

Accessory Installation Practices



This document is written and maintained by Toyota Motor Sales, U.S.A., Inc. as an aid to defining accessory installation best practices.

Safety

1.1 Eye protection should be worn during any drilling and cutting, and when power tools are used to remove or attach fasteners.

Eye protection should also be used when using any special chemicals (as listed on the first page of the Installation Instruction Sheet) to reduce the risk of these chemicals entering the eye.

1.2 Rechecking of fastener tightness.

For some accessories it is necessary to recheck the tightness of the fasteners securing the accessory, for example – wheel lug nuts, running board bolts, tow hitch bolts etc. Where a recheck is required it will be noted in the Installation Instruction Sheet (either in the Procedure Section and/or the Checklist Section)

1.3 Supplemental Restraint System SRS

Any vehicle equipped with a supplemental restraint system (SRS). Failure to carry out the following procedures listed below could result in possible deployment of airbag, personal injury, or unnecessary repairs to SRS.

1.3.1 Turn the key switch to the LOCK position.

1.3.2 Remove key from ignition switch.

1.3.3 Disconnect the negative battery cable.

1.3.4 Never use a voltmeter to troubleshoot any of the harnesses or connectors to the SRS. Accidentally probing the connectors to the SRS can lead to deployment of the airbag.

1.3.5 SRS wire harness loom/cover is bright yellow in color.

1.3.6 SRS contains a battery backup system; therefore ALWAYS wait for a minimum of 90 seconds after disconnecting the battery negative cable before removal/disassembly of electrical components. (Reference TSB: EL93-001).

Vehicle Protection

2.1 Vehicle should be clean before performing any accessory installation.

2.2 Prepare grille cover, fender cover, seat cover, and floor mat cover as appropriate to the installation area on the vehicle of the accessory before starting installation. Blankets, seat covers, paper floor coverings are suitable for this purpose.

2.3 Do not place any tools on unprotected vehicle surfaces, or leave inside vehicle. Use a tool tray to keep tools separate from the vehicle surface.

2.4 It is recommended that no exposed jewelry (rings, watches etc.), zippers, buttons, rivets, belt buckles or other scratch potential objects be worn. Articles of clothing or jewelry that have the potential to come into contact with the vehicle surface (i.e., generally below the chest) and contain any of the above items should be covered with tape and/or other protective material to prevent scratching of the vehicle.

2.5 Clothing and shoes must be free of grease and dirt to maximize vehicle cleanliness.

2.6 Parts and tool trays should be used for interior installations whenever possible. Parts, tools or trays must not be placed onto unprotected, seats, carpets or trim panels.

2.7 Tools, air hoses and power cords should be free of grease and dirt.

2.8 Blanket should be used to cover engine bay while working on accessory that requires hood to be open (e.g. Hood Protector) to prevent fasteners from being dropped into engine bay.

Vehicle Disassembly/Re-assembly

Panel Removal

3.1 Many panels on the vehicle are held in place with clips. Where the location of this clip is critical it is shown on the figure(s) in the Installation Instruction Sheet. Care must be taken to remove the panel and its clip(s) without damage. Toyota recommends use of plastic (nylon) removal tools, rather than metal and two Toyota Special Service Tools are available:-

Panel Pry Tool #1 Toyota SST # 00002-06001-01

Panel Pry Tool #2 Toyota SST # 00002-06002-01

Panel Protection

3.2 Place all removed parts on a protected surface.

3.3 All work benches, tables, or platforms used for assembly or temporary storage of parts should be carpeted or suitably covered to provide a soft, non-abrasive surface.

Parts Container

3.4 Use a small parts container to keep removed bolts and tapping screws so that they can be reassembled correctly.

Electrical Component Disassembly/Reassembly

Battery Cable

4.1 Unless otherwise stated battery negative terminal must be disconnected and isolated before performing work on any electrical components (i.e. connecting or disconnecting any

electrical connectors, etc.). In some installations fuse removal is used instead of battery terminal disconnection, and will be referred to in the Installation Instruction Sheet.

4.2 Ignition key must be removed from the ignition switch when the negative battery terminal or appropriate fuse is disconnected/removed and reconnected/reinstalled.

4.3 Do not touch the positive terminal with any tool when removing the negative battery cable.

4.4 Use a fender cover (blanket) when connecting or disconnecting battery negative terminal and/or when replacing or removing fuses. Ensure battery negative terminal is fully seated when reconnecting.

4.5 Power tools that can exceed 60 pound force-inch of torque should not be used to tighten battery cable. The torque value for battery cable tightening is given in the Installation Instruction Sheet.

Connectors

4.4. When disconnecting connectors, do not pull on the wires; pull on the connectors.

4.5. DO NOT pull on vehicle wires and/or wire harnesses. To uncouple electrical connectors, pull only on the connector itself and release the connector securing tab (identified in the Installation Instruction Sheet).

4.6. Disconnected wires must not have any strain on connectors or wires (i.e., do not allow components hanging from a wire harness).

4.7. When reconnecting connectors, ensure connectors are securely snapped together and wires are not twisted or kinked.

Wire Harnesses

4.8. When installing the accessories that use wire harnesses (e.g. audio, alarm, trailer wire harness...), make sure the harness is not cut or perforated by any sharp metal objects/edges.

Wire Ties

4.9. When using wire ties to secure harness, clip the wire ties after securing them.

4.10. Ensure that wire routing does not interfere with movement of mechanical components before tightening the wire tie.

Functional Checks

4.11. Functional checks (from the Checklist Section of the Installation Instruction Sheet) must be performed on all disconnected electrical components.

Use of Special Chemicals

Cleaners

5.1 All cloths used for preparatory installations must be cleaned and periodically changed. Any cloth that is dropped on the floor should not be used until cleaned.

5.2. Cleaning solutions/solvents are identified in the Installation Instruction Sheet and are not to be sprayed directly onto vehicle surfaces (interior/exterior).

5.3. Cleaning solutions/solvents are not to be sprayed onto cloth/rag inside of vehicle (this is to prevent over spray on interior).

5.4. When using cleaners such as Prep-Solvent-70, or Household Windex follow manufacturer's recommendations:-

5.4.1 Always use a clean (lint free scratch resistant) soft cloth (or wipe), and clean a small area at a time (~ 3 ft. x 3 ft. max.).

5.4.2 Shake well.

5.4.3 Apply cleaner to cloth or wipe. Do not spray cleaning solution directly on any vehicle surfaces.

5.4.4 Clean surface thoroughly and wipe dry immediately with a new clean cloth. Do not allow cleaner to air dry.

Sealers

5.5 Follow Installation Instruction Sheet recommendations.

5.6 For any cleanup follow sealer manufacturer recommendations.

Temperature

6.1. Some accessories require installation in a controlled temperature environment. The installation instructions will provide the temperature range of this temperature and will differentiate between vehicle and accessory temperature (should it not be the same for both.)

6.2. The installation location will be responsible for determining whether the temperature range has been met.

6.3. The method of temperature measurement will NOT be called out in the instructions.

6.4. Recommended tools for measuring vehicle and accessory temperature are:-
Non-Intrusive IR Temperature Probe/Gun

6.5. Recommended heating/cooling methods are:-
Heat box (for small components), Car HVAC, Heat Gun....

Torque Recheck

7.1. When rechecking of a fastener torque is called out in the Installation Instruction Sheet it is sufficient to ensure that the fastener does not rotate when the installation torque is reapplied. If the fastener rotates then continue tightening until the specified torque is reached. Do not loosen fastener.

**Part Number: Tuner Assy 86180-0W030
Mounting Kit 86100-0W190****NOTE:** Part number of this accessory may not be the same as the part number shown.**Tuner Assy Kit Contents (86180-0W030)**

Item #	Quantity Req'd.	Description
1	1	TUNER ASSY, STEREO COMPONENT

Mounting Kit Contents (86100-0W190)

Item #	Quantity Req'd.	Description
1	1	Wire, To Radio Installation
2	1	Bracket, Radio Receiver A
3	1	Bracket, Radio Receiver B
4	1	Antenna

Hardware Bag Contents 1 (86100-0W190)

Item #	Quantity Req'd.	Description
1	2	Cushion Tape (50mm×100mm)
2	5	Tie Wrap
3	1	Clamper

Hardware Bag Contents 2 (86100-0W190)

Item #	Quantity Req'd.	Description
1	4	Screw (M5×L8)
2	3	Nut (M6 • Flange)

Hardware Bag Contents 3 (86100-0W190)

Item #	Quantity Req'd.	Description
1	1	Template
2	1	Nylon Tape (30mm×30mm)(Silver)
3	6	Nylon Tape (30mm×30mm)(Black)
4	1	Tie Wrap
5	1	Cushion Tape (20mm×100mm)
6	1	Cord Rail

Additional Items Required For Installation

Item #	Quantity Req'd.	Description

Conflicts

--

Recommended Tools

Personal & Vehicle Protection	Notes
Vehicle Protection	Clean Cloths, Part Boxes
Special Tools	Notes
None	

Installation Tools	Notes
Panel Clip Removal Tool	e.g. Toyota SST P/N:- 00002-06002-01
Socket	10mm
Screwdriver	Phillips, #2
Wrench	Open End, 10mm
Torque Wrench	36 lbf • in
Side Cutter	
Masking tape	
Special Chemicals	Notes
Cleaner	VDC approved cleaner and cleaning method

General Applicability

--

Recommended Sequence of Application

Item #	Accessory

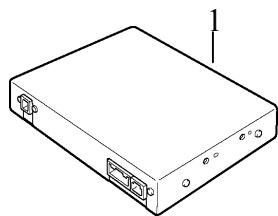
*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Req'd.	Description

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.

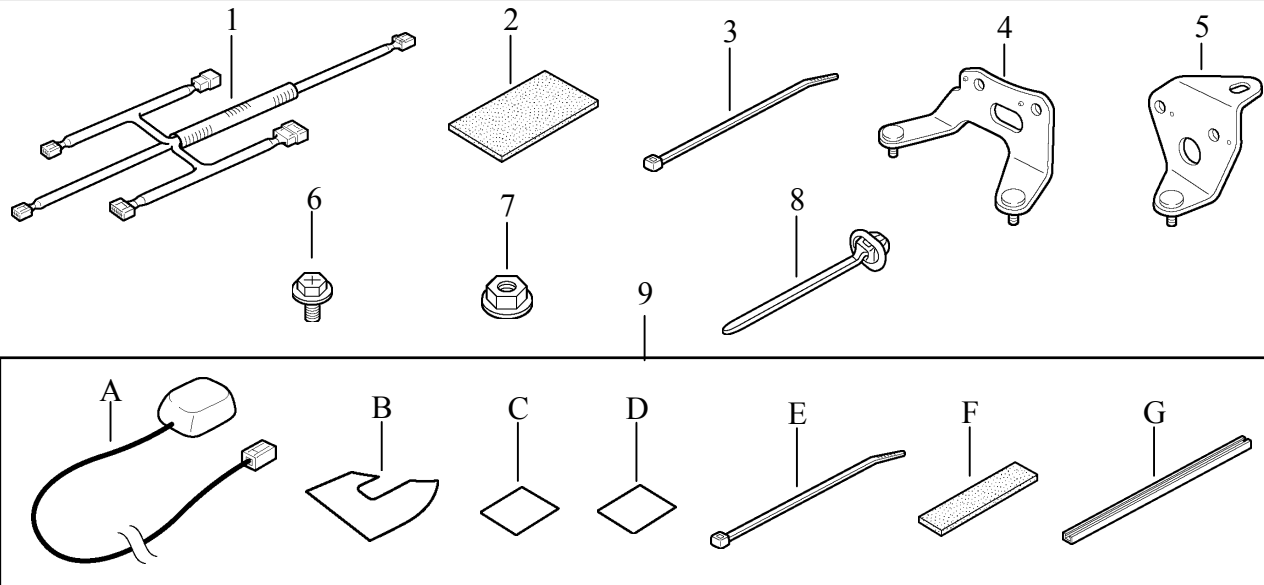
Parts Description of Tuner Assy (86180-0W030)



Item #	Parts Name	Parts No.	Qty
1	TUNER ASSY, STEREO COMPONENT ★	86180-0W030	1

★ In the installation instructions and figures, this is referred to as “Tuner”.

Parts Description of Mounting Kit (86100-0W190)



Item #	Parts Name		Parts No.	Qty
1	Wire, To Radio Installation	★1	82372-0W100	1
2	Cushion Tape (50mm×100mm)		—	2
3	Tie Wrap		—	5
4	Bracket, Radio Receiver A	★2	86215-0W160	1
5	Bracket, Radio Receiver B	★3	86215-0W170	1
6	Screw (M5×L8)		90153-50010	4
7	Nut (M6・Flange)		90080-17185	3
8	Clamper		—	1
9	A	Antenna	86960-0W040 ANTENNA ASSY, SATELLITE RADIO	1
	B	Template		1
	C	Nylon Tape (30mm×30mm)(Silver)		1
	D	Nylon Tape (30mm×30mm)(Black)		6
	E	Tie Wrap		1
	F	Cushion Tape (20mm×100mm)		1
	G	Cord Rail		1

- ★ 1 In the installation instructions and figures, this is referred to as “Tuner Cable”.
- ★ 2 In the installation instructions and figures, this is referred to as “Tuner Bracket A”.
- ★ 3 In the installation instructions and figures, this is referred to as “Tuner Bracket B”.

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.

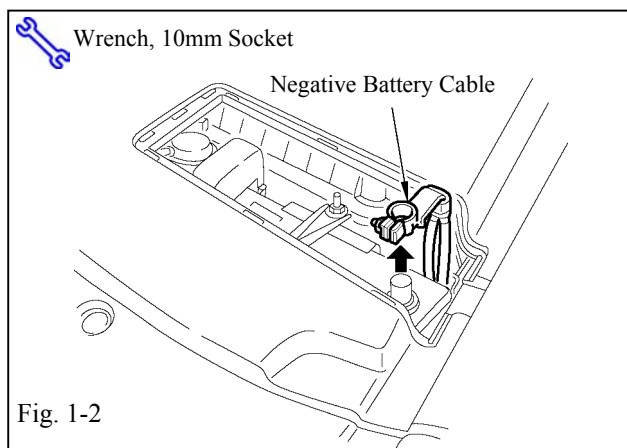
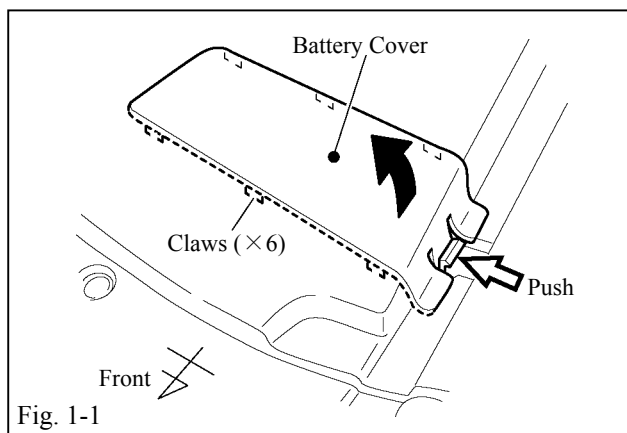
This document covers such items as:-

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

Please see your Lexus dealer for a copy of this document.

1. Vehicle Protection.

- (a) Set emergency hand brake.
- (b) Remove the negative battery cable.
 - (1) Protect the fender before starting.
 - (2) Remove the battery cover (Fig. 1-1).



- (3) Do not touch the positive terminal with any tool when removing cable (Fig. 1-2).
- (c) Wait 90 seconds before proceeding to disassemble vehicle.

2. Disassembly of Vehicle.



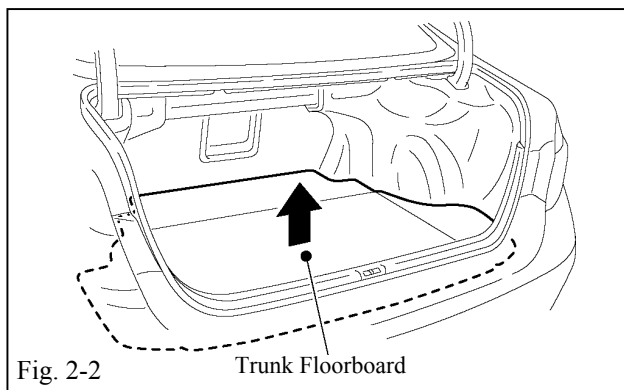
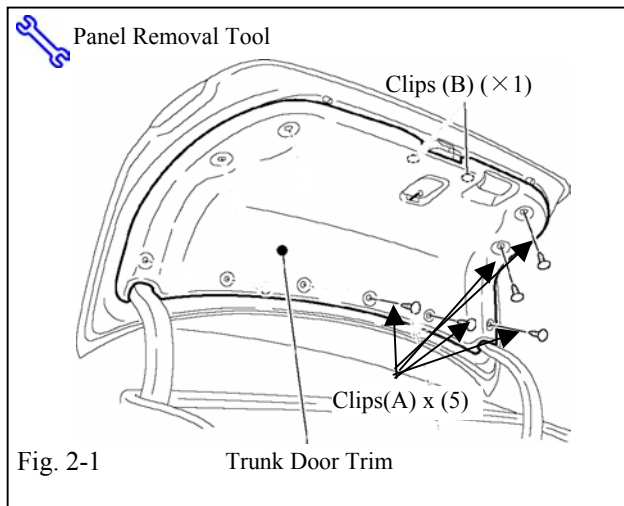
NOTE: Place all removed parts on a protected surface.

NOTE: When disconnecting wiring connectors do not pull on the wiring, pull on the connector only.

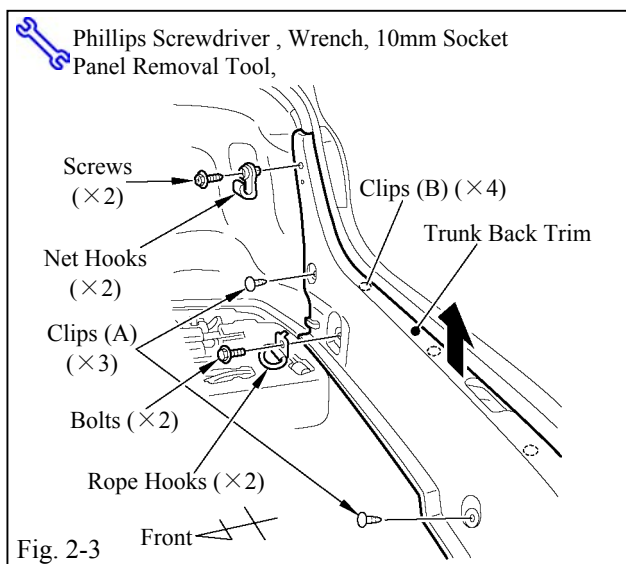
(a) Partially remove the trunk door trim.

(1) Remove the 5 clips (A) and 1 clip (B).
(Fig. 2-1).

(2) Partially remove the trim. (Fig. 2-1).



(b) Remove the trunk floorboard (Fig. 2-2).

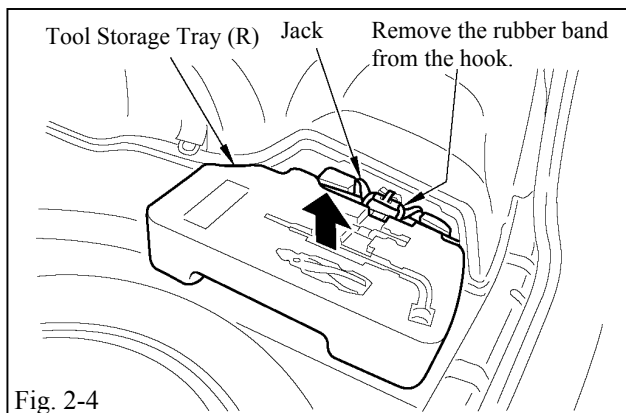


(c) Remove the trunk back trim (Fig. 2-3).

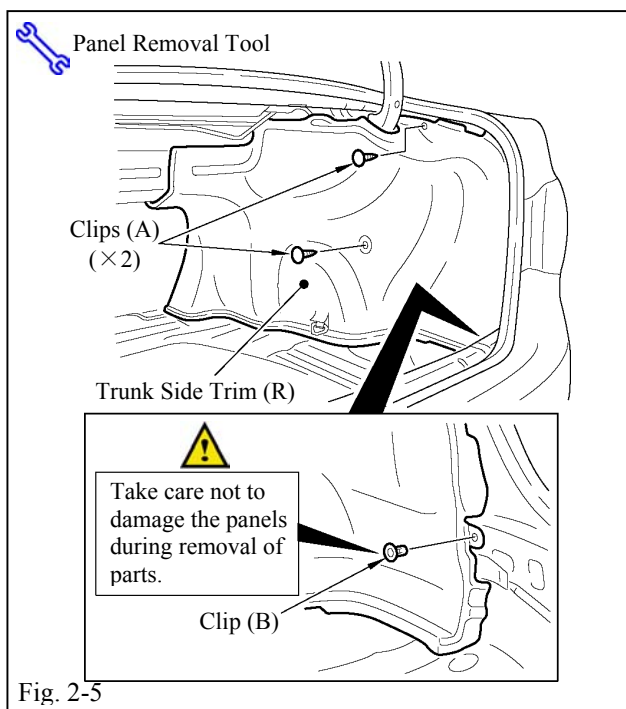
NOTE: The right side is shown in the figure, but the procedure is the same for the left side.

- (1) Remove the screws and the net hooks (R/L).
- (2) Remove the bolts and the rope hooks (R/L).
- (3) Remove the clips (A).
- (4) Pull the trim in the direction of the arrow as shown in the figure and remove the clips (B).

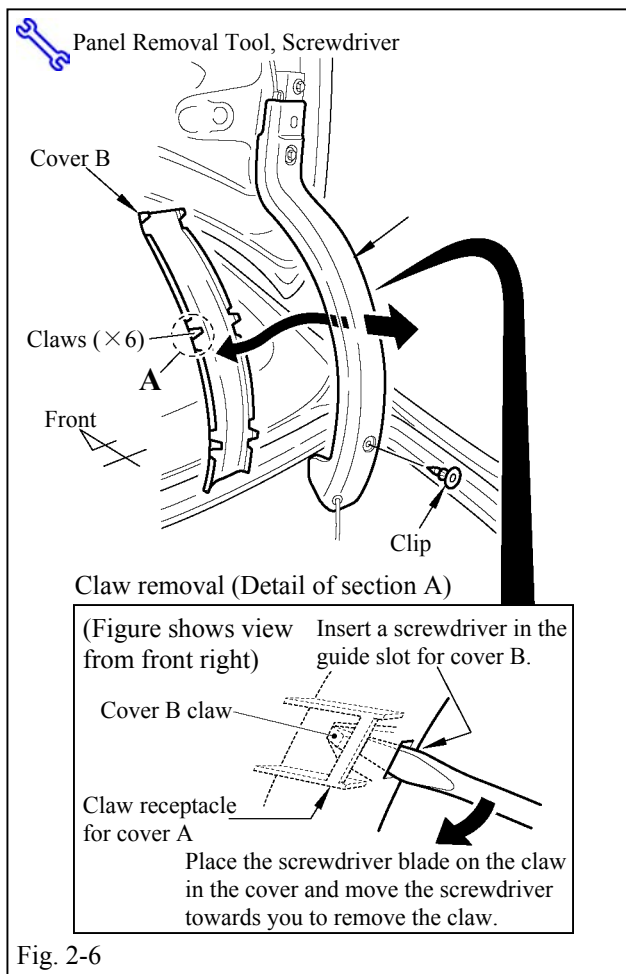
(d) Remove the tool storage tray (R) and the jack (Fig. 2-4).



(e) Remove the trunk side trim (R) (Fig. 2-5).



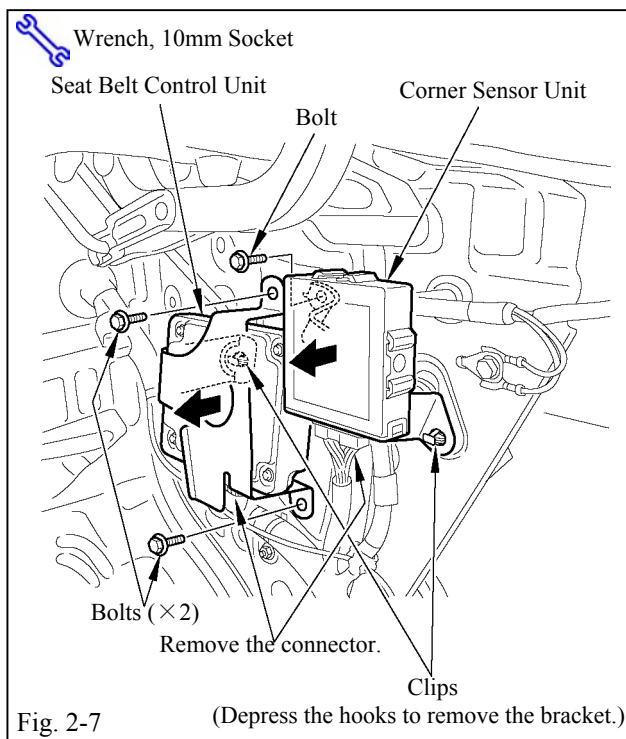
- (1) Remove the two clips (A).
- (2) Remove the clip (B).
- (3) Pull the trim away from panel and remove it.



(f) Remove the trunk door hinge cover (R) (Fig. 2-6).

(1) Remove cover B from cover A.

(2) Remove the clip, and then remove cover A from door hinge.



(g) Remove the corner sensor unit (if equipped) from the trunk side panel (R) (Fig. 2-7)

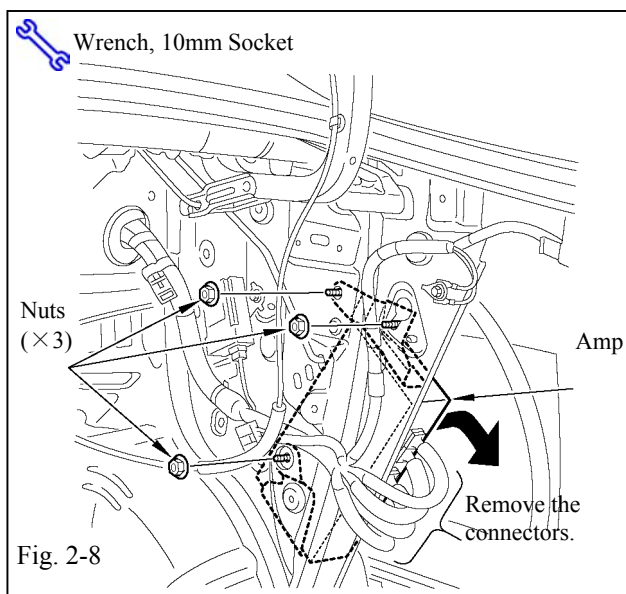
(1) Remove the bolt and then remove the clip retainer.

(2) Remove the wire connector.

(h) Remove the seat belt control unit (if equipped) from the trunk side panel (R) (Fig. 2-7)

(1) Remove the bolt and then remove the clip retainer.

(2) Remove the wire connector.



- (i) Remove the amp from the trunk side panel (R) (Fig. 2-8).

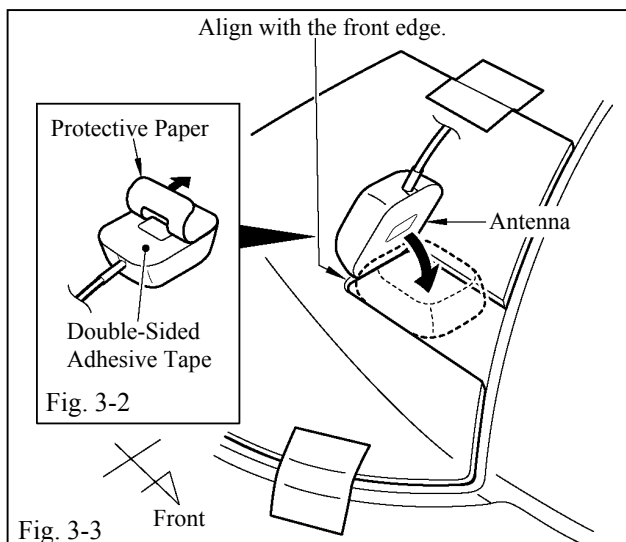
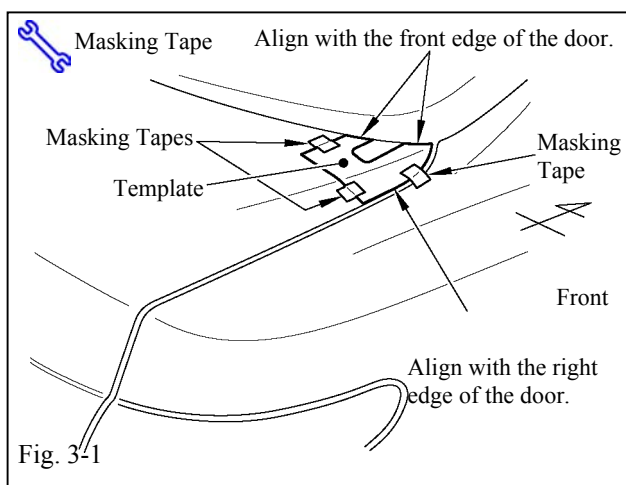
NOTE : The indications in the figure are for a standard audio amp but they are the same for Mark Levinson audio amp.

- (1) Remove the wire connectors.
- (2) Remove the three nuts.

3. Antenna Installation and Wiring.

- (a) As shown in the figure 3-1, place the template on the front right side of the trunk door and use masking tape to temporarily attach it (Fig. 3-1).

NOTE: Fasten as described in the explanation printed on the template.



- (b) Peel off the protective paper from the double-sided adhesive tape on the base of the antenna (Fig. 3-2).



- (c) Before sticking on the antenna, wipe the door surface clean to remove dirt and oil using VDC approved cleaner.
- (d) Align the front edge of the antenna with the template as indicated in the figure, and rotate the antenna downwards to stick on (Fig. 3-3).

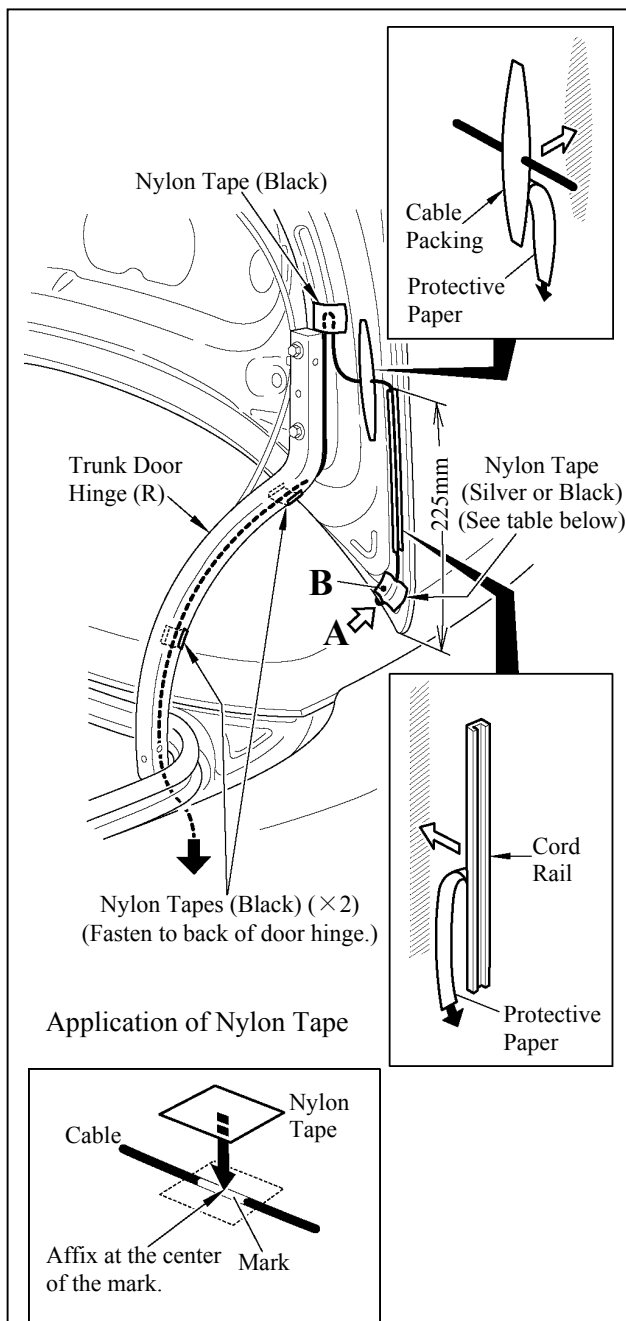


Fig. 3-4 Nylon Tape B Color Correlation Chart

Body color	Black	Silver
062 (white Pearl Crystal Shine)		○
1G1 (Silver Mica Metallic)		○
1G0 (Dark Gray Mica)	○	
202 (Black)	○	
3R5 (Dark Red Mica CC.)	○	
3R4 (Shell Mica Metallic)	○	
4T1 (Beige Metallic)		○
4T0 (Blond Mica Metallic)	○	
778 (Dark Turquoise Mica Metallic)	○	
8P8 (Dark Blue Mica)	○	

(e) Wire the antenna cable from the trunk door to the door hinge (Fig. 3-4).



(1) Carefully wipe away any dirt or oil from surfaces where cord rails, nylon tape and cable packing are to be attached in the following steps using VDC approved cleaner.

(2) Attach a cord rail at the location on the rear side of the door shown in the figure (Fig. 3-4).

(3) Route the antenna cable through the cord rail and secure it with nylon tape (B in the figure) (Fig. 3-4).



NOTE : Use tape for nylon tape B in the figure of a color that matches the body color by referring to the table in the figure (Fig. 3-4).

NOTE : When fastening nylon tape, fasten at the center of the mark on the cable. (This applies similarly to all subsequent work.)



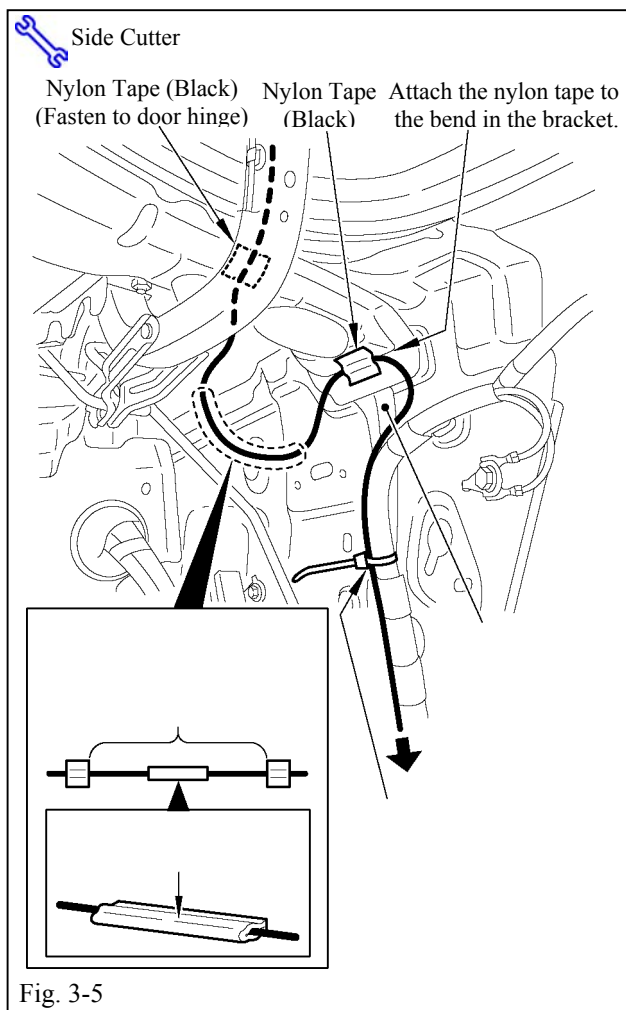
NOTE : Be careful not to apply unreasonable force at the section marked A in the figure when pulling the cable.

(4) Stick cable packing on the rear side of the door in the position shown in the figure (Fig. 3-4).



NOTE : Stick down in a position where the cable packing and weather strip touch when the door is closed.

(5) As shown in the figure (Fig 3-4), route the cable in the door hinge and secure it with black nylon tape.



(f) Run the antenna cable into the trunk room and fasten with black nylon tape at the location shown in the figure (Fig. 3-5).



(1) Before sticking on the nylon tape, wipe the body surface clean to remove dirt and oil using VDC approved cleaner.

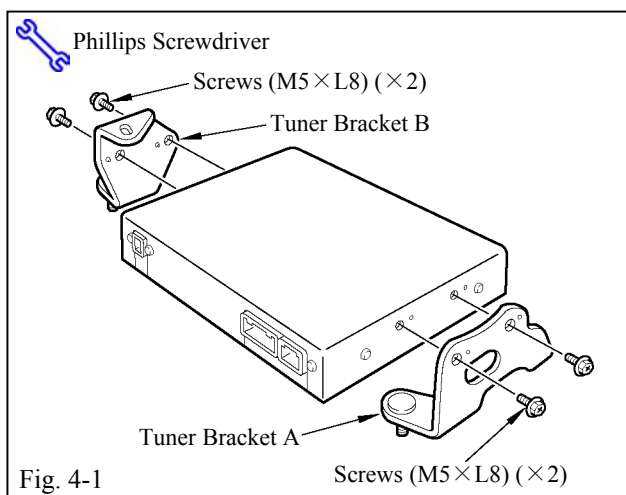
(g) Wrap cushion tape around the antenna cable at the location shown in the figure (Fig. 3-5).

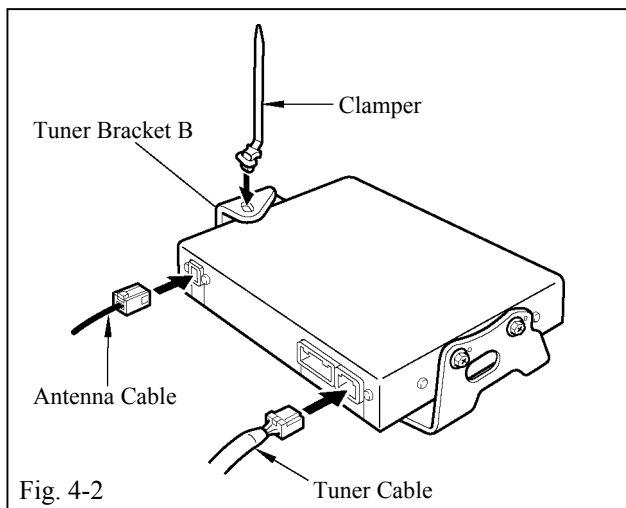
(h) Secure the amp harness with a tie wrap at the location shown in the figure (Fig. 3-5).

(i) Cut off excess tie wrap with a side cutter.

4. Tuner Connection and Installation.

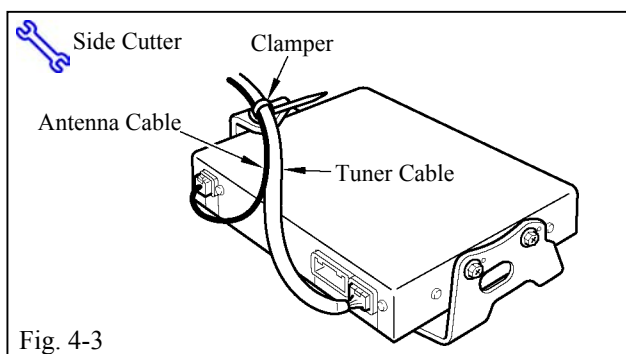
(a) Attach the tuner to tuner brackets A and B (Fig. 4-1).





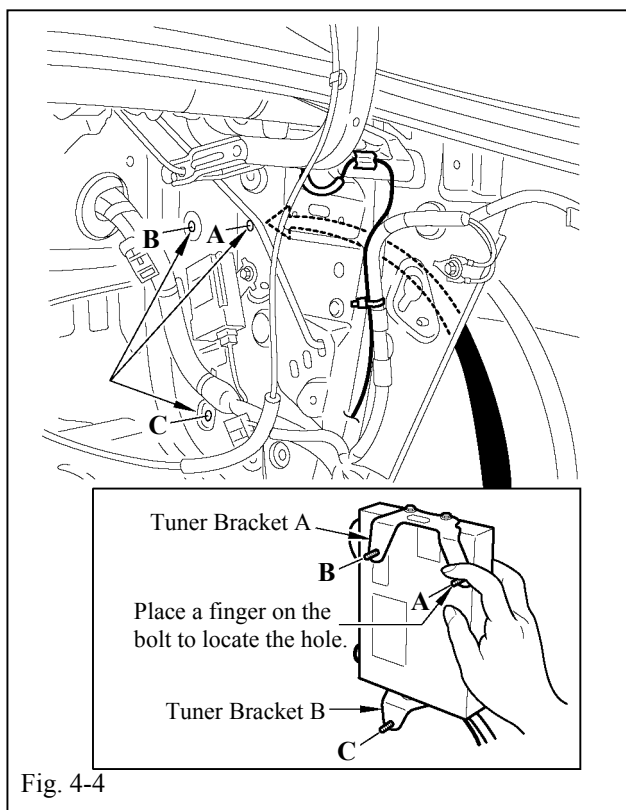
(b) Connect the antenna cable and tuner cable to the tuner (Fig. 4-2).

(c) Insert a clamper in tuner bracket B (Fig. 4-2).



(d) Secure the tuner cable and antenna cable with the clamper (Fig. 4-3).

(e) Cut off excess clamper with a side cutter.

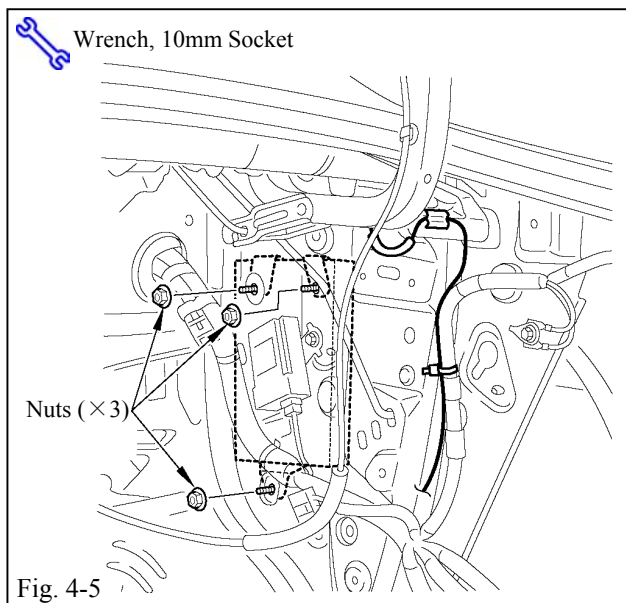


(f) Attach the tuner to the trunk side panel.

NOTE : The instructions provided in the figure are for a standard audio amp but they are the same for a Mark Levinson audio amp.

(1) Insert the tuner on the rear of the side panel and place the bracket bolts in the three mounting holes (Fig. 4-4).

NOTE : As shown in the figure, place a finger on the bolt to locate the hole in the side panel to facilitate insertion.



(2) Use nuts to secure (Fig. 4-5).

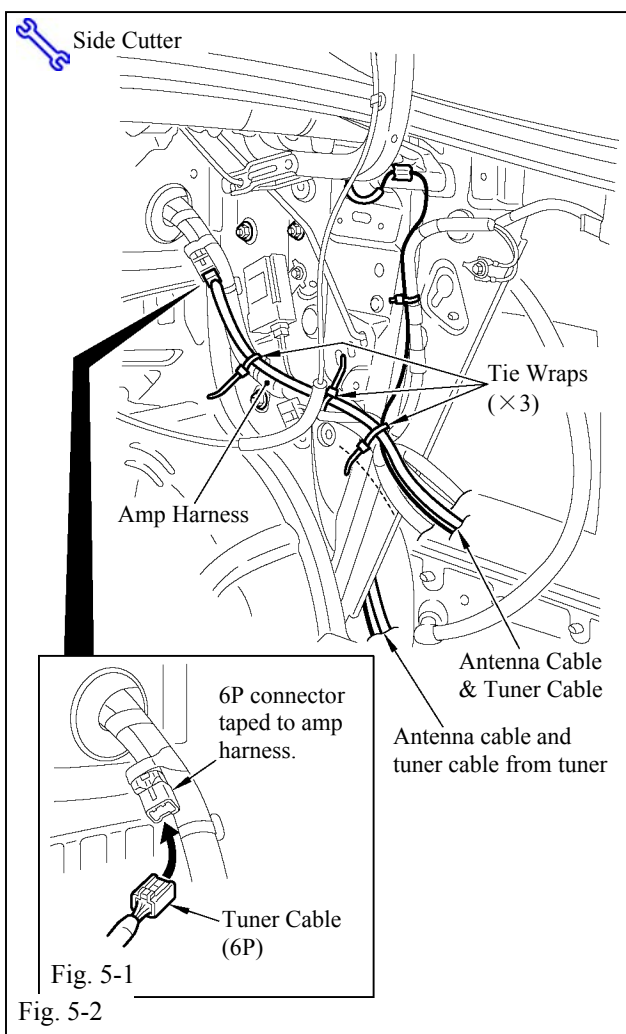
5. Tuner Cable and Antenna Cable Wiring.

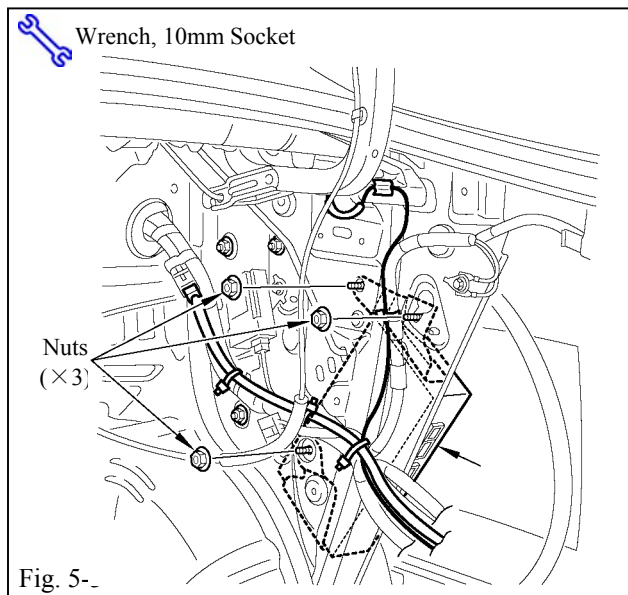
(a) Connect the tuner cable to the harness as shown in the figure (Fig. 5-1).

NOTE : The figure shows the connections for a standard audio amp but they are the same for a Mark Levinson audio amp.

(b) Use tie wraps to secure the tuner cable and the antenna cable to the amp harness (Fig. 5-2).

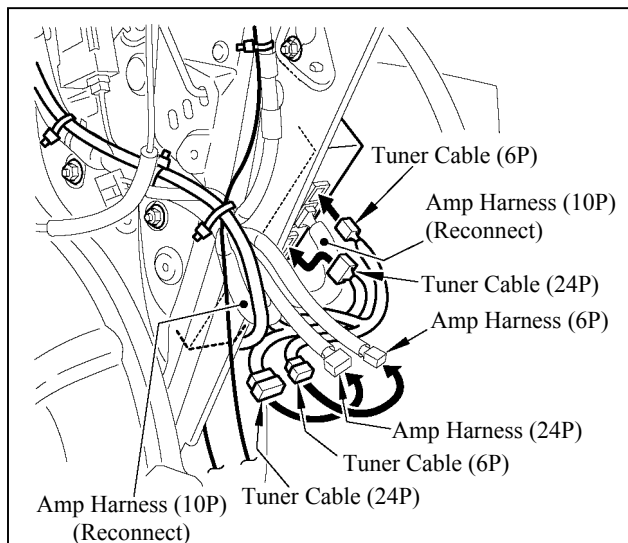
(c) Cut off excess tie wrap with a side cutter.





(d) Reattach the amp to the side panel (Fig. 5-3).

NOTE : The indications in the figure are for a standard audio amp but they are the same for Mark Levinson audio amp.



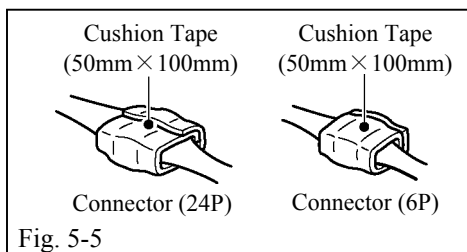
(e) Connect the amp harness (10P, 10P) of the standard audio amp to the amp (Fig. 5-4).

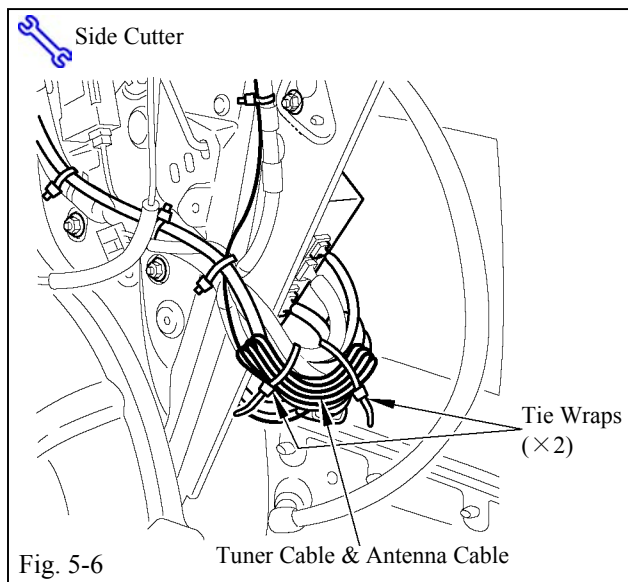
NOTE : The indications in the figure are for a standard audio amp. Connect the amp harness (10P, 10P, digital signal connector) of a Mark Levinson audio amp to the amp.

(f) Connect the tuner cable to the amp harness (24P, 6P) (Fig. 5-4).

(g) Connect the tuner cable to the amp (Fig. 5-4).

(h) Wrap cushion tape around locations where the connector is connected (Fig. 5-5).



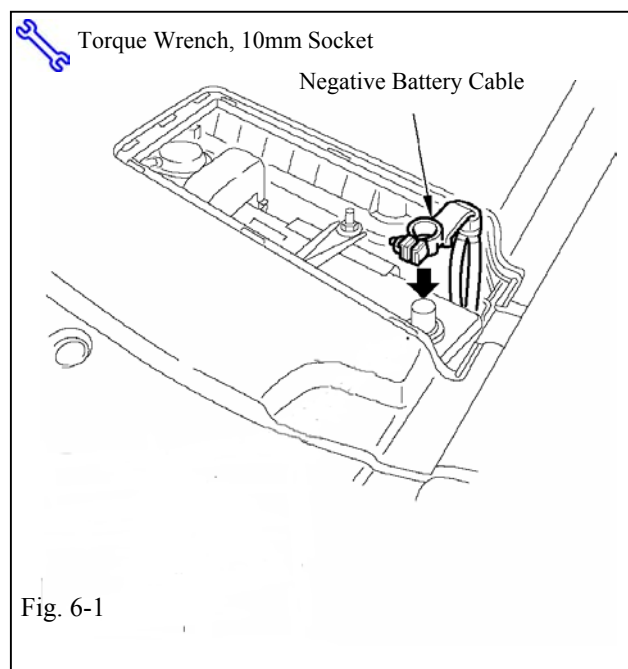


- (i) As shown in the figure, use tie wraps to bundle the entire length of the tuner cable and the antenna cable to the amp harness (Fig. 5-6).
- (j) Cut off excess tie wrap with a side cutter.

NOTE : The indications in the figure are for a standard audio amp but they are the same for Mark Levinson audio amp.

6. Completing the Installation.

- (a) Complete the reassembly of the vehicle.
 - (1) Reconnect any disconnected connectors.
 - (2) Verify the panels fit together properly with no uneven gaps between them.
- (b) Clean up and remove any trash.
- (c) Reconnect the vehicle's negative battery cable (Fig. 6-1).
 - (1) Position the negative terminal at the original factory position.
 - (2) Tighten the nut to 4.1N•m (36 lbf•in).
 - (3) Do not touch the positive terminal with any tool when replacing the cable.



Checklist - these points **MUST** be checked to ensure a quality installation.

Check:

Look For:

Accessory Function Checks

- ☐ Verify the proper operation of the satellite radio tuner referring to the receiver assy and radio owner's manuals.
- ☐ Verify the proper operation of the receiver assy and radio referring to the receiver assy and radio owner's manuals.

Vehicle Function Checks

- ☐ Trunk Door Opener
- ☐ After the battery cable is reconnected, the functional components of the car need to be re-initialize. Initialize them with reference to RM0110U in the vehicle repair manual.

Functioning Door Opener

Accessory Installation Practices



This document is written and maintained by Toyota Motor Sales, U.S.A., Inc. as an aid to defining accessory installation best practices.

Safety

1.1 Eye protection should be worn during any drilling and cutting, and when power tools are used to remove or attach fasteners.

Eye protection should also be used when using any special chemicals (as listed on the first page of the Installation Instruction Sheet) to reduce the risk of these chemicals entering the eye.

1.2 Rechecking of fastener tightness.

For some accessories it is necessary to recheck the tightness of the fasteners securing the accessory, for example – wheel lug nuts, running board bolts, tow hitch bolts etc. Where a recheck is required it will be noted in the Installation Instruction Sheet (either in the Procedure Section and/or the Checklist Section)

1.3 Supplemental Restraint System SRS

Any vehicle equipped with a supplemental restraint system (SRS). Failure to carry out the following procedures listed below could result in possible deployment of airbag, personal injury, or unnecessary repairs to SRS.

1.3.1 Turn the key switch to the LOCK position.

1.3.2 Remove key from ignition switch.

1.3.3 Disconnect the negative battery cable.

1.3.4 Never use a voltmeter to troubleshoot any of the harnesses or connectors to the SRS. Accidentally probing the connectors to the SRS can lead to deployment of the airbag.

1.3.5 SRS wire harness loom/cover is bright yellow in color.

1.3.6 SRS contains a battery backup system; therefore ALWAYS wait for a minimum of 90 seconds after disconnecting the battery negative cable before removal/disassembly of electrical components. (Reference TSB: EL93-001).

Vehicle Protection

2.1 Vehicle should be clean before performing any accessory installation.

2.2 Prepare grille cover, fender cover, seat cover, and floor mat cover as appropriate to the installation area on the vehicle of the accessory before starting installation. Blankets, seat covers, paper floor coverings are suitable for this purpose.

2.3 Do not place any tools on unprotected vehicle surfaces, or leave inside vehicle. Use a tool tray to keep tools separate from the vehicle surface.

2.4 It is recommended that no exposed jewelry (rings, watches etc.), zippers, buttons, rivets, belt buckles or other scratch potential objects be worn. Articles of clothing or jewelry that have the potential to come into contact with the vehicle surface (i.e., generally below the chest) and contain any of the above items should be covered with tape and/or other protective material to prevent scratching of the vehicle.

2.5 Clothing and shoes must be free of grease and dirt to maximize vehicle cleanliness.

2.6 Parts and tool trays should be used for interior installations whenever possible. Parts, tools or trays must not be placed onto unprotected, seats, carpets or trim panels.

2.7 Tools, air hoses and power cords should be free of grease and dirt.

2.8 Blanket should be used to cover engine bay while working on accessory that requires hood to be open (e.g. Hood Protector) to prevent fasteners from being dropped into engine bay.

Vehicle Disassembly/Re-assembly

Panel Removal

3.1 Many panels on the vehicle are held in place with clips. Where the location of this clip is critical it is shown on the figure(s) in the Installation Instruction Sheet. Care must be taken to remove the panel and its clip(s) without damage. Toyota recommends use of plastic (nylon) removal tools, rather than metal and two Toyota Special Service Tools are available:-

Panel Pry Tool #1 Toyota SST # 00002-06001-01

Panel Pry Tool #2 Toyota SST # 00002-06002-01

Panel Protection

3.2 Place all removed parts on a protected surface.

3.3 All work benches, tables, or platforms used for assembly or temporary storage of parts should be carpeted or suitably covered to provide a soft, non-abrasive surface.

Parts Container

3.4 Use a small parts container to keep removed bolts and tapping screws so that they can be reassembled correctly.

Electrical Component Disassembly/Reassembly

Battery Cable

4.1 Unless otherwise stated battery negative terminal must be disconnected and isolated before performing work on any electrical components (i.e. connecting or disconnecting any

electrical connectors, etc.). In some installations fuse removal is used instead of battery terminal disconnection, and will be referred to in the Installation Instruction Sheet.

4.2 Ignition key must be removed from the ignition switch when the negative battery terminal or appropriate fuse is disconnected/removed and reconnected/reinstalled.

4.3 Do not touch the positive terminal with any tool when removing the negative battery cable.

4.4 Use a fender cover (blanket) when connecting or disconnecting battery negative terminal and/or when replacing or removing fuses. Ensure battery negative terminal is fully seated when reconnecting.

4.5 Power tools that can exceed 60 pound force-inch of torque should not be used to tighten battery cable. The torque value for battery cable tightening is given in the Installation Instruction Sheet.

Connectors

4.4. When disconnecting connectors, do not pull on the wires; pull on the connectors.

4.5. DO NOT pull on vehicle wires and/or wire harnesses. To uncouple electrical connectors, pull only on the connector itself and release the connector securing tab (identified in the Installation Instruction Sheet).

4.6. Disconnected wires must not have any strain on connectors or wires (i.e., do not allow components hanging from a wire harness).

4.7. When reconnecting connectors, ensure connectors are securely snapped together and wires are not twisted or kinked.

Wire Harnesses

4.8. When installing the accessories that use wire harnesses (e.g. audio, alarm, trailer wire harness...), make sure the harness is not cut or perforated by any sharp metal objects/edges.

Wire Ties

4.9. When using wire ties to secure harness, clip the wire ties after securing them.

4.10. Ensure that wire routing does not interfere with movement of mechanical components before tightening the wire tie.

Functional Checks

4.11. Functional checks (from the Checklist Section of the Installation Instruction Sheet) must be performed on all disconnected electrical components.

Use of Special Chemicals

Cleaners

5.1 All cloths used for preparatory installations must be cleaned and periodically changed. Any cloth that is dropped on the floor should not be used until cleaned.

5.2. Cleaning solutions/solvents are identified in the Installation Instruction Sheet and are not to be sprayed directly onto vehicle surfaces (interior/exterior).

5.3. Cleaning solutions/solvents are not to be sprayed onto cloth/rag inside of vehicle (this is to prevent over spray on interior).

5.4. When using cleaners such as Prep-Solvent-70, or Household Windex follow manufacturer's recommendations:-

5.4.1 Always use a clean (lint free scratch resistant) soft cloth (or wipe), and clean a small area at a time (~ 3 ft. x 3 ft. max.).

5.4.2 Shake well.

5.4.3 Apply cleaner to cloth or wipe. Do not spray cleaning solution directly on any vehicle surfaces.

5.4.4 Clean surface thoroughly and wipe dry immediately with a new clean cloth. Do not allow cleaner to air dry.

Sealers

5.5 Follow Installation Instruction Sheet recommendations.

5.6 For any cleanup follow sealer manufacturer recommendations.

Temperature

6.1. Some accessories require installation in a controlled temperature environment. The installation instructions will provide the temperature range of this temperature and will differentiate between vehicle and accessory temperature (should it not be the same for both.)

6.2. The installation location will be responsible for determining whether the temperature range has been met.

6.3. The method of temperature measurement will NOT be called out in the instructions.

6.4. Recommended tools for measuring vehicle and accessory temperature are:-
Non-Intrusive IR Temperature Probe/Gun

6.5. Recommended heating/cooling methods are:-
Heat box (for small components), Car HVAC, Heat Gun....

Torque Recheck

7.1. When rechecking of a fastener torque is called out in the Installation Instruction Sheet it is sufficient to ensure that the fastener does not rotate when the installation torque is reapplied. If the fastener rotates then continue tightening until the specified torque is reached. Do not loosen fastener.

Part Number: PT29A-33075-XX

Kit Contents

Item #	Quantity Req'd.	Description
1	1	Molding, LH Front Door
2	1	Molding, LH Rear Door
3	1	Molding, RH Front Door
4	1	Molding, RH Rear Door

Hardware Bag Contents

Item #	Quantity Req'd.	Description
1		
2		

Additional Items Required For Installation

Item #	Quantity Req'd.	Description
1		
2		

Conflicts

None

Recommended Tools

Personal & Vehicle Protection	Notes
Safety Glasses	
Vehicle Protection	Seat & Floor Covers
Special Tools	Notes
Roller	Hard Rubber Hand Roller, 1" to 3" wide.
Non intrusive Infrared Temp Probe/Gun	
Installation Tools	Notes
Flexible Scale or Tape Measure	
Masking Tape	2" wide
Clean Lint-free Cloths	
Straight Edge (Plastic)	
Heat Gun (if required to warm surfaces)	
Heat Source	
Special Chemicals	Notes
Cleaner	3M™ Prep Solvent-70

NOTE: Part number of this accessory may not be the same as the part number shown.

General Applicability

Body Side Molding can be installed on all ES350 Models
--

Recommended Sequence of Application

Item #	Accessory
1	Body Side Molding – Can be installed in any sequence with other accessories

*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Req'd.	Description

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.

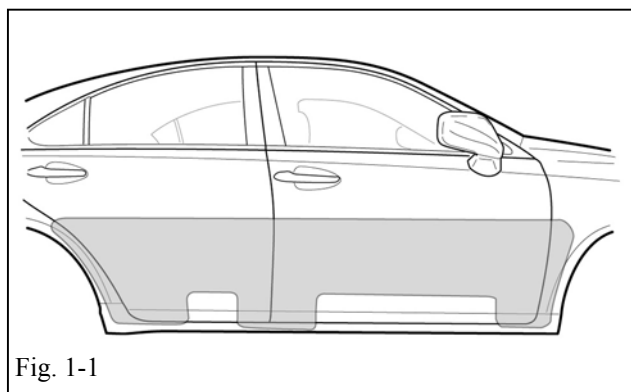
Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

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, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

Please see your Lexus dealer for a copy of this document.

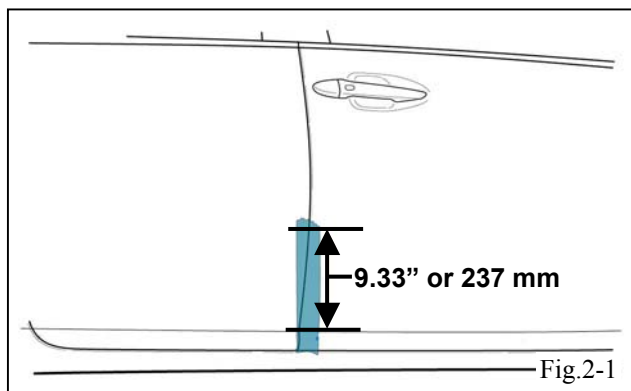


1. Vehicle Preparation

-  (a) Before working on the vehicle, protect the seats and carpets with covers.
-  (b) The work area, body side moldings, and vehicle door surface temperatures must be at least 60°F.

- (1) The LH and RH rear door Body Side Moldings need to be preheated to 100° – 110° just before installing. To heat up the Body Side Moldings: use heat gun, infrared lamps, or appropriate heat source. If using a heat gun, keep it at the lowest setting, six inches away from the surface.

- (c) Saturate a clean lint-free cloth with 3M™ Prep Solvent-70 and clean the areas of each door as shown in Fig. 1-1.



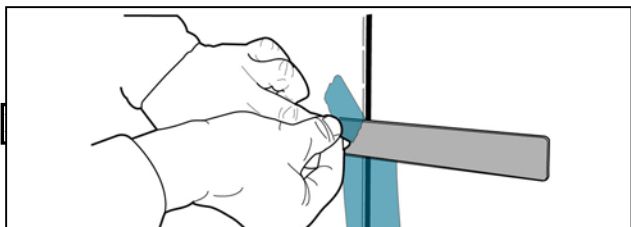
-  (1) When cleaning with 3M™ Prep Solvent-70, follow the manufacturer's directions. Do not allow cleaner to air dry.

- (d) Wipe the cleaned surfaces with a clean, dry, lint-free cloth.

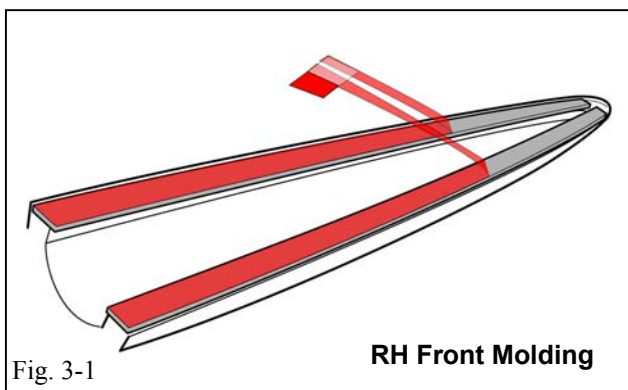
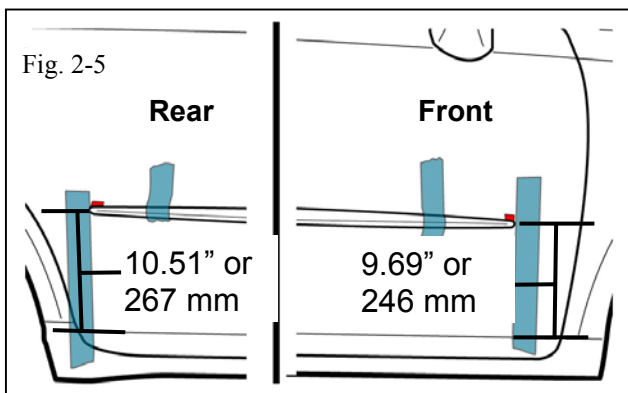
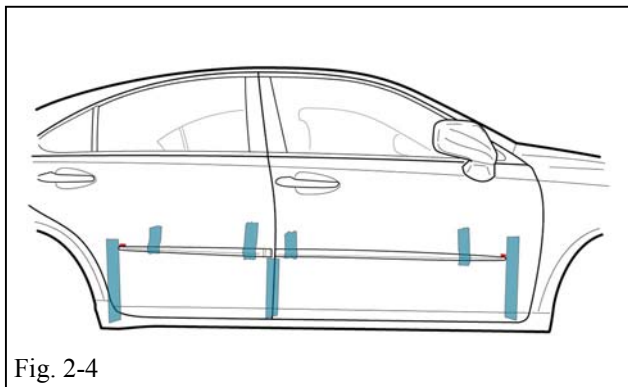
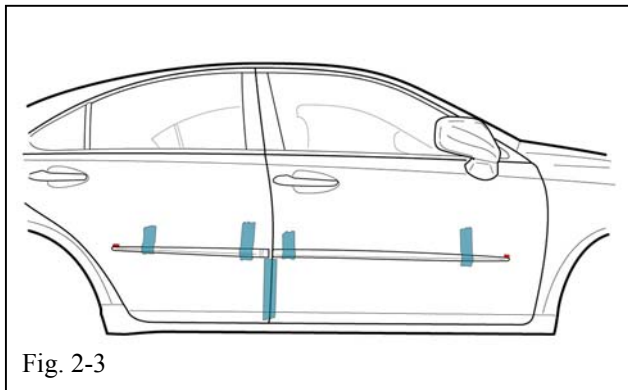
-  **NOTE:** Once cleaned do not contaminate this surface by touching it with your bare hands.

2. Alignment Tape Application

- (a) Place a vertical piece of tape approximately 12" long at the joint between the Front Door and the Rear Door as shown in Fig. 2-1.



- (b) Mark the tape 9.33" (237 mm) up from the joint between the plastic trim at the bottom of the doors and metal door panels as shown in Fig. 2-1. Using a straight edge, tear the vertical tape along a horizontal line at the upper mark as shown in Fig. 2-2.



(c) Using masking tape, temporarily tape the front and rear moldings in place so that they are approximately parallel to the bottom of the doors as shown in Fig. 2-3. Each of the 4 moldings are identified as to the correct position on the vehicle. The bottoms of moldings should line up vertically with the top surface of the tape at the joint between the doors.

(d) Place a vertical piece of tape at the extreme ends of the moldings as shown in Fig. 2-4.

(e) Mark the front door piece of tape 9.69" (246 mm) up from the joint between the plastic trim at the bottom of the door and metal door panel. Mark rear door piece of tape 10.51" (267 mm) up from the joint as shown in Fig. 2-5.

(f) Readjust the height of the front and rear molding tips to line up with the marks on the vertical pieces of tape while making sure the center ends align with the top edge of the center vertical piece of tape. Once everything is in place, sight down the moldings from one end to the other, to ensure that they run in a straight line.

(g) Repeat Steps 2. (a). to 2. (f) for the other side of vehicle.

3. Body Side Molding Installation.



(a) Start with the RH front door molding. Each of the 4 moldings are identified as to the correct position on the vehicle. While carefully holding the molding by its edges, pull the plastic tape at the end of the part to

remove the orange release line from the black acrylic foam tape strips. (Fig. 3-1)



NOTE: Once the release liner is removed from the molding, the surface of the foam tape must not be touched!



- (b) Hold the molding about ½" from the surface of the front door and align the rear edge with the rear edge of the front door as shown in Fig. 3-2 & Fig. 3-3. The bottom edge of the molding is aligned vertically at the rear with the top edge of the vertical tape strip, while the center of the front tip end is aligned with the mark on the vertical piece of tape. Once the molding is properly aligned, press it to the door surface starting at the rear and working toward the front with a rolling motion keeping the front tip aligned with the tape mark. Do not allow both ends to contact and stick to the door before the center contacts.

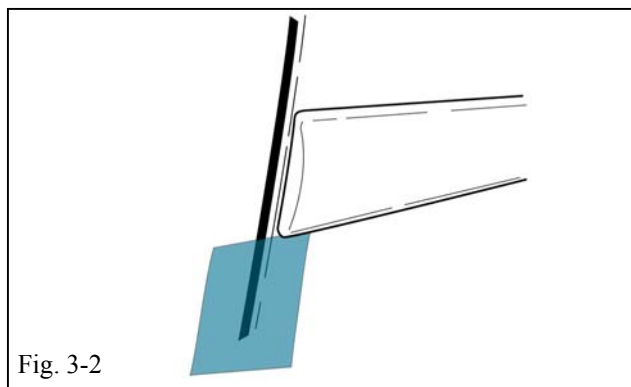


Fig. 3-2

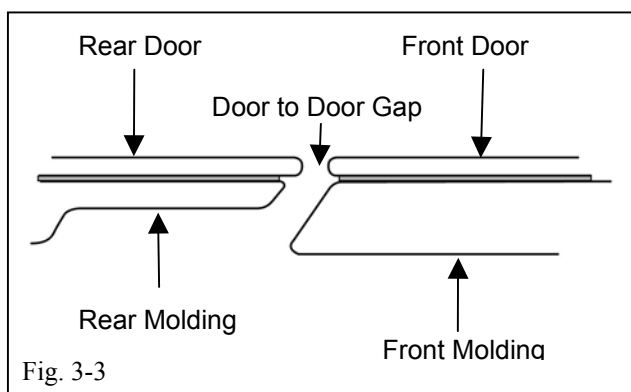


Fig. 3-3

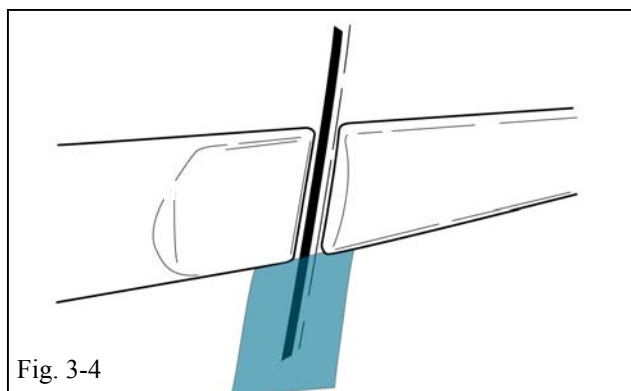


Fig. 3-4

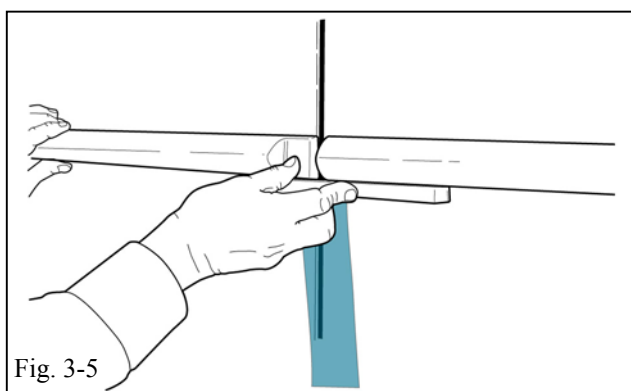
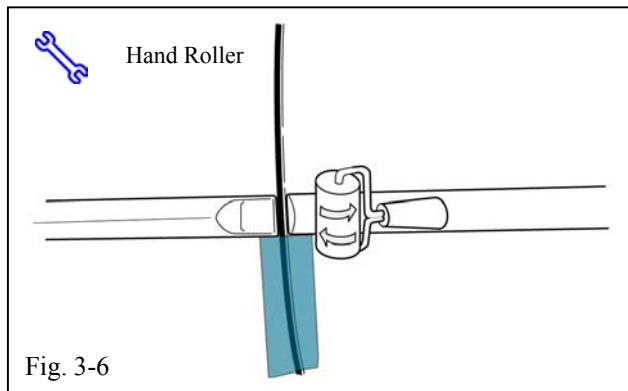


Fig. 3-5

- (c) Repeat steps 3-a and 3-b for the RH rear door molding as shown in Fig. 3-3 and Fig. 3-4.

NOTE: A good way to ensure that where the rear and front molding meet between the doors align vertically is to hold a plastic straight edge against the bottom of the front molding and use it as a guide for the rear molding as shown in Fig. 3-5.



-  (d) Using the hand roller, roll around the perimeter of the parts with a firm pressure to ensure complete adhesion of the acrylic foam tape to the door surfaces. (Fig. 3-6)
- (e) Remove and discard the vertical tape strips.
- (f) Repeat the entire installation procedure for the other side of the vehicle.

Checklist - these points **MUST** be checked to ensure a quality installation.

Check:

Look For:

Accessory Function Checks

☐ Check visual alignment

The moldings should be visually straight.

The front edge of the rear moldings should be flush with the tangent of the rolled front edge of the rear doors.

The inside rear edge of the front moldings should be flush with the tangent of the rolled rear edge of the front doors.

☐ Check for proper tape adhesion.

A gap of approximately ½ mm is designed to exist between the edges of the moldings and the vehicle door surfaces.

No gap is allowed between the tape and the vehicle door surfaces.

Vehicle Function Checks

☐ None Required

Accessory Installation Practices



This document is written and maintained by Toyota Motor Sales, U.S.A., Inc. as an aid to defining accessory installation best practices.

Safety

1.1 Eye protection should be worn during any drilling and cutting, and when power tools are used to remove or attach fasteners.

Eye protection should also be used when using any special chemicals (as listed on the first page of the Installation Instruction Sheet) to reduce the risk of these chemicals entering the eye.

1.2 Rechecking of fastener tightness.

For some accessories it is necessary to recheck the tightness of the fasteners securing the accessory, for example – wheel lug nuts, running board bolts, tow hitch bolts etc. Where a recheck is required it will be noted in the Installation Instruction Sheet (either in the Procedure Section and/or the Checklist Section)

1.3 Supplemental Restraint System SRS

Any vehicle equipped with a supplemental restraint system (SRS). Failure to carry out the following procedures listed below could result in possible deployment of airbag, personal injury, or unnecessary repairs to SRS.

1.3.1 Turn the key switch to the LOCK position.

1.3.2 Remove key from ignition switch.

1.3.3 Disconnect the negative battery cable.

1.3.4 Never use a voltmeter to troubleshoot any of the harnesses or connectors to the SRS. Accidentally probing the connectors to the SRS can lead to deployment of the airbag.

1.3.5 SRS wire harness loom/cover is bright yellow in color.

1.3.6 SRS contains a battery backup system; therefore ALWAYS wait for a minimum of 90 seconds after disconnecting the battery negative cable before removal/disassembly of electrical components. (Reference TSB: EL93-001).

Vehicle Protection

2.1 Vehicle should be clean before performing any accessory installation.

2.2 Prepare grille cover, fender cover, seat cover, and floor mat cover as appropriate to the installation area on the vehicle of the accessory before starting installation. Blankets, seat covers, paper floor coverings are suitable for this purpose.

2.3 Do not place any tools on unprotected vehicle surfaces, or leave inside vehicle. Use a tool tray to keep tools separate from the vehicle surface.

2.4 It is recommended that no exposed jewelry (rings, watches etc.), zippers, buttons, rivets, belt buckles or other scratch potential objects be worn. Articles of clothing or jewelry that have the potential to come into contact with the vehicle surface (i.e., generally below the chest) and contain any of the above items should be covered with tape and/or other protective material to prevent scratching of the vehicle.

2.5 Clothing and shoes must be free of grease and dirt to maximize vehicle cleanliness.

2.6 Parts and tool trays should be used for interior installations whenever possible. Parts, tools or trays must not be placed onto unprotected, seats, carpets or trim panels.

2.7 Tools, air hoses and power cords should be free of grease and dirt.

2.8 Blanket should be used to cover engine bay while working on accessory that requires hood to be open (e.g. Hood Protector) to prevent fasteners from being dropped into engine bay.

Vehicle Disassembly/Re-assembly

Panel Removal

3.1 Many panels on the vehicle are held in place with clips. Where the location of this clip is critical it is shown on the figure(s) in the Installation Instruction Sheet. Care must be taken to remove the panel and its clip(s) without damage. Toyota recommends use of plastic (nylon) removal tools, rather than metal and two Toyota Special Service Tools are available:-

Panel Pry Tool #1 Toyota SST # 00002-06001-01

Panel Pry Tool #2 Toyota SST # 00002-06002-01

Panel Protection

3.2 Place all removed parts on a protected surface.

3.3 All work benches, tables, or platforms used for assembly or temporary storage of parts should be carpeted or suitably covered to provide a soft, non-abrasive surface.

Parts Container

3.4 Use a small parts container to keep removed bolts and tapping screws so that they can be reassembled correctly.

Electrical Component Disassembly/Reassembly

Battery Cable

4.1 Unless otherwise stated battery negative terminal must be disconnected and isolated before performing work on any electrical components (i.e. connecting or disconnecting any

electrical connectors, etc.). In some installations fuse removal is used instead of battery terminal disconnection, and will be referred to in the Installation Instruction Sheet.

4.2 Ignition key must be removed from the ignition switch when the negative battery terminal or appropriate fuse is disconnected/removed and reconnected/reinstalled.

4.3 Do not touch the positive terminal with any tool when removing the negative battery cable.

4.4 Use a fender cover (blanket) when connecting or disconnecting battery negative terminal and/or when replacing or removing fuses. Ensure battery negative terminal is fully seated when reconnecting.

4.5 Power tools that can exceed 60 pound force-inch of torque should not be used to tighten battery cable. The torque value for battery cable tightening is given in the Installation Instruction Sheet.

Connectors

4.4. When disconnecting connectors, do not pull on the wires; pull on the connectors.

4.5. DO NOT pull on vehicle wires and/or wire harnesses. To uncouple electrical connectors, pull only on the connector itself and release the connector securing tab (identified in the Installation Instruction Sheet).

4.6. Disconnected wires must not have any strain on connectors or wires (i.e., do not allow components hanging from a wire harness).

4.7. When reconnecting connectors, ensure connectors are securely snapped together and wires are not twisted or kinked.

Wire Harnesses

4.8. When installing the accessories that use wire harnesses (e.g. audio, alarm, trailer wire harness...), make sure the harness is not cut or perforated by any sharp metal objects/edges.

Wire Ties

4.9. When using wire ties to secure harness, clip the wire ties after securing them.

4.10. Ensure that wire routing does not interfere with movement of mechanical components before tightening the wire tie.

Functional Checks

4.11. Functional checks (from the Checklist Section of the Installation Instruction Sheet) must be performed on all disconnected electrical components.

Use of Special Chemicals

Cleaners

5.1 All cloths used for preparatory installations must be cleaned and periodically changed. Any cloth that is dropped on the floor should not be used until cleaned.

5.2. Cleaning solutions/solvents are identified in the Installation Instruction Sheet and are not to be sprayed directly onto vehicle surfaces (interior/exterior).

5.3. Cleaning solutions/solvents are not to be sprayed onto cloth/rag inside of vehicle (this is to prevent over spray on interior).

5.4. When using cleaners such as Prep-Solvent-70, or Household Windex follow manufacturer's recommendations:-

5.4.1 Always use a clean (lint free scratch resistant) soft cloth (or wipe), and clean a small area at a time (~ 3 ft. x 3 ft. max.).

5.4.2 Shake well.

5.4.3 Apply cleaner to cloth or wipe. Do not spray cleaning solution directly on any vehicle surfaces.

5.4.4 Clean surface thoroughly and wipe dry immediately with a new clean cloth. Do not allow cleaner to air dry.

Sealers

5.5 Follow Installation Instruction Sheet recommendations.

5.6 For any cleanup follow sealer manufacturer recommendations.

Temperature

6.1. Some accessories require installation in a controlled temperature environment. The installation instructions will provide the temperature range of this temperature and will differentiate between vehicle and accessory temperature (should it not be the same for both.)

6.2. The installation location will be responsible for determining whether the temperature range has been met.

6.3. The method of temperature measurement will NOT be called out in the instructions.

6.4. Recommended tools for measuring vehicle and accessory temperature are:-
Non-Intrusive IR Temperature Probe/Gun

6.5. Recommended heating/cooling methods are:-
Heat box (for small components), Car HVAC, Heat Gun....

Torque Recheck

7.1. When rechecking of a fastener torque is called out in the Installation Instruction Sheet it is sufficient to ensure that the fastener does not rotate when the installation torque is reapplied. If the fastener rotates then continue tightening until the specified torque is reached. Do not loosen fastener.

Part Number: PT47A-33070-XX (2007+)
PT47A-33080-XX (2008+)**NOTE:** Part number of this accessory may not be the same as the part number shown.**Kit Contents**

Item #	Quantity Req'd.	Description
1	1	Lip Spoiler
2	1	Hardware Bag

Hardware Bag Contents

Item #	Quantity Req'd.	Description
1	5	M6 Nuts
2		

Additional Items Required For Installation

Item #	Quantity Req'd.	Description
1	1	Installation Kit, P/N PT47A-33073

Conflicts

None

Recommended Tools

Personal & Vehicle Protection	Notes
Wrist and Belt Buckle Protectors	
Blankets	
Masking Tape	2" wide
Safety goggles	
Special Tools	Notes
Non Intrusive IR Temperature Probe/Gun	
Installation Tools	Notes
Drill Motor	1/2"
Twist Drill Bits	1/8" & 10 mm
Drill Stops	10 mm
Deep Well Socket	10 mm
Socket Extension	6"
Ratchet	
Torque Wrench	0-100 lbf-in
Shop Vacuum	
Hole Deburring Tool	
Magnet With Flex Shaft	
Panel Fastener Removal Tool	
Nylon Trim Removal Tool	Toyota SST#: 00002-06001-01
Heat Gun	
Small Parts Bin	
Center Punch	
Clean Lint Free Cloth	
Special Chemicals	Notes
Sealant	3M TM Ultra-Pro Body Sealant
Cleaner	3M TM Prep Solvent 70

General Applicability

All ES350 vehicles

Recommended Sequence of Application

Item #	Accessory
1	Rear Spoiler
2	XM Satellite Radio

*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Req'd.	Description
1	1	Taillight Gasket LH
2	1	Taillight Gasket RH
3		

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.

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:-

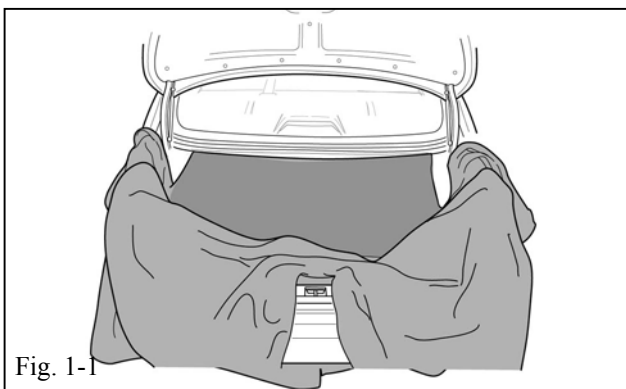
- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

Please see your Lexus dealer for a copy of this document.

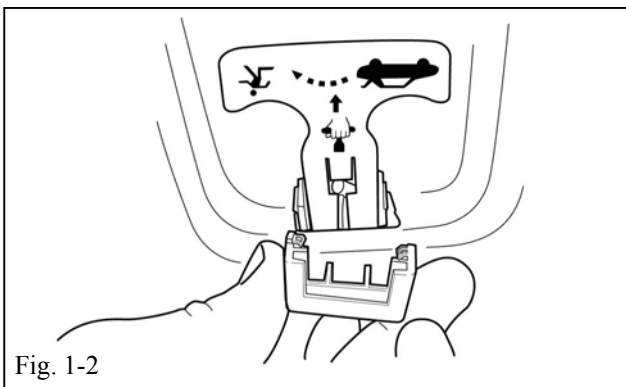
1. Trim Panel Removal.



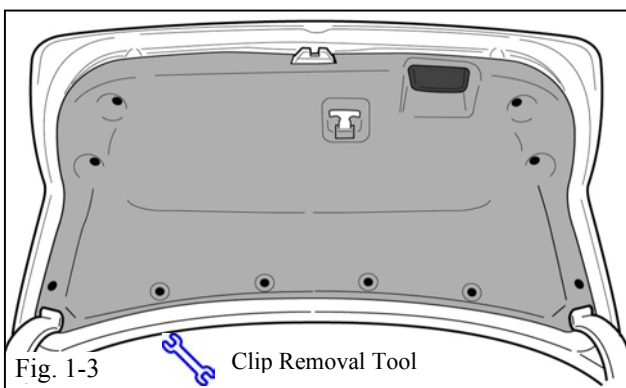
- (a) Open the trunk and place blankets inside on the trunk floor and trunk opening (Fig 1-1).

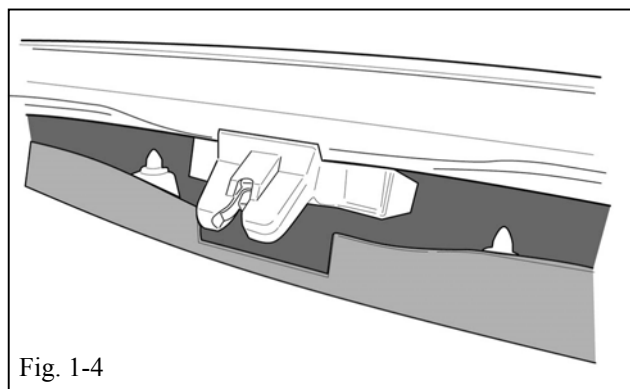


- (b) Remove the trim bezel for the emergency trunk release and then remove the handle for the release cable. You can unsnap the trim bezel with your fingers. (Fig. 1-2).

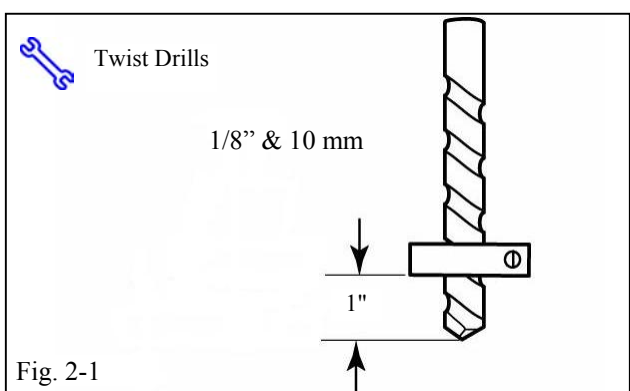


- (c) Remove the 10 black clips from the trunk inner panel (Fig. 1-3).





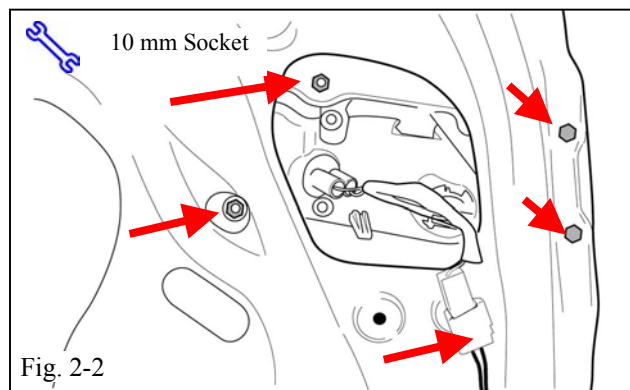
- (d) The trunk inner panel will still be held in place with 2 white plastic clips. Carefully disengage these clips and remove the inner panel (Fig. 1-4).



2. Hole Drilling.



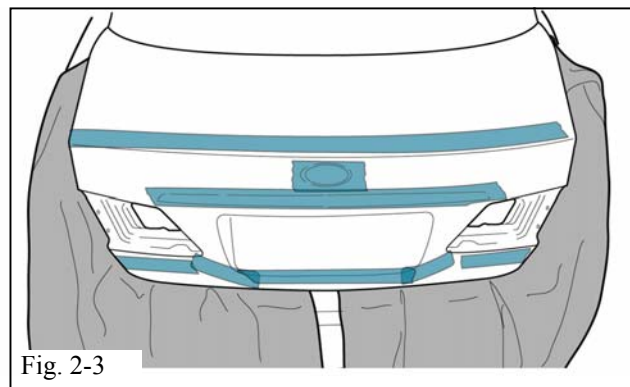
- (a) Eye protection must be worn during all drilling.
(b) Set all drill stops to 1" as shown. (Fig. 2-1)



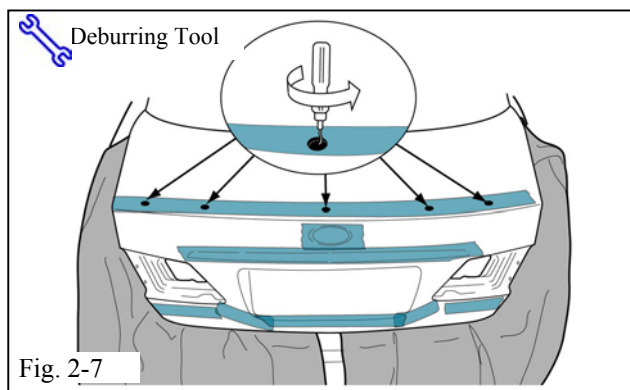
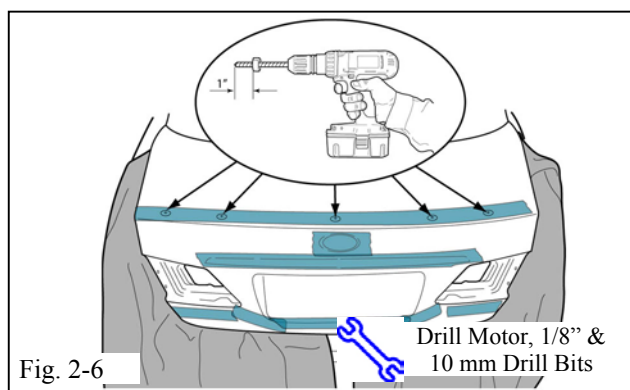
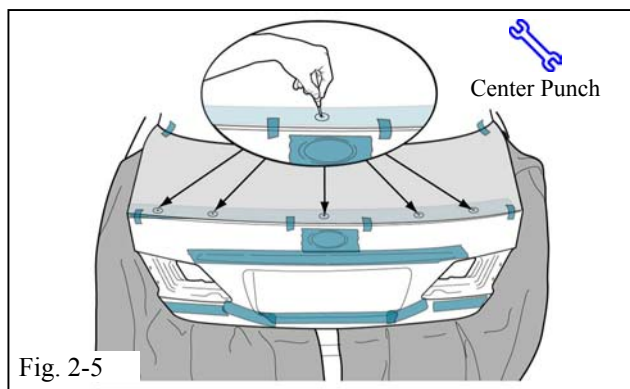
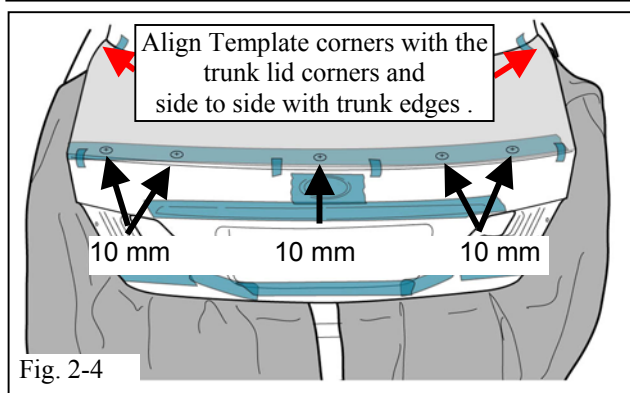
- (c) Disconnect the taillight wiring harness connector. Remove the 4 10mm nuts that hold the taillight housing to the trunk lid. (Fig. 2-2). Remove the taillight housing. Repeat for the other side.



- (d) Carefully inspect the water seal foam gasket on the back of the taillight housing. If gasket is damaged, it must be replaced with a new gasket. Be sure to check each side.



- (e) Apply masking tape to the trunk lid surface in the areas of the hole locations (Fig. 2-3). Also tape over all emblems and trim joints, as shown, to prevent drilling chips from collecting. Two inch wide blue painter's masking tape works well.



(f) Place the Mylar drilling template on the vehicle as shown. Tape in place, making sure template is completely smooth and flat on trunk lid surface (Fig. 2-4).

(g) Locate the five (5) hole locations on the template.



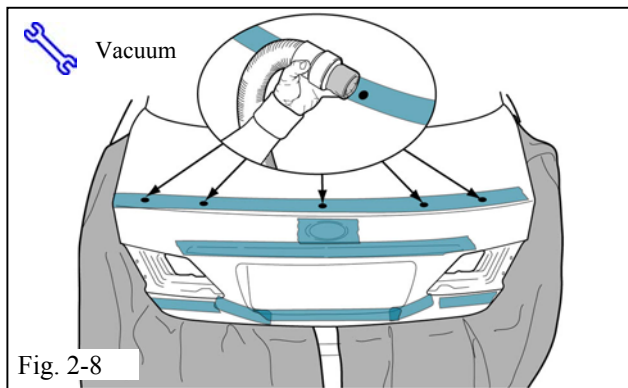
NOTE: The hole centers are punch marks within the segmented circles. The punch marks must be located and used for proper spoiler alignment.

(h) Using a center punch, carefully punch each of the five hole locations through the Mylar template onto the trunk lid. (Fig. 2-5).

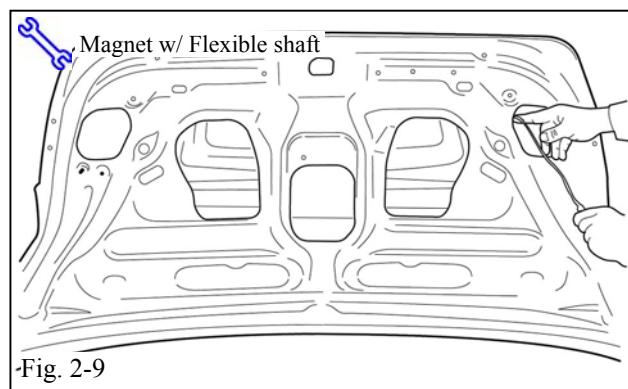
(i) Remove the Mylar template. Make sure you can see all five (5) punch marks in the masking tape.

(j) Carefully drill the five (5) mounting holes. Start with a 1/8" drill bit and then follow with a 10 mm drill bit (Fig. 2-6).

(k) Using a deburring tool, carefully deburr the five (5) drilled holes (Fig. 2-7).

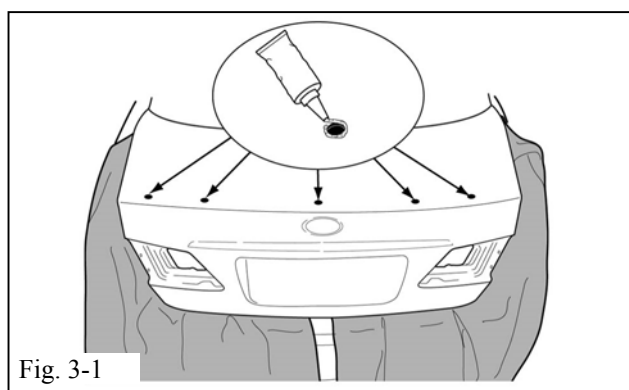


- (l) Vacuum the surface of the trunk lid and the surrounding drilled areas. Remove masking tape (Fig. 2-8).

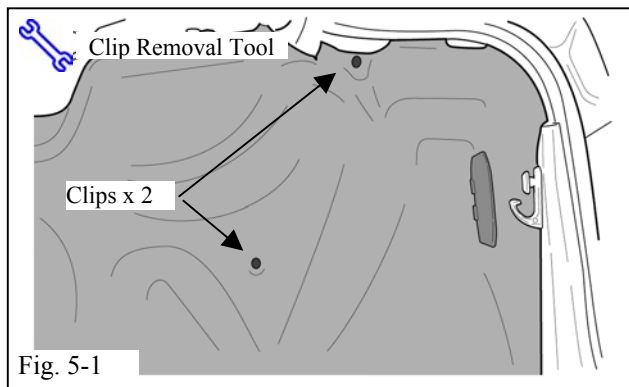
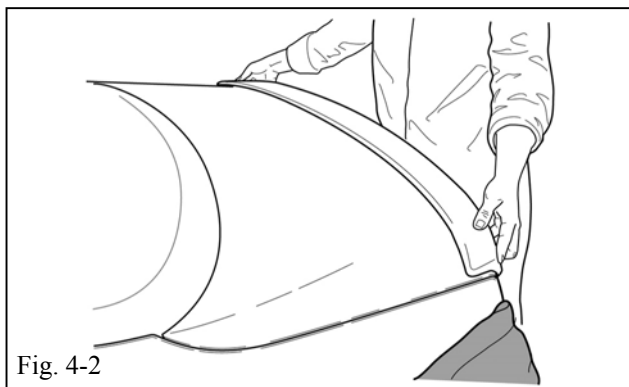
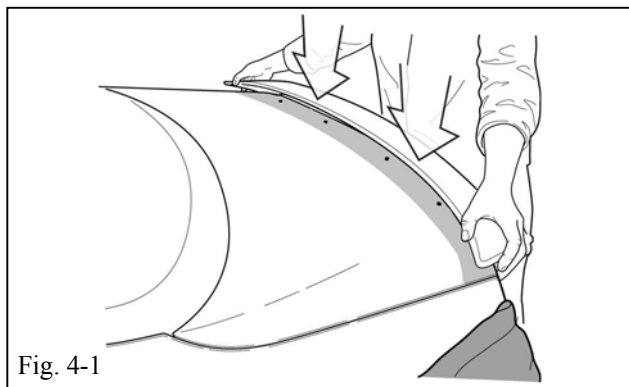


- (m) Open the trunk lid and use a magnet with a flexible shaft to remove any remaining metal chips from the drilling process (Fig. 2-9).

3. Preparation for Spoiler Attachment



- (a) The trunk lid where the spoiler attaches must be cleaned with 3M™ Prep Solvent-70 and a lint free cloth.
- (b) After cleaning, carefully apply 3M™ Ultra-Pro Body Sealant to all drilled hole edges (Fig. 3-1).
- (c) The trunk and spoiler should be a minimum of 60° F for proper set-up of adhesive tape. Use a hot air blower to heat the surface if the temperature is below 60° F. The adhesive tape on the spoiler must have full contact between spoiler and trunk lid for proper sealing to trunk lid.

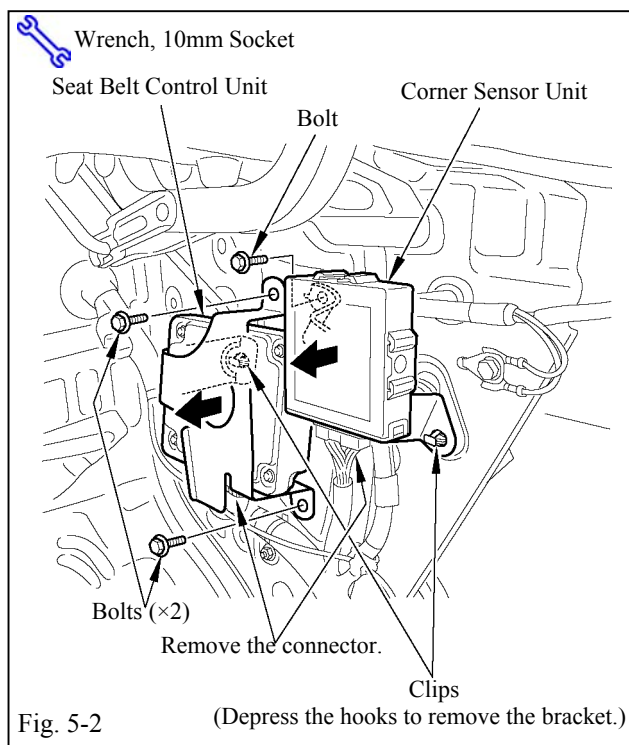


4. Attaching the Spoiler to the Trunk Lid.

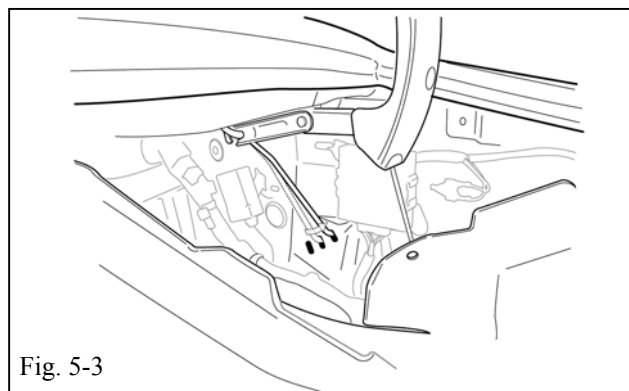
-  (a) Remove the plastic liners from adhesive tape pads. Be careful not to touch or allow any contaminants to come into contact with adhesive pads.
- (b) Position the spoiler over the trunk lid with the drill holes aligned to the spoiler studs. Your finger tip can be used to align the spoiler side to side by feeling the edges of the spoiler relative to the trunk lid edges (Fig. 4-1).
-  (c) Press spoiler down and forward into place. Continue to apply pressure to ensure complete adhesion of the spoiler to trunk lid surface. (Fig. 4-2)
-  (d) Open the trunk lid and install the five (5) M6 nuts to the five metal M6 studs. The two (2) outer M6 nuts are tightened by going up through the taillight access holes inside the trunk. Tighten all five fasteners to 25 lbf-in (2.8N-m).

5. Change the Torque Rod Positions

- (a) Remove the two clips shown from each trunk side panel (Fig. 5-1).



- (b) Remove the seat belt control unit (if equipped) from the trunk side panel (R) (Fig. 5-2). The electrical connector does not have to be removed. Lay the seat belt control unit on it's side on the pulled down side panel.



- (c) Move the torque rods from the center position to the most rearward holes on each side (Fig. 5-3).

6. Reassemble the Vehicle

- (a) Reinstall all removed panels and parts.
Be sure that all the panel clips are engaged.



- (b) Check that there are no drill shavings/chips in the vehicle trunk area or on the rear bumper.

Checklist - these points **MUST** be checked to ensure a quality installation.

Check:	Look For:
<u>Accessory Function Checks</u>	
☐ Check for spoiler alignment.	Centered from side to side (+/- 2 mm.)
☐ Check for full tape adhesion.	Full adhesion with no gaps.
<u>Vehicle Function Checks</u>	
☐ Check for proper operation of the brake, taillights, turn signals, and emergency flashers.	Proper Operation

Accessory Installation Practices



This document is written and maintained by Toyota Motor Sales, U.S.A., Inc. as an aid to defining accessory installation best practices.

Safety

1.1 Eye protection should be worn during any drilling and cutting, and when power tools are used to remove or attach fasteners.

Eye protection should also be used when using any special chemicals (as listed on the first page of the Installation Instruction Sheet) to reduce the risk of these chemicals entering the eye.

1.2 Rechecking of fastener tightness.

For some accessories it is necessary to recheck the tightness of the fasteners securing the accessory, for example – wheel lug nuts, running board bolts, tow hitch bolts etc. Where a recheck is required it will be noted in the Installation Instruction Sheet (either in the Procedure Section and/or the Checklist Section)

1.3 Supplemental Restraint System SRS

Any vehicle equipped with a supplemental restraint system (SRS). Failure to carry out the following procedures listed below could result in possible deployment of airbag, personal injury, or unnecessary repairs to SRS.

1.3.1 Turn the key switch to the LOCK position.

1.3.2 Remove key from ignition switch.

1.3.3 Disconnect the negative battery cable.

1.3.4 Never use a voltmeter to troubleshoot any of the harnesses or connectors to the SRS. Accidentally probing the connectors to the SRS can lead to deployment of the airbag.

1.3.5 SRS wire harness loom/cover is bright yellow in color.

1.3.6 SRS contains a battery backup system; therefore ALWAYS wait for a minimum of 90 seconds after disconnecting the battery negative cable before removal/disassembly of electrical components. (Reference TSB: EL93-001).

Vehicle Protection

2.1 Vehicle should be clean before performing any accessory installation.

2.2 Prepare grille cover, fender cover, seat cover, and floor mat cover as appropriate to the installation area on the vehicle of the accessory before starting installation. Blankets, seat covers, paper floor coverings are suitable for this purpose.

2.3 Do not place any tools on unprotected vehicle surfaces, or leave inside vehicle. Use a tool tray to keep tools separate from the vehicle surface.

2.4 It is recommended that no exposed jewelry (rings, watches etc.), zippers, buttons, rivets, belt buckles or other scratch potential objects be worn. Articles of clothing or jewelry that have the potential to come into contact with the vehicle surface (i.e., generally below the chest) and contain any of the above items should be covered with tape and/or other protective material to prevent scratching of the vehicle.

2.5 Clothing and shoes must be free of grease and dirt to maximize vehicle cleanliness.

2.6 Parts and tool trays should be used for interior installations whenever possible. Parts, tools or trays must not be placed onto unprotected, seats, carpets or trim panels.

2.7 Tools, air hoses and power cords should be free of grease and dirt.

2.8 Blanket should be used to cover engine bay while working on accessory that requires hood to be open (e.g. Hood Protector) to prevent fasteners from being dropped into engine bay.

Vehicle Disassembly/Re-assembly

Panel Removal

3.1 Many panels on the vehicle are held in place with clips. Where the location of this clip is critical it is shown on the figure(s) in the Installation Instruction Sheet. Care must be taken to remove the panel and its clip(s) without damage. Toyota recommends use of plastic (nylon) removal tools, rather than metal and two Toyota Special Service Tools are available:-

Panel Pry Tool #1 Toyota SST # 00002-06001-01

Panel Pry Tool #2 Toyota SST # 00002-06002-01

Panel Protection

3.2 Place all removed parts on a protected surface.

3.3 All work benches, tables, or platforms used for assembly or temporary storage of parts should be carpeted or suitably covered to provide a soft, non-abrasive surface.

Parts Container

3.4 Use a small parts container to keep removed bolts and tapping screws so that they can be reassembled correctly.

Electrical Component Disassembly/Reassembly

Battery Cable

4.1 Unless otherwise stated battery negative terminal must be disconnected and isolated before performing work on any electrical components (i.e. connecting or disconnecting any

electrical connectors, etc.). In some installations fuse removal is used instead of battery terminal disconnection, and will be referred to in the Installation Instruction Sheet.

4.2 Ignition key must be removed from the ignition switch when the negative battery terminal or appropriate fuse is disconnected/removed and reconnected/reinstalled.

4.3 Do not touch the positive terminal with any tool when removing the negative battery cable.

4.4 Use a fender cover (blanket) when connecting or disconnecting battery negative terminal and/or when replacing or removing fuses. Ensure battery negative terminal is fully seated when reconnecting.

4.5 Power tools that can exceed 60 pound force-inch of torque should not be used to tighten battery cable. The torque value for battery cable tightening is given in the Installation Instruction Sheet.

Connectors

4.4. When disconnecting connectors, do not pull on the wires; pull on the connectors.

4.5. DO NOT pull on vehicle wires and/or wire harnesses. To uncouple electrical connectors, pull only on the connector itself and release the connector securing tab (identified in the Installation Instruction Sheet).

4.6. Disconnected wires must not have any strain on connectors or wires (i.e., do not allow components hanging from a wire harness).

4.7. When reconnecting connectors, ensure connectors are securely snapped together and wires are not twisted or kinked.

Wire Harnesses

4.8. When installing the accessories that use wire harnesses (e.g. audio, alarm, trailer wire harness...), make sure the harness is not cut or perforated by any sharp metal objects/edges.

Wire Ties

4.9. When using wire ties to secure harness, clip the wire ties after securing them.

4.10. Ensure that wire routing does not interfere with movement of mechanical components before tightening the wire tie.

Functional Checks

4.11. Functional checks (from the Checklist Section of the Installation Instruction Sheet) must be performed on all disconnected electrical components.

Use of Special Chemicals

Cleaners

5.1 All cloths used for preparatory installations must be cleaned and periodically changed. Any cloth that is dropped on the floor should not be used until cleaned.

5.2. Cleaning solutions/solvents are identified in the Installation Instruction Sheet and are not to be sprayed directly onto vehicle surfaces (interior/exterior).

5.3. Cleaning solutions/solvents are not to be sprayed onto cloth/rag inside of vehicle (this is to prevent over spray on interior).

5.4. When using cleaners such as Prep-Solvent-70, or Household Windex follow manufacturer's recommendations:-

5.4.1 Always use a clean (lint free scratch resistant) soft cloth (or wipe), and clean a small area at a time (~ 3 ft. x 3 ft. max.).

5.4.2 Shake well.

5.4.3 Apply cleaner to cloth or wipe. Do not spray cleaning solution directly on any vehicle surfaces.

5.4.4 Clean surface thoroughly and wipe dry immediately with a new clean cloth. Do not allow cleaner to air dry.

Sealers

5.5 Follow Installation Instruction Sheet recommendations.

5.6 For any cleanup follow sealer manufacturer recommendations.

Temperature

6.1. Some accessories require installation in a controlled temperature environment. The installation instructions will provide the temperature range of this temperature and will differentiate between vehicle and accessory temperature (should it not be the same for both.)

6.2. The installation location will be responsible for determining whether the temperature range has been met.

6.3. The method of temperature measurement will NOT be called out in the instructions.

6.4. Recommended tools for measuring vehicle and accessory temperature are:-
Non-Intrusive IR Temperature Probe/Gun

6.5. Recommended heating/cooling methods are:-
Heat box (for small components), Car HVAC, Heat Gun....

Torque Recheck

7.1. When rechecking of a fastener torque is called out in the Installation Instruction Sheet it is sufficient to ensure that the fastener does not rotate when the installation torque is reapplied. If the fastener rotates then continue tightening until the specified torque is reached. Do not loosen fastener.

Accessory Installation Practices



This document is written and maintained by Toyota Motor Sales, U.S.A., Inc. as an aid to defining accessory installation best practices.

Safety

1.1 Eye protection should be worn during any drilling and cutting, and when power tools are used to remove or attach fasteners.

Eye protection should also be used when using any special chemicals (as listed on the first page of the Installation Instruction Sheet) to reduce the risk of these chemicals entering the eye.

1.2 Rechecking of fastener tightness.

For some accessories it is necessary to recheck the tightness of the fasteners securing the accessory, for example – wheel lug nuts, running board bolts, tow hitch bolts etc. Where a recheck is required it will be noted in the Installation Instruction Sheet (either in the Procedure Section and/or the Checklist Section)

1.3 Supplemental Restraint System SRS

Any vehicle equipped with a supplemental restraint system (SRS). Failure to carry out the following procedures listed below could result in possible deployment of airbag, personal injury, or unnecessary repairs to SRS.

1.3.1 Turn the key switch to the LOCK position.

1.3.2 Remove key from ignition switch.

1.3.3 Disconnect the negative battery cable.

1.3.4 Never use a voltmeter to troubleshoot any of the harnesses or connectors to the SRS. Accidentally probing the connectors to the SRS can lead to deployment of the airbag.

1.3.5 SRS wire harness loom/cover is bright yellow in color.

1.3.6 SRS contains a battery backup system; therefore ALWAYS wait for a minimum of 90 seconds after disconnecting the battery negative cable before removal/disassembly of electrical components. (Reference TSB: EL93-001).

Vehicle Protection

2.1 Vehicle should be clean before performing any accessory installation.

2.2 Prepare grille cover, fender cover, seat cover, and floor mat cover as appropriate to the installation area on the vehicle of the accessory before starting installation. Blankets, seat covers, paper floor coverings are suitable for this purpose.

2.3 Do not place any tools on unprotected vehicle surfaces, or leave inside vehicle. Use a tool tray to keep tools separate from the vehicle surface.

2.4 It is recommended that no exposed jewelry (rings, watches etc.), zippers, buttons, rivets, belt buckles or other scratch potential objects be worn. Articles of clothing or jewelry that have the potential to come into contact with the vehicle surface (i.e., generally below the chest) and contain any of the above items should be covered with tape and/or other protective material to prevent scratching of the vehicle.

2.5 Clothing and shoes must be free of grease and dirt to maximize vehicle cleanliness.

2.6 Parts and tool trays should be used for interior installations whenever possible. Parts, tools or trays must not be placed onto unprotected, seats, carpets or trim panels.

2.7 Tools, air hoses and power cords should be free of grease and dirt.

2.8 Blanket should be used to cover engine bay while working on accessory that requires hood to be open (e.g. Hood Protector) to prevent fasteners from being dropped into engine bay.

Vehicle Disassembly/Re-assembly

Panel Removal

3.1 Many panels on the vehicle are held in place with clips. Where the location of this clip is critical it is shown on the figure(s) in the Installation Instruction Sheet. Care must be taken to remove the panel and its clip(s) without damage. Toyota recommends use of plastic (nylon) removal tools, rather than metal and two Toyota Special Service Tools are available:-

Panel Pry Tool #1 Toyota SST # 00002-06001-01

Panel Pry Tool #2 Toyota SST # 00002-06002-01

Panel Protection

3.2 Place all removed parts on a protected surface.

3.3 All work benches, tables, or platforms used for assembly or temporary storage of parts should be carpeted or suitably covered to provide a soft, non-abrasive surface.

Parts Container

3.4 Use a small parts container to keep removed bolts and tapping screws so that they can be reassembled correctly.

Electrical Component Disassembly/Reassembly

Battery Cable

4.1 Unless otherwise stated battery negative terminal must be disconnected and isolated before performing work on any electrical components (i.e. connecting or disconnecting any

electrical connectors, etc.). In some installations fuse removal is used instead of battery terminal disconnection, and will be referred to in the Installation Instruction Sheet.

4.2 Ignition key must be removed from the ignition switch when the negative battery terminal or appropriate fuse is disconnected/removed and reconnected/reinstalled.

4.3 Do not touch the positive terminal with any tool when removing the negative battery cable.

4.4 Use a fender cover (blanket) when connecting or disconnecting battery negative terminal and/or when replacing or removing fuses. Ensure battery negative terminal is fully seated when reconnecting.

4.5 Power tools that can exceed 60 pound force-inch of torque should not be used to tighten battery cable. The torque value for battery cable tightening is given in the Installation Instruction Sheet.

Connectors

4.4. When disconnecting connectors, do not pull on the wires; pull on the connectors.

4.5. DO NOT pull on vehicle wires and/or wire harnesses. To uncouple electrical connectors, pull only on the connector itself and release the connector securing tab (identified in the Installation Instruction Sheet).

4.6. Disconnected wires must not have any strain on connectors or wires (i.e., do not allow components hanging from a wire harness).

4.7. When reconnecting connectors, ensure connectors are securely snapped together and wires are not twisted or kinked.

Wire Harnesses

4.8. When installing the accessories that use wire harnesses (e.g. audio, alarm, trailer wire harness...), make sure the harness is not cut or perforated by any sharp metal objects/edges.

Wire Ties

4.9. When using wire ties to secure harness, clip the wire ties after securing them.

4.10. Ensure that wire routing does not interfere with movement of mechanical components before tightening the wire tie.

Functional Checks

4.11. Functional checks (from the Checklist Section of the Installation Instruction Sheet) must be performed on all disconnected electrical components.

Use of Special Chemicals

Cleaners

5.1 All cloths used for preparatory installations must be cleaned and periodically changed. Any cloth that is dropped on the floor should not be used until cleaned.

5.2. Cleaning solutions/solvents are identified in the Installation Instruction Sheet and are not to be sprayed directly onto vehicle surfaces (interior/exterior).

5.3. Cleaning solutions/solvents are not to be sprayed onto cloth/rag inside of vehicle (this is to prevent over spray on interior).

5.4. When using cleaners such as Prep-Solvent-70, or Household Windex follow manufacturer's recommendations:-

5.4.1 Always use a clean (lint free scratch resistant) soft cloth (or wipe), and clean a small area at a time (~ 3 ft. x 3 ft. max.).

5.4.2 Shake well.

5.4.3 Apply cleaner to cloth or wipe. Do not spray cleaning solution directly on any vehicle surfaces.

5.4.4 Clean surface thoroughly and wipe dry immediately with a new clean cloth. Do not allow cleaner to air dry.

Sealers

5.5 Follow Installation Instruction Sheet recommendations.

5.6 For any cleanup follow sealer manufacturer recommendations.

Temperature

6.1. Some accessories require installation in a controlled temperature environment. The installation instructions will provide the temperature range of this temperature and will differentiate between vehicle and accessory temperature (should it not be the same for both.)

6.2. The installation location will be responsible for determining whether the temperature range has been met.

6.3. The method of temperature measurement will NOT be called out in the instructions.

6.4. Recommended tools for measuring vehicle and accessory temperature are:-
Non-Intrusive IR Temperature Probe/Gun

6.5. Recommended heating/cooling methods are:-
Heat box (for small components), Car HVAC, Heat Gun....

Torque Recheck

7.1. When rechecking of a fastener torque is called out in the Installation Instruction Sheet it is sufficient to ensure that the fastener does not rotate when the installation torque is reapplied. If the fastener rotates then continue tightening until the specified torque is reached. Do not loosen fastener.

Part Number: PT918-33070

Section I – Installation Preparation

Kit Contents

Item #	Quantity Req'd.	Description
1a	1	Alloy Wheel mesh type

Hardware Bag Contents

Item #	Quantity Req'd.	Description

Additional Items Required For Installation

Item #	Quantity Req'd.	Description
1	As Required	Balance Weights Stick-on Type
2	1 per wheel ⁴	Center Cap P/N 42603-30590
3	As required	Valve Stem Fitting Kit P/N 04423-35020 (if required)

Conflicts

--

Recommended Tools

Personal & Vehicle Protection	Notes
Safety Glasses	
Seat Protection	Blanket
Special Tools	Notes
Wheel Balancing Machine	Hunter GSP9700 or equivalent
Tire Mounting Machine	Hunter TC3250 or equivalent
Centering Cone	Hunter 192-51-2
Foot Brake Application Tool	Snap-on B240A Pedal Jack or Equivalent
Bead Lever Protective Sleeve	Hunter RP6-0326
Installation Tools	Notes
Lug Nut Wrench	
Rubber Mallet	
Torque Wrench	Dial type or digital, 0-100 lbf-ft (136 N-m)

NOTE: Part number of this accessory may not be the same as the part number shown.

Torque Wrench	0-75 lbf-in (8.5 N-m)
Socket	21 mm deep well
Clean Lint-free Cloth	
Wire Brush	
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST # 00002-06001-01
Socket	12 mm Thin Wall, Deep Well
Special Chemicals	Notes
Tire Lube	
Cleaner (for rework only)	3M™ Prep Solvent-70

General Applicability

Applicable to ES350
Use with tire size 215/55R17

Recommended Sequence of Application

Item #	Accessory
1	Alloy Wheel
2	Wheel Lock

*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Req'd.	Description
1		
2		
3		

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.

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, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

Please see your Lexus dealer for a copy of this document.

1. Vehicle Preparation.



(a) Firmly apply parking brake.



(b) Put automatic transmission in "P".

(Fig. 1-1).

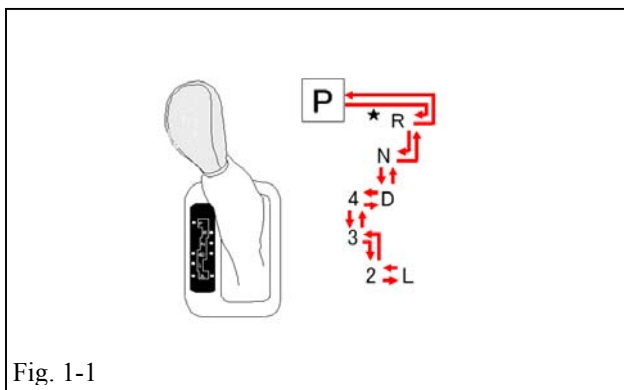


Fig. 1-1

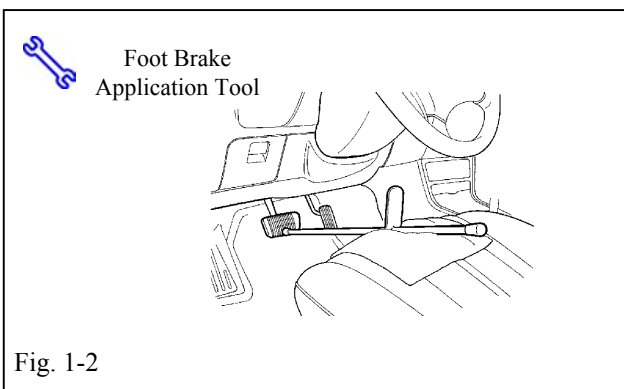


Fig. 1-2

(c) Add seat protection (blanket) and apply foot brake using foot brake application tool.

(Fig. 1-2).

(d) Lift vehicle.

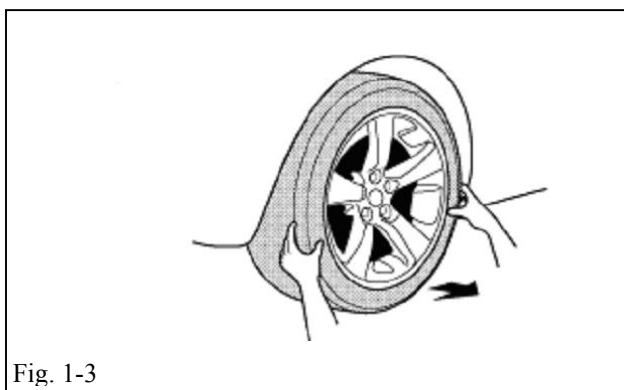
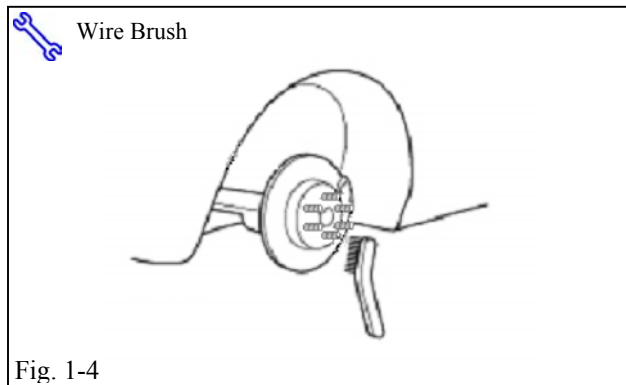


Fig. 1-3



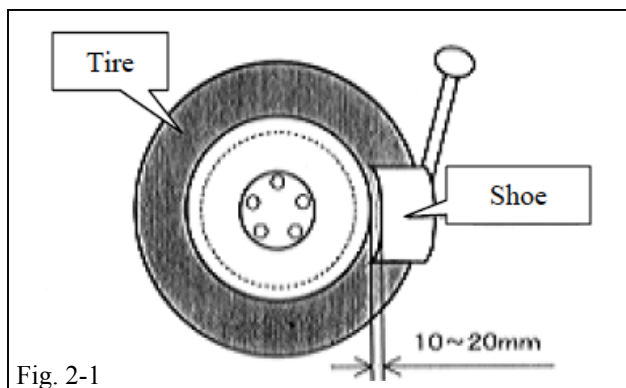
(e) Remove OE wheel and tire assembly from vehicle (Fig. 1-3). Wear safety glasses while removing wheels.



- + (f) If required remove any corrosion on the mounting surface of the vehicle with a wire brush. Wear safety glasses to protect against dust. (Fig. 1-4).

2. Remove Tire Pressure Monitor Valve Sub-assembly.

- + (a) Remove the valve core and release pressure from the tire.
- (b) Remove the nut and washer and let the pressure sensor drop inside the tire.
- (c) Carefully separate the upper tire bead from the wheel rim. (Fig. 2-1).

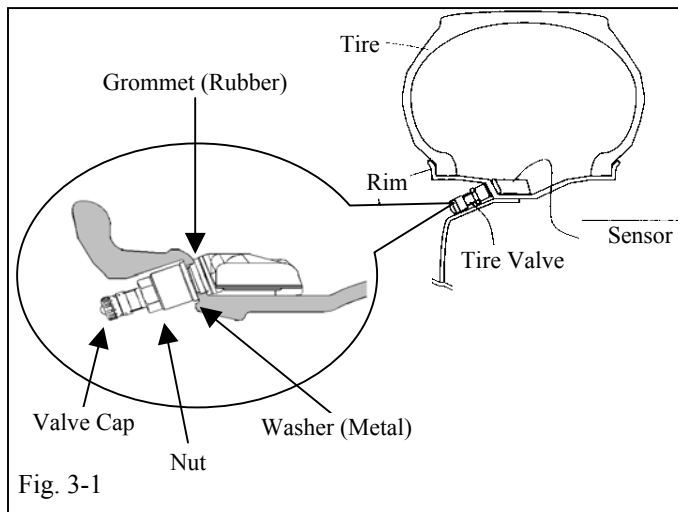


- STOP **NOTE:** Be careful not to damage the tire pressure monitor due to interference between the sensor and tire bead.
- (d) Remove the sensor from the tire and remove the bead on the lower side as in usual tire removal operation.
- (e) Dismount OE tire from the OE wheel.

3. Install Tire Pressure Monitor Valve Sub-assembly to Accessory Wheel.

- (a) Visually check that there is no deformation or damage on the tire pressure monitor valve sub-assembly.
- (b) Check that the rim is clean.
- (c) Change grommet to a new one if the grommet was damaged.

- STOP **NOTE:** Damaged grommet is NOT re-usable.
- (d) Check that the grommet, washer and nut are clean.



(e) Insert the tire pressure monitor valve sub-assembly into the valve installation hole from the inside of the rim and bring the valve stem to the outside. (Fig. 3-1).

(1) Insert the tire pressure monitor valve sub-assembly so that "PACIFIC" mark is visible.



NOTE: Incorrect orientation of pressure monitor sub-assembly may cause damage and prevent signal transmission during high-speed running.

(f) Install the washer and secure with the nut.



(1) Tighten the nut to 4.0 N-m (36 lbf-in)

4. Tire Mounting.

(a) Use tire lube on tire bead and bead location on wheel prior to mounting the tire.

(b) Position the wheel on the mounting machine with the sensor at ~ 7 o'clock position (shaded area in Fig. 4-1)

(1) Mount/dismount head is considered as 12 o'clock Position.

(c) Mount the lower tire bead.



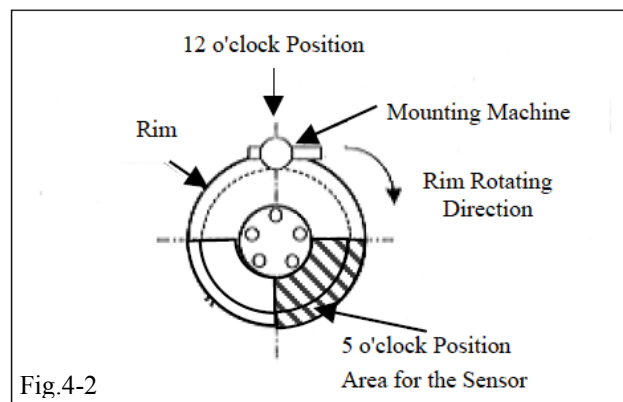
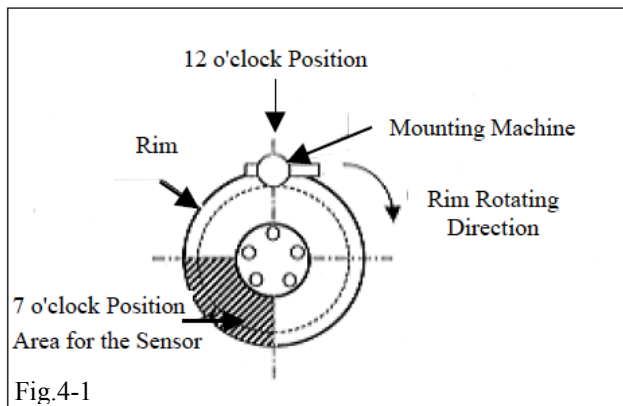
NOTE: If the sensor is positioned outside this area, it generates interference with the tire bead, causing possible damage to the sensor.

(d) Re-position the wheel on the mounting machine with the sensor at ~ 5 o'clock position (shaded area in Fig. 4-2)

(e) Mount upper tire bead.



NOTE: Make sure that the tire bead and tool does not interfere with the main body of the sensor and the bead does not clamp the sensor.



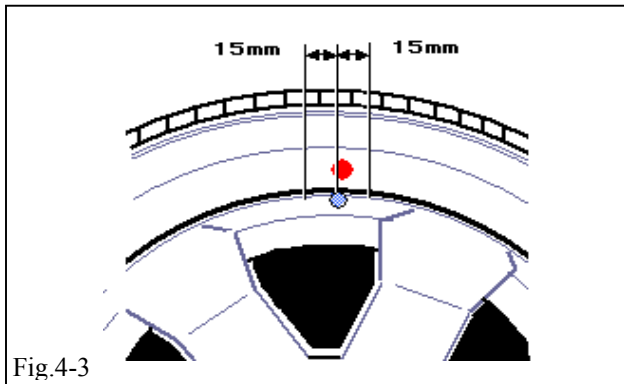


Fig.4-3

- (f) Remount OE tire on alloy wheel, matching tire high spot (red dot) with that of wheel low spot (blue sticker).



- (1) The red dot on tire and blue sticker on wheel must be aligned to within +/- 15 mm center to center. (Fig. 4-3)



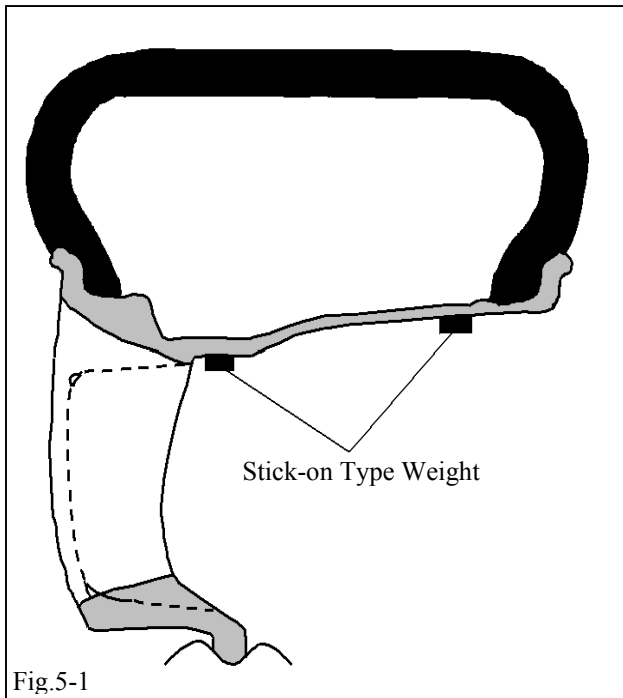
NOTE: If the blue sticker on the wheel is missing, then align the red dot on the tire to the valve stem location on the wheel.



- (g) To seat tire bead, inflate tire beyond 43 PSI but not more than the maximum tire bead seat pressure indicated on the tire sidewall. If it is not indicated use 50 PSI as a limit. If tire bead is not seated when pressure registers 50 PSI, deflate the tire and re-inflate to seat the bead. Regulate tire pressure to owners manual value.
- (h) After inflating the tire, re-tighten the nut of tire pressure monitor valve sub-assembly to 4.0 +/- 0.6 N-m (36 +/- 5.3 lbf-in)

5. Wheel Balancing.

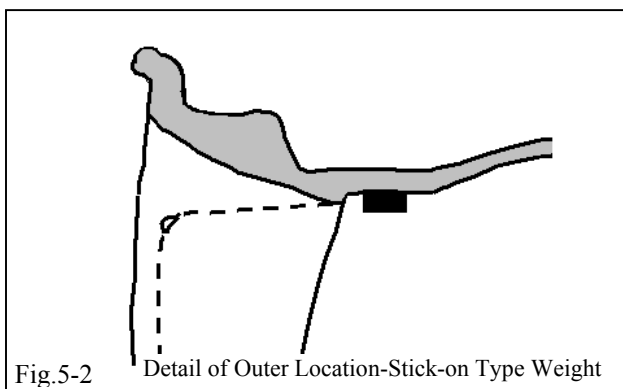
NOTES: Application temperature for stick-on type weight is above 10°C (50°F). It is good practice to apply the stick-on type in sections comprised of no more than 5 or 6 individual weight segments.



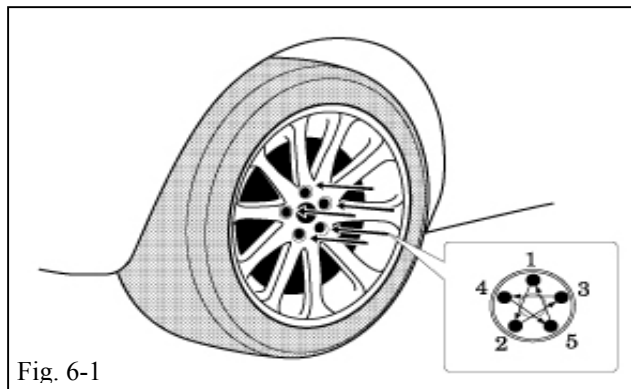
(a) Mount wheel /tire on wheel balance machine and balance in DYNAMIC MODE. Enable the LOAD ROLLER, if applicable, to ensure proper bead seating. Use stick-on type weights. (Figs. 5-1 & 5-2)

(b) Prior to mounting stick type wipe down the weight mounting location on wheel with a clean lint-free dry cloth. Ensure that the location is clean and dry. Apply stick-on type weights at perimeter location identified by dynamic balance machine as shown. Use rubber mallet, if required, to achieve complete adhesion of stick type weight.

NOTES: Maximum stick-on type weight is 75g inner and 75g outer. If removal and replacement of stick-on type weight is necessary, then remove the weight using a nylon removal tool. Clean the surface with clean cloth using VDC approved cleaner. Wipe the surface dry before re-applying a new weight. (DO NOT RE-USE STICK-ON WEIGHTS.)



(c) Re-spin the wheel on the machine with LOAD ROLLER DISABLED (if applicable) and note the indicated remaining unbalance. The maximum permitted unbalance is 8g at inner and 8 g at outer location. If the indicated unbalance is not within permissible limit, carefully remove the balance weights using the nylon removal tool (for stick-on type weight) and re-balance the tire/wheel assembly.



6. Vehicle Wheel / Tire Installation.



- (a) Install wheel/tire assembly on vehicle. Hand start the lug nuts during installation. Tighten lug nuts in sequence 1 through 5 (Fig. 6-1). Ensure that the socket does not scuff the wheel. Tighten to 76 lbf-ft (103N-m) using a torque wrench.

- (b) Lower the vehicle.

- (c) Tire pressure should be adjusted to the value recommended in the owner's manual for this vehicle. Install valve stem cap.

7. Center Cap Installation.

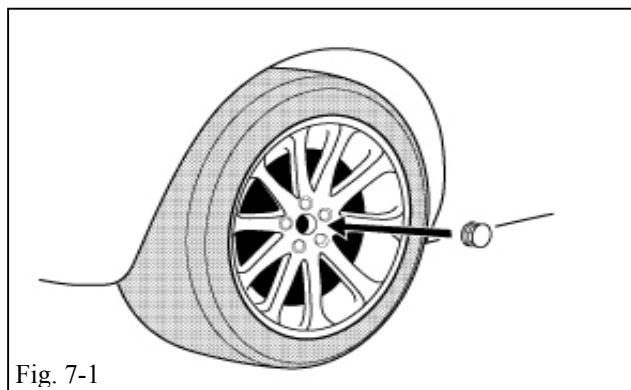


- (a) Install center caps on wheels. Gently push cap into wheel until cap snaps into place. (Fig. 7-1).

8. Completing Installation.



- (a) Place Customer Care Card in Glove Box.



Checklist - these points **MUST** be checked to ensure a quality installation.

Check:

☐ Inspect lug nuts.

 ☐ Lug nut tightness.

 ☐ Correct Tire Pressure

Look For:

Five lug nuts must be installed on each wheel

Tighten to 76 lbf-ft (103 N-m) torque.

Verify tire pressure is: - owner's manual value $\pm$ 2 PSI.