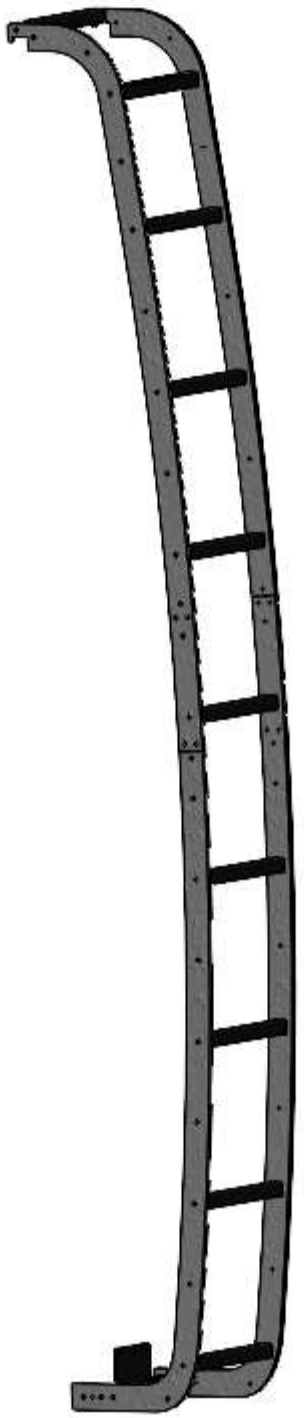
ATLAS ROADCAMP

Installation guide – Side ladder



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WARNINGS

SECURITY WARNINGS

ATLAS Roadcamp disclaims all liability related to an injury which happened while installing, maintaining or using in any way ATLAS Roadcamp's ladder

The first installation of a ladder can take up to 3 hours.

Make sur you always:

- Are 2 persons to install a ladder.
- Are secured with an approved safety harness and an approved anchor point higher than the vehicle at all times when installing a side ladder. If it is not possible, it is imperative to use scaffolds and / or 8-foot stepladders on each side of the vehicle in order to work in a safe manner. There is a significant risk of falling from the top of a vehicle.
- Wear safety glasses and cut resistant gloves

If you have any hesitations or questions while installing a ladder, stop the work and contact ATLAS Roadcamp.

TECHNICAL WARNINGS

- Before starting the installation, apply a protection, like cardboard or plastic wrap, to the roof of the vehicle in order to protect it.
- All bolts and nuts have to be tightened manually (using ratchets, Allen keys and torque wrenches) to the tightening torques indicated in this guide.
- NEVER use an impact driver as the hardware is in stainless steel so it can easily seize/grab and become unusable.
- At all steps where a stainless steel (SS) bolt is assembled with a nylon nut, it is mandatory to put anti-seize on the bolt in order to ensure that the assembly does not seize.
- Nylon lock nuts are used to assemble ATLAS Roadcamp ladders. This type of nuts shouldn't be tightened and loosened repeatedly. Therefore, it is important to carefully follow the tightening steps prescribed in this guide.
- All assemblies without nylon lock nuts require the use a threadlock such as LOCTITE 242 or LOXEAL 54-03. It is important to apply it properly on the bolts prescribed in this guide.

GENERAL WARNINGS

- Installation of an ATLAS Roadcamp side ladder or any other component (fans, air conditioning, Thule cargo box, etc.) on the roof of your vehicle may cause or accentuate hissings, vibrations and/or turbulence. Correct installation of the rack's wind fairing helps to reduce theses noises. However, ATLAS Roadcamp is not responsible for any noises, hissings, turbulences and/or vibration caused by the addition of roof components.
- ATLAS Roadcamp is not responsible for the increased fuel consumption of your vehicle as a result of the installation a roof rack or a side ladder.
- At all time, observe the maximum roof loads as well as the maximum heights prescribed by your vehicle's manufacturer.
- ATLAS Roadcamp side ladders are designed to support one person when climbing on the roof of the vehicle. They are not intended for any other purpose. ATLAS Roadcamp disclaims all liability for unintended uses or installations other than this.
- Any non-approved modification or alteration to an ATLAS Roadcamp side ladder will void the product warranty.
- The addition of items not approved by ATLAS Roadcamp will void the product warranty

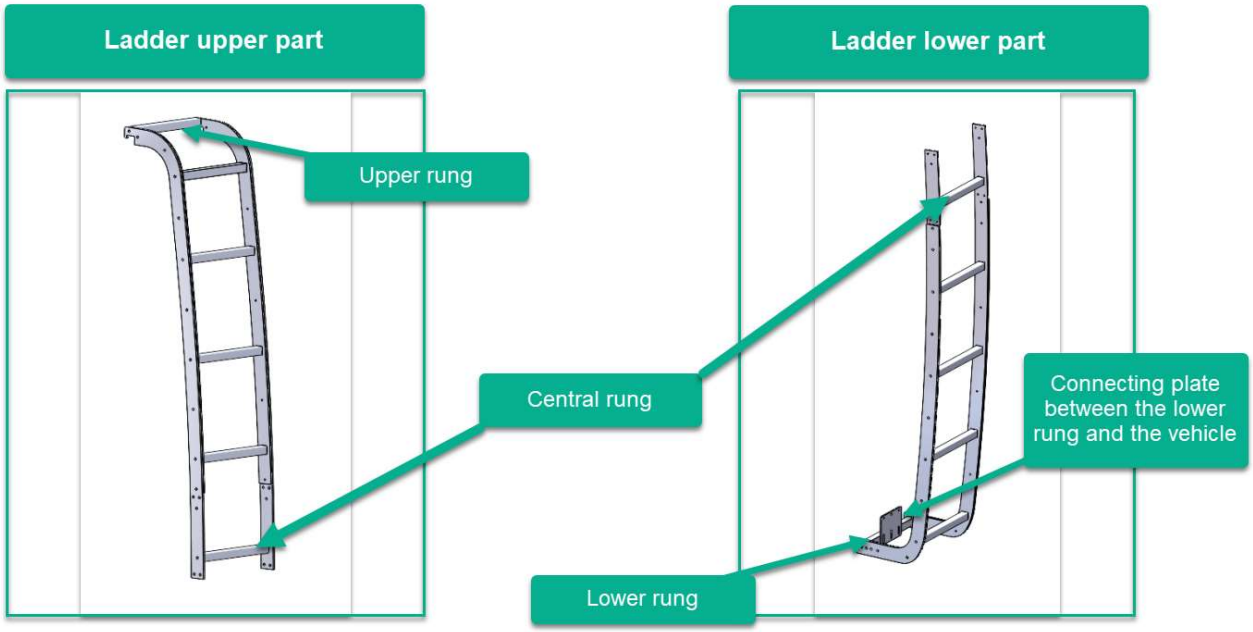
Reminder: At any time, if you have any doubts about the installation, stop immediately and contact ATLAS Roadcamp.

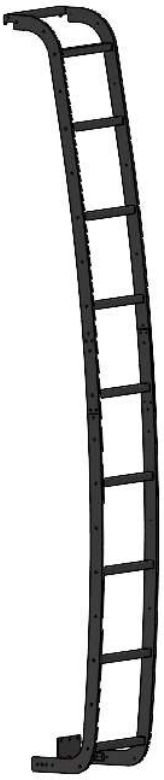
MAINTENANCE

- All tightening torques must be verified after the first 100 km and 500 km traveled with your vehicle following the installation of a rack or a ladder.
- At each season change, verify the correct tightening of the hardware, the general positioning of the rack and the condition of the SIKA221 to ensure that the anchors are watertight.

REQUIRED MATERIAL

SUPPLIED MATERIAL





SUPPLIED HARDWARE

QTY	HARDWARE ITEMS	IMAGES	ASSEMBLY USAGE
6	Hexagonal bolt SS 1/4''-20 x 5/8''		3 to assemble upper rung to ATLAS rack's side plate 3 to assemble lower rung with connecting plate
12	Washer SS 1/4''		3 - assembly of the upper rung with a side plate of the ATLAS roof rack 3 assembly of lower rung with connecting plate 6 -assembly of connecting plate and vehicle
6	SS drop-in T-nut 1/4''-20		3 -assembly of upper rung to ATLAS rack's side plate 3 – assembly of lower rung with connecting plate
6	Lockwasher 1/4''		3 -assembly of upper rung to ATLAS rack's side plate 3 - assembly of lower rung with connecting plate
3	Hexagonal SS 1/4''-20 x 1''		Assembly of connecting plate and vehicle
3	Nylock SS 1/4''-20		Assembly of connecting plate and vehicle
10	Button Head Bolt SS 1/4''- 20 X 1/2''		To assemble the ladder upper and lower part
2	Button Head Bolt SS 1/4''- 20 X 3/4''		Spare bolts for ladder rungs

REQUIRED TOOLS (NON-INCLUDED)

- Torque Wrench"
- Allen key or Hex key bit socket 5/32''
- Scoket : 9/16''
- 9/32" diameter metal drill bits
- Drill

REQUIRED PRODUCTS (INCLUDED)

- Anti-seize tube

REQUIRED PRODUCTS (NOT INCLUDED)

- Isopropyl alcohol 99%
- Clean rags
- Large blanket or carton.
- LOCTITE 242 OU LOXEAL 54-03 :

****Note valid for the entirety of this installation guide: At all steps where a stainless steel (SS) bolt is assembled with a nylon nut, it is mandatory to put anti-seize on the bolt in order to ensure that the assembly does not seize.****

INSTALLATION STEPS

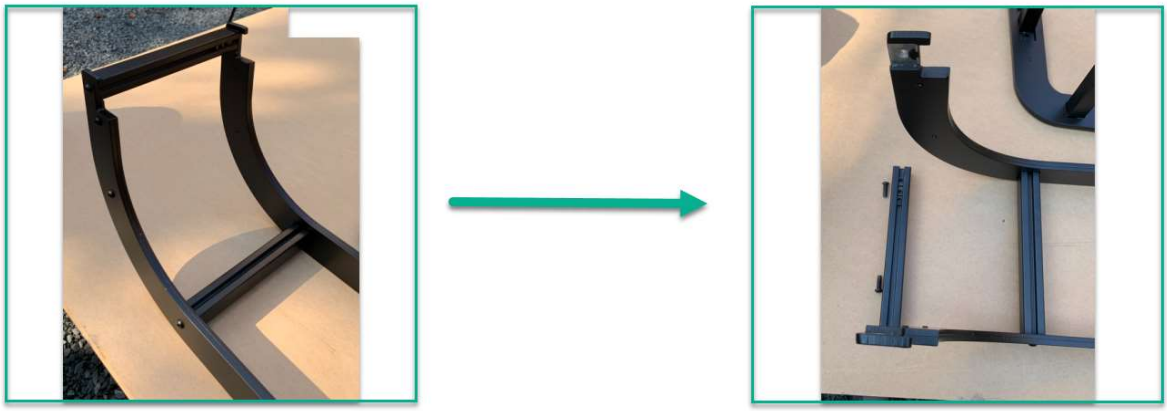
1. LADDER LOWER-PART AND UPPER-PART ASSEMBLY

Final result :

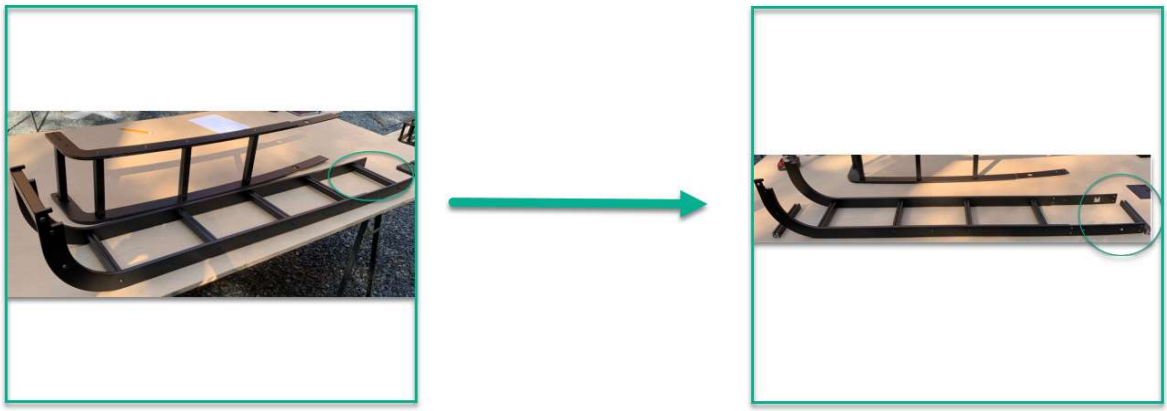
REQUIRED MATERIAL:

- 10 Black anodized button Head Bolt SS 1/4’’- 20 X 1/2’’
- Threadlocking adhesive such as LOCTITE 242 or LOXEAL 54-03

1.1. Remove the top rung of the ladder by unscrewing the 2 bolts 1/4''-20 x 3/4''.



1.2. Remove central rung of the ladder by unscrewing the 2 ¼’’-20 x ¾’’ bolts.



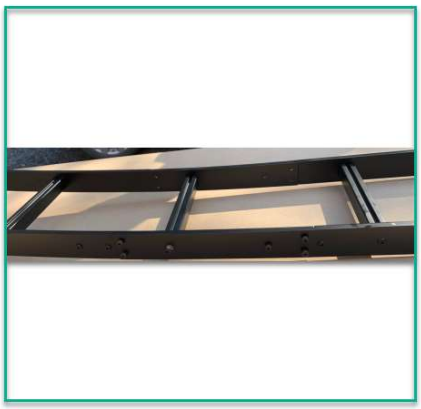
1.3. Insert the central rung into the square holes intended for this purpose.

1.4. Place the to ladder sections end to end aligning all holes as accurately as possible.

*Hint: Lift the ends of the ladder sections with objects you have on hand to help align the center. *

1.5. Put a drop of threadlocker on the 1/4''-20 x 3/4'' bolts and insert them through the ladder stiles and center rung. Torque to **14 N·m** using a torque wrench.

1.6. Put a drop of threadlocker on the ten 1/4'' -20 x 1/2''bolts. Manually insert all bolts by aligning the 2 ladder sections together.



1.7. Once the ten 1/4''-20 x 1/2'' bolts are properly engaged, torque them to **12 N·m**.

1.8. Insert 3 T-nuts 1/4''-20 in the lower rung of the ladder simply by inserting it in the groove designated for this purpose.

2. ASSEMBLY OF THE UPPER RUNG TO THE RACK SIDE PLATE

**** ATLAS ROADCAMP side ladder is installed on the opposite side of the sliding door of your vehicle.****

Final result :

Required material :

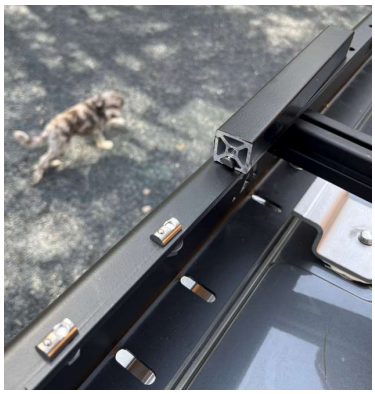
- 3 Hexagonal bolt SS 1/4’’-20 x 5/8’’
- 3 flat washers 1/4’’
- 3 lock washers 1/4’’
- 3 T-nuts 1/4''-20

2.1. IF REQUIRED: Additional steps for FORD TRANSIT 148'' MID ROOF and 148'' HIGH ROOF

2.1.1.IF REQUIRED: remove the top junction plate from the side plate on the opposite side of the vehicle from the sliding door. To do so, remove the 3 bolts 5/16''-18 x 1''.

2.2. Insert a lock washer and a flat washer on a 1/4''-20 x 5/8'' bolt. Insert the assembly, with head down, through the side plate and manually screw into a T-nut with the wide side down. Only engage the bolt into the nut to leave plenty of clearance. Repeat this step for the other two T-nuts.


2.3. Carefully slide the T-nuts into the upper rung slot until the nuts are centered in the rung.


2.4. Torque the 3 bolts to **12 N·m**.

2.5. Steps for : **FORD TRANSIT HIGH ROOF 148'' EXTENDED**

2.5.1. All the same steps, but remove 2.1.1, as the ladder is not positioned at the junction of the side plate, but slightly further back on the vehicle. It must still be in front of the rear wheels of the vehicle.

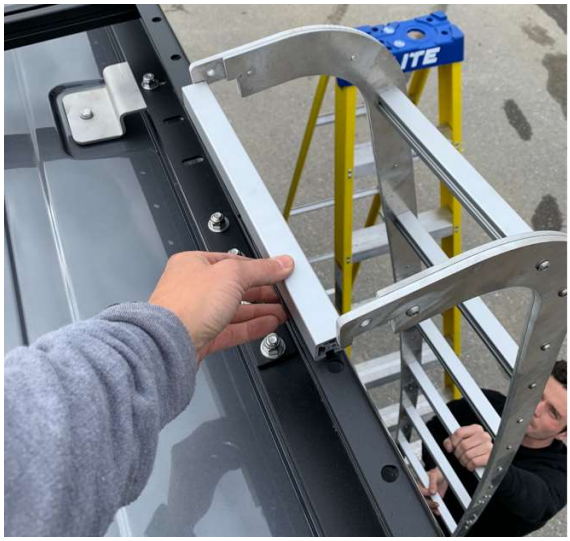
3 ASSEMBLY OF THE LADDER WITH THE UPPER RUNG

Final result :

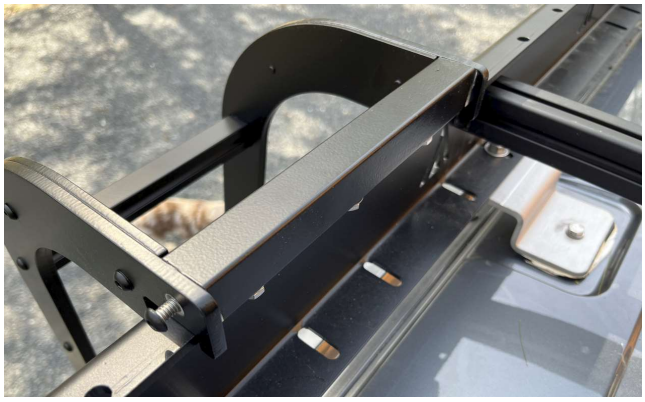
Required material :

- 2 x 1/4''-20 x 3/4'' bolts (those removed in step 1.1)

3.1 Take the ladder and hang it on the side plate, taking care to insert the upper rung between the two ladder stiles.



3.2 Put a drop of LOCTITE 242 or LOXEAL 54-03 adhesive on the end of the two 1/4''-20 x 3/4'' bolts previously removed and manually insert them through the ladder's stiles. Do not tighten completely right away.

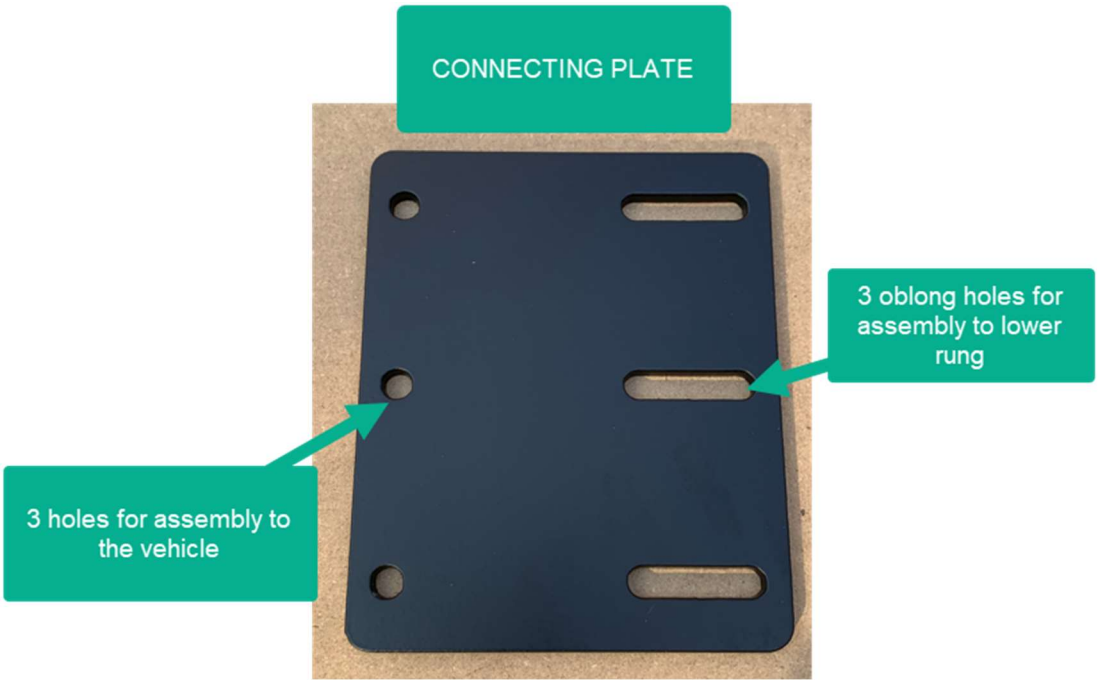


4 ASSEMBLY OF THE LADDER WITH THE CONNECTING PLATE

Final result :

Required material :

- 3 Hexagonal bolt SS 1/4’’-20 x 5/8’’
- 3 flat wahers 1/4’’
- 3 lock washers 1/4"



4.1 Insert a lock washer and a flat washer on a 1/4''-20 x 5/8'' bolt.

4.2 Place the plate in front of the bottom rung of the ladder. Position the T-nuts in front of the slotted holes.

4.3 Insert the assembly (bolt and washers) through the plate and screw manually into one of the T-nuts.
4.4 Repeat the previous step for the other 2 T-nuts
4.5 Leave the assembly loose so that the plate can be shifted easily for the next steps.

5 ASSEMBLY OF THE CONNECTING PLATE WITH THE VEHICLE

Final result:

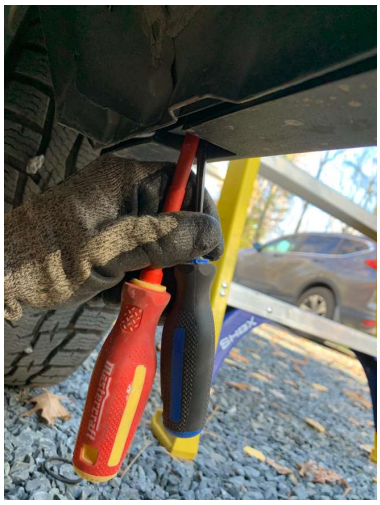
Required material:

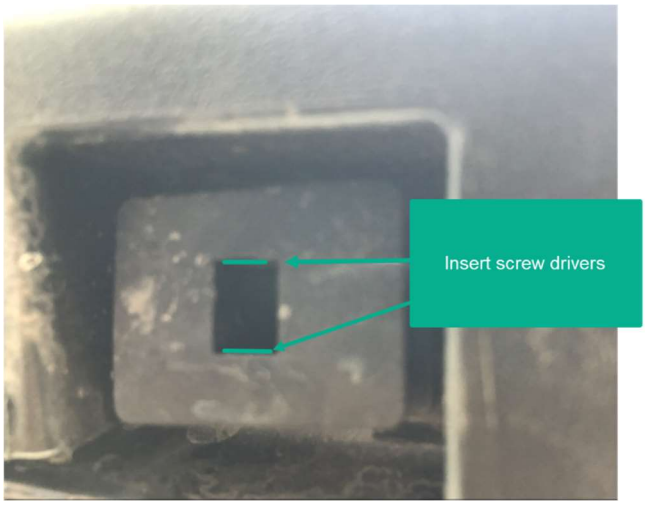
- 3 Hexagonal bolt SS 1/4’’-20 x 1’’
- 6 flat washers 1/4’’
- 3 Nylock 1/4’’

5.1 Temporarily detach the side plastic molding from the vehicle by unclipping the plastic clips that hold it to the vehicle.

5.1.1 Crawl under the vehicle with 2 flathead screwdrivers in hand at the location where you are installing the ladder

5.1.2 Insert the screwdrivers on each side of a plastic clip and tighten the 2 screwdrivers towards the center in order to retract the ears of the clip and make it come out of its anchorage slightly.



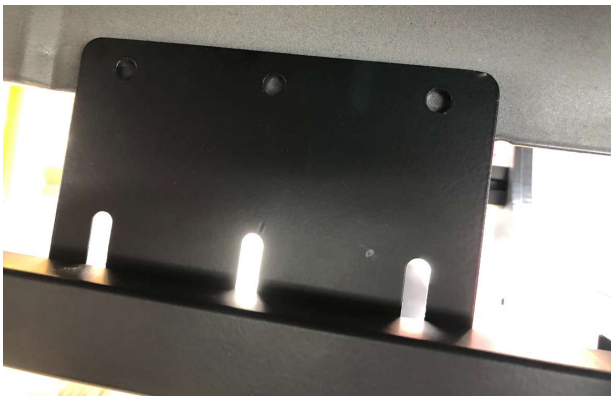


5.1.3 Pull slightly on the plastic moulding to release the steel lip hidden under the moulding by about 1’’.

5.1.4 Repeat these steps for 2 other adjacent clips.

5.2 Press the connecting plate onto the metal lip under the vehicle.

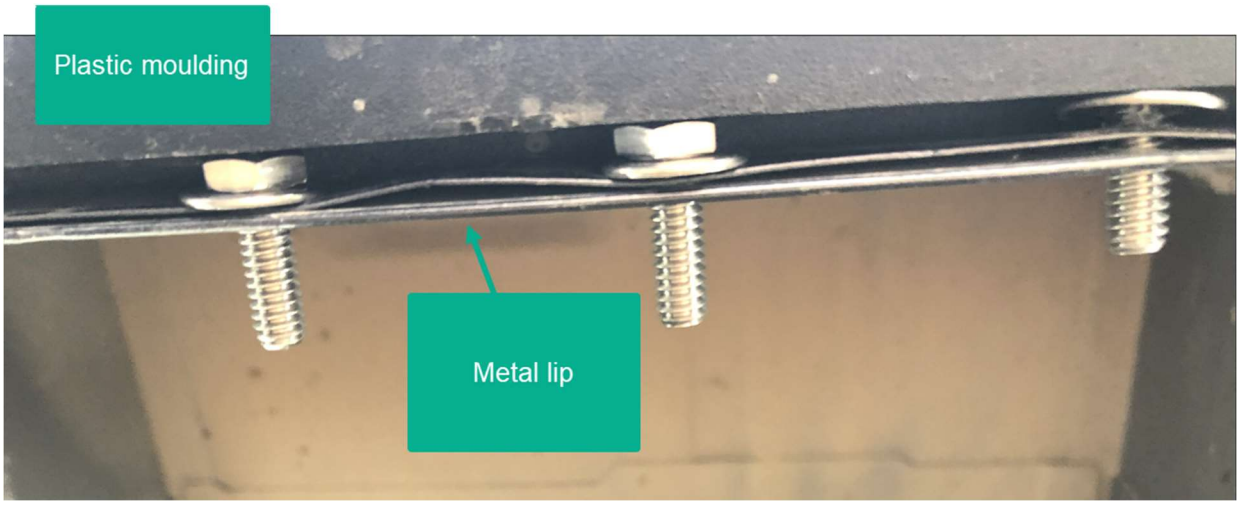
5.3 Position the plate in order to drill 3 assembly holes.



5.4 Drill the 3 assembly holes using a 9/32" metal bit.

Note: It is possible to drill the holes by inserting the metal bit directly into the holes of the connecting plate or to mark the position of the holes with a felt pen, remove the plate and then drill the 3 holes. Both methods are adequate.

5.5 Insert a flat washer on a 1/4''-20 x 1'' hex head bolt. Insert the assembly through the metal lip and the connecting plate. The assembly must be inserted from the outside of the metal lip (under the plastic molding) to the inside of the vehicle.



5.6 Insert a flat washer and a ¼'' nylock on the bolt.

Clip back the plastic moulding

6 FINAL TIGHTENING OF ALL LADDER BOLTS

Tighten each of the following parts to the specified torque:

- 2 x 1/4''-20 x 3/4''bolts: Upper rung with ladder stiles: **12 N·m**
- 2 x 1/4''-20 x 3/4''bolts : Central rung with ladder stiles: **12 N·m**
- 10 x 1/4''-20 x 1/2'' bolts : To assemble the 2 ladder sections : **12 N·m**
- 6 x 1/4''-20 x 5/8''hex head bolts : to assemble upper rung to the rack's side plate and the lower rung to the connecting plate: **12 N·m**
- 3 x 1/4''-20 x 1''hex head bolts : to assemble the connecting plate to the vehicle: **12 N·m**