

TECHNICAL INSTRUCTIONS

BED RACK

The installation quality of Genuine Accessories is extremely important to Toyota / Lexus. To ensure that all vehicles have the accessory installation performed correctly, the minimum technician requirement has been listed below.

Minimum Technician Certification

Step 2: Pro Technician

It is the dealer's responsibility to select technicians with the above certification level or greater who have taken/passed any required or additional training to perform this accessory installation.

TOYOTA TACOMA/TACOMA HV DOUBLE CAB

2024 -

BED RACK

Preparation

Part Numbers:

Bed Rack

PT989-35241 (5 Ft)

PT989-35242 (6 Ft)

Molle Panel Kit

PT989-35248 (5 Ft)

PT989-35249 (6 Ft)

Heavy Duty Kit

PT989-3524C (5 Ft)

PT989-3524D (6 Ft)

⚠ NOTE: Vehicle card information providing load capacity is at the end of the instructions past the checklist.



Kit Contents (Standard Items)

Item #	Quantity Req'd.	Service Part #	Description
1	1	N/A	Rack Top
2	1	N/A	Customer Care Card
3	1	N/A	RH Fr Mount Post
4	1	N/A	LH Fr Mount Post
5	1	N/A	RH Middle Mount Post
6	1	N/A	LH Middle Mount Post
7	1	N/A	RH Rr Mount Post
8	1	N/A	LH Rr Mount Post
9	1		General Hardware Kit (6178084)
10	1	PT989-35241-HK	Reinforcement Hardware Kit (6178165)
11	1	N/A	RH Y-Brace
12	1	N/A	LH Y-Brace
13	1	N/A	RH L-Brace
14	1	N/A	LH L-Brace
15	2	N/A	RCL Reinforcement
16	1	N/A	CHMSL Kit

Hardware Bag 6178165 (Reinforcement)

Item #	Quantity Req'd.	Description
1	2	Collar
2	2	Deck T-Slot Nut (3)
3	8	M8x1.25x25 Bolt (Blue Patch)
4	6	M8x25x3 Washer
5	4	M8x1.25x35 Bolt (Blue Patch)
6	6	M8x19x2 Washer
7	2	SAE 7/16"-20 Bolt
8	2	M12x31.75x2.5
9	4	M6x1.0x35 Bolt (Blue Patch)
10	4	M6x16x1.2 Washer

CHMSL Kit

Item #	Quantity Req'd.	Service Part #	Description
1	2	90149-50039	CHMSL Bolts
2	1	PT948-35250-AA PT948-35250-AB	CHMSL Wiring Harness Kit
3	2	90467-A0045	RCL Guide (Green)
4	2	90467-A0046	RCL Guide (Pink)
5	1	81570-48080	CHMSL

CHMSL Housing Kit (Appendix A)

Item #	Quantity Req'd.	Service Part #	Description
1	1	N/A	CHMSL Housing
2	2	N/A	Flange Nut
3	2	N/A	Spacer
4	2	N/A	Stud Plate

Hardware Bag 6178084 (General)

Item #	Quantity Req'd.	Description
1	4	Deck T-Slot Nut (3)
2	26	M8x1.25x25 Bolt (Blue Patch)
3	40	M8x25x3 Washer
4	14	M8x1.25x20 Bolt (Yellow Patch)
5	8	Rack T-Slot Nut (2)
6	4	Rack T-Slot Nut (3)

Kit Contents (Molle Panel Kit) [if equipped]

Item #	Quantity Req'd.	Service Part #	Description
1	2	N/A	Fr Molle Panel
2	2	N/A	Rr Molle Panel
3	1	N/A	Molle Panel Hardware Kit

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Molle Panel Hardware Bag 6178116 [if equipped]

Item #	Quantity Reqd.	Description
1	16	M8x1.25x20 Bolt (Yellow Patch)
2	16	M8x19x2 Washer
3	16	M8x1.25 Flange Nut

Kit Contents (Heavy Duty Kit) [if equipped]

Item #	Quantity Reqd.	Service Part #	Description
1	1	N/A	HD Bar
2	1	N/A	RH HD Mount Bracket
3	1	N/A	LH HD Mount Bracket
4	2	N/A	HD Deck Mount Nut Plate
5	1	PT989-3524C-HK	Heavy Duty Hardware Kit

Heavy Duty Hardware Bag 6178083 [if equipped]

Item #	Quantity Reqd.	Description
1	8	M6x1.0x16 Bolt (Yellow Patch)
2	16	M6x16x1.2 Washer
3	8	M6x1.0x20 Bolt (Blue Patch)
4	6	M8x1.25x25 Bolt (Blue Patch)
5	14	M8x19x2 Washer
6	8	M8x1.25x20 Bolt (Yellow Patch)

Additional Items Required For Installation

Item #	Quantity Reqd.	Description
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Conflicts

Sport Bar, Tonneau Cover (Hard and Soft), Bed Extender, Swing Out Storage Box

General Applicability

Vehicles with Bed Side Rails and Frame Wire No.2 (82165-*).

Recommended Sequence of Application

Item #	Accessory
1	*Bed Molle Panels
2	*Bed Rack

*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Reqd.	Description
1	2	90467-A0045 Clip (RCL Guide)
2	2	90467-A0046 Clip (RCL Guide)
3	14	90189-06236 Grommet (fender liner)

Recommended Tools

Personal & Vehicle Protection	Notes
Knee pads	
Portable light	
Special Tools	Notes
Vehicle Protection	Blankets or Fender covers
Stubby Socket	T40
Installation Tools	Notes
Torque wrench	Square drive (0-75 Nm) Open end (0-75 Nm)
Torx sockets	T30, T40 (regular and stubby), T50, T55
Socket	10mm
Crowfoot sockets	14mm
Wrench (box or open)	12mm, 14mm
Ratchet	
Drive extender	3/8" x ~3"
Screwdriver	Phillips PH3, flathead
Center punch	
Drill	
Drill bits	Step Bit (up to 1"), 5mm (for pilot holes), 10mm, 12mm
Deburring tool	
Vacuum	
Clip remover	Metal and plastic
Nut runner	
Needle nose pliers	
Snips	
Special Chemicals	Notes
Sealant	3M Autobody Sealant or equivalent

Legend

STOP: Damage to the vehicle may occur. Do not proceed until process has been complied with.

OPERATOR SAFETY: Use caution to avoid risk of injury.

CAUTION: A process that must be carefully observed in order to reduce the risk of damage to the accessory/vehicle and to ensure a quality installation.

TOOLS & EQUIPMENT: Used in Figures calls out the specific tools and equipment recommended for this process.

REVISION MARK: This mark highlights a change in installation with respect to previous issue.

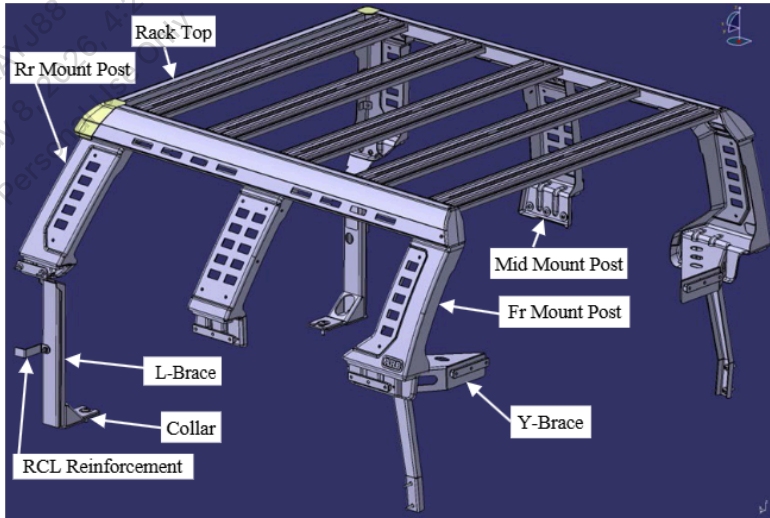
SAFETY TORQUE: This mark indicates that torque is related to safety.

REGULATORY MARK: This mark indicates the component is related to regulatory compliance.

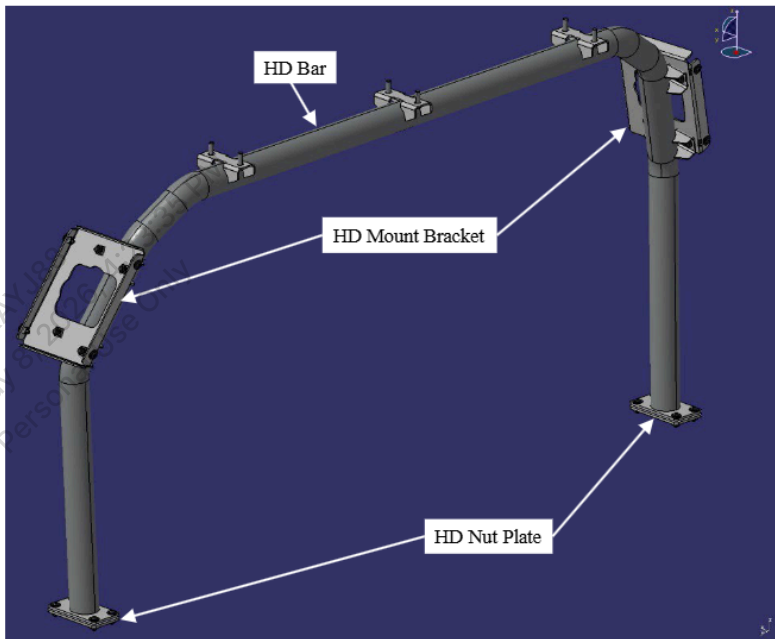
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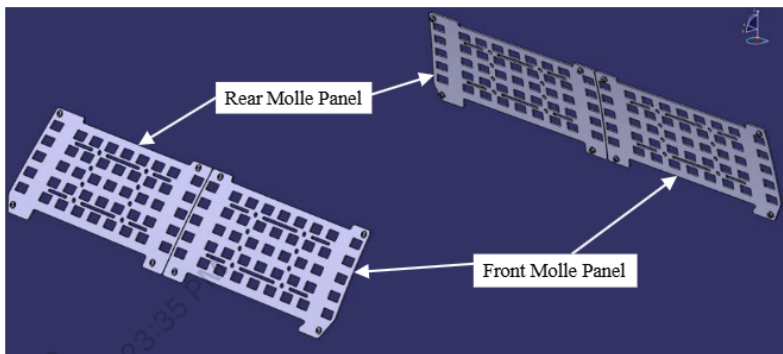
BED RACK



PT989-35241 (Bed Rack - 5 Ft)
PT989-35242 (Bed Rack - 6 Ft)



PT989-3524C (Heavy Duty Kit - 5 Ft)
PT989-3524D (Heavy Duty Kit - 6 Ft)



PT989-35248 (Molle Panel Kit - 5 Ft)
PT989-35249 (Molle Panel Kit - 6 Ft)

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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.

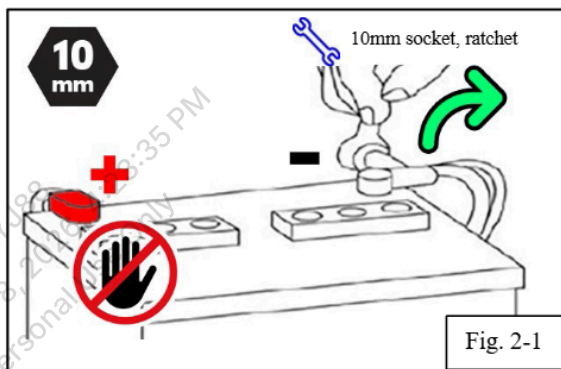
These guidelines can be found in the "Accessory Installation Practices" document. This document covers such items as:

- 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 Toyota dealer for a copy of this document.

1. Parts and Vehicle Preparation

- Check kit for contents and damage.
- Apply vehicle protection to rear portion of cab to protect glass and painted surfaces.



2. Vehicle Attachment Points Preparation

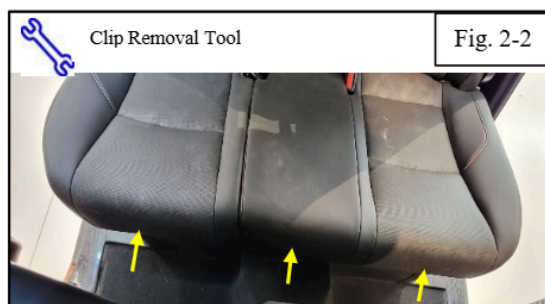
- Lower vehicle tailgate
- Slide the driver seat to its forward most position.
- Disconnect negative terminal on 12V battery using a 10mm socket (Fig. 2-1).

NOTE: Keep negative cable away from the battery terminal to avoid accidentally reconnecting the 12V power if the cable falls back to its natural shape.

For gas vehicles, the battery is located in the engine compartment.

NOTE: For hybrid vehicles, the battery is underneath the rear seat. To access, remove the 3 clips and lift up the seat bottom (Fig. 2-2). **DO NOT** discard these clips, they will be re-installed in a later step.

HINT: Latch the seat belt to hold the seat bottom in place.



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- (d) Remove bed side rail rear end caps (Fig 2-3).

NOTE: DO NOT discard, these will be re-installed at a later step.

RH shown, repeat for LH side.



- (e) Remove rearmost fastener for bed side rails (Fig. 2-4) using a T30 socket.

⚠ NOTE: DO NOT discard, the fasteners will be re-installed at a later step.

RH shown, repeat for LH side.

Do not use power tools as bolt head is easily stripped. Hand tools only.



- (f) Slide Deck 3-hole T-slot nuts into bed side rails (Fig. 2-5). Hardware Kit 6178084

⚠ NOTE: Two pieces per side (two for LH and two for RH).

Leave T-slot nuts near rear portion of bed side rail. These will be slid forward in a later step with locating features included on the parts and vehicle.



- (g) Re-install rearmost fastener for bed side rails using a T30 socket (Fig. 2-6).

Torque: 9 Nm (80 in lb)

⚠ NOTE: RH shown, repeat for LH side.

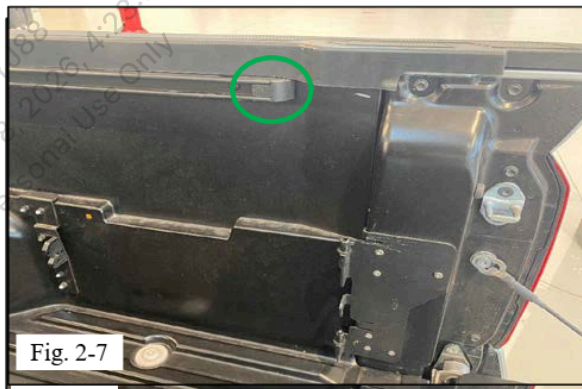
Do not use power tools as bolt head is easily stripped. Hand tools only.

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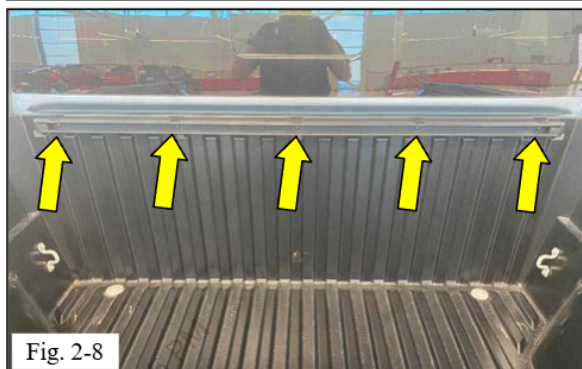
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- (h) Re-install bed side rail rear end caps as shown in Fig. 2-7.

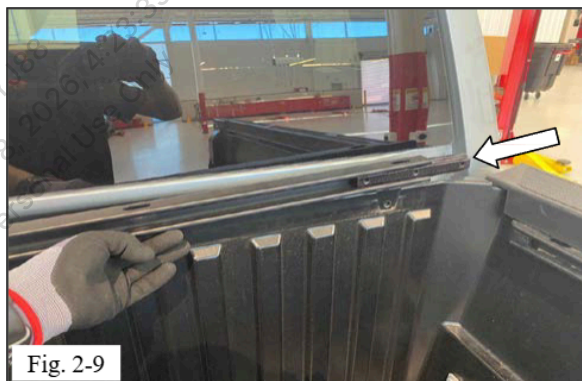
⚠ NOTE: RH shown, repeat for LH side.



- (i) Remove front bed rail (Fig. 2-8) by removing five fasteners using a T30 socket.

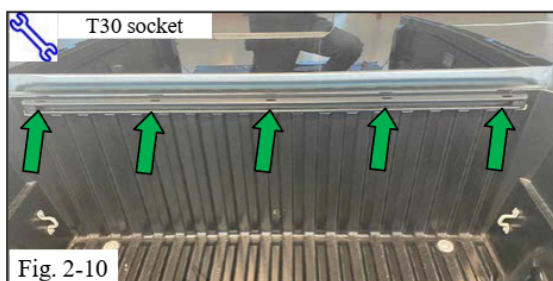
⚠ NOTE: DO NOT discard, these will be re-installed at a later step.

Do not use power tools as bolt head is easily stripped. Hand tools only.



- (j) Remove RH end cap from front bed rail and insert two, 3-hole Deck T-slot nuts (Fig. 2-9). [Hardware Kit 6178165](#)

- (k) Re-install the RH end cap after inserting the T-slot nuts.



- (l) Re-install front bed rail using five fasteners previously removed using a T30 socket (Fig. 2-10).

Torque: 9 Nm (80 in lb)

⚠ NOTE: Do not use power tools as the bolt head is easily stripped. Hand tools only.

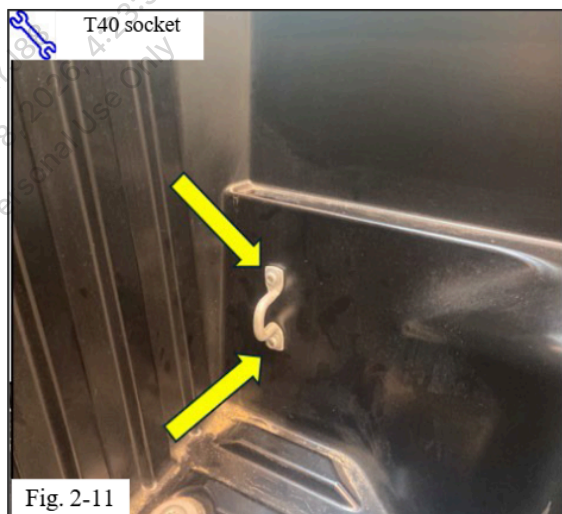
Center hole is a primary part datum. Install this bolt first then work outboard to ensure part fully installs.

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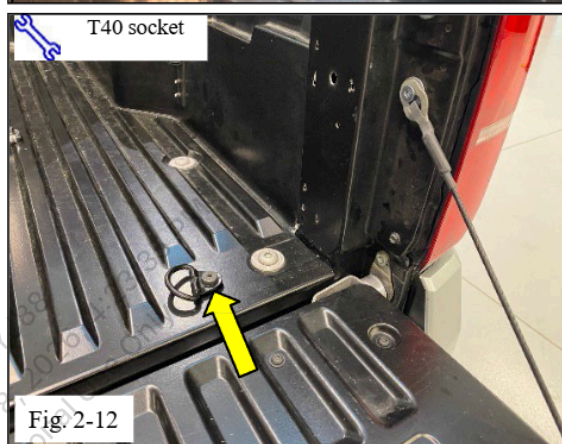


- (m) Remove RH front tie down hook by removing two fasteners using a T40 socket (Fig. 2-11).

⚠ NOTE: DO NOT discard the tie down hook, this will be re-installed at a later step.

Discard the fasteners as they are not reused.

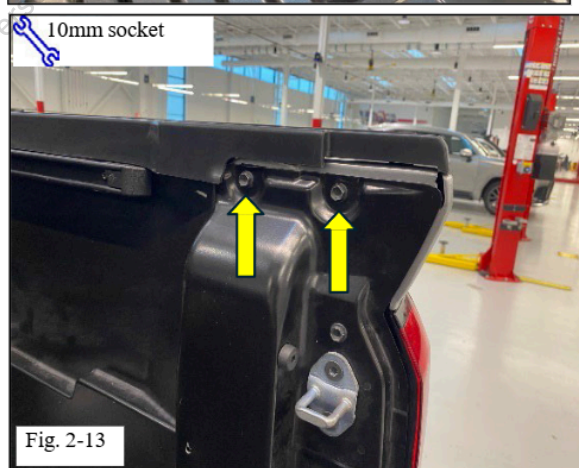
RH shown, repeat for LH side.



- (n) Remove D-ring hook from rear of bed using a T40 socket (Fig. 2-12).

NOTE: Discard these assemblies as they will not be reused.

RH shown, repeat for LH side.



- (o) Remove two fasteners from RH D-pillar using a 10mm socket (Fig. 2-13).

NOTE: Discard fasteners as they will not be reused.

RH shown, repeat for LH side.

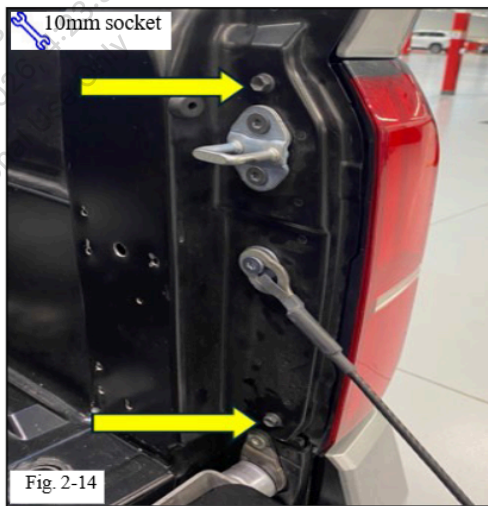
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Fig. 2-14

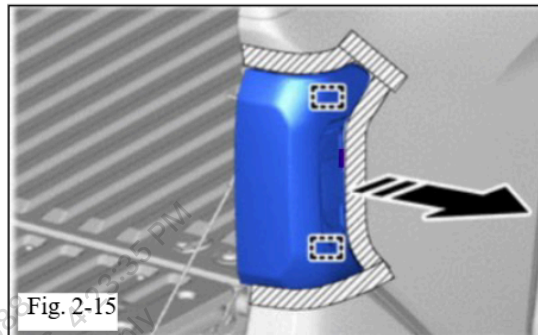


Fig. 2-15

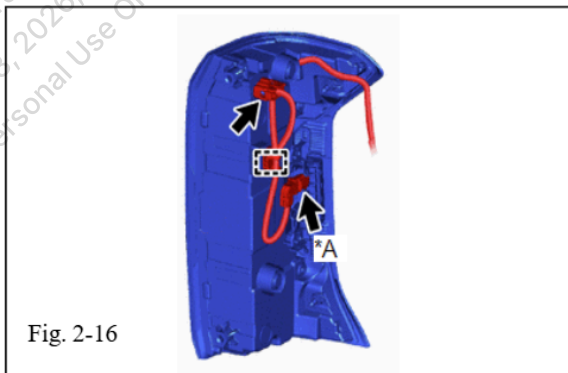


Fig. 2-16

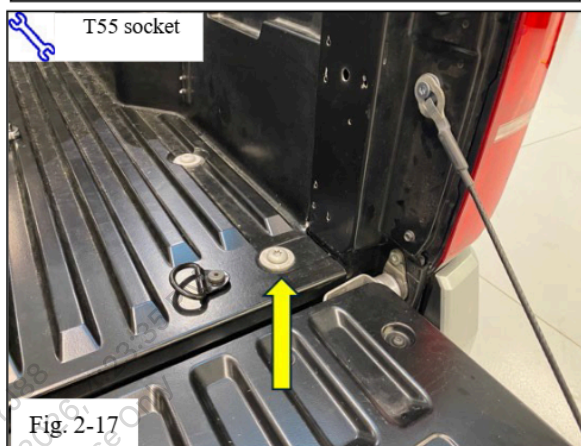


Fig. 2-17

- (p) Remove rear combination lamp bolts using a 10mm socket (Fig. 2-14).

⚠ NOTE: DO NOT discard fasteners as they will be reused.

RH shown, repeat for LH side.

- (q) Apply protective tape around rear combination lamps (Fig. 2-15).

⚠ NOTE: RH shown, repeat for LH side.

- (r) Pull rear combination lamp outboard to detach from the vehicle (Fig. 2-15). Disconnect the wire harness clip and connector(s) (Fig. 2-16) then set the part aside.

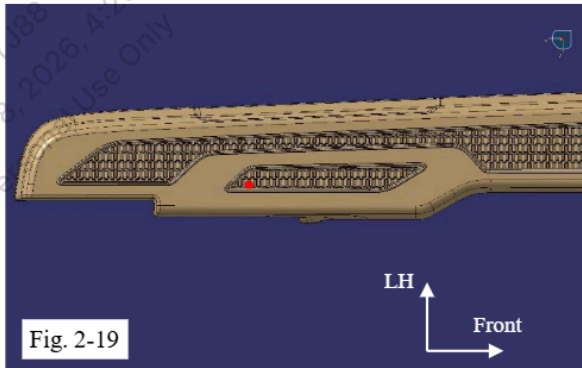
⚠ NOTE: Use caution to avoid bending or scratching components.

**⚠ Carefully place rear combination lamp in a safe space to avoid scratching the lens.
RH shown, repeat for LH side.**

- (s) Remove rearmost deck mount fastener using a T55 socket (Fig 2-17).

⚠ NOTE: DO NOT Discard fasteners as they will be reused.

RH shown, repeat for LH side.

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- (t) Mark the location on the LH deck top protector as shown in Fig. 2-19.

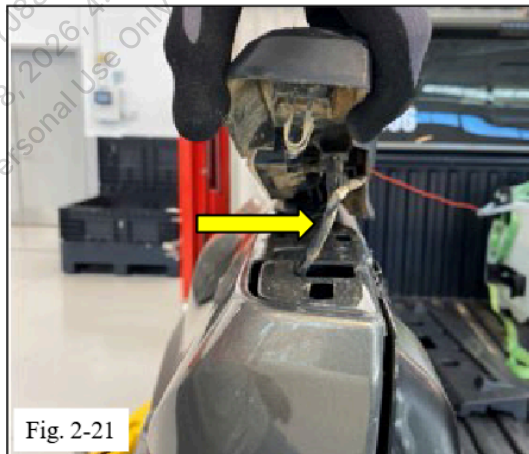
HINT: The positioning can have some variation.

The hole is oversized to allow for the wire harness connector to pass through the hole. The wire harness and grommet which pass through the hole are a smaller diameter.



- STOP** (u) Detach and lift rear portion of LH deck top protector (Fig. 2-20).

! **NOTE: Carefully lift part to avoid damaging or breaking the retention clips.**



- STOP** (v) If the vehicle is equipped with Bed Scene Lighting, be sure to move the wire harness away from the drilling area to prevent damage to the wire (Fig. 2-21). Undo the tape and relocate the wire from the path of the drill bit.

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- (w) Drill hole through LH deck top protector centered on the alignment mark using a step bit from the top side of the deck top protector (Fig. 2-22). The step size of **20mm (or 13/16")** is the diameter required to cut through the top surface of the deck top protector to ensure the wire harness connector can pass through the part at a later step. De-burr the hole after drilling is completed.

NOTE: Be sure deck top protector is lifted enough to ensure drill bit does not contact vehicle body (painted metal surface).

Be sure to re-confirm that the Deck Scene Lighting wire harness is outside of the drill area (if equipped).

- (x) Trim away the underside rib (dashed lines). This is to allow for routing of the CHMSL wire harness at a later step.



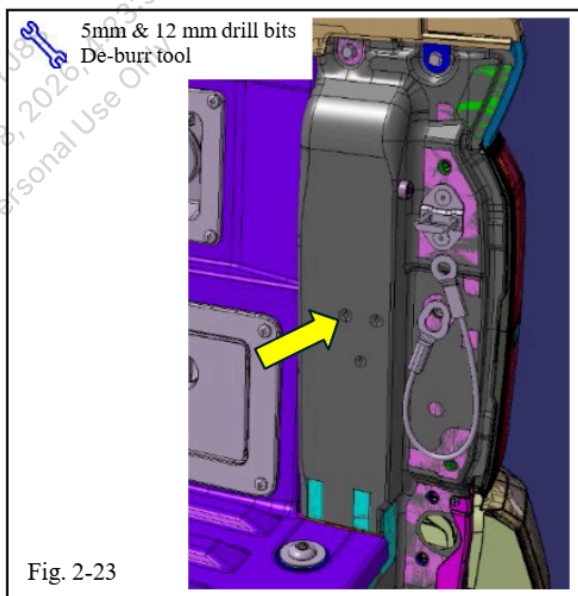
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Fig. 2-23

- (y) Drill hole through frontmost D-pillar dimple as shown in Fig. 2-23. Use a 5mm drill bit for a pilot hole then drill hole size to 12mm. After completion of drilling, de-burr the hole.

NOTE: RH shown, repeat for LH side.

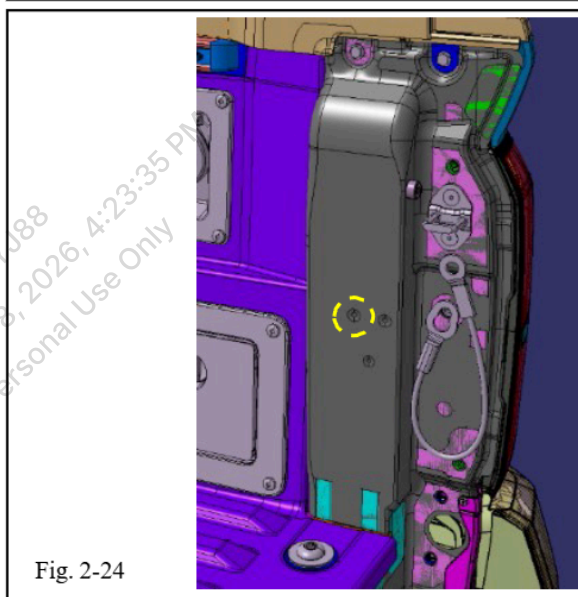


Fig. 2-24

- (z) Apply autobody sealant around the holes drilled in the D-pillar (Fig. 2-24). Be sure to apply on both sides of the panel for full coverage.

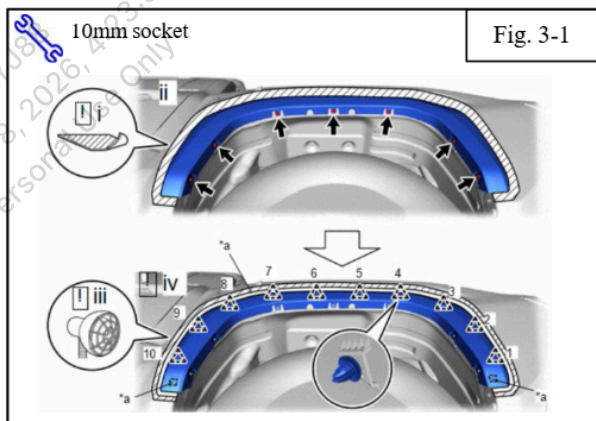
⚠ NOTE: Ensure sealant is covering all bare metal for corrosion prevention.

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3. CHMSL Front Wire Harness Installation

- (a) If equipped, remove the LH rear overfender (Fig. 3-1).
Apply protective tape around the overfender on the quarter panel.
Remove the seven screws using a 10mm socket.
Heat the adhesive of the overfender using a heat light.

⚠ NOTE: Take caution to not over-heat the part.

Detach the clips by starting at the rear of the part and working around towards the front of the vehicle.



- (b) Remove the rear LH fender liner using a clip removal tool at thirteen locations (Fig. 3-2).



- (c) Installing Heavy Duty (HD) kit PT989-3524C or PT989-3524D?

Yes	Repeat steps 3(a) and 3(b) for RH side.
No	Go to step 3(d)

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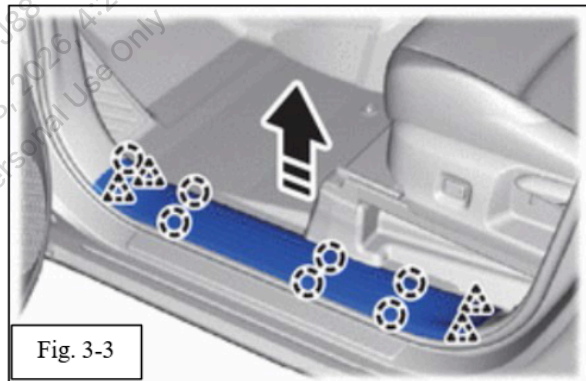


Fig. 3-3

- (d) Remove the LH front door scuff plate (Fig. 3-3).

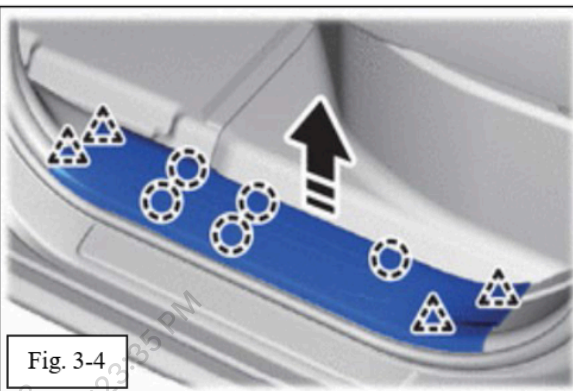


Fig. 3-4

- (e) Remove the rear LH and RH door scuff plates (Fig. 3-4).

⚠ NOTE: LH shown in image.

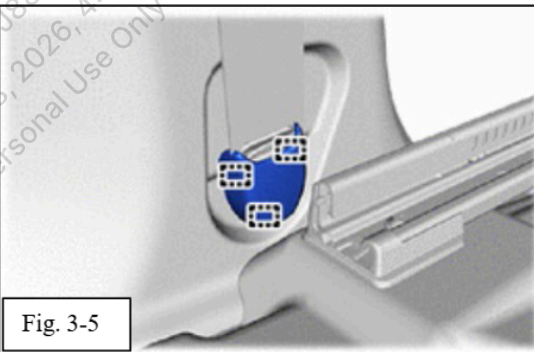


Fig. 3-5

- (f) Remove the LH seat belt lower anchor on the B-Pillar (Fig. 3-5).

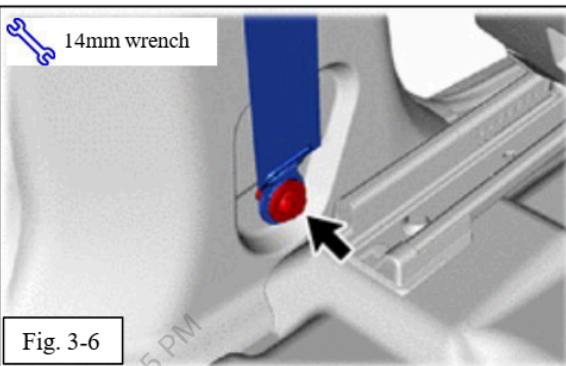
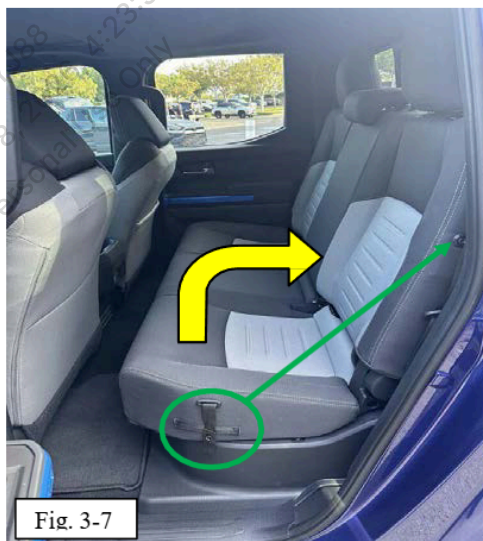


Fig. 3-6

- (g) Remove the LH seat belt lower anchor bolt on the B-Pillar using a 14mm wrench (Fig. 3-6).

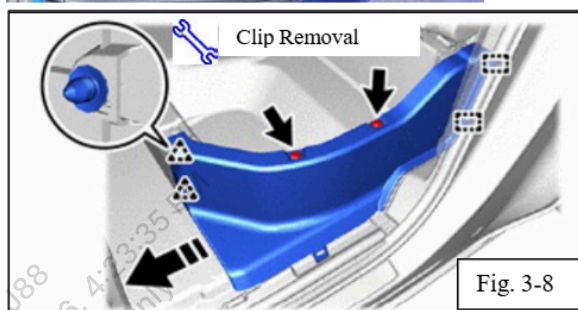
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Fig. 3-7

- (h) For GAS vehicles, fold up the rear seat bottoms and use the attached clips to secure in place on both sides (Fig. 3-7).

NOTE: LH shown, repeat for RH side.

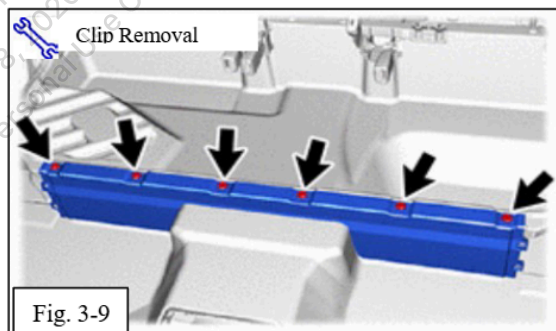
- (i) If necessary, remove any floor mats from the rear floor.

⚠ NOTE: DO NOT discard, these will be re-installed at a later step.

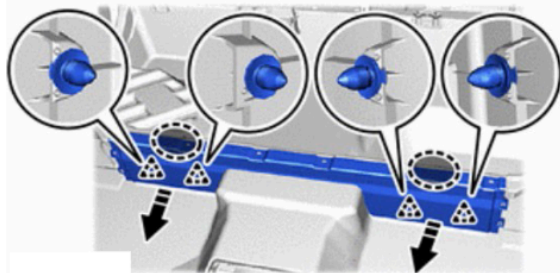

Fig. 3-8

- (j) Remove the rear under side covers (Fig. 3-8). Remove the 2 clips using a clip removal tool then pull forward.

NOTE: LH shown, repeat for RH side.

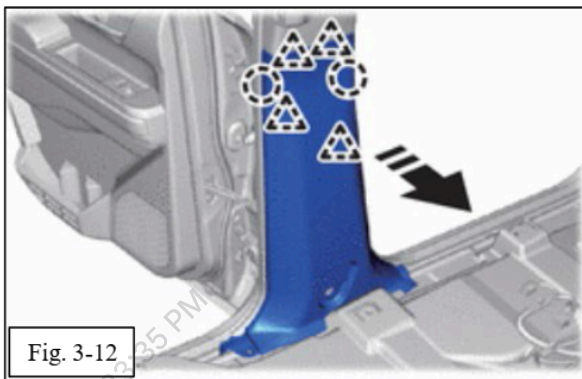

Fig. 3-9

- (k) Remove the rear under cover by removing 6 clips with a clip removal tool (Fig. 3-9) then pulling forward (Fig. 3-10).

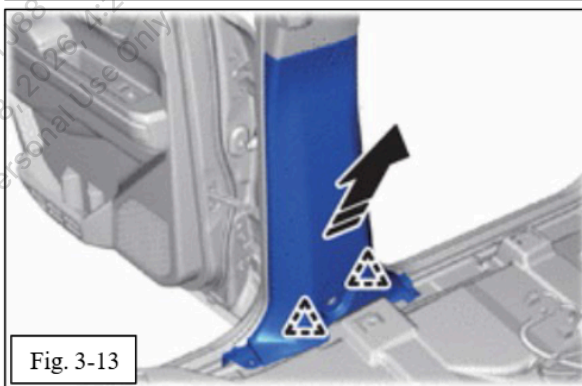

Fig. 3-10

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- (l) Remove door weatherstrip around the B-Pillar (Fig. 3-11)



- (m) Remove the lower B-Pillar trim panel. Start by detaching the clips from the top edge (Fig. 3-12) then pulling the part upward to detach from the bottom edge (Fig. 3-13).



NOTE: Ensure all clips were removed from the B-Pillar and are attached to the B-Pillar

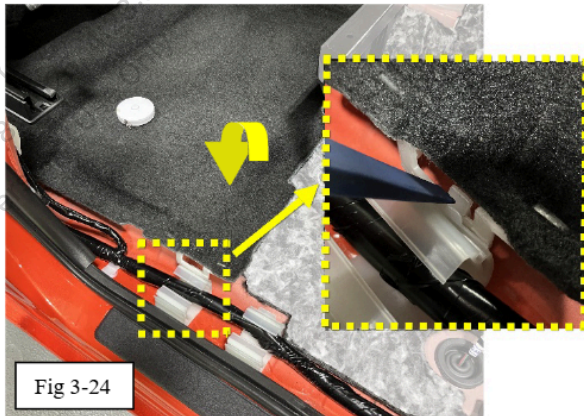
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Fig 3-24

- (n) If necessary, remove any floor mats from the rear floor.

NOTE: DO NOT discard, these will be re-installed at a later step.

- (o) Fold back carpet to expose shoddy pad and grommet (Fig. 3-24).

HINT: Disengage the clip securing the carpet.



Fig 3-25

- (p) Use snips to cut away shoddy pad between the floor grommet and LH side of interior (Fig. 3-25). Discard the shoddy pad cutout.

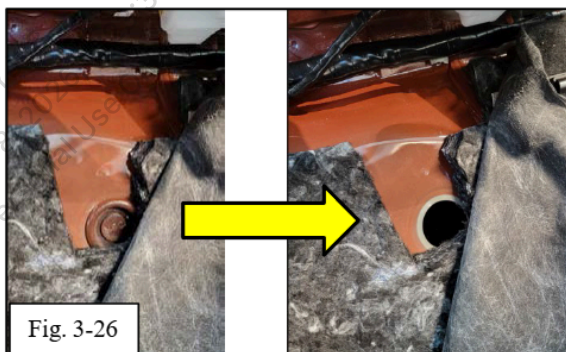


Fig. 3-26

- (q) Remove the exposed floor grommet and discard (Fig. 3-26).

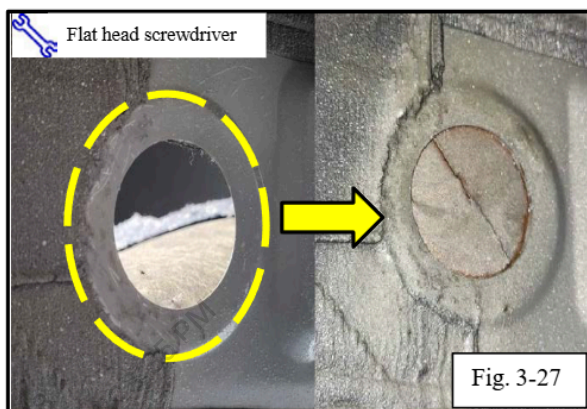


Fig. 3-27

- (r) From the underside of the vehicle, carefully remove deadening material on the flat surface surrounding the hole using a flat head screwdriver (Fig. 3-27). This area is shown enclosed by the dashed circle in the image.

- (s) Apply rust preventative coating to the area where the deadening material was removed in the previous step.

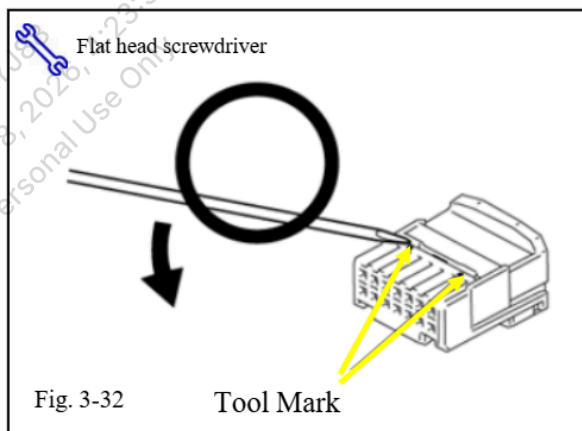
⚠ NOTE: Be sure to completely cover all areas of exposed metal and areas where deadening material was removed.

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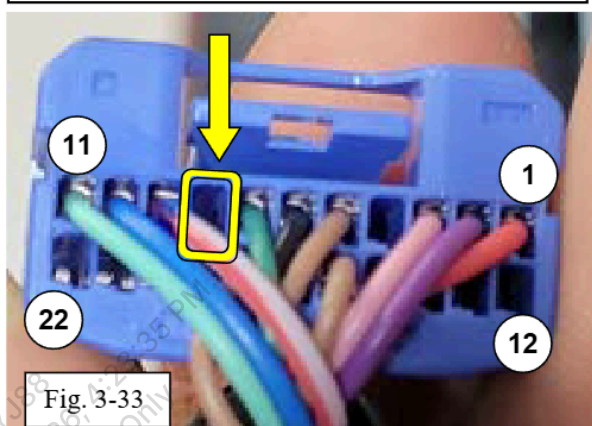
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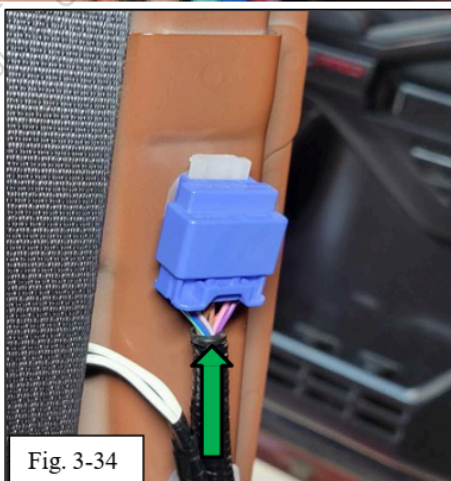


- (x) Disconnect the junction connector and disengage the secondary lock using a flat head screwdriver (Fig. 3-32).

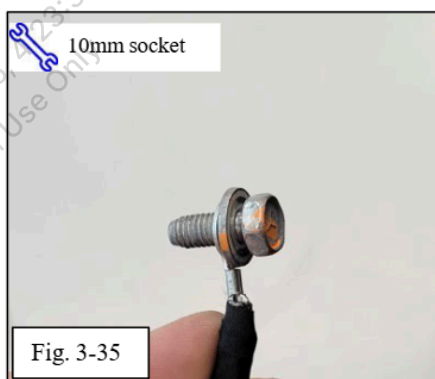


-  Locate "Terminal 8" on the junction connector and insert pin on the CHMSL Front Wire Harness into the open location (Fig. 3-33).

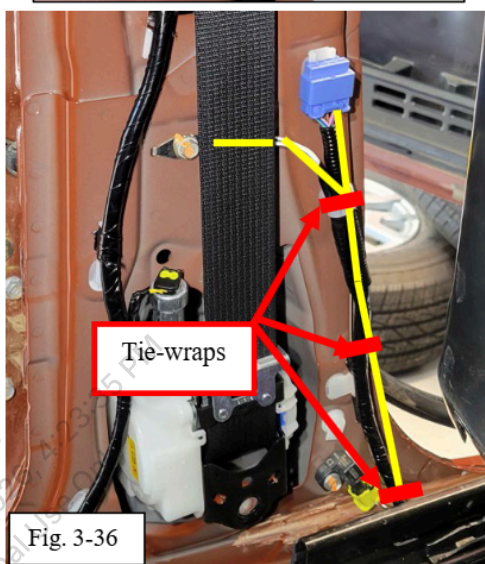
 **NOTE: Ensure the pin is inserted in the correct orientation and perform pull test to confirm pin is fully inserted. Refer to TIS for correct terminal pin and repair procedures.**



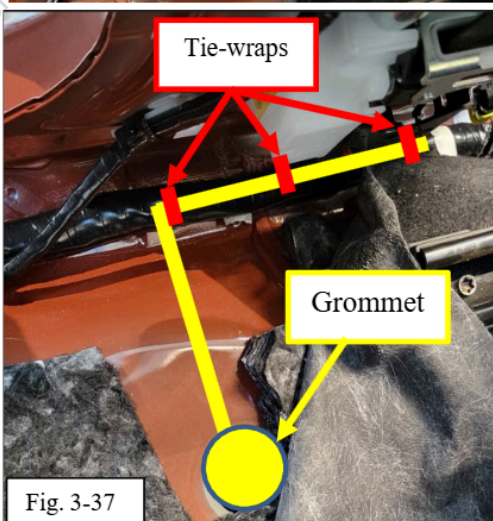
- (z) Re-engage the junction connector secondary lock and reconnect to the vehicle body clip (Fig. 3-34).

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- (aa) Place the CHMSL Front Wire Harness ground eyelet on the ground bolt (Fig. 3-35).
- (ab) Re-install the ground bolt to the body using a 10mm socket.


Torque: 10 Nm (89 in lb)


- (ac) Secure the CHMSL Front Wire Harness to the B-Pillar wire harness with provided tie wraps approximately every 6 inches (~150mm) (Fig. 3- 36).



- (ad) Continue to bundle and secure the CHMSL Front Wire Harness along the vehicle floor wire harness up to the shoddy pad cutout (Fig. 3-37).

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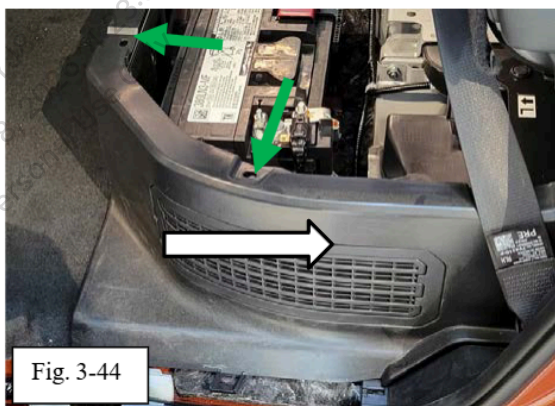


Fig. 3-44

- (aj) Re-install the rear under side covers using 2 clips per side (Fig 3-44).

NOTE: LH shown, repeat for RH side.

(ak)

Gas	Lower the rear seat bottom to its original position.
Hybrid	Leave the rear seat bottom up as 12V battery access is required at a later step.

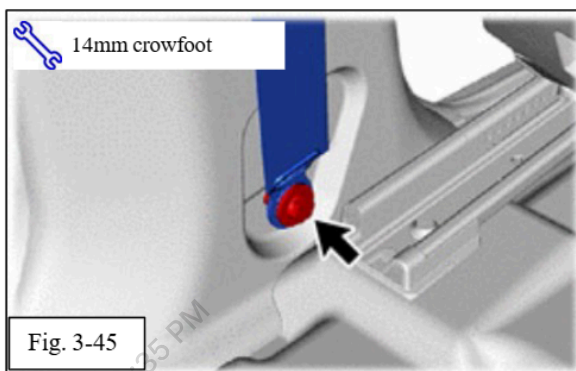


Fig. 3-45

- (al) Re-install the LH side seat belt lower anchor bolt on the B-Pillar using a 14mm crowfoot (Fig. 3-45).



Torque: 42 Nm (31 ft lb)

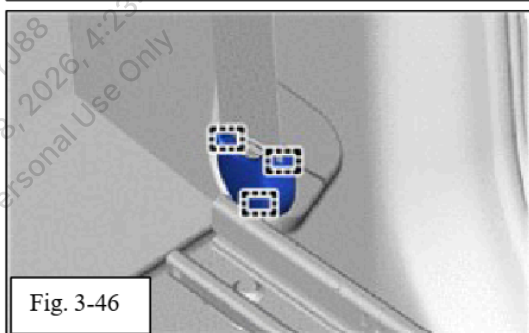


Fig. 3-46

- (am) Re-install the LH side seat belt lower anchor cover (Fig. 3-46).



Fig. 3-47

- (an) Re-install the rear door scuff plates (Fig. 3- 47).

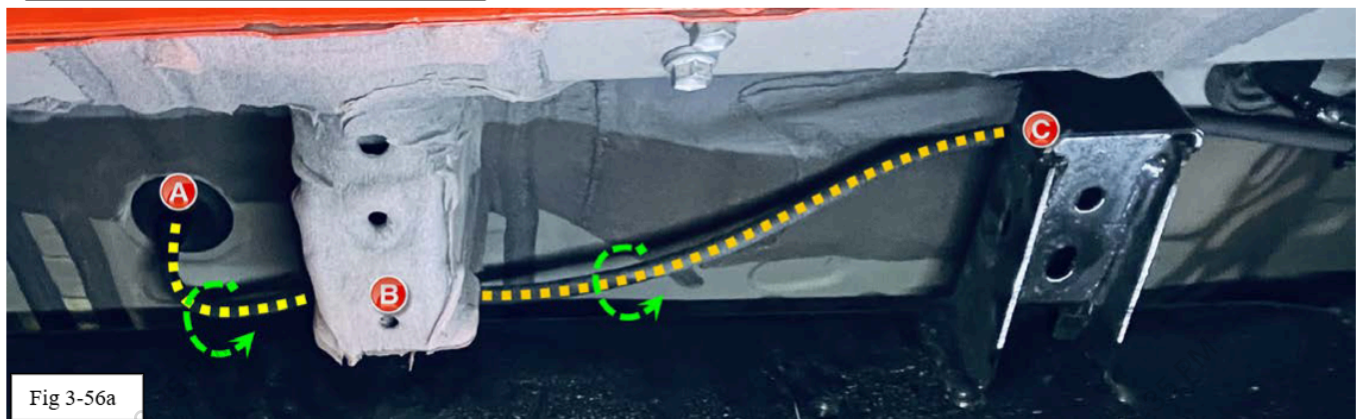
NOTE: LH shown, repeat for RH side.

- (ao) If any floor mats were previously removed from the rear floor, re-install them back to their original position.

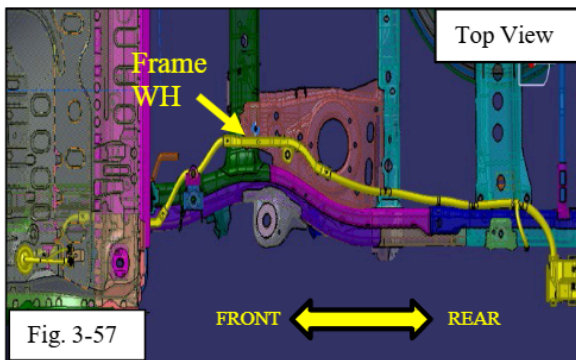
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Fig. 3-56

- (ar) From the second clip, route the Front CHMSL Wire Harness with the vehicle frame wire harness and secure with provided tie wrap (Fig. 3-56).


Fig 3-56a

- (as) The wire harness between point (A) to (B), and point (B) to (C) should **NOT** be taut. Ensure there is enough slack in the wire harness that allows a circular range of motion, **WITHOUT** contacting the surrounding components (Fig 3-56a).


Fig. 3-57

- (at) Route the CHMSL Front Wire Harness along the vehicle frame wire harness up to the D-Pillar of the bed. Secure the wire harness with provided tie wraps approximately every 6 inches (~150mm) (Fig. 3-57).
- (au) Allow the end of the CHMSL Front Wire Harness to hang in the D-Pillar area where the rear combination lamp was previously removed. The CHMSL Rear Wire Harness will be connected in this area in a later step.

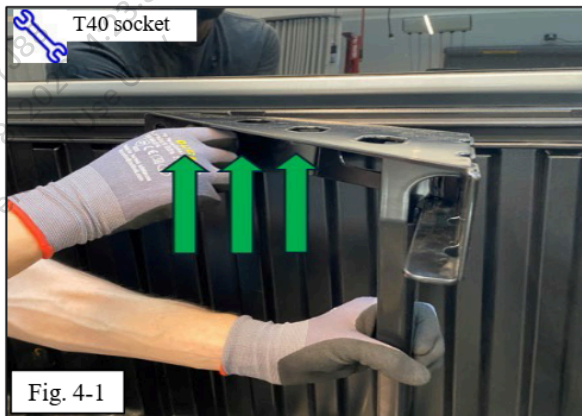
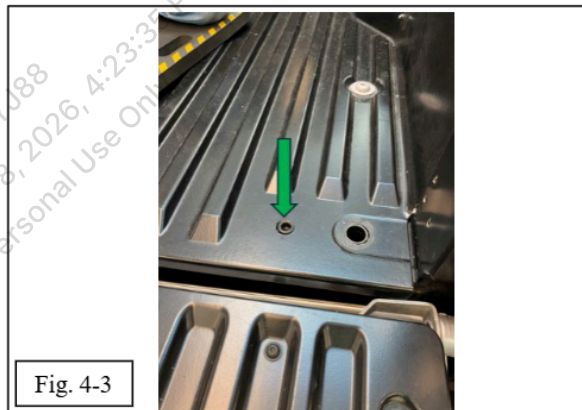
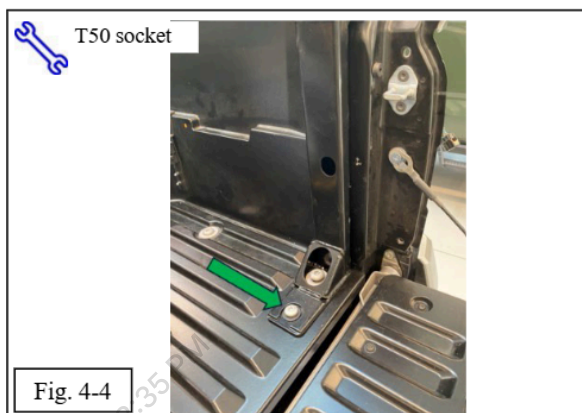
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Fig. 4-1

Fig. 4-2

Fig. 4-3

Fig. 4-4
4. Install Bed Rack Components to Vehicle

- (a) Hand-start three M8x1.25x25 bolts (blue patch) with M8x25x3 washers through the Y-Brace into the front rail using a T40 socket (Fig. 4-1).
Hardware bag 6178165

HINT: Align the T-slot nut middle point with a fastener used for the bed rail behind the part (Fig. 4-2). Install the middle fastener first to prevent the T-slot nut from rotating into the rail.
Leave the Y-Braces distanced from the bed side rails as mount post goes against the rail.

NOTE: RH shown, repeat for LH side.

- (b) Install Collar into the location where the rear D-ring hook was previously removed (Fig. 4-3). This is the inboard hole at the rear of the bed.
Hardware bag 6178165

NOTE: RH shown, repeat for LH side.

- (c) Hand-start SAE (7/16\"/>

NOTE: RH shown, repeat for LH side.

The LH L-Bracket will have a warning label while the RH part does not have a label.