TORRIX

ATLAS TIRE SUPPORT & SKID PLATE

INSTALLATION • ADJUSTMENT • OPERATION



CONTACT • SUPPORT • MINIMAL LIFT

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IMPORTANT
Read these instructions completely before installation or adjustment. Proper setup is critical. Never force the tailgate closed against the Atlas.

1. Product Purpose

The Torrix Atlas Tire Support & Skid Plate is designed to support a tailgate-mounted spare tire from below while also providing a hitch-mounted skid structure. Oversized spare tires place significant static load on the tire carrier and tailgate. While driving, bumps, potholes, ledges, whoops and off-road impacts can create much greater dynamic loads as the tire moves vertically. The Atlas is intended to reduce this movement and help reduce the load transferred into the tailgate, hinges and tire-carrier structure.

2. How the Atlas Works

The Atlas uses a floating upper support plate connected to two pivot links. As the tailgate approaches the closed position, the spare tire contacts the vertical bend at the rear of the upper support plate. Continued slow closing movement pushes the plate toward the front of the vehicle. As the plate moves forward, the pivot links rotate closer to vertical, causing the support plate to rise slightly beneath the tire.

When correctly adjusted, this action provides support with only minimal lift. The Atlas is not intended to jack the tire upward or force the tailgate into alignment. When the tailgate opens, the tire moves away and the support mechanism relaxes.

SETUP PRINCIPLE
The correct setup is CONTACT - SUPPORT - MINIMAL LIFT. More preload is not better.

3. Important Safety Information

- Never swing, slam or force the tailgate closed during setup.
- Approach the Atlas slowly by hand during every adjustment check.
- If the tire contacts the Atlas too early, the plate is too high, or excessive force is required to latch the tailgate, STOP and readjust.
- The Atlas should support the tire with minimal upward movement. It is not a jack.
- Keep hands and fingers clear of the upper plate, pivot links, adjustment holes and other pinch points while moving the tailgate.
- Make all adjustments with the tailgate open and the tire unloaded from the Atlas.
- Always secure the Atlas to the receiver with an appropriate hitch pin and retaining device before use.
- Verify all adjustment fasteners are installed and tight before driving.
- After installation, check clearance to the bumper, exhaust, body, tire, tailgate and any other accessories throughout normal operation.
- Recheck fasteners and adjustment after initial use and periodically thereafter, especially after hard off-road use or impacts.

CAUTION
Improper adjustment or excessive preload can place additional load into the spare-tire carrier or tailgate and may cause vehicle damage.

4. Component Identification

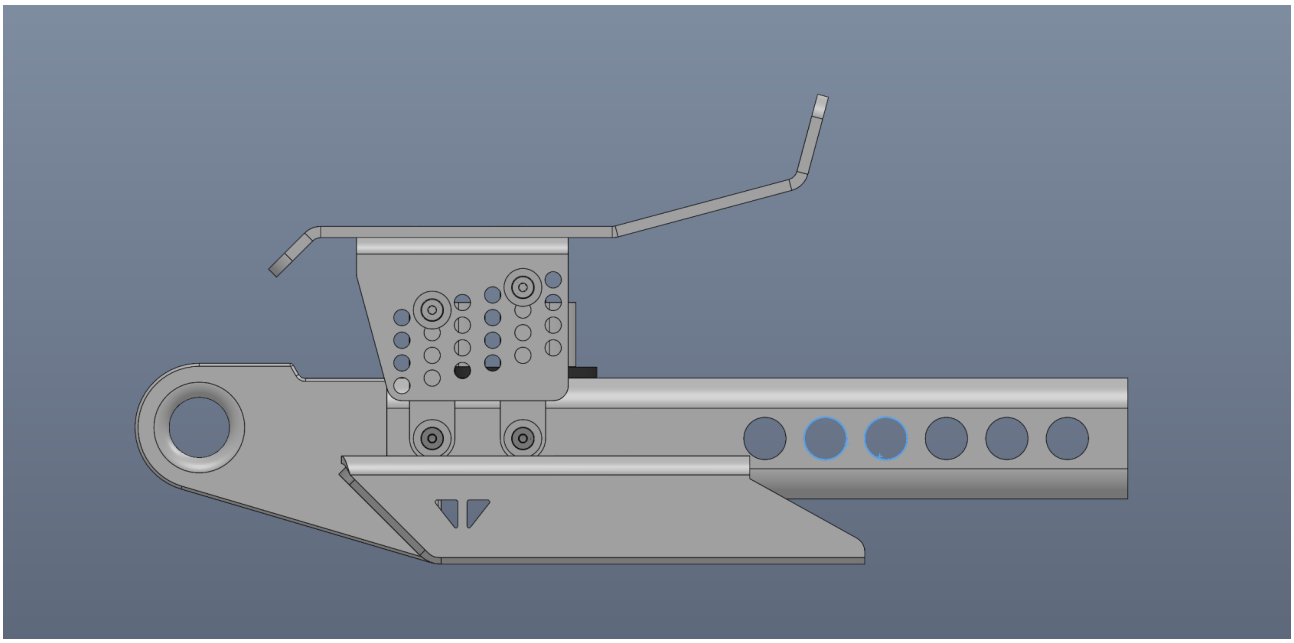


Figure 1 - Atlas assembly and multiple receiver hitch-pin positions.

Component	Function
Receiver shank	Slides into the vehicle's receiver hitch and provides multiple fore/aft mounting positions.
Skid wings / skid structure	Protective structure integrated into the Atlas assembly.
Support adjuster	Multi-hole side plates used to set the height and fine position of the tire support.
Pivot links	Allow the upper support plate to move forward and rise as the tire engages it.
Upper support plate / slide	Contacts and supports the spare tire. Slides forward and aft for final positioning.
Rear vertical tire-contact bend	The upturned end nearest the tailgate that is intended to engage the side of the tire.
Upper plate retaining bolts	Clamp the sliding upper support plate after final fore/aft position is established.

5. Before You Begin

Park the vehicle on a level surface, set the parking brake and verify the spare tire and tailgate-mounted carrier are properly installed and secure.

- Inspect the receiver hitch and Atlas for damage before installation.
- Confirm the spare tire is fully inflated and mounted in its normal driving position.
- Have the correct hand tools available for the supplied adjustment hardware.
- Do not perform the initial setup by repeatedly slamming the tailgate. All fit checks must be slow and controlled.

6. Installation and Initial Positioning

Step 1 - Install the Atlas in the Receiver

Slide the Atlas receiver shank into the vehicle's hitch receiver. Select the hitch-pin hole that positions the Atlas as close to the vehicle as practical while maintaining adequate clearance.

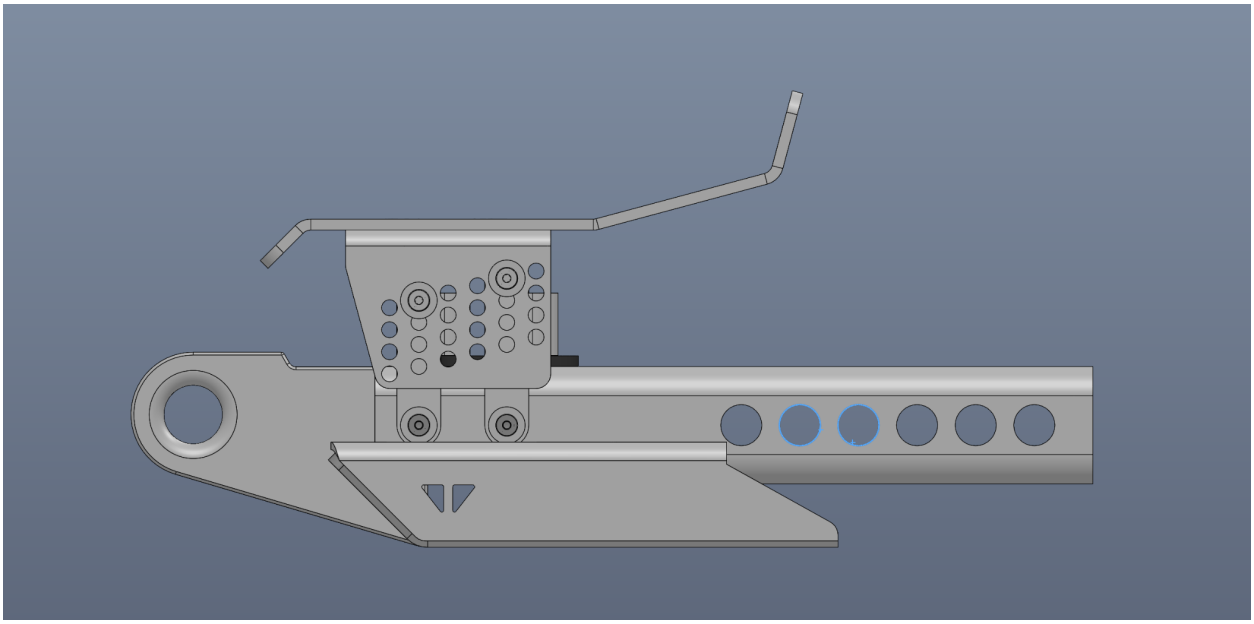


Figure 2 - Use the receiver hole that places the Atlas as close to the vehicle as practical.

1. Align the selected Atlas hitch-pin hole with the vehicle receiver.
2. Install the hitch pin and retaining device.
3. Confirm the Atlas is fully secured before moving the tailgate toward it.

Step 2 - Establish the Initial Tire Relationship

Move the tailgate slowly toward the closed position by hand. Do not swing it. Watch the relationship between the spare tire and the upper support plate as they approach one another.

Use this first check only to determine whether the support needs to move higher, lower, forward or rearward. Stop before the tire places significant pressure on the Atlas.

CAUTION

If the tire is going to strike the Atlas incorrectly, contact it too early, or place obvious upward pressure on the tailgate, stop immediately. Open the tailgate and adjust the Atlas before trying again.

7. Tire Support Adjustment

Step 3 - Loosen the Upper Support Plate

With the tailgate open and the tire unloaded from the Atlas, loosen the two upper plate retaining bolts. Do not remove them. Loosen only enough to allow the upper support plate to slide forward and rearward.

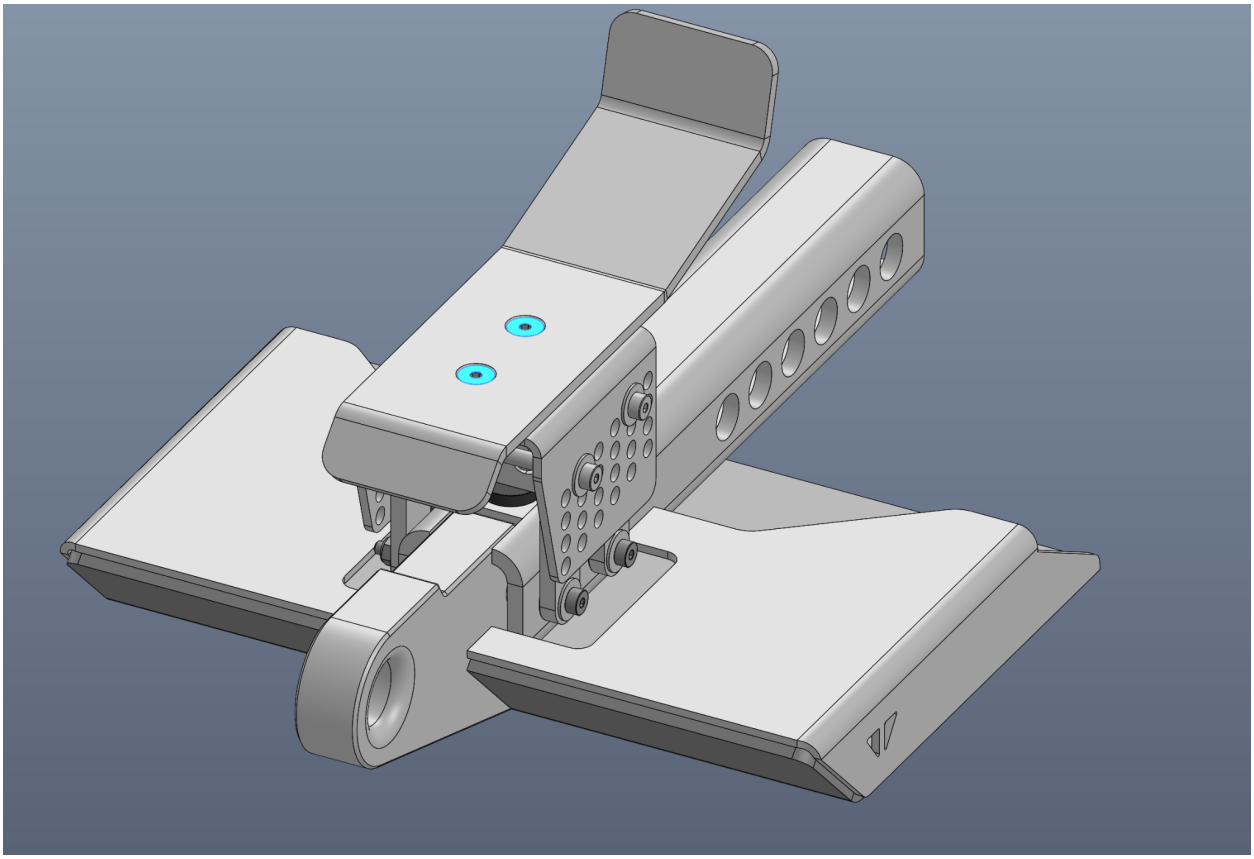


Figure 3 - Loosen these two bolts to allow fore/aft movement of the upper support plate.

The vertical bend at the end of the plate nearest the tailgate is designed to catch the side of the tire as the tailgate closes.

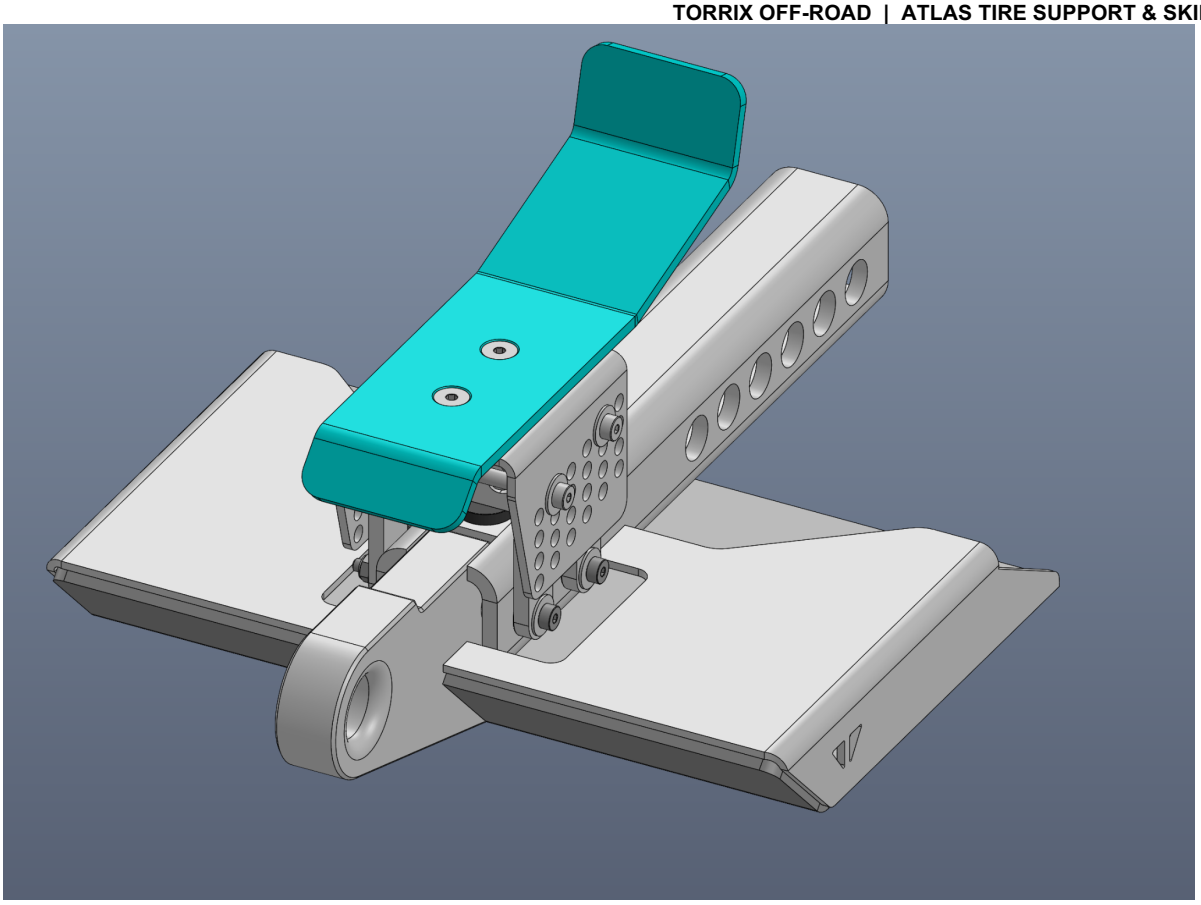


Figure 4 - Sliding upper support plate. The rear vertical bend is the tire-contact feature.

Step 4 - Set the Support Height

Determine whether the upper support plate is too high or too low. Height is adjusted by removing the side bolts from the support adjuster and reinstalling them in different holes.

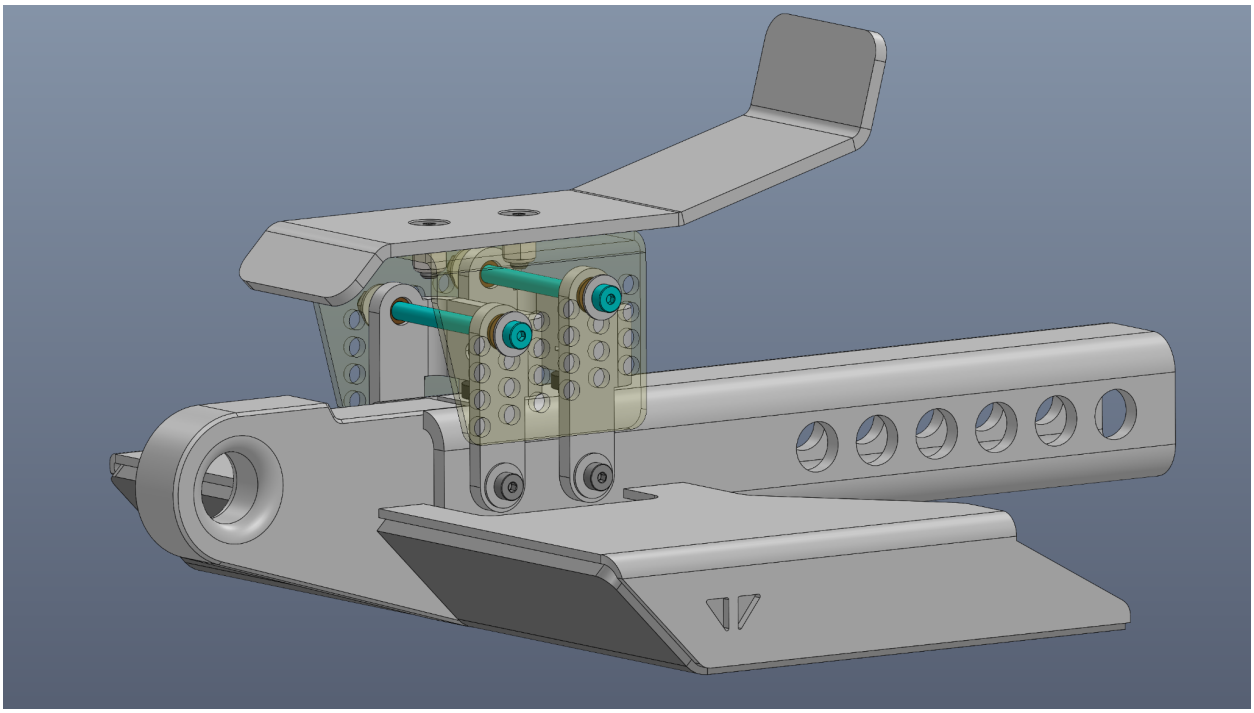


Figure 5 - Side support-adjuster bolts used to establish support height and position.

The hole pattern provides both coarse and fine adjustment:

- Moving directly up or down to the next aligned hole changes the support height approximately 3/8 in. (0.375 in.).
- Using the staggered/angled hole positions provides finer changes of approximately 1/8 in. (0.125 in.).

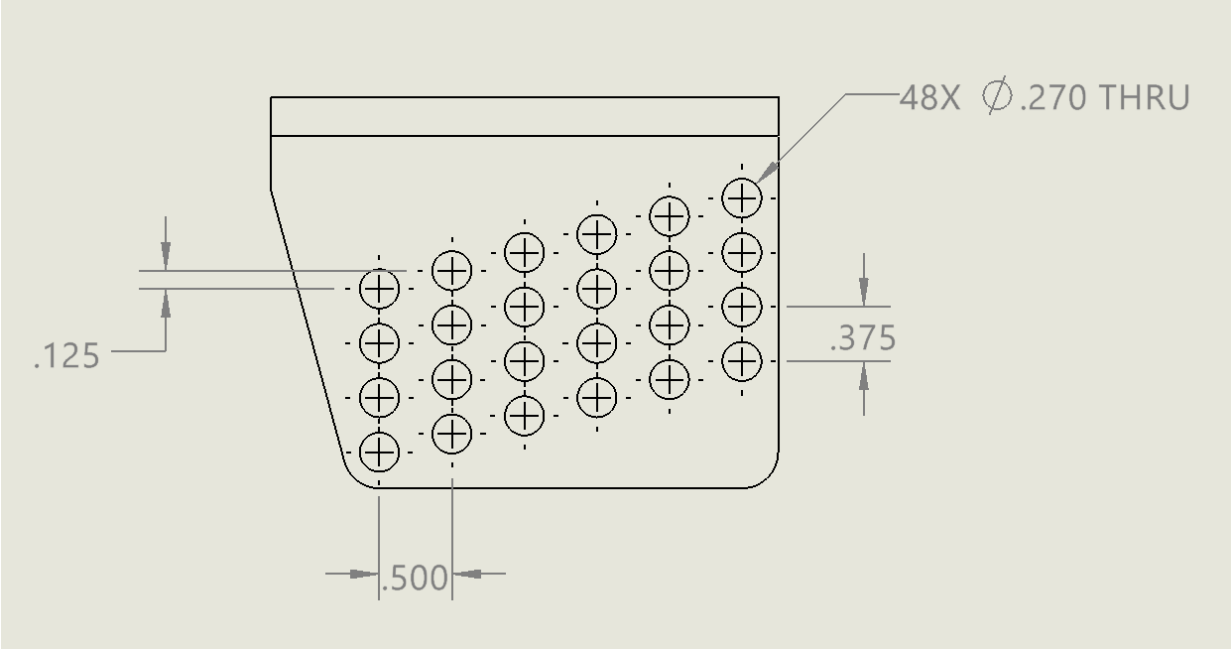


Figure 6 - Support-adjuster hole spacing: 3/8 in. vertical increments and 1/8 in. fine staggered increments.

Using a staggered hole may also move the support slightly forward or rearward. If the desired 1/8 in. height adjustment places the support too far forward or rearward, reposition the entire Atlas in the receiver using another provided hitch-pin hole, then repeat the height adjustment.

Step 5 - Verify Height Before Final Plate Adjustment

Reinstall the support-adjuster bolts and secure them before checking fit. Slowly move the tailgate toward the closed position again while watching the tire and support.

- The tire should approach the support naturally near the end of the closing cycle.
- The support should not substantially lift the tire before the tailgate reaches the latch.
- The tailgate should not require additional force to overcome the Atlas.
- If the relationship is incorrect, open the tailgate and repeat the height adjustment.

Several small adjustments may be required. Taking time here protects the tailgate and provides the best support.

Step 6 - Set the Upper Plate Fore/Aft Position

Once the support height is correct, leave the two upper plate retaining bolts loose enough for the plate to slide. Slowly move the tailgate toward the closed position until the tire contacts the rear vertical bend.

As the tailgate continues toward closed, the tire should push the upper plate forward. This forward movement rotates the pivot links toward vertical and raises the support plate slightly beneath the tire.

4. Slowly establish the position where the tailgate closes normally and the Atlas provides support with minimal lift.
5. Mark the fore/aft location of the upper support plate.
6. Open the tailgate so the tire is completely unloaded from the Atlas.
7. Return the upper plate to the marked position if it moved.
8. Tighten the two upper plate retaining bolts securely.

EXTREME CAUTION

Do not force the tailgate to shut. The Atlas should provide support with minimal lift. Excessive preload or improper adjustment may damage the tailgate or tire-carrier system.

8. Final Operational Check

Before driving, slowly open and close the tailgate several times and observe the complete movement of the Atlas.

A properly adjusted Atlas should:

- Allow the tailgate to close and latch normally.
- Contact the tire near the end of the closing cycle.
- Allow the tire to push the upper support plate forward.
- Allow the pivot links to rotate toward vertical and raise the support slightly.
- Provide firm support beneath the tire without substantially lifting it.
- Release naturally as the tailgate is opened.
- Maintain adequate clearance from the vehicle, bumper and other accessories.
- Never require the tailgate to be slammed or forced closed.

FINAL RULE
If the tailgate does not close normally, the adjustment is not correct. Open the tailgate and readjust before operating the vehicle.

9. Normal Operation

Once properly adjusted, normal operation requires no separate latch or release. Close the tailgate normally and the tire will engage the Atlas support. Open the tailgate normally and the support will unload as the tire moves away.

The Atlas is intended to help reduce spare-tire movement and dynamic loading during vehicle operation. It does not replace the factory or aftermarket tire carrier, tailgate hinges, latch, receiver hitch or other vehicle structure.

10. Inspection and Maintenance

- Inspect the Atlas and receiver connection before off-road trips and periodically during normal use.
- Check the hitch pin and retaining device for proper installation.
- Check the support-adjuster bolts and upper plate retaining bolts for looseness.
- Inspect pivot links and pivot hardware for damage, unusual wear or binding.
- Inspect the upper support plate and tire-contact area for abnormal wear.
- Verify the tailgate continues to close and latch normally.
- Recheck adjustment after changing tire size, tire pressure, wheel offset, spare-tire carrier position, bumper, receiver, suspension height or other components that can alter the tire-to-Atlas relationship.
- Reinspect the Atlas after a significant skid impact or other off-road impact.

11. Troubleshooting

Condition	Likely Cause	Correction
Tire contacts Atlas too early	Support too high and/or too far rearward	Open tailgate. Lower support and/or reposition upper plate. Recheck slowly.
Tailgate requires force to latch	Excessive preload	STOP. Do not force. Lower or reposition support until tailgate latches normally.
Tire does not contact/support on closure	Support too low and/or too far forward	Raise support in small increments and/or move plate rearward.
Fine height is correct but support is too far forward/rearward	Staggered hole position changed fore/aft relationship	Use another receiver hitch-pin position, then repeat height adjustment.
Upper plate does not move smoothly	Fasteners too tight during adjustment, debris, damage or binding	Open tailgate, unload support, inspect mechanism and correct before use.
Support position changed after use	Fasteners loosened or impact occurred	Inspect all components, reset adjustment and tighten hardware before driving.

12. Adjustment Reference

Adjustment	Approximate Change
Direct vertical support-adjuster hole change	3/8 in. (0.375 in.)
Staggered/angled support-adjuster hole change	1/8 in. (0.125 in.)
Receiver hitch-pin positions	Changes the overall Atlas fore/aft position relative to the vehicle
Sliding upper support plate	Fine fore/aft tire-contact position

13. Important Limitations

Vehicle, bumper, receiver, tailgate, tire-carrier and spare-tire configurations vary. The installer is responsible for verifying adequate clearance and correct adjustment on the specific vehicle. The Atlas must not be used to force a damaged, misaligned or overloaded tailgate into position. If the vehicle's tire carrier, tailgate, hinges, latch or receiver show damage or excessive movement, correct those conditions before relying on the Atlas.

RETAIN THESE INSTRUCTIONS

Re-adjust the Atlas any time the spare-tire position or vehicle configuration changes. When in doubt, use less preload and verify normal tailgate operation before driving.

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