

# FORD TRANSIT

## Installation guide – Roof Rack



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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 roof rack\*\***

The first installation of a roof rack can take up to 6 hours.

Make sur you always:

- Are 2 persons to install a roof rack.
- Are secured with an approved safety harness and an approved anchor point higher than the vehicle at all times when installing a roof rack. 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 roof rack, 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 roof racks. 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 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 roof rack 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 these 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.
- At all time, observe the maximum roof loads as well as the maximum heights prescribed by your vehicle's manufacturer.
- Distribute, as evenly as possible, the different loads on the 4 cross bars.
- ATLAS Roadcamp roof racks are designed to support RV roof items as solar panels, roof boxes and lighting LEDs. ATLAS Roadcamp disclaims all liability for uses or installations not intended for RVs.
- Any non-approved modification or alteration to an ATLAS Roadcamp rack will void the product warranty.
- The addition of items not approved by ATLAS Roadcamp will void the product warranty

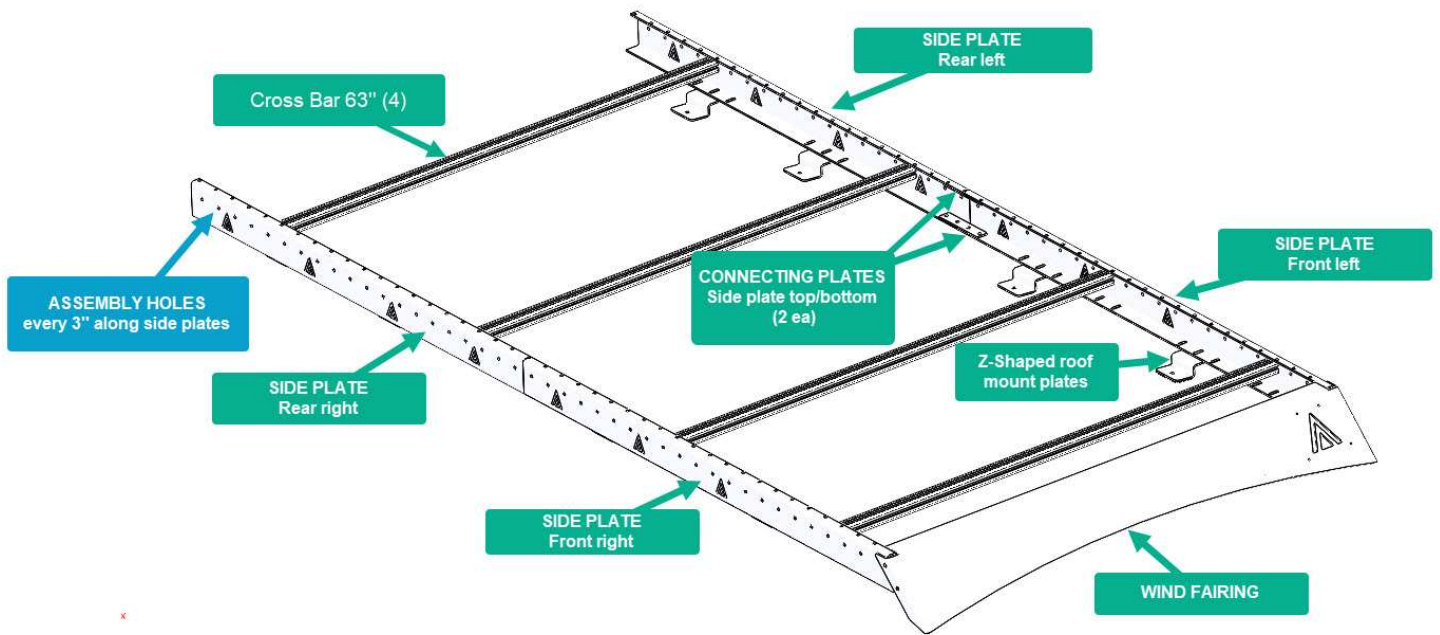
Reminder: At any time, if you have any doubts about the installation, stop immediately and contact ATLAS Roadcamp.

#### 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











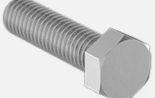


### SUPPLIED MATERIEL



- 8 rubber sheets – to insert in between vehicle's roof and Z-shaped mounting plates



SUPPLIED HARDWARE

QTY	Hardware items	Hardware images	Assembly usage
8	Hexagonal SS M8X35mm		To assemble the Z-shaped anchor plates to the roof of the vehicle
8	Sealing washer SS M8		To be inserted on Hexagonal M8x35mm
8	Carriage bolt SS 3/8''-16 x 1''		To assemble Z-shaped roof mount plates to side plates
32	Flat washer SS 3/8''		As Indicated in the descriptions of the installation steps
12	Button Head Bolt SS 3/8''-16 X 1''		<ul style="list-style-type: none"> <li>- 8 to assemble bottom connecting plates to side plates</li> <li>- 4 to assemble wind fairing to side plates</li> </ul>
14	Button Head Bolt SS 5/16'' x 1''		<ul style="list-style-type: none"> <li>- 6 to assemble top connecting plates to side plates</li> <li>- 8 to assemble cross bars to side plates</li> </ul>
20	Nylon lock nut SS 3/8''-16		<ul style="list-style-type: none"> <li>- 8 to assemble Z-shaped roof mount plates to side plates</li> <li>- 8 to assemble bottom connecting plates to side plates</li> <li>- 4 to assemble wind fairing to front side plates</li> </ul>
12	Flat washer SS 5/16''		To assemble top connecting plates to side plates
6	Nylon lock nut 5/16''- 18		To assemble top connecting plates to side plates
12	Flat washer SS 1/4		- To assemble 3 solar panels to the cross bars
12	Hexagonal Head Bolt SS 1/4''-20 x 5/8''		- To assemble 3 solar panels to the cross bars
12	Lock washer 1/4''		- To assemble 3 solar panels to the cross bars
12	SS drop-in T-nut w/spring-ball 1/4-20		- To assemble 3 solar panels to the cross bars

REQUIRED TOOLS (NON-INCLUDED)

- X-acto.
- Scraper.
- Torque Wrench.
- Allen key or Hex key bit socket 5/32", 3/16" et 7/32" with a ratchet wrench.
- Sockets : 9/16", 7/16" et 1/2".
- Caulking gun.

REQUIRED PRODUCT INCLUDED

- Anti seize tube



REQUIRED PRODUCTS (NOT-INCLUDED)

- Isopropyl alcohol 99%
- LOCTITE 242 OU LOXEAL 54-03 :
- Clean rags
- SIKA221 :
- Large blanket or carton
- Metal paint



**\*\*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. Z-SHAPED ROOF MOUNT PLATES ASSEMBLY

Final result:



#### REQUIRED MATERIAL:

- 8 Z-shaped roof mount plates
- 8 Hex SS M8x35mm
- 8 flat washer M8
- 8 rubber plates

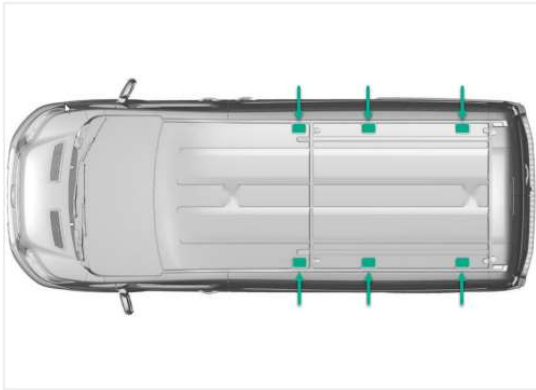
\*Ford Transit 130'': 6 Z-shaped roof mount plates \*\*only vehicle model that requires 6 Z-plates rather than 8\*\*



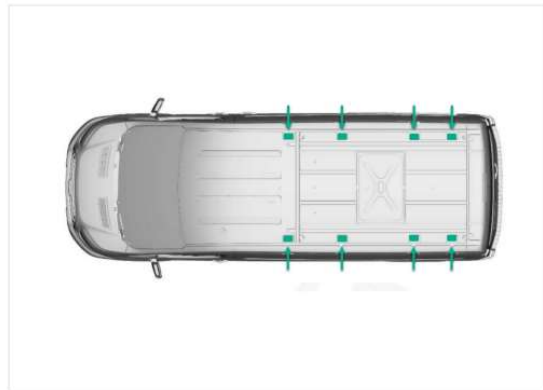
- Here are the positions diagrams of the roof anchorages to be used for FORD TRANSIT 2015 and more recent models. It is imperative to respect the diagram corresponding to your vehicle.

## Roof anchors positions diagrams

Ford Transit 2015 and more recent



130" Ford Transit



148" MR Ford Transit



148" HR Ford Transit



148" Extended HR  
Ford Transit

- 1.1 Clean the recessed roof mount surfaces (4X on each side) thoroughly with Isopropyl alcohol 99%. (Refer to "Roof anchors positions diagrams on the previous page)
- 1.2 Remove the original Ford sealed caps using a scraper or an X-acto knife.



- 1.3 Remove excess black sealant.

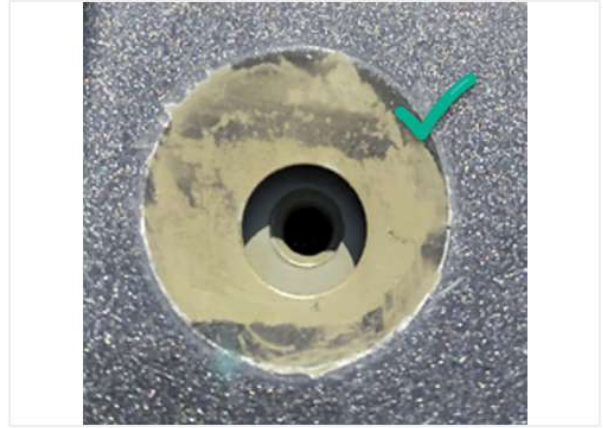


- 1.4 It is possible that the original Ford threaded borehole and the hole in the roof sheet are misaligned.
- 1.4.1 To test it, try to screw in an M8 x 35 mm bolt by hand. If this is not possible, the sheet must be cut.

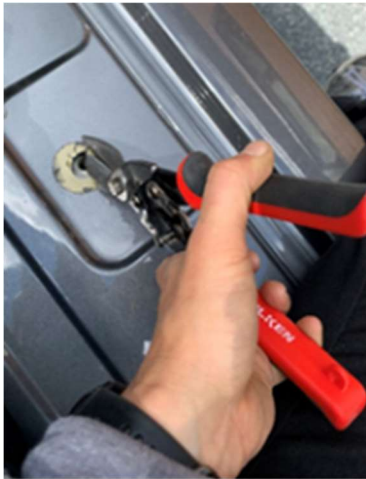
**non-centered borehole  
requiring cutting**



**Well centered bore hole**



- 1.4.2 If necessary, cut the roof sheet with metal scissors to free the bore. The cut sheet must be painted with metal paint.



- 1.5 Liberally apply a bead (approximately 1/2" bead diameter) of SikaFlex221 around the entire circumference of the bore hole.



1.6 Place the rubber plate delicately and centrally on the bead of SikaFlex221.



1.7 Liberally apply a second bead (approximately 1/2" bead diameter) of SikaFlex221 on the rubber plate around the entire circumference of the bore hole.



1.8 Assemble the Z-Shaped mounting plates with the vehicle.

1.8.1 Follow the steps given below:



- 1 8 Z-Shaped plates  
8 hex. M8 x 35mm bolts  
8 sealed washers
- 2 Insert the sealed washers (rubber facing down) on the M8 Bolts
- 3 Insert the bolts with the washers into the Z-Shaped plates
- 4 Apply LOXEAL on the end of the bolts
- 5 Insert the bolts into the rubber holes and screw into the vehicle's bore holes. Tighten to 7 Nm

1.9 Tighten of all M8 x 35 mm bolts to a torque of **7 Nm** using a torque wrench.

## 2. SIDE PLATES ASSEMBLY

Step 2 final result:

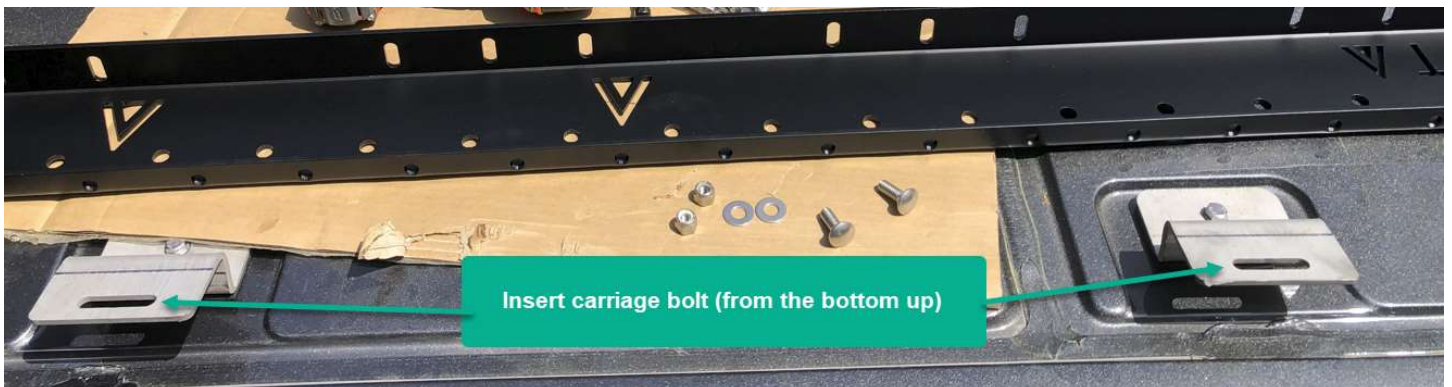


REQUIRED MATERIAL:

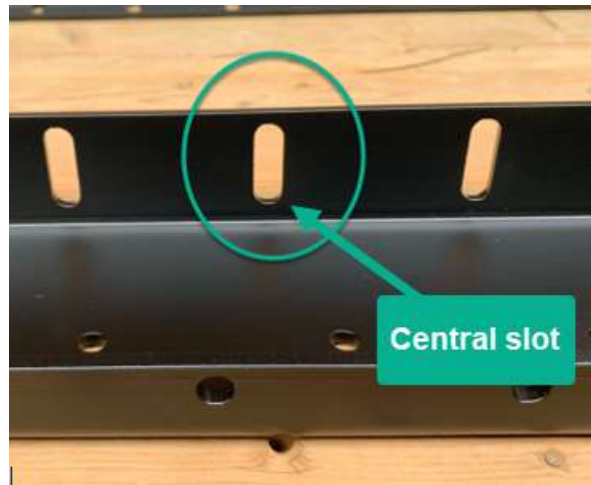
- 2 front side plates (right and left)
- 2 rear side plates (right and left)
- 8 carriage bolts SS 3/8"-16 X 1"
- 8 flat washers SS 3/8"
- 8 Nylon lock nuts SS 3/8"-16

2.1. Insert a carriage bolt into the oblong hole of a Z plate (insert from the bottom up, so the bolt head is down) and hold it firmly.

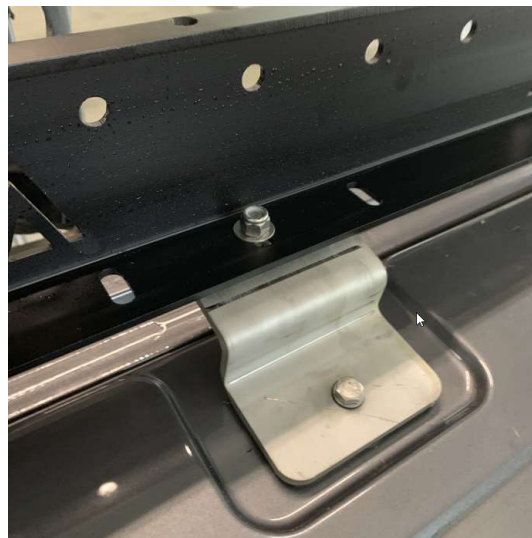
**\*\*Put anti-seize on the bolts\*\***



2.2. Place a side plate over the Z plates by inserting the carriage bolt into a central slot in the side plate.



2.3. Insert a 3/8" flat washer and a 3/8" - 16 nylon lock nut on the 3/8" carriage bolt. Finger tighten the nut only.  
**\*\*To allow easy insertion of the crossbars later, do not tighten the bolts firmly at this time\*\***



2.4 Repeat steps 2.1 à 2.3 for all Z-shaped plates with their corresponding side plate.

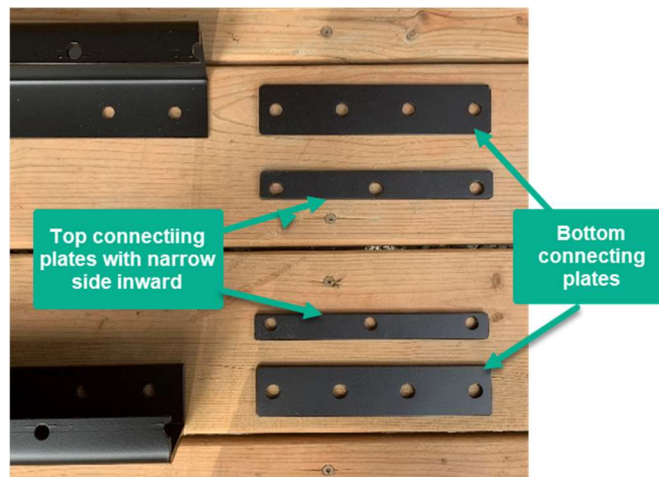
### 3. CONNECT THE FRONT SIDE PLATES WITH THE REAR SIDE PLATES

Final result



#### REQUIRED MATERIAL

- 2 top connecting plates
- 2 bottom connecting plates
- 8 button Head Bolts SS 3/8"-16 X 1"
- 16 flat washers SS 3/8"
- 8 nylon lock nuts SS 3/8-16"
- 6 button head SS 5/16" X 1"
- 12 flat washers SS 5/16"
- 6 nylon lock nuts SS 5/16"



3.1 Manually align the front and rear side plates as straight as possible.

3.2 Place the bottom connecting plate on the seat of the side plate.



3.3 Insert a flat washer on a 3/8"-16 x 1" button head bolt.

3.4 Insert the button head bolt (with the washer) through the side plate's seat and the bottom connecting plate.

3.5 Insert a flat washer and a nylon lock nut. Finger tighten the lock nuts.

3.6 Repeat these steps for the other 3 bottom connecting plate bolts.

**\*\*For the top connecting plates, the narrow side of the holes should face inward so as not to protrude from the side plate\*\***

3.7 Repeat these steps for the three 5/16"-18 x 1" button head bolts assembling the top connecting plate. Make sure to properly orient the top connecting plates.



3.8 Complete the final tightening of all bolts of the connecting plates using a torque wrench.

- 6 button head bolts 5/16" (3 per top connecting plates): **12 Nm**
- 8 button head bolts 3/8" (4 per bottom connecting plates): **16 Nm**



#### 4. CROSS BARS ASSEMBLY

Final result:



#### REQUIRED MATERIAL:

- 4 black anodized aluminum crossbars 1.5" x 1.5" x 63"
- 8 button head bolts SS 5/16 X 1"
- Threadlock LOCTITE 242 or LOXEAL 54-03

4.1 Move the left and right side plates as far apart as possible (facilitates the insertion of the crossbars).

4.2 Position the 4 crossbars on the seats of the side plates lined up with the assembly holes of your choice (assembly holes are present every 3" along the side plates). Position the crossbars according to the configuration of the accessories of your vehicle roof and pay particular attention to the dimensions of your solar panels so as not to have to move the crossbars again.

\*\* Crossbars should be distributed as evenly as possible. Minimum 1 crossbar assembled to the rear side plates \*\*



4.3 Add a drop of threadlock on the end of a button head bolt 5/16"x1.".

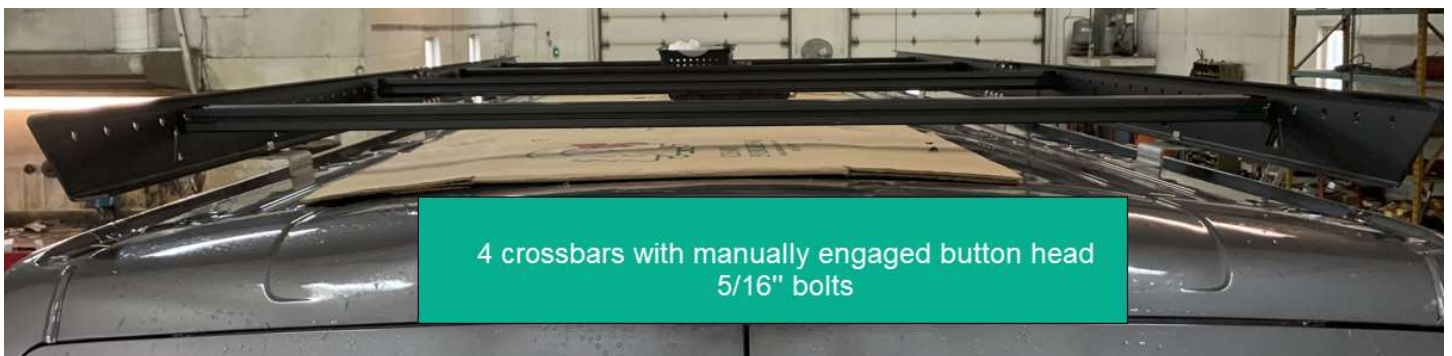
4.4 Engage the bolt, with the threadlock added on it, through the side plate and manually screw a few turns into the crossbar.



4.5 Repeat these steps for the opposite end of the crossbar.



4.6 Repeat these steps for the other 3 crossbars



4.7 Tighten the 8 crossbar bolts to a torque of **12 N·m** using a torque wrench.

## 5. WIND FAIRING ASSEMBLY

Step 5 final result:



### REQUIRED MATERIAL:

- 1 wind fairing.
- 4 button head Bolt SS 3/8"-16 X 1".
- 4 flat washer SS 3/8".
- 4 nylon lock nut SS 3/8"-16.

#### 5.1. Wind fairing and front side plates assembly.

Position the wind fairing so as to align its assembly holes to the assembly holes of the side plates.

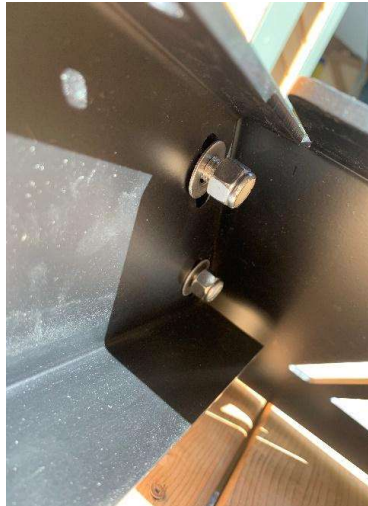


5.2. Insert the 3/8"-16 x 1" bolts through the wind fairing and than the side plate.

**\*\*\*IMPORTANT: Put anti-seize on the bolts\*\*\***



5.3. Insert a 3/8" flat washer and a nylon lock nut 3/8" on the bolts



5.4. Finger tighten the lock nuts to secure the assembly.

5.5. Firmly press the bottom of the wind fairing in the center with the roof of the vehicle to avoid any possibility of vibration when driving.



5.6. Tighten the 4 bolts/nuts assemblies to a torque of **16 N·m** using a torque wrench.

6. FINAL TIGHTENING AND TIGHTENING CHECK TOUR OF ALL RACK BOLTS:

Tighten each of the following bolts/assemblies to the specified torque:

- 8 – M8x35mm (z-plates to roof of vehicle): **7 N·m.**
- 8 – SS 3/8"-16- x 1" carriage bolt (Z-plates to side plates): **16 N·m.**
- 8 – SS 3/8"-16 x 1" button head bolts (bottom connecting plates with side plates): **16 N·m.**
- 6 – SS 5/16"-18 x 1" button head bolts (top connecting plates to side plates): **12 N·m.**
- 8 – SS 5/16"-18 x 1" button head bolts (side plates to crossbars): **12 N·m.**
- 4 – SS 3/8"-16 x 1" (wind fairing with side plates): **16 N·m.**

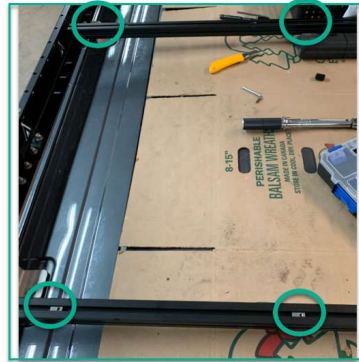
## ANNEXE 1: SOLAR PANELS ASSEMBLY

### REQUIRED MATERIAL:

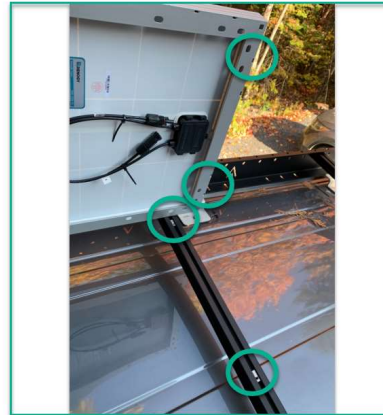
- 12 SS drop-in T-nut w/spring-ball 1/4"-20
- 12 lock washers 1/4"
- 12 Hex. head 1/4"-20 x 0.625" bolts

### STEPS:

1.1. Insert 2 spring nuts 1/4"-20 in the groove of a crossbar provided for this purpose.



1.2. Position the spring nuts at the same distance as the assembly holes of your solar panel to be installed.



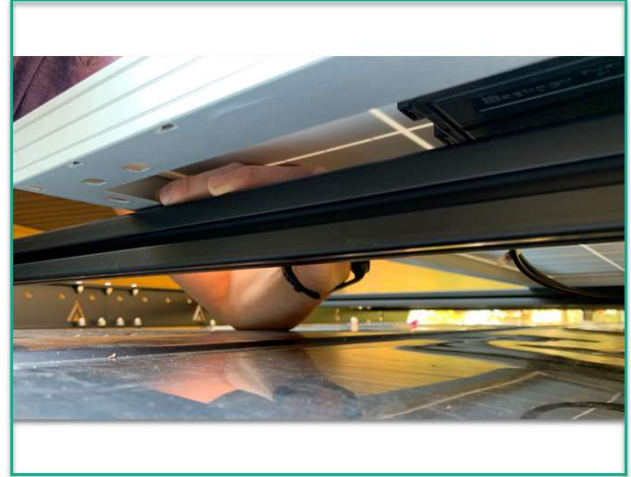
1.3. Repeat these steps on the other selected crossbar to install your solar panel on.

1.4. Place a panel on the crossbars.

1.5. Insert a 1/4" lock washer on a hex. Head 1/4"-20 x 5/8" bolt.



1.6. Insert the assembly through the solar panel and manually screw into a spring nut.



- 1.7. Repeat these steps for the other 3 corners of your solar panel.
- 1.8. Tighten all bolts securely using a 7/16" ratchet wrench.
- 1.9. Repeat these steps for each solar panel (material provided for the installation of 3 panels).