

Part Number: PT278-89190**Kit Contents**

Item #	Quantity Req'd.	Description
1	1	Rail Tube Assembly RH
2	1	Rail Tube Assembly LH
3	1	Joint Assembly (I-Connector)
4	4	Crossbar Assembly
5	1	Hardware Bag

Hardware Bag Contents

Item #	Quantity Req'd.	Description
1	8	Screw M8-1.25 X 43mm, Wafer Head
2	8	Seal Washer (Foam)
3	8	Seal Washer (Fiber)
4	8	Thumb Wheel Assembly
5	4	Crossbar Clamp Assy RH
6	4	Crossbar Clamp Assy LH
7	4	Screw M5-1.81 X 15mm, T25
8	1	User's Manual

Additional Items Required For Installation

Item #	Quantity Req'd.	Description
1	4	63185-42020 Bracket

Conflicts

None

Recommended Tools

Personal & Vehicle Protection	Notes
Safety Glasses	
Safety Gloves	
Blanket/Cloth	
Wrist & Belt Buckle Protection	
Special Tools	Notes
Installation Tools	Notes
T40 Torx Driver (Hardened)	
T25 Torx Driver (Hardened)	
Torque Wrench	0-75 lbf-ft, 0-80 lbf-in
12mm Socket	
Ratchet Wrench	
3" Extension	
Nylon Panel Removal Tool	i.e. Panel Pry Tool #1 Toyota SST#00002-06001-01
Special Chemicals	Notes

General Applicability

MY19 and newer 4Runner all models other than TRD PRO

Recommended Sequence of Application

Item #	Accessory
1	
2	
3	

*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Req'd.	Description
1	1	Crossbar Assy (PT278-89190-CB)
2	1	User's Manual (PT278-89190-AA)
3	4	Thumb Wheel Assembly (PT278-35140-TW)
4	1	Hardware Bag (PT278-89190-HW)

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

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.

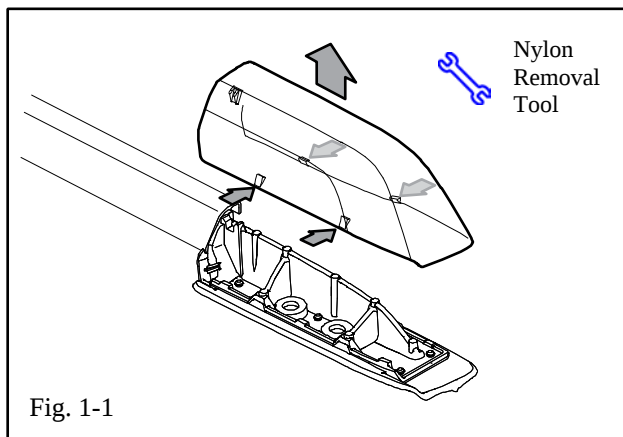
This document covers such items as:

- 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.

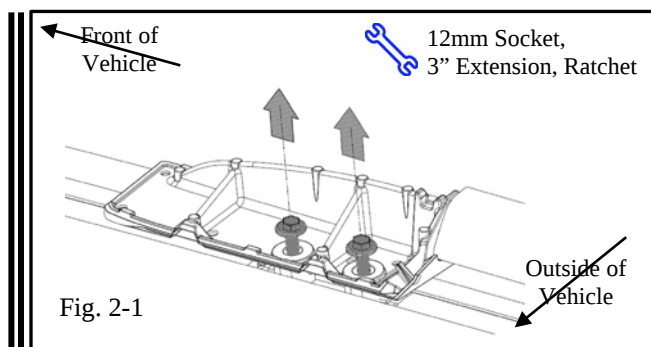
1. Remove the Covers (4 locations).

- (a) Remove the covers. Using the nylon removal tool, pry the covers outward at the tab locations while pulling cover upward (Fig. 1-1).

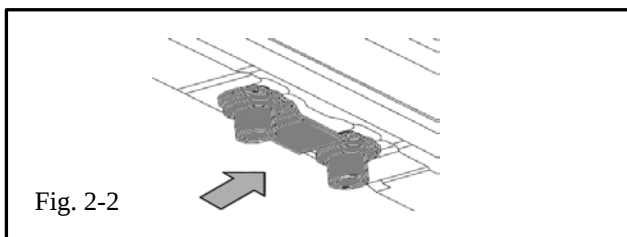


2. Remove the Bolts.

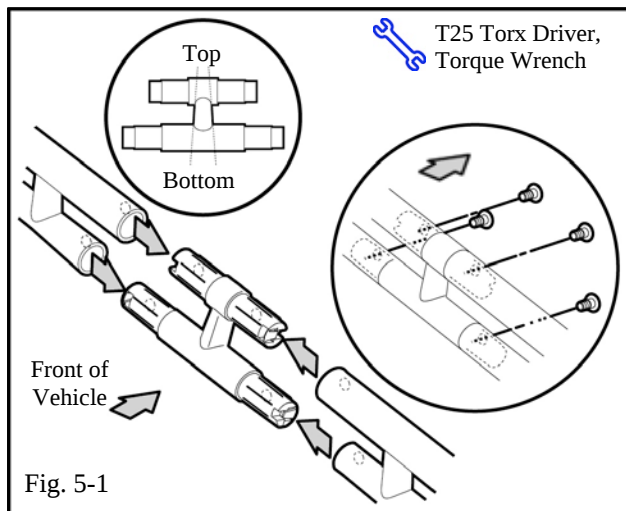
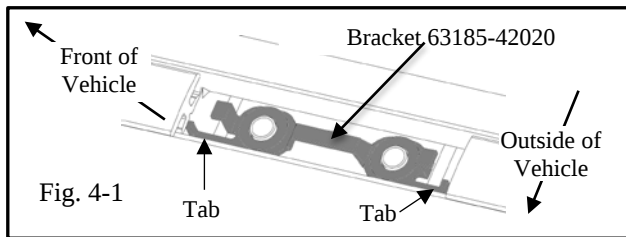
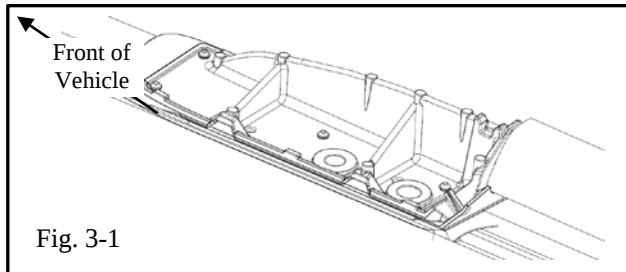
- STOP** (a) Loosen 8 bolts (4 on each side) (Fig. 2-1).



- NOTE:** All the bolts must be loosened prior to removing any of them, in order to ensure that the attachment bracket does not become dislodged and fall into the headliner (Fig. 2-2).



- (b) Remove and discard 8 bolts.



3. Remove the Roof Rails.

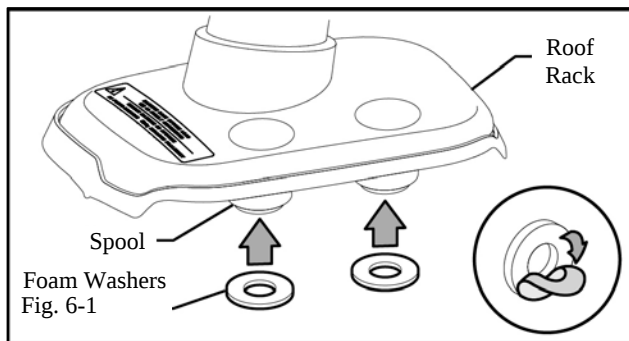
- (a) Remove and discard 2 Roof Rails (1 on each side) (Fig. 3-1).

4. Install the Bracket (4 locations)

-  (a) Install the bracket 63185-42020 over the bushings (Fig. 4-1).
-  **NOTE:** This bracket must be supplied separately and is mandatory for installation.
-  **NOTE:** The tabs face towards the outside of the vehicle.
-  (b) Make sure the bushings remain protruding through the holes in the roof.

5. Assemble the Roof Rack.

-  (a) Join the LH and RH Rail Assembly together using the joint assembly ("I" shaped connector) and four M5-1.81 X 15mm screws (Fig. 5-1).
- (b) Loosely install 4 screws. (do not tight in this step)
-  **NOTE:** Orient the tapered joint assembly with the thin portion at the top and wider portion at the bottom (Fig. 5-1).

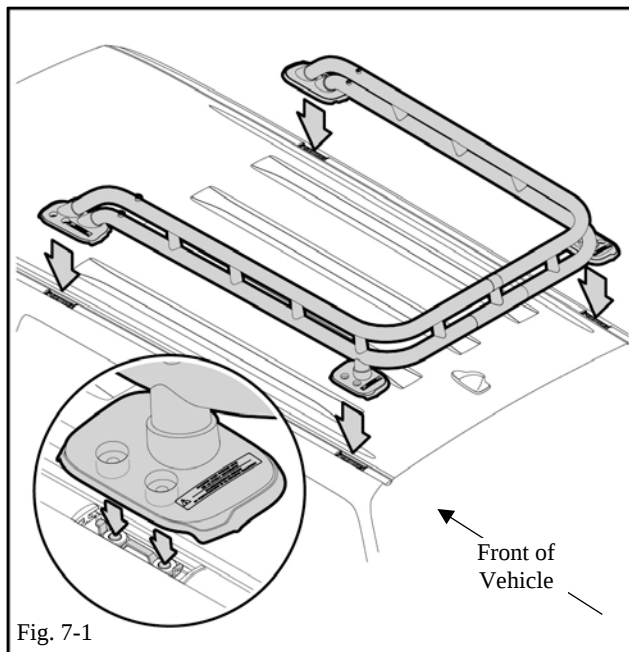


6. Install the Foam Washers.

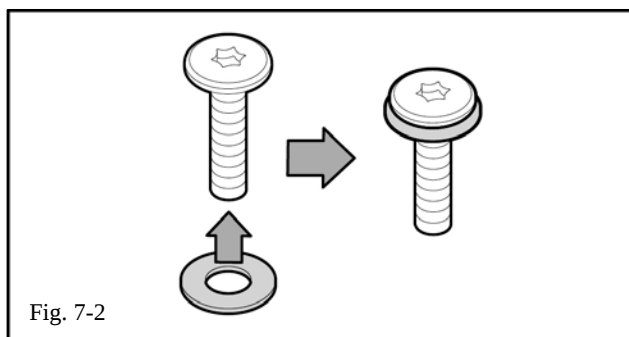
- (a) Remove the adhesive backing and adhere the foam washers on the bottom surface of spools prior to installing to the vehicle (8 locations) (Fig. 6-1).

STOP NOTE: Ensure the foam washers are adhered to the spools. Do not apply the foam washers on the vehicle.

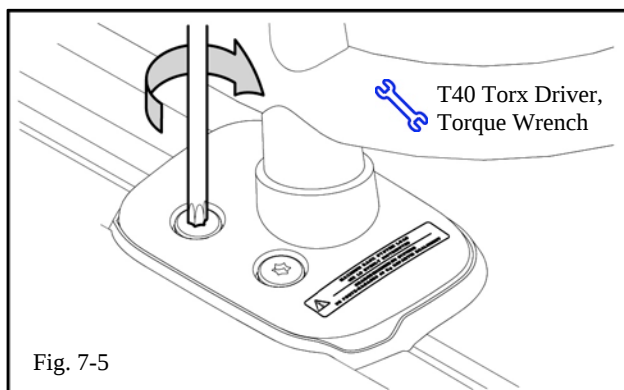
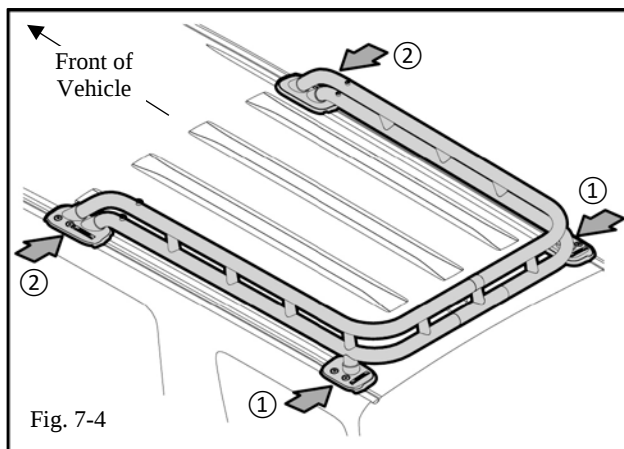
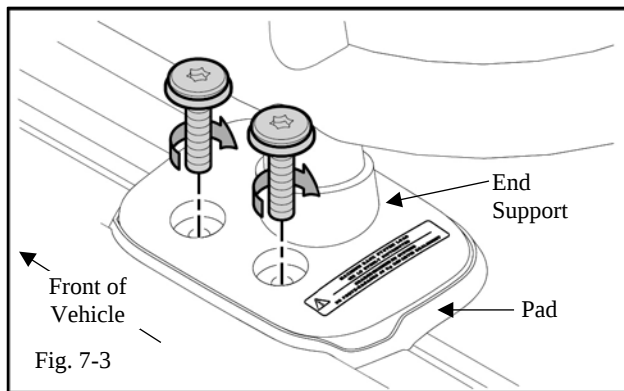
7. Install the Roof Rack.



- !** (a) Confirm the brackets 63185-42020 remain in the correct position (Fig. 4-1).
- !** (b) Confirm the foam washer on the underside of the support is not obstructing the spool hole.
- !** (c) Using two people, carefully place the roof rack in position on the vehicle (Fig. 7-1).



- !** (d) Insert the M8 wafer head screws into fiber washers (8 required) (Fig. 7-2).
- !** (e) Make sure the vehicle sheet metal holes are centered with the support holes at all locations.



(f) Hand start M8 wafer head screws at all 8 locations (Fig. 7-3).

⚠ (g) Adjust the end support fit to the pad (Fig 7-3).

(h) Confirm the end support is sitting inside the opening of the pad. Make sure the outer edge of the end support is not sitting on top of the pad's lip.

⚠ (i) Adjust the end support with pad fit to roof ditch mold (Fig. 7-4).

⚠ NOTE: The pad should follow the contour of the vehicle roof sheet metal.

(j) Starting with the rear, tighten 4 rear end support screws (1) (Fig 7-4).

(k) Then, tighten 4 front end support screws (2) (Fig. 7-4).

⚠ NOTE: DO NOT use electric tool with torque greater than 10 ft-lbs to tighten to snug. Run each fastener down (do not fully tighten).

⚠ (l) Verify all the end supports and the pads are fully seated and are snug and properly fitted to the roof ditch mold (Fig. 7-5).

(m) Starting from the rear supports, torque M8 wafer head screws to 18.0 Nm $\pm$ 3Nm (13 lbf-ft).

Torque: 18.0 Nm (13 lbf-ft)

(n) Complete tightening and torque four M5-1.81 X 15mm rail tube and joint assembly screws to 4 Nm $\pm$ 0.1Nm (35 lbf-in) (Fig. 5-1).

Torque: 4 Nm (35 lbf-in)

⚠ NOTE: Ensure gap between rail tube and joint assembly is no greater than 0.5mm.

8. Verify the Support Installation.

-  (a) Verify all supports are snug and properly fitted to roof ditch mold and re-torque all M8 wafer head screws to 18.0 Nm (13 lbf-ft).

Torque: 18 Nm (13 lbf-ft)

- (b) Verify gap between support pads and vehicle surface is no greater than 1.5mm.

9. Install the Crossbars.

-  (a) Loosen eight crossbar thumbwheel knobs in the adjustment slot and evenly extend to the length of the side rail tubes (Fig. 9-1).

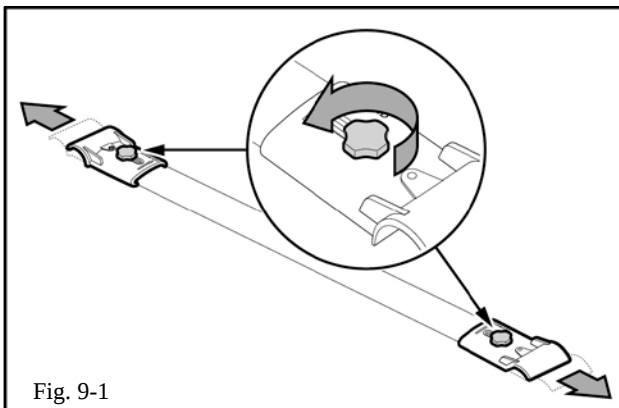


Fig. 9-1

- (b) Place the crossbars between the rails with the arrow pointing to the front of the vehicle (Fig. 9-2).

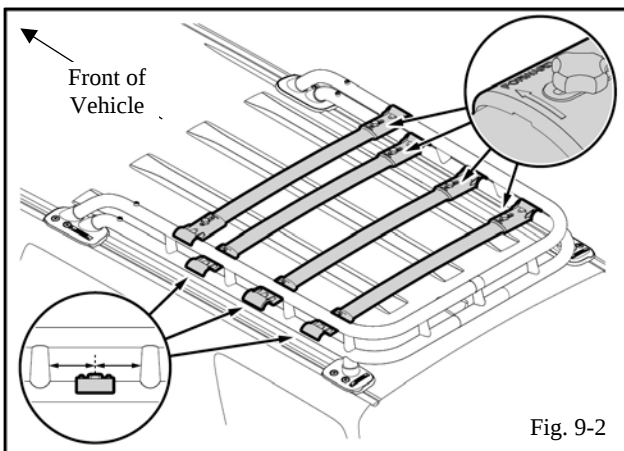


Fig. 9-2

-  **NOTE:** “FORWARD” arrow is for front of vehicle orientation (Fig. 9-2).

- (1) Place top crossbar immediately rearward of the front stanchion (Fig. 9-2).
- (2) Place lower crossbars between the stanchions (Fig. 9-2).

- (c) Re-tighten the thumbwheel knobs in the adjustment slots (Fig. 9-3).

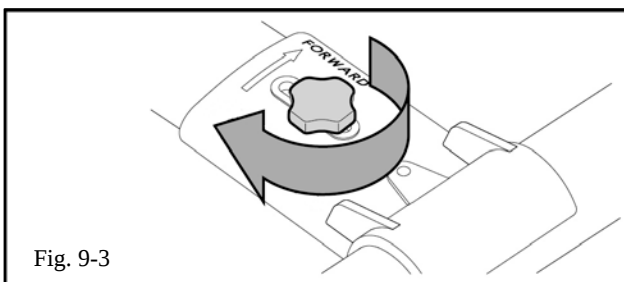
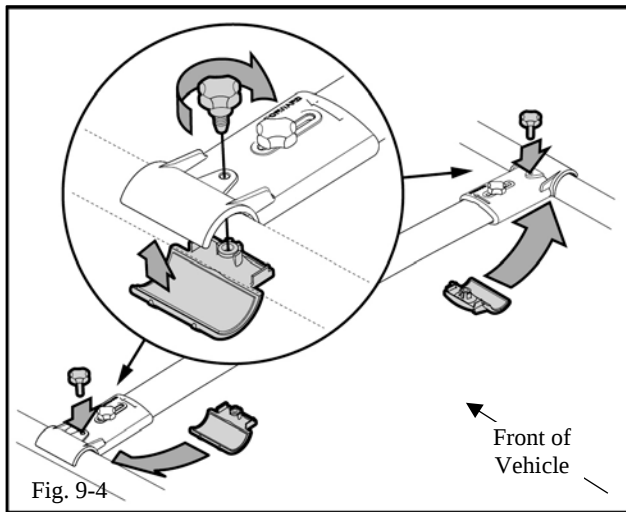


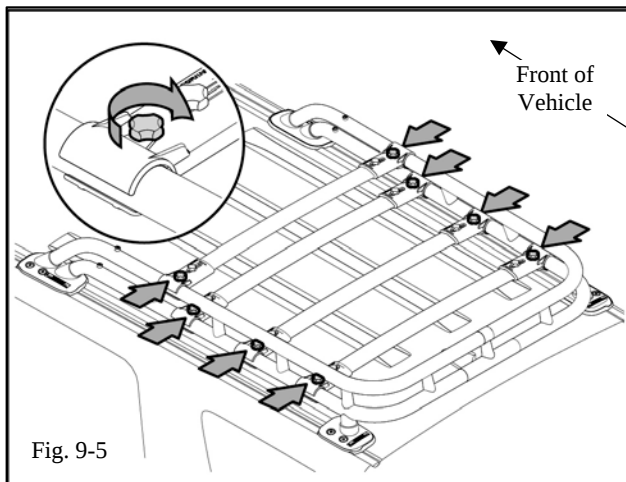
Fig. 9-3



- (d) Place the lower clamp under the crossbars and tighten the clamp thumbwheel knobs (Fig. 9-4).



NOTE: Make sure the lower clamp is on the correct side (LH or RH). They will not fit properly if it is on the wrong side.



- (e) Ensure the crossbars are parallel to the roof sheet metal and then securely tighten all clamp thumbwheel knobs (Fig. 9-5).

10. User's Manual Placement.



- (a) Place the user's manual with the owner's manual in the vehicle glove box.

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

Check:

Look For:

Accessory Function Checks

- ☐ Crossbar should be securely locked into rail tubes for shipment.
- ☐ Gap between roof rack side pads and vehicle roof surface.
- ☐ Crossbar orientation.
- ☐ Crossbar thumbwheel knob securely tightened.
- ☐ Clamp thumbwheel knob securely tightened.

Ensure all four crossbars are secure.

Tighten if necessary.

Not greater than 1.5mm.

Ensure “forward arrow” is pointing towards the front of the vehicle.

Vehicle Function Checks

- ☐ User’s manual placement with owner’s manual.

Ensure the user’s manual is placed in the vehicle glove box.

Vehicle Appearance Check

- ☐ Ensure no damage (including scuffs and scratches) was caused during the installation process.