



Tommy Car Wash Systems Engineering Work Instruction Form

Rev. 1.0 | Date: 9/23/2020

Install Description

Retrofit instructions for the new hinged version of the Tommy Tire Shine Shield.
Recommended to use two people for install.

Kit Contents:

1x Tire Shine Retrofit Assembly [P-TB-278-A]

Tools Required:

Standard Size Socket Set

Adjustable Wrenches

INSTRUCTIONS:

1.) Remove the 1/2" detergent supply line from the quick connect on the spray manifold. Set the line safely to the side to prevent damage to the line.

2.) Remove the two bolts that are holding the existing shield and manifold assembly to the brush, as shown in **Figure 1**. Set this grouping of parts aside for next step.

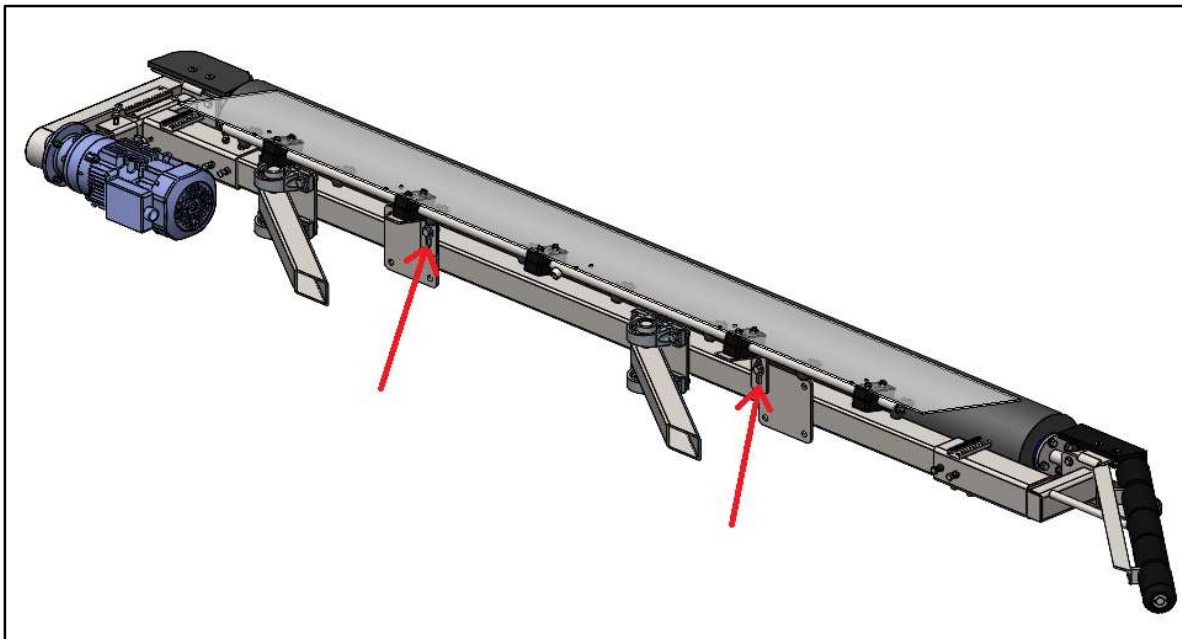


Figure 1: Locations of the two bolts to be removed from the existing Tire Shine assembly.

3.) Remove the spray manifold (with all nozzles and fittings still attached) from the grouping of parts that was removed in step 2. This will require the removal of 10 total screws that fasten the shield to the plastic blocks, which are clamped around the spray manifold, as shown in **Figure 2**. Only the spray manifold and its existing fittings, nozzles, etc. will be retained for use in the retrofit install, the other components can be disposed of as desired.

4.) The hinged Tommy Tire Shine Shield comes pre-assembled to allow for simple installation onto the existing unit. Remove the three u-bolts and their corresponding fasteners from the hinge mounts and set aside for use in next steps.

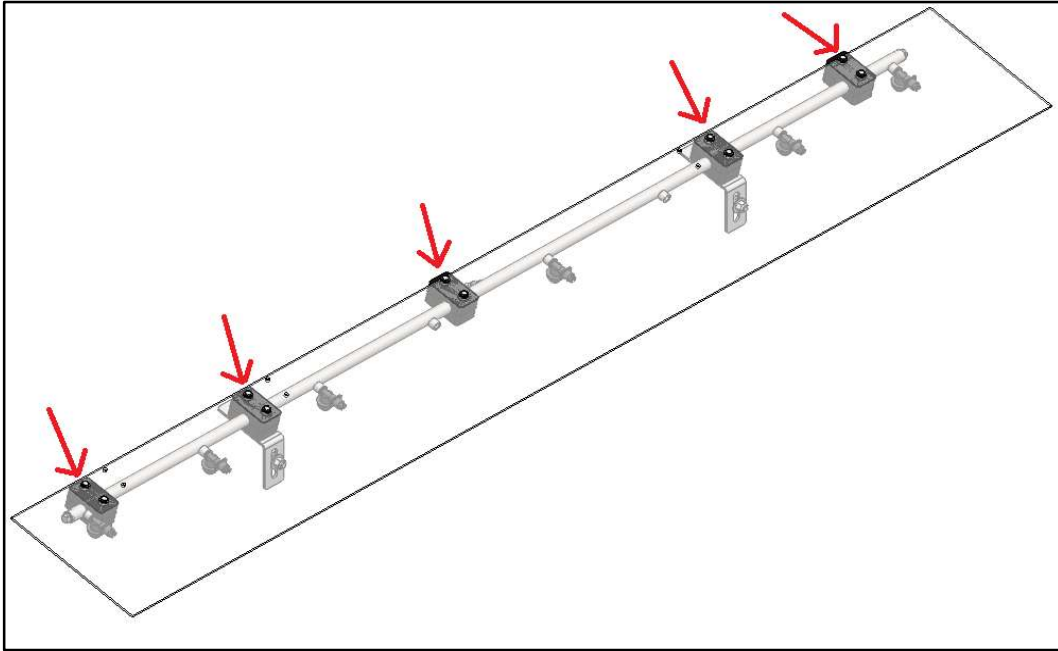


Figure 2: Locations of the ten screws to be removed from the existing Tire Shine assembly. There are two screws per marked location.

5.) Slide one of the U-bolts around the brush support as shown in **Figure 3**. Note that the threaded portion of the u-bolts should face away from the brush and the center of the pit.

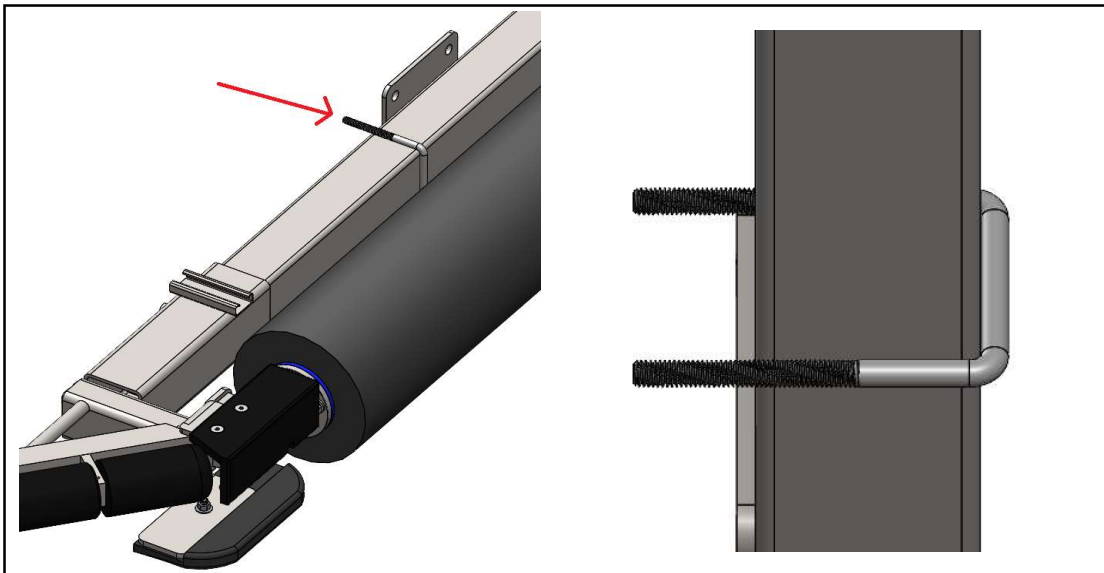


Figure 3: Location and orientation of the first u-bolt applied to brush unit.
Note: drivers side is shown, passengers side is mirror image.

6.) Using two people to support both ends of the shield assembly, slide the hinge mount onto the u-bolt placed in step 5 (see **Figure 4**.) The bottom two slots on the hinge mount will be used. The two legs of the u-bolt slide into the specified slots. To retain the position of the hinge mount and u-bolt, loosely install the two washers and lock nuts onto the threads. Continue supporting opposite end.

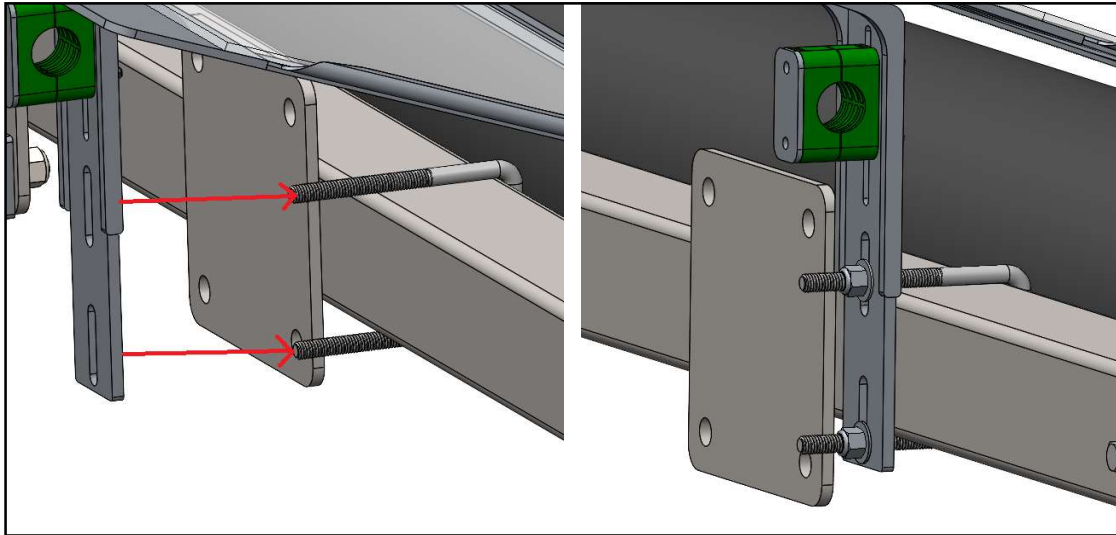


Figure 4: Mount method of hinge mount. Note the bottom two slots on the hinge mount are used in this step (see arrows).

7.) Move to the opposite side's hinge mount and repeat steps 5 and 6 while the other person continues to support the shield. See **Figure 5** for proper location of u-bolt and hinge mount. Again, loosely install the fasteners in order to allow for manipulation of the shield position laterally.

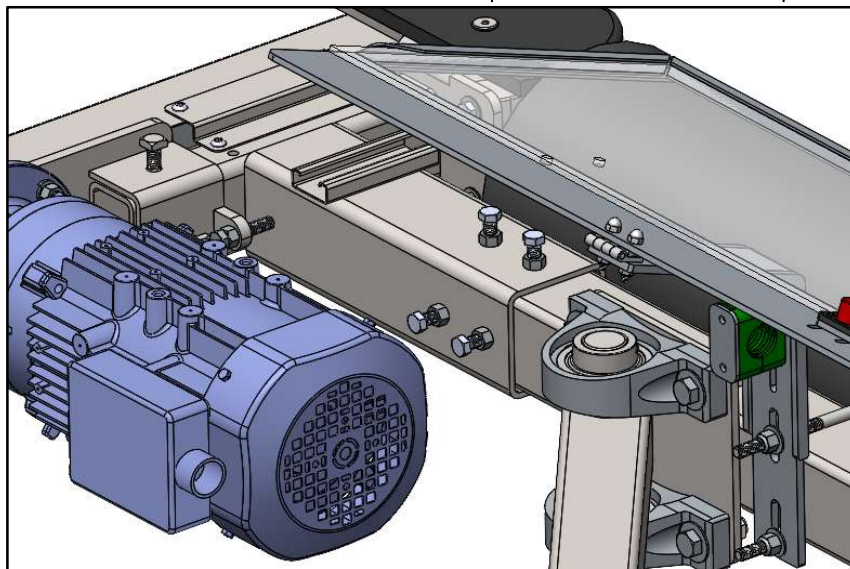


Figure 5: Mount method of second hinge mount. Note position of hinge mount relative to bearing mount plate.

8.) Repeat steps 5 and 6 once more, this time on the remaining hinge mount at the center of the shield. Again, loosely install all fasteners once more to allow for repositioning of the shield prior to completing install.

9.) Adjust each hinge mount vertically within the slotted holes to create clearance underneath the bottom of the shield above the brush. There should be no contact between the brush and the shield in order to prevent premature brush wear, but the gap should also be minimal to prevent spraying tire gloss onto vehicle bodies. A 1/4" to 1/2" gap is appropriate clearance. See **Figure 6** for adjustment method, and **Figure 7** for a visualization on proper clearance. Completely tighten each hinge mount once placed in desired position.

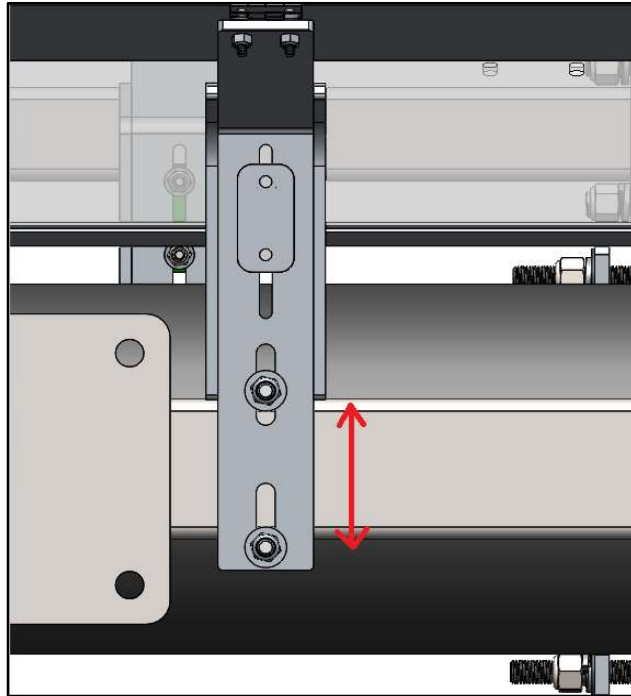


Figure 6: Slide hinge mount up and down with fasteners loosely applied to adjust clearance between shield and brush.

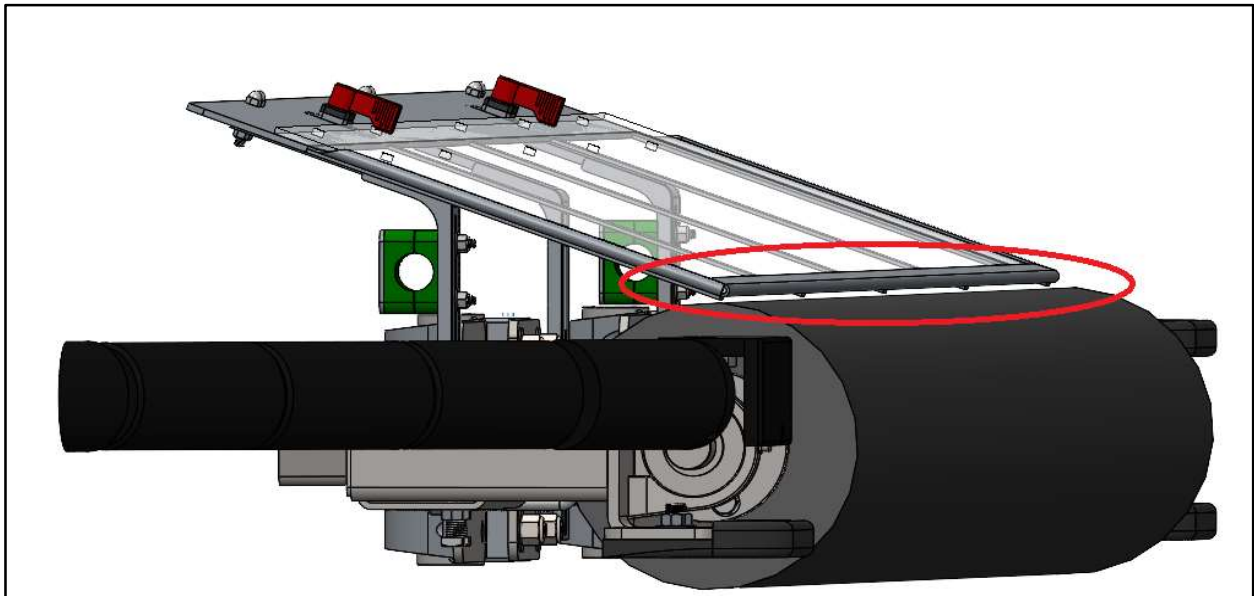


Figure 7: Properly mounted Tire Shine shield. Note the minimal clearance (circled) after proper mounting.

10.) Remove the fasteners off of each of the two green manifold mounts on the outer hinge mounts and set aside. The center hinge mount will not include a manifold mount. Separate the two halves of each mount and apply them to the manifold as shown in **Figure 8**. Take note of the position of the manifold mount relative to the nozzles as shown in **Figure 9**, this is critical for proper install.

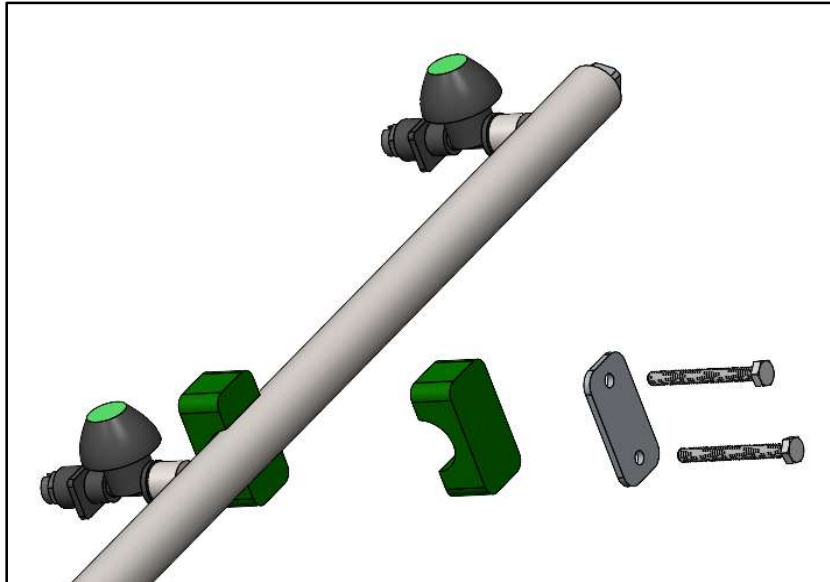


Figure 8: Hinge mount clamp assembly order. End result should be the two green pieces pressed around the manifold.

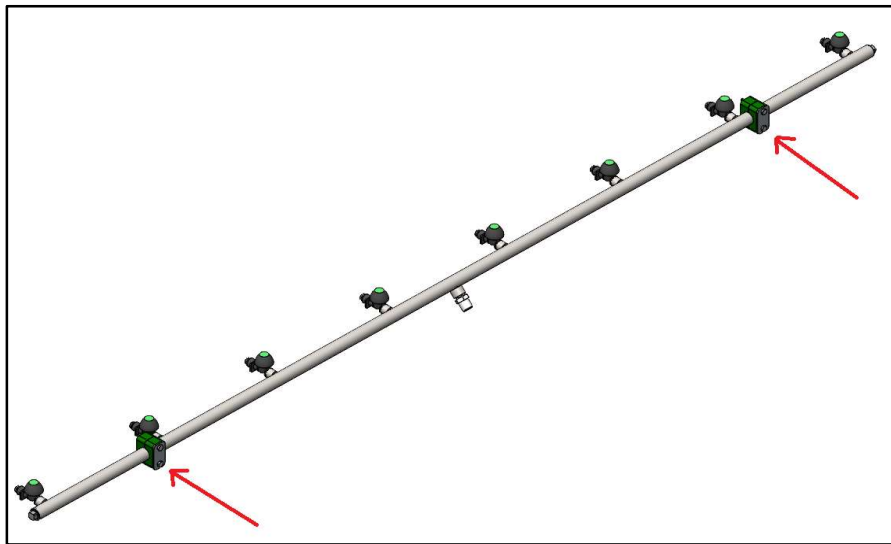


Figure 9: Positions of the manifold mounting clamps. Each clamp is between the outer nozzles and the second nozzle inboard. The mounts are biased heavily towards the second nozzle inboard.

11.) Slide the screws on each manifold clamp into the upper slot on the hinge mount using two people supporting both ends. Apply the washers and the fasteners set aside from step 10 to the backside of the hinge mount to retain the manifold on the hinge mount. Note the orientation of the nozzles and plumbing connections relative to the brush. See **Figure 10** for end result.

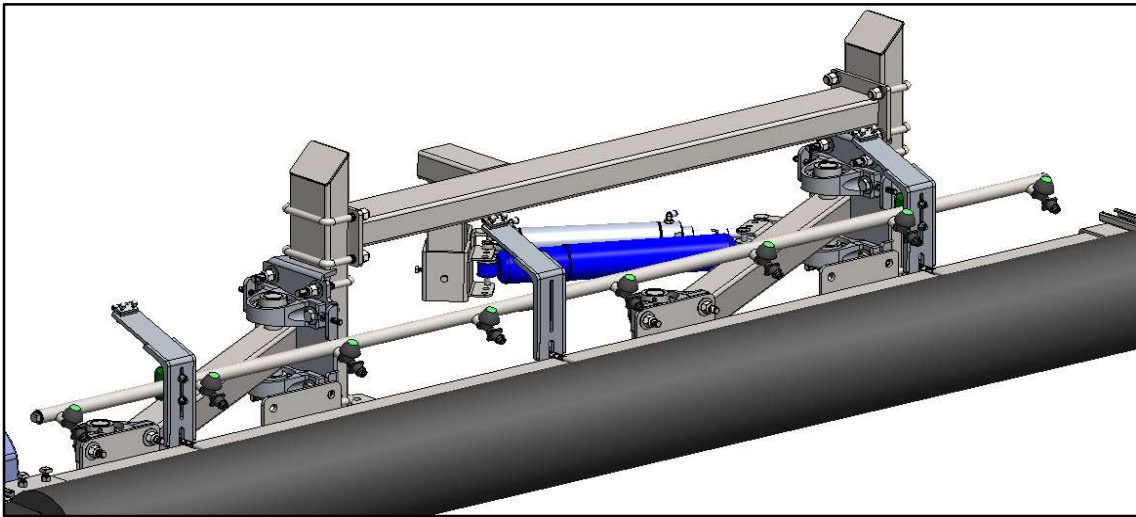


Figure 10: Note - shield is hidden for clarity. End result of shield post mounting of manifold.

12.) Reattach the detergent feed line into the quick connect on the spray manifold. Dial in the nozzle orientation and position using the manual mode on the iPad. The nozzles should spray entirely on the brush with minimal over or under spray. See Figure 11 for typical orientation of the nozzles. The green manifold mounts may be slid within the slots on the hinge mounts as desired. Additionally, the manifold can rotate within the green manifold mounts to control nozzle angle.

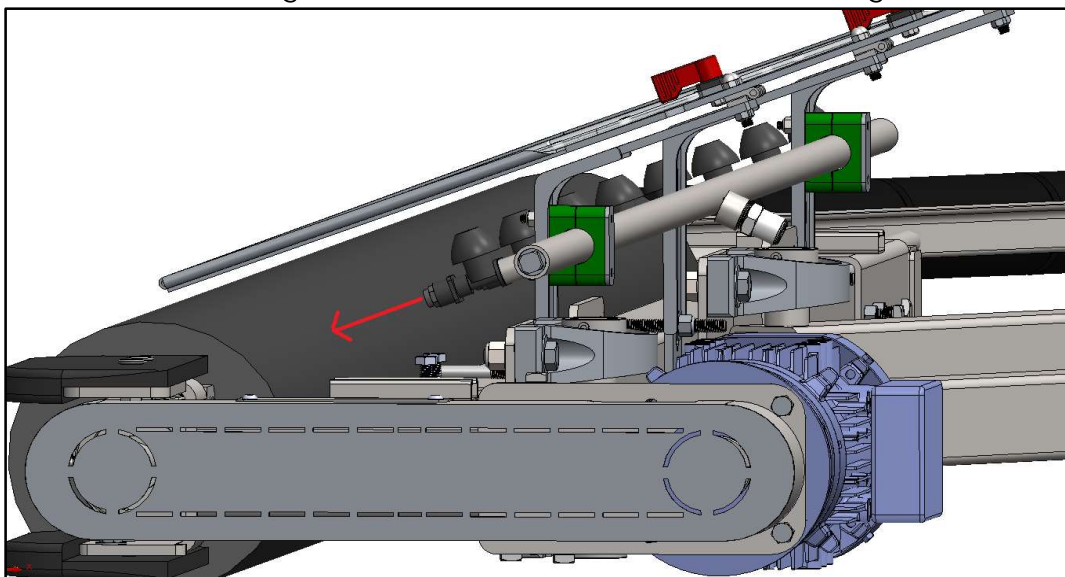


Figure 11: Typical orientation of the spray manifold.

13.) Install is now finished. If you have another shield to install, repeat these instructions for the other brush, keeping in mind that the two brushes are mirror images of each other as it relates to driver's side and passenger's side. Complete the Job Verification checklist to ensure proper wash function.

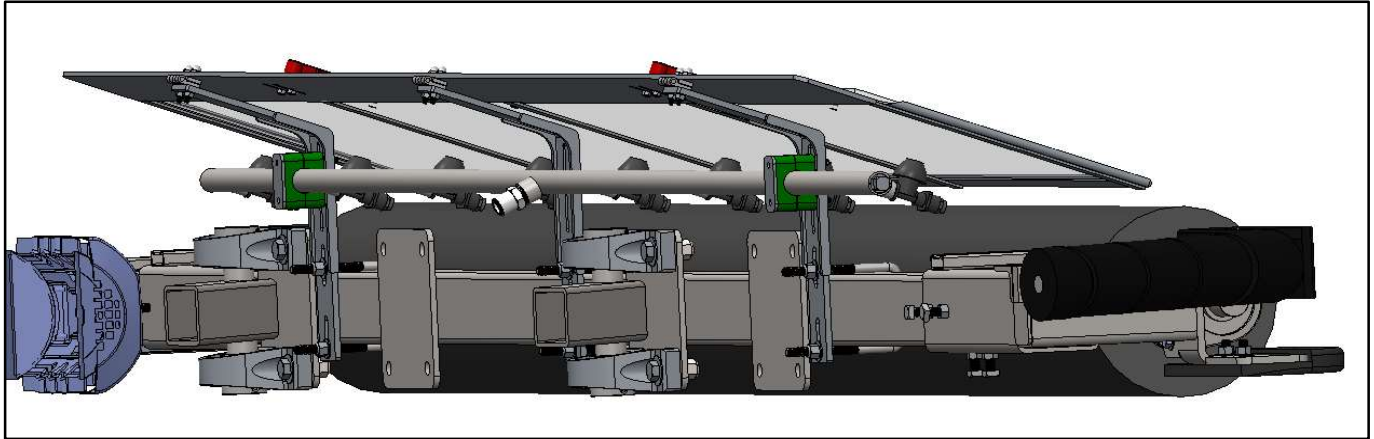


Figure 11: Finished Product

JOB COMPLETE

Complete Job Verification Checklist

Verify Appearance ☐

Does the equipment look the same as it did before the job, other than the alterations?
Do the alterations look robust?

Verify Function ☐

Does the equipment function as expected when operated manually? (perform first)
Does the equipment function as expected in normal wash operations (perform last)?
If the equipment interacts directly with a car, run a test vehicle and verify function

Verify Interaction ☐

Does this job affect any other equipment?
Does this job produce any unintended effects for components that are mounted/fastened to it?