoiler Wire Harness Extension through the top of the structural metal located inside the trunk towards the Trunk Light opening. Feed the Spoiler Wire Harness Extension through the trunk light opening. (Fig. F-3)



Fig. E-3



Fig. E-4



Fig. F-1



Fig. F-2



Fig. F-3



- ⚠ 4. Behind the trunk light opening (Fig. F-4) there is an access hole through which the Spoiler Wire Harness Extension can be routed through into the vehicle cabin area.
- ➡ 5. Connect the Spoiler Wire Harness Extension to the existing stop lamp power source inside the vehicle cabin area. Install the Felt Tape to the Spoiler Wire Harness Connectors to prevent rattles. (Fig. F-5)
- ➡ 6. Snap the plastic clips on the Wire Harness Extension into the factory holes located in the driver's side trunk hinge.
- ⚠ 7. To obtain proper clearance for the new Spoiler Wire Harness Extension, the driver's side trunk liner must be trimmed by approximately 1/2" at the trunk lid hinge opening. (Fig. F-6)
- ⚠ 8. Secure all wiring as required to prevent interference and rattles.
- ➡ 9. Re-install the Third Stop Lamp Housing in the reverse order of removal.

### G. ATTACH DRILLING TEMPLATE

- STOP 1. Place the Mylar Drilling Template on the trunk lid (Fig. G-1) and align the template flush with the leading edge and sides of the trunk lid. The templates must be flat, smooth and properly aligned on the trunk lid. Secure the template in place with masking tape at the locations indicated on the template.
2. Locate on the templates the three (3) holes to be drilled into the trunk lid on the left side (Fig. G-2).



Fig. F-4



Fig. F-5



Fig. F-6



Fig. G-1

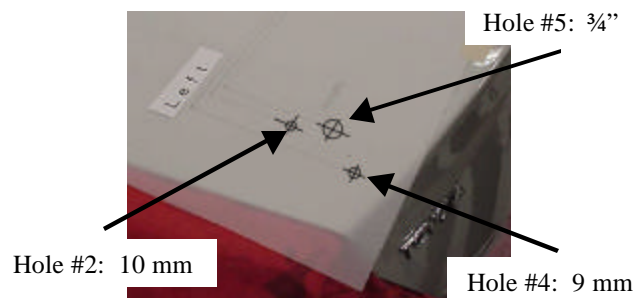


Fig. G-2

3. Locate on the template the two (2) holes to be drilled in to the right side. (Fig. G-3)



4. Using the center punch mark, center punch the five (5) hole locations to be drilled (Fig. G-4) and remove the template.

## H. HOLE DRILLING



1. Eye protection must be worn during drilling operations.



2. Drill the five (5) hole locations as follows:-

Holes #1 & #2 - 10 mm (Fig. G-2 & G-3)

Holes #3 & #4 - 9 mm (Fig. G-2 & G-3)

Hole # 5 – 3/4" (Fig. G-2)



3. If factory openings are not available on the underside of the trunk, drill holes #1 and #2 completely through the trunk frame to create a pilot hole for step 5.



4. Carefully vacuum the trunk surface and the surrounding area of drilling debris. Insert the retrieval magnet flex shaft into the holes to retrieve any metal chips left from drilling operation.



5. If required, from the underside of the deck lid, in holes #1 and #2, drill the 3/4" access holes to be able to install the spoiler attaching nuts. (Fig. H-1)



6. Debur all previously drilled holes.

7. Grasp the trunk lid and with an up and down motion, vigorously shake the trunk lid to dislodge any metal chips remaining from the drilling process.



8. Completely vacuum the trunk floor and gutter rail to remove all debris. Close trunk lid.

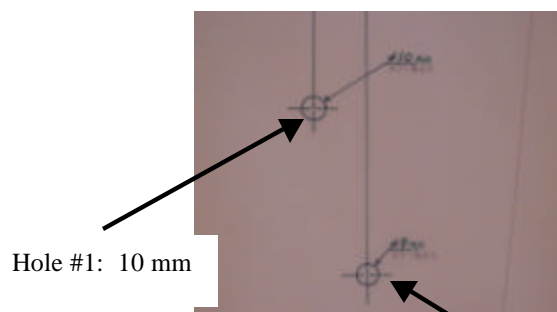


Fig. G-3



Center Punch  
& Hammer

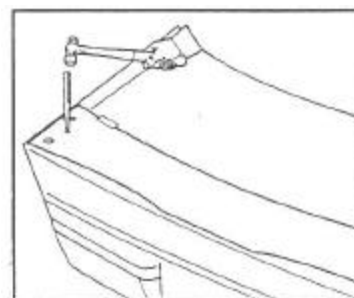


Fig. G-4

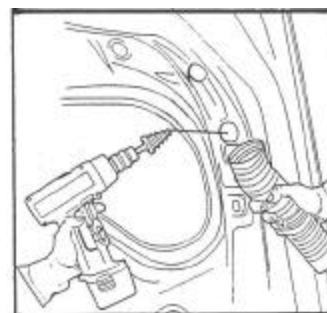





Fig. H-1



## **I. PREPARATION FOR SPOILER ATTACHMENT**

-  1. The trunk and spoiler should be between a minimum of 70 F and a maximum of 110 F for the proper set-up of the adhesive tape.
-  2. Using a lint free cloth, clean the trunk surface where the spoiler is to be mounted with 3M Prep Solvent - 70. Using another lint-free cloth thoroughly dry the area.
-  3. After cleaning, coat the edges of the five (5) drilled holes with the 3M Ultra Pro Auto Body Sealant. Be careful not to smear the sealant around on the painted surface.

## **J. ATTACHING THE SPOILER TO THE TRUNK LID**





-  1. Remove the protective backing from the two outboard adhesive pads. Being careful not to touch or allow contaminants to come in contact with the adhesive pads.
-  2. Support the spoiler above the trunk lid and align the spoiler mounting studs above their corresponding holes in the trunk lid. Do not let the adhesive pads come in contact with the trunk lid surface. (Fig. J-1)
-  3. While continuing to support the driver's side of the spoiler and with the help of an assistant to support the passenger side of the spoiler, thread the wire harness through hole # 5 until the rubber harness grommet can be fully seated into hole # 5.
-  4. Align the spoiler mounting studs with holes # 1 & # 2 and lower the spoiler into place. Apply even pressure on each end of the spoiler until the plastic pins audibly snap into hole # 3 & # 4. Ensure that the tape fully adheres to the trunk surface.



Fig. J-1

## Section II – Installation Procedure

5. Open the trunk lid, install and hand tighten the two (2) 6 mm stud locking nuts.



6. Torque the two (2) locking nuts to 53 in-lb (4.4 ft-lb). Carefully coat the edges of the two access holes drilled in the underside of the trunk lid with 3M Ultra Pro Sealant.
7. Retrieve the Spoiler Wire Harness out of the trunk lid through the existing factory opening. (Fig. J-2)



8. Connect the Spoiler Wire Harness to the Spoiler Wire Harness Extension located on the trunk lid hinge. (Fig. J-3)

**K. FINAL ASSEMBLY**

1. Re-connect the negative battery cable.
2. Check the operation of the third brake light located in the spoiler.
3. Re-install the trunk lid carpet trim panel, the right and left trunk liner panels, and the right and left tail light covers.
4. Check the trunk lid for proper operation.



Fig. J-2



Fig. J-3





Section III – Functional Verifications

Check: \_\_\_\_\_

- ☐ Verify spoiler stop lamp for proper operation.
- ☐ Verify that the instrument panel warning lamp is not illuminated.
- ☐ Verify proper trunk operation.

Look For: \_\_\_\_\_

Illumination of spoiler stop lamp.

No warning lamps illuminated.

Trunk lid remains in the raised position when opened with the spoiler installed.