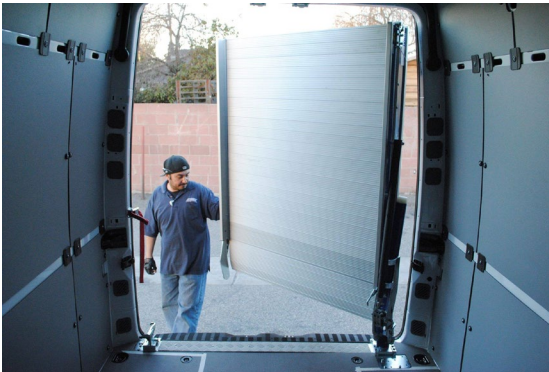




No-Drill Installation for WM System "Light Plus" Series Swivel Ramps Mercedes Benz Sprinter Application



INTRODUCTION:

Thank you for choosing a WM System loading ramp for your Sprinter cargo van. Please read the following installation instructions completely before beginning your installation. Wear protective gear that's appropriate for the parts and tools being handled for safety.

The hardware included in your mounting kit is our new no-drill hardware for swivel ramps. With this design, only two small holes need to be drilled into the vehicle body.

These instructions apply to all versions of the Sprinter, encompassing all roof heights and wheelbases.

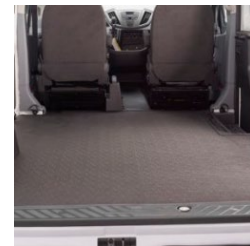
INSTALL PREP:

1. If your vehicle came with a factory-provided plastic threshold, you'll remove the threshold permanently. It will not be re-used, and our mounting hardware will completely replace it.



2. You'll need to evaluate your cargo flooring/liner situation:

- If your vehicle has bare metal flooring, no alterations are needed. Proceed with the installation.
- If you have a factory-provided rubber cargo liner or similar, you can install the mounting plate on top of it for a seamless look. Prior to installation, you'll need to trim back the insulation found on the back side of the rubber mat, so it doesn't raise the height of the ramp mounting plate.
- If you have a wood floor, follow along through to the mounting plate assembly, and then mark the leading edge of the mounting plate onto the wood floor, and trim back the wood floor to create a seamless transition with the mounting plate.



TOOLS REQUIRED:

There are only a few tools required to complete the installation, as outlined below. With these tools alone, most ramp installations can be completed from start to finish in under an hour.

- Impact wrench
- (1) 3/16" Allen key on a socket
- (1) 7/16" socket
- (1) 7/16" crescent wrench
- (2) 13mm crescent wrenches
- (2) 17mm crescent wrenches
- (1) 6mm Allen wrench



MOUNTING KIT INSTALLATION:

1. Remove existing tie-down points and bolts on driver and passenger sides of rear door area (circled below).



2. Place driver side shim plate in place as shown.



3. Place passenger side shim plate in place as shown.



4. Install the door jamb plate as shown.



5. Place driver side top plate in place.



6. Place passenger side top plate in place.



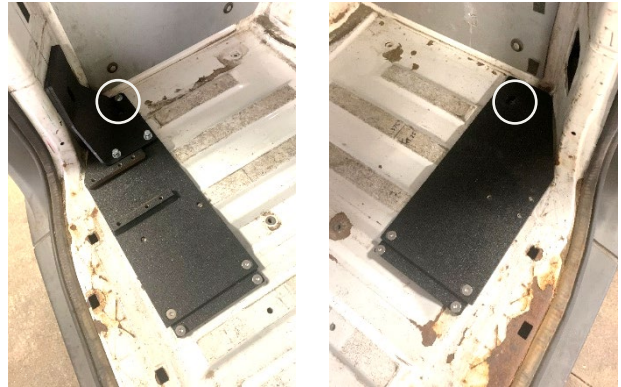
7. Place center plate in place between driver side and passenger side plates, as shown.



8. Attach driver side support arm to driver side plate and door jamb.



9. Reinstall factory tie down bolts on driver side and passenger side (circled below).



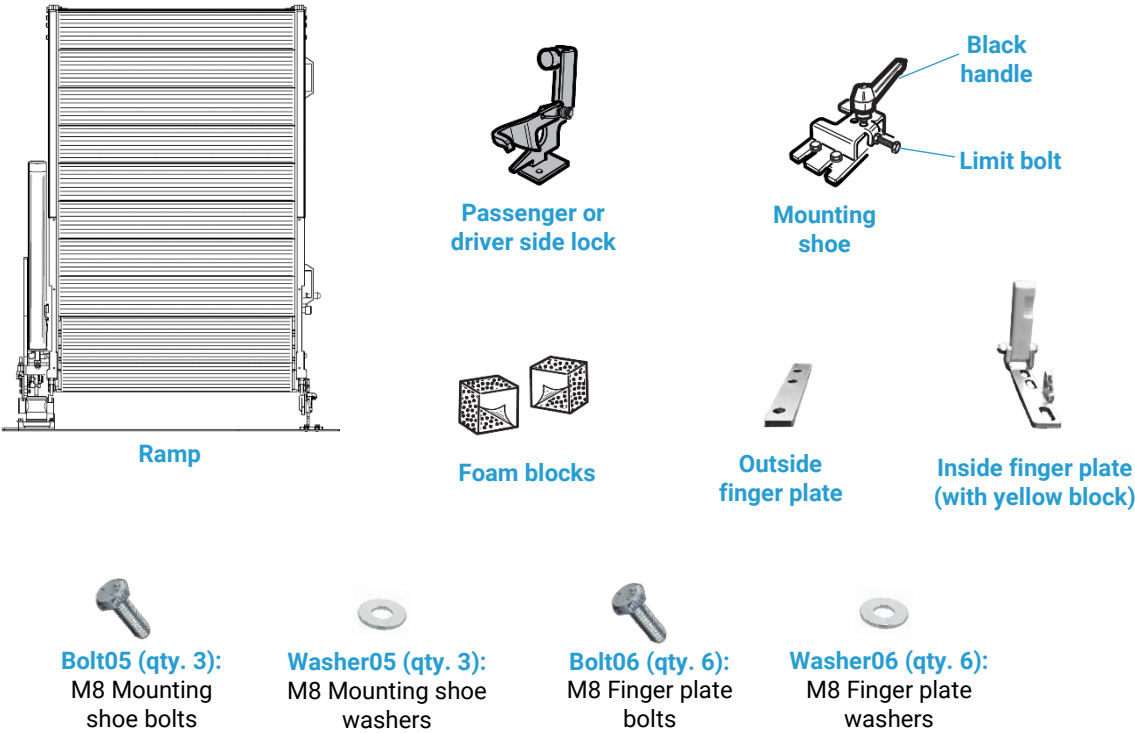
10. Tighten all bolts.

11. Drill (2) 5/16" holes for the small underbody plate, and install plate under the body and tighten the bolts.

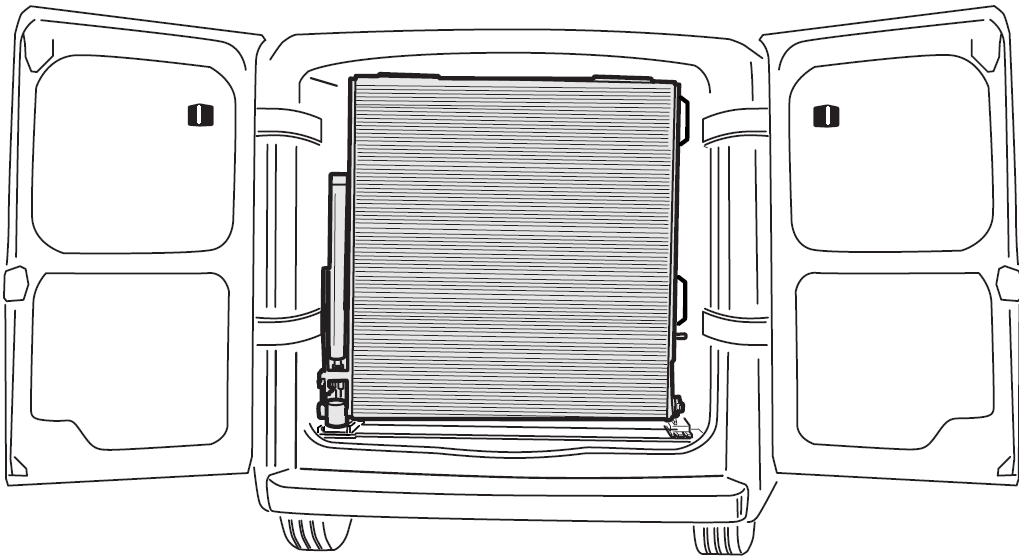


12. You are now ready to move on to ramp installation.

RAMP INSTALLATION PARTS INCLUDED:

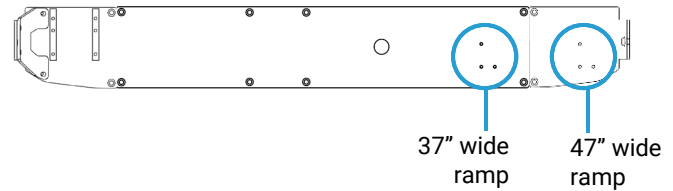
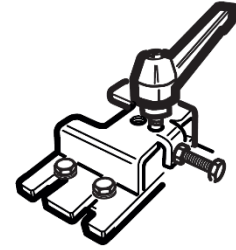


INSTALLED RAMP VISUAL:

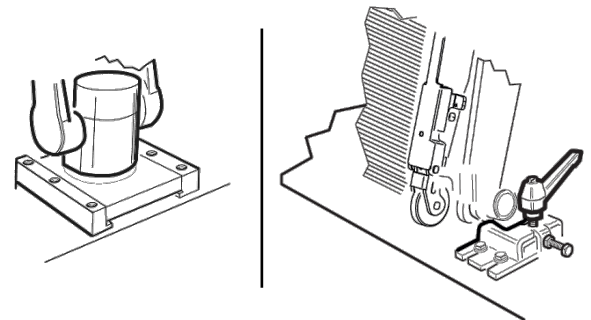
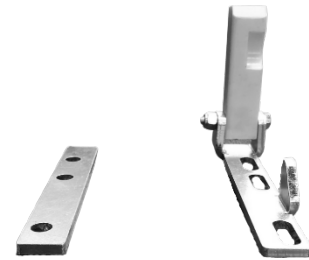


RAMP INSTALLATION:

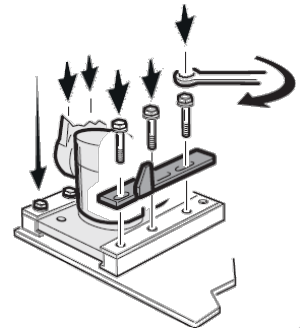
1. Identify and open the larger bag of parts containing **Mounting Shoe** and **Passenger Side Lock** (or, if installing a right-hand swivel ramp, the Driver Side Lock).
2. If not already attached, identify the **Limit Bolt**, and attach it to the side of the mounting shoe as shown at right. Next, identify the **Black Handle** and attach it to the top of the mounting shoe, turning the handle only so far in so that the screw reaches the underside of the mounting shoe's top face.
3. Depending on whether you've purchased a 37" wide or 47" wide ramp, there are two different mounting positions for the mounting shoe, as shown at right. Place the mounting shoe in the correct position over the pre-drilled holes and attach using all three of **Bolt05** and **Washer 05** and tighten using your 13mm wrench. Set the passenger side lock aside for now.



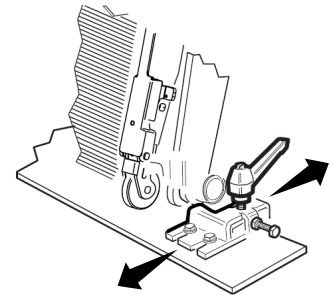
4. Next, identify and open the smaller bag of parts containing the finger plates and foam blocks. The **Outside Finger Plate** and **Inside Finger Plate (with yellow block)** will be used to attach the ramp's pivot foot to the mounting plate. Identify these two steel plates and place them on the bumper of the vehicle for quick access during the next step.
5. Using two or more people, or an appropriate lifting device, pick up the **Ramp** from beneath the lower leaf and stand it up on the installed mounting plate in the vehicle. **DO NOT** lift the ramp from the upper leaf only as it will swing open. The ramp's rectangle pivot foot should fit between the two welded-on foot guides of the mounting plate, and the round nylon bushing on the other side of the ramp should rest on the installed mounting shoe, as shown at right. The rectangle pivot foot should be flush with the welded-on feet at the back of the vehicle.



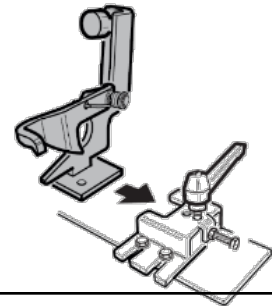
6. Once the ramp is positioned correctly, and while the ramp is still being supported by two people, attach the **Outside Finger Plate** using three of **Bolt06** and **Washer06**, ensuring the plate is oriented to overhang the ramp's rectangle pivot foot. Next, attach the **Inside Finger Plate (with yellow block)** using the remaining three **Bolt06** and **Washer06**, ensuring it overhangs the ramp's rectangle pivot foot. Tighten down both finger plates using a 13mm crescent wrench. The ramp should now stand safely on its own without support.



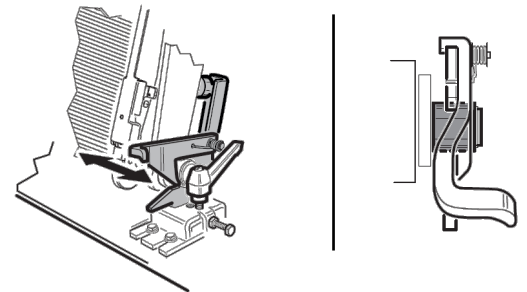
7. To ensure the ramp is evenly flush with the back of the vehicle from left to right, adjust the mounting shoe's location forward or back. The three bolts holding the mounting shoe in place should be loose. If they're too tight to adjust the placement of the shoe, loosen them first. Adjust the position of the shoe as needed, and securely fasten all 3 bolts on the shoe.



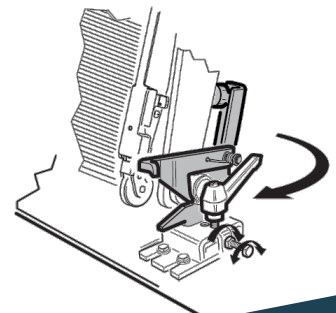
8. Next, install the **Passenger Side Lock**. To access the mounting shoe area, the ramp can now be safely swung outward of the vehicle. Slide the passenger side lock into the base of the mounting shoe.



9. Swivel the ramp back in, lifting the latch on the passenger side lock to lock the ramp's round nylon bushing in place in the lock. To adjust the position of the lock to ensure positive contact with the round nylon bushing, move the lock from left to right as needed.

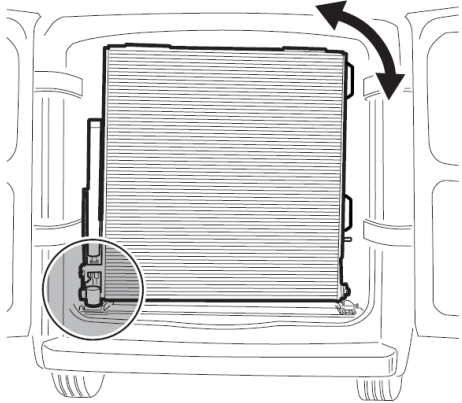


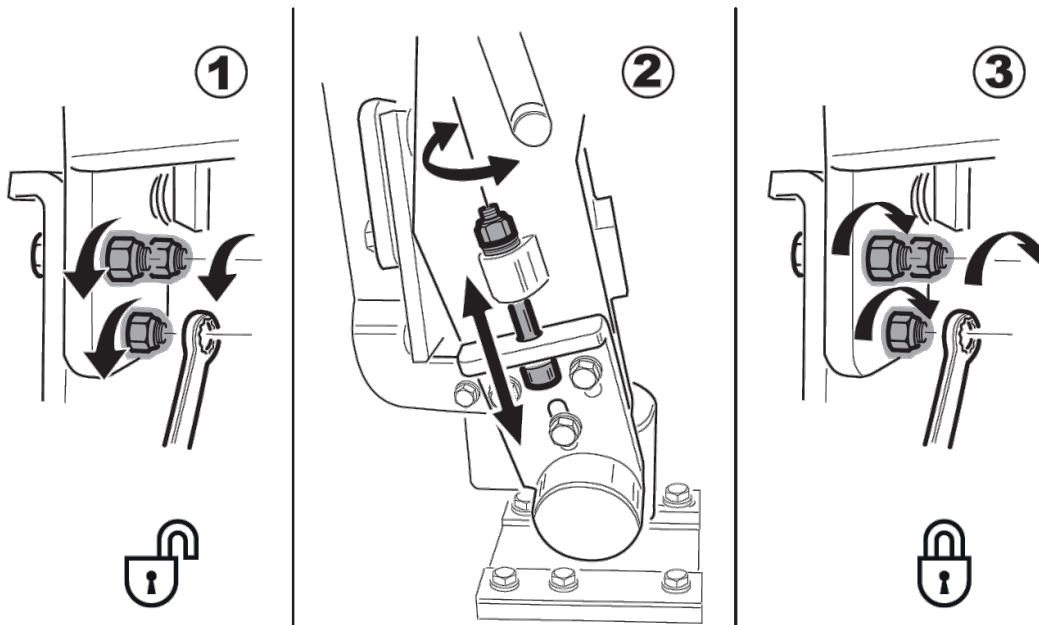
10. Once the lock is in a good position, you'll secure the lock in place by ratcheting the **Black Handle** down until it makes firm contact with the lock inside the shoe. The last step to ensuring the final position of the mounting shoe and passenger side lock is to adjust the **Limit Bolt**. The limit bolt sets the travel of the passenger side lock. To adjust the limit, loosen the nut on the limit bolt so it can be threaded inward until it makes positive contact with the lock. Once contact is made, tighten back down the nut to set the limit position using your 13mm wrench.



RAMP ADJUSTMENTS:

Lateral Drop Adjustment:

1. The lateral inclination of the ramp can be adjusted quickly and easily from the pivot point of the ramp (on the driver side of installing a left-hand swivel ramp, or on the passenger side if installing a right-hand swivel ramp). Begin with the ramp securely stowed. Loosen the 3 nuts on the inside of the pivot point slip plate using a 13mm crescent wrench, as shown in the visual below. Loosen the nuts only 1-2 threads. Next, loosen the bolt heads on the outside of the pivot point slip plate, only about $\frac{1}{2}$ - $\frac{3}{4}$ of a thread worth, enough to reduce tension on the slip plate.
- 
2. Using a 6mm Allen wrench and 13mm crescent wrench, adjust the vertical bolt on the outside of the pivot point to either raise or lower the lateral inclination as needed. To do this, insert the Allen wrench into the head of the bolt, and place the crescent wrench on the nut, to tighten or loosen the vertical bolt. Loosening the bolt will lower the swing side of the ramp, while tightening the bolt will raise the swing side of the ramp. We recommend adjusting the bolt 1-2 threads at a time, checking progress along the way, to ensure the ramp can hold its own weight laterally when moving from the locked position to swiveled outward position. When done correctly, the round nylon bushing should slide effortlessly in and out of the lock housing as you lift the lock handle, without having to apply force.
3. Once adjusted, first tighten the boltheads on the outside of the slip plate, followed by tightening of the nuts on the inside of the slip plate.

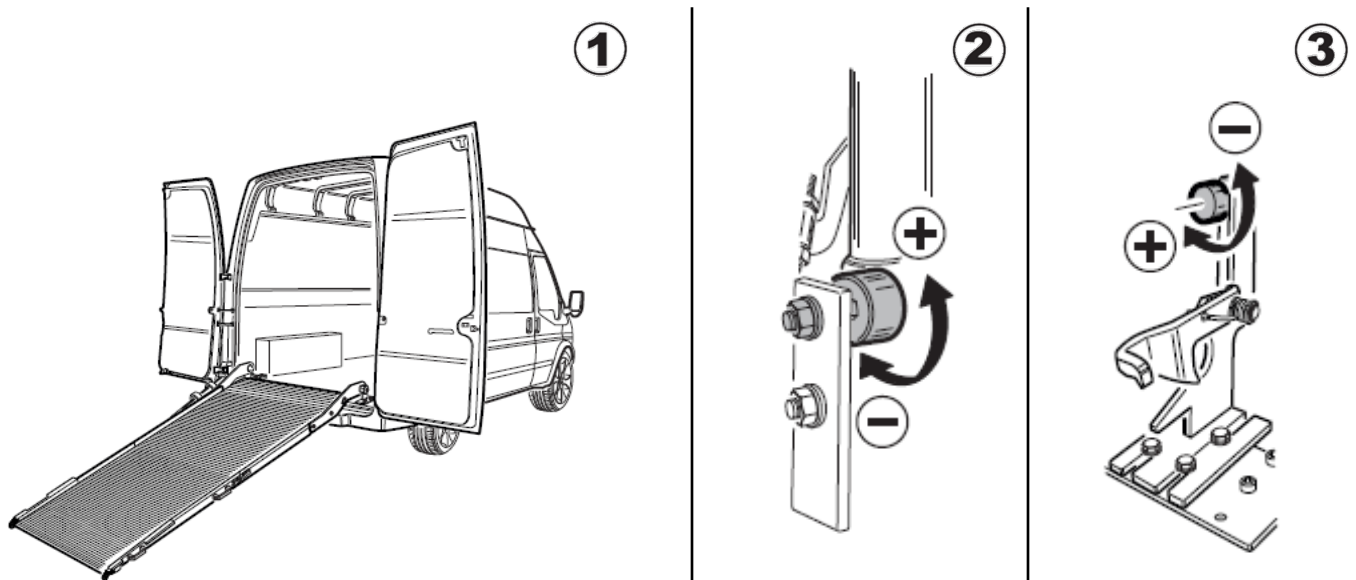
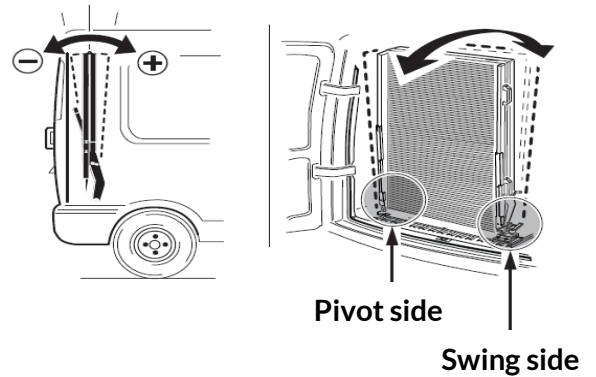


Rubber Bumper Adjustment:

1. The front to back inclination of the ramp can be adjusted using the rubber bumpers found on the left-hand and right-hand sides of the ramp. To perform this adjustment, deploy the ramp by pulling upward on the safety latch (found on the side of the ramp with the black handles) and pulling the outside leaf of the ramp out of the vehicle with one hand on each black handle, easing the ramp to the ground.

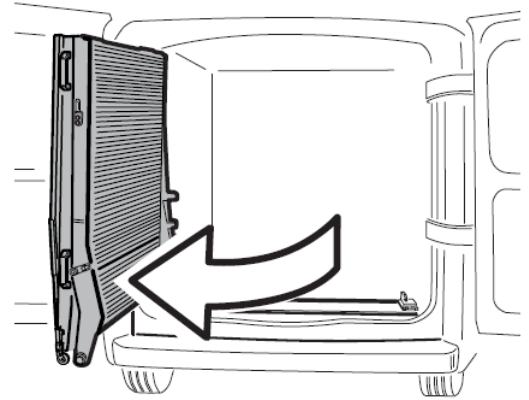
2. First, adjust the rubber bumper on the pivot side of the ramp. Using the 13mm wrench, remove pressure from the nut on the end of the bolt and thread the bolt in or out depending on the adjustment level needed. Threading the bolt in will position the ramp to sit closer to the front of the vehicle, while threading the bolt out will position the ramp closer to the rear doors. Test the position by stowing the ramp and shutting the rear doors to ensure the position is to your liking. Once adjusted, fasten the back nut to secure the rubber bumper position.

3. Next, adjust the rubber bumper on the swing side of the ramp. Using the same 13mm wrench, follow the same steps on the rubber bumper at the top of the lock. As with the pivot side, Threading the bolt in will position the ramp to sit closer to the front of the vehicle, while threading the bolt out will position the ramp closer to the rear doors. Test the position by stowing the ramp and shutting the rear doors to ensure the position is to your liking. Once adjusted, fasten the back nut to secure the rubber bumper position. Move on to the J-Hook Adjustment.

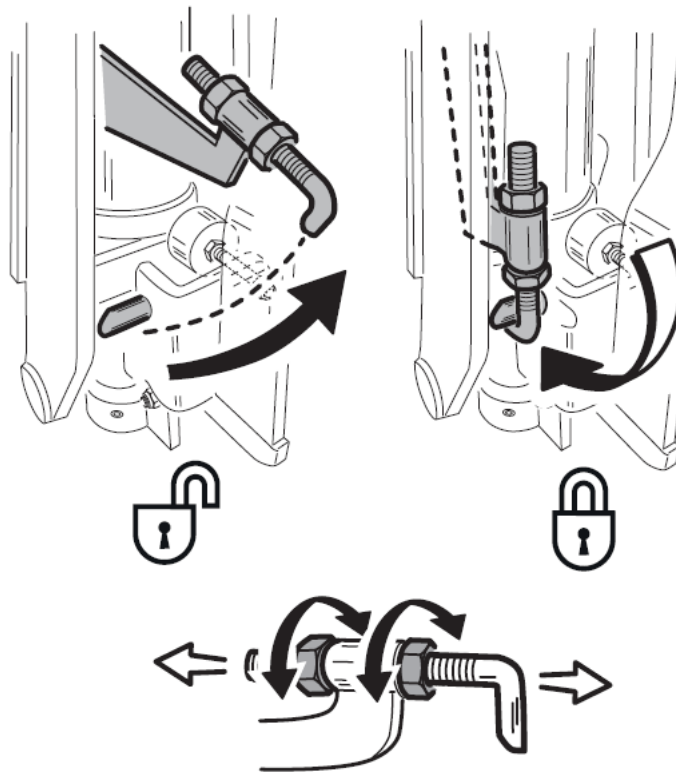


J-Hook Adjustment:

1. Once the rubber bumper positioning has been adjusted on the pivot side of the ramp, you must also adjust the J-Hook (found directly above it) to control the amount of forward-to-back travel the ramp will have when stowed. If the rubber bumpers were adjusted inward to allow for positioning away from the rear doors, there would now be excess space between the J-Hook and metal stud. Begin this adjustment with the ramp folded and swiveled outside of the vehicle to access the J-Hook on the interior pivot side of the ramp.



2. Using two 17mm crescent wrenches, loosen both nuts on the J-hook arm to allow for adjustment of the J-Hook up or down as needed. The proper placement of the J-Hook is just below the metal stud, not making direct contact but having a small visible separation from the stud to allow for free travel while restricting movement when the ramp is stowed.
3. Once proper J-Hook placement is achieved, tighten both nuts while ensuring the J-hook doesn't spin from side to side. Test stowing and deploying the ramp to ensure the J-hook isn't impeding the ramp from properly locking into the stowed position.



Foam Block Placement:

1. As a final and optional step, install the provided foam blocks on the rear doors to inhibit the side rails of the ramp from making direct contact with the rear doors.

