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Swing Out Tire Carrier Install Guide

Congratulations on purchasing your new 4x Innovations Tacoma Swing Out Tire Carrier. Included in this manual are package contents, surface coating recommendations, and installation guide. This document consists of a guide and is not an absolute instruction manual. Professional installation and attention to details is required for best finished results. If you have any questions please call us at 1-608-348-4880.

Package Contents:

1 x Swing Out Tire Carrier	2 x Greased Tapered Roller Bearing
2 x Spring Pin Inner Sub Assemblies	2 x Stainless Steel Bearing Inner Sleeve
1 x Latch Handle	2 x Grease Seal
1 x Rubber Latch Handle Cover	1 x 3/4x5.5 Grade 8 Bolt
1 x 3/8x1-1/2 Grade 5 Bolt	1 x Stainless Steel Spring Pin Slide Pad
1 x 3/8 Flat Washer	2 x #10 Flat Washer
1 x 3/8 Nylon Washer	6 x #10x1/2 Stainless Steel Machine Screw
1 x Nylon Latch Skid Pad	3 x M12x1.25 Lug Nut and Washers
1 x 3/8x2x2 Rubber Bumper	

Caution:

1. This installation should be performed by a qualified professional.
2. Always wear proper Personal Protective Equipment, including but not limited to Closed Toed or Safety Shoes, Safety Glasses, Hearing Protection, Face Shield, and Gloves.
3. Always have a fire extinguisher in reach while working in and around your vehicle. Interior panels are made from vinyl and other plastics which burn VERY easily; under carriages can be covered in oil and road grime which also burns easily.
4. Working around vehicles is inherently dangerous. You and the installer are responsible for your actions. Take general care while working on a vehicle.

Coatings: Note: Note: ALWAYS check fitment BEFORE painting parts, painted parts are NOT returnable for any reason! For optimum coating performance follow coating manufacturer's instructions.

- A. On the cheap, quick and easy: Simple spray paint.
This method is an economical method to coat your new Rear Bumper. Any top quality spray paint rated for metals can be used. In our shop we use Rustoleum Professional Metal paint.
- B. POR-15, KBS Coatings or similar moisture cured polymers:
These professional coatings are highly durable and can be touched up if scratched. Most are formed as multi part primer, color, and top coats that are abrasion, and heat resistant. They are available online, usually directly from the manufacturer.
- C. Powder Coating:
Powder coating consists of spraying a powdered paint onto the parts and baking the powder to the part. This process must be performed by a qualified business to have proper adhesion. This process is typically costly. Powder Coat is stronger than typical paint but WILL get scratched on a rear bumper and offers little possibility for quality touch up once scratched. 4x Innovations prefers moisture cured polymer paints over powder coat because of this fact.

List of Required Tools:

Ratchet with 9/16" and 1-1/8" socket	Anti-Seize
Or a large Crecent wrench in place of 1-1/8" socket	Grease, Marine grade recommended
3/4" open end box wrench	Seal driver for 1-15/16" diameter seal
#2 Phillips head screwdriver, a short handle helps	Clean, dry work area with a soft work surface
Red thread lock compound	

Installing Swing Out Tire Carrier

Caution: Keep your work environment clean! Do not set or drop the pregreased bearings into dust/grinder shavings/dirt as this will cause premature bearing failure! If the bearings become dirty they will need to be cleaned and repacked. Use cardboard or soft carpet to protect painted surfaces while assembling the tire carrier.

1. Install your bumper onto truck before beginning.
2. Place 1 tapered roller bearing into the Hinge Pivot Barrel with the rollers against the race that has already been pressed into the hinge pivot barrel.
3. Using a seal press tool, the back of a bearing race press tool, or a wooden block, press the seal into the same end that you just installed the bearing. Do NOT press the seal in too far. It should sit just below the surface of the outer barrel. There needs to be a gap between the seal and the bearing.
4. Repeat steps 2 and 3 on the other side of the Pivot Hinge Barrel.
5. Install Inner Pivot Sleeve into each side of the Pivot Hinge Barrel assembly. Completed assembly shown in Figures 1.
6. Grease the inside of the two Spring Pin Housings, being careful to not get grease onto the threads.
7. Grease the pin and spring portion of the Spring Pins
8. Place a SMALL amount of thread lock onto the threads of the Spring Pin Capture Nut.
9. Using 3/4" Box wrench, install and tighten the Spring Pin Inner Assembly into the Spring Pin Housing.
10. Press the rubber handle over the Latch Handle.
11. Place the 3/8 flat washer on the 3/8x1.5" bolt.
12. Place bolt through Latch Handle.
13. Place 3/8 nylon fender washer over 3/8 bolt.



Figure 1. Hinge barrel fully assembled.



Figure 2. Swing Out Tire Carrier Latch Assembly showing bolt/washer/latch/nylon washer assembly, rubber bumper and nylon latch skid pad.



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14. Attach Latch Handle to Tire Carrier by threading into the lower hole. There is a thread deforming lock nut inside the tire carrier. It will be difficult to thread the bolt in. Don't completely tighten yet.
15. Place a drop of Thread Lock onto 2 of the #10 machine screws.
16. Attach the Nylon Latch Skid Pad to the bottom of the Swing Out Tire Carrier using these two screws.
17. Place the #10 washers onto two more #10 machine screws.
18. Screw these two screws through the Rubber Bumper.
19. Place a small amount of thread lock onto the tip of these two machine screws.
20. Attach the Rubber Bumper to the inside surface of the Tire Carrier next to the Latch Mounting plate.
21. Apply a drop of Thread Lock onto the remaining two #10 Machine Screws.
22. Attach the Stainless Steel Spring Pin Skid Pad to the top surface of the lower flange on the main Pivot Hinge Mount.
23. Lightly coat the inside of the threads of the 3/4" Pivot Bolt Nut with anti-seize.
24. Apply grease to the unthreaded portion of the 3/4" Pivot Bolt.
25. Carefully set the Tire Carrier into place and mount with the 3/4" Pivot Bolt. Torque to 90 ft-lbs.
26. Torque the Latch Pivot Bolt to provide your desired rotating resistance for the Latch Handle.
27. Test the opening and closing action of the tire carrier and latch.



Figure 3. Tire Carrier Pivot Hinge Assembly

Notes:

1. The provided tire mounting studs and lug nuts are the same size as your Factory Toyota lug studs and nuts. Special lug nuts that allow the mounting of Lug Centric steel and aluminum, as well as Hub Centric steel and aluminum rims have been provided. When mounting a steel rim to the Tire Carrier you can use just the lug nuts. When mounting a Hub Centric aluminum rim to the Tire Carrier you can place the provided washers over the lug nuts before installing them. This will hold the Hub Centric rim on the Tire Carrier without gouging the surface of the rim.



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2. For your convenience we have provided a marked hole center location in the main Pivot Hinge Mounting Bracket. This location can be drilled out to 13/32" to act as a secondary closed position lock. You will need to drill through the mounting bracket and the Stainless Steel Spring Pin Skid Pad. To open the Tire Carrier you would then unlatch the Driver's side and then pull up on the Spring Pin on the Hinge Pivot.

Installing Options

NATO Jerry Can Mount - Package Contents (each):

1 x NATO Jerry Can Mount	Double Can Mount add:
3 x 5/16x1-1/2" Stainless Steel Countersink Bolt	1 x Tie Bar
3 x 5/16 Stainless Lock Washer	2 x 5/16 undercut countersink machine screw

Tip: If running with no Jerry Can, use a small rubber bumper or rag between the can mount and securing strap, at the latch, to prevent rattles. There is a small gap to allow the strap to close tightly to the Jerry Can, preventing rattles when in use.

Single Jerry Can Mount Install

1. Single Can Mounts install with one side flat against the Tire carrier
2. Place the three bolts through the side of the tire carrier from the inside out.
3. Place the lock washer between the Jerry Can Mount and Tire Carrier
4. Line up the and start the thread for each of the 3 bolts.
5. Tighten the three mounting bolts using a 3/16" Hex Key.
6. If required, mount license plate mount by attaching 2 x 5/16" coupler nuts to the lower two holes on the rear face of the Jerry Can Mount. Mount license plate mount to coupler nuts so the mounting plate is above the bottom edge of tire carrier.
7. To mount license plate place the two 5/16 steel nuts onto the license plate lights. place lights through license plate, and through mounting plate. Secure with 5/16 nylon nuts. Be careful to not over tighten nuts on license plate mounting lights.

Double Jerry Can Mount Install

1. Double Jerry Can Mounts install by the back of each Can Mount, sitting side by side.
2. Place the three bolts through the back Jerry Can Mounting Holes, from the inside out.
3. Place the lock washer between the Jerry Can Mount and Tire Carrier
4. Line up the and start the thread for each of the 3 bolts.
5. Tighten the three mounting bolts using a 3/16" Hex Key.
6. Repeat these steps for the second Jerry Can Mount.
7. Attach rear most edge of Jerry Can Mounts together by mounting the Tie Bar with 2 x 5/16 undercut countersink machine screws.



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Hi-Lift Mount - Package Contents

2 x 1/2x1-1/2" carriage bolt.
2 x 5/8 flat washer
2 x 1/2 hex nut
2 x 1/2 washer
2 x 1/2 wing nut

1. Place the carriage bolt through the mounting tab hole from the back, towards the tailgate.
2. Place the 5/8 washer over the bolt.
3. Place the 1/2 hex nut on the bolt and thread down to the washer. Do not tighten yet.
4. Repeat 1-3 for the second bolt
5. Test fit your jack. Be careful, depending on your options and truck the jack may need to mount with the lift pins facing the tailgate, or with the lift pins away from the tailgate.
All Tire Carriers without Jerry Can Mounts

or Camp Table (IE Jack mounting at an upward angle) will mount with the base flange on the driver's side.

6. Place the 1/2 washer on the end of the bolt.
7. Secure jack and washer using the 1/2 wing nut.
8. Once the bolts are in the correct position to line up with your jack mounting holes tighten the 1/2 nut, locking the bolt in place on the mounting tab.
9. Be sure to retighten the wing nuts.

Fold Down Camp Table - Package Contents

1 x Camp Table Frame
1 x Food Grade Stainless Steel Camp Table Top
1 x Zinc Plated Piano Hinge
14 x #10 Stainless Steel Machine Screw

1. Attach the piano hinge to the Camp Table Frame using 4 x #10 Stainless Machine Screw.
2. Attach Camp Table Top to frame using 6 x #10 machine screws.
3. Attach each Camp Table Support Arm Assembly to the frame by placing 1 washer on the 5/16 bolt. Then put the bolt through the hole on one end of the arm assembly. Place another washer onto the bolt. Secure

2 x Camp Table Support Arm Assembly
4 x 5/16x1 Hex Bolt
4 x 5/16 Jam Nut
8 x 5/16 Washer

arm to the bolt using the 5/16 Jam Nut. Do not tighten.

4. Attach the Camp Table Frame to the Tire Carrier using 4 x #10 Machine Screws.
5. Attach the Support Arm Assembly to the Tire Carrier following the same assembly method as step 3.
6. Latch in the closed position using the latch located just behind the tire mount.

Congratulations you're done! Enjoy you new Rear Bumper and Swing Out Tire Carrier!