

The Tong Metal Camper Jack Off System

Instructions for Use

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Before you Start - Safety



The weight of your camper is variable depending on the build design and any items that you have added to your camper since purchase. Your camper may vary in weight from 350kg (dry weight) to over 700kg when full loaded. For your safety, you need to exercise extreme caution while removing or installing your camper

It is recommended that two adults be present during the process of removal and installation of the camper. Please make sure that children are excluded from the area of moving vehicles and the camper while removing or installing the camper.

When choosing a site to store your camper, give yourself plenty of vehicle manoeuvring room. It's always the best option if you can reverse your vehicle in a straight line directly to the drop off/pick up point. During vehicle manoeuvring, it's a good idea for two adults to be present; the driver and a spotter. Don't rely on your reversing camera alone.

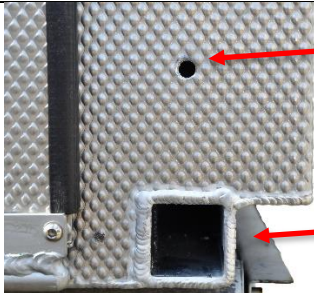



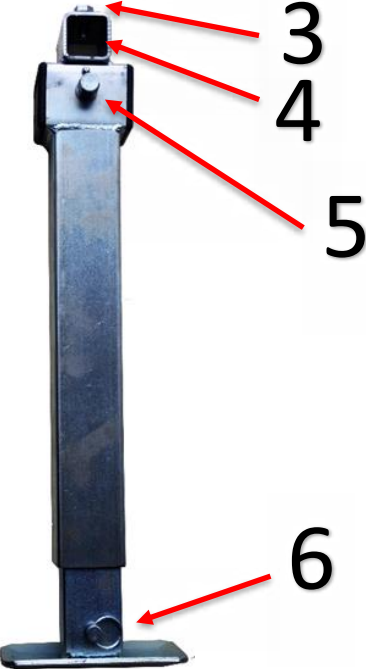
The geography of the location where you remove and store your camper is also very important. NEVER attempt to store your camper on uneven or sloping ground. The location should be flat and the soil stable and firm. Ideally, a camper should be stored on a concrete surface if possible.

Once your camper is removed from the vehicle, lower the camper to the lowest point on the jack legs. This will lower the centre of gravity and increase stability of the camper on the Jack Legs. While in this position, the camper rear door when lowered, may make contact with the ground. To protect the rear door seals, raise the camper before opening the door to ensure that the rear door does not make contact with the ground.

THINK:

- Heavy Object – Two Person Operation
- Safety
- Vehicle Manoeuvring Room
- Flat Site
- Firm Ground or Concrete
- NO CHILDREN in the vicinity
- Lower Camper for Lower Centre of Gravity

Components of the Jack Off System

	<p>On each of the 4 corners of the camper are the locations where the Jack Off support are attached to remove the camper.</p> <ol style="list-style-type: none"> 1. The Camper Support Rail securing Bolt attachment point. 2. The Camper Support Rail insertion bay.
	<p>The Camper Support Rail securing Bolt and Washer – 4 sets provided</p>
	<p>The Camper Support Rail – 4 are provided</p>
	<p>The Winding Handles – 2 are provided</p>
	<p>The Jack Legs – 4 are provided</p> <ol style="list-style-type: none"> 3. Camper Support Rail, Securing Bolt. 4. The attachment point for the Camper Support Rail, short end. 5. The attachment point for the Winding Handle, can us 19mm socket. 6. The Jack Leg cotter pin and spring clip.

Camper Fitment Method

There are two possible fitment methods used to secure your camper to your vehicle tray: A) Bolt Down System, and B) Quick Release System.

Bolt Down Method



The bolt down system is a universal system that is suited to all vehicles. This system uses four M10 heavy duty bolts to attach the camper directly to the tray. The bolts are located in each corner of the camper.

Bolt Head

Quick Release System



The other system of fitment is the Quick Release System developed by Tong Metal primarily to attach Tong campers to Tong Trays. In around 85% of cases this system can also be adapted to securing Tong campers to trays from other manufactures.

Quick Release Assembly

Quick Release Anchor Point

Caution



If the intention is to take the camper off road into undulating country only suited to four-wheel driving, then when strongly recommend the use of the bolt down system as the most secure method of attachment. It can be combined with the Jack Off System for additional strength of attachment.

Steps to Removing your Tong Metal Camper from your Ute Tray

Stage 1. Detaching the Camper from your Ute Tray

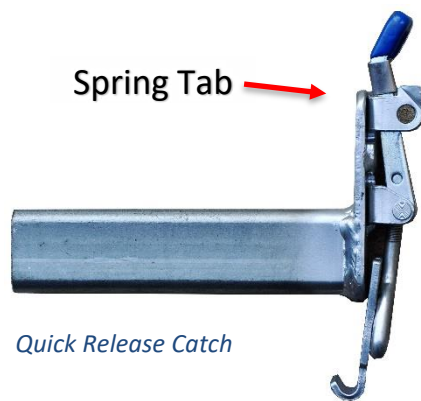
Bolt Down Method

Identify the 4 M10 bolts securing the camper to your tray. These will be located in each corner of the camper. They may be visible above the marine carpet, but usually below the marine carpet. On some vehicles, the two M10 bolts at the rear will be located above the carpet and anchor through the Camper Support Rail housing.

To remove the bolts, you will require a 16mm spanner or socket for the bolt head and a 17mm spanner or socket for the nut. Remove the 4 bolts.

TIP: Mark the location of the camper on the tray before starting. It will assist in alignment of the camper to the tray when you place the camper back onto the tray.

Quick Release System



Quick Release Catch

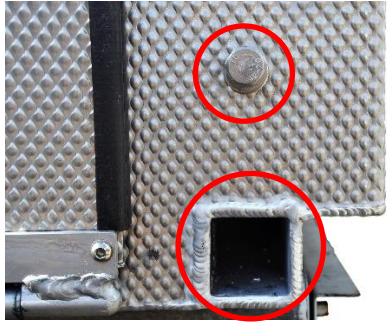

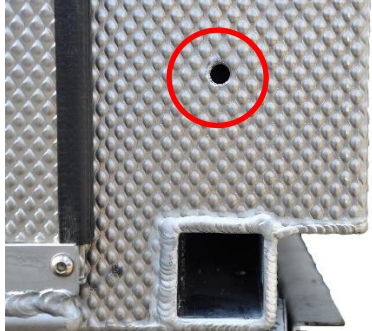




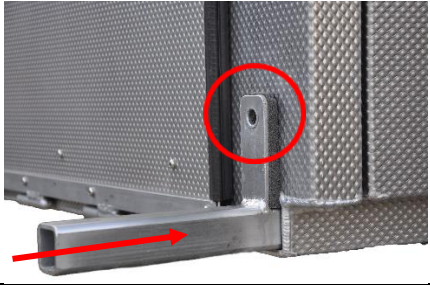



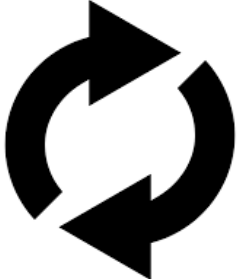
There are 4 Quick Release Catch. One catch for each of the 4 corners of the camper. Each Quick Release Catch is inserted into its corresponding Camper Support Rail Bay. When closed, the Quick Release Catch is hooked into Anchor Points in the tray for Tong trays or over an attached hook for other trays.

Near the handle of the Quick Release Assembly you will find a Spring Tab. To release the handle, depress the Spring Tab and pulling the handle out and downwards. If you are not able to release the handle, check that the spring tab is clear of the latch housing. In some cases, the tension in the Quick Release Catch is too great for some people to easily open the latch. In such cases, depress the spring tab while using a large blade screw driver as a lever to move the handle out and downwards. The Quick Release Catch can now be pulled out from the Camper Support Rail Bay.

To install the Quick Release assembly simply reverse the process.

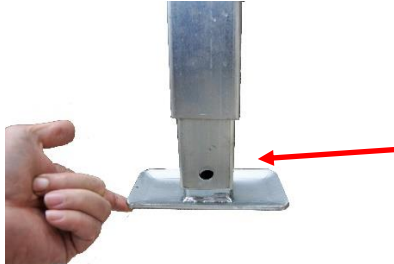


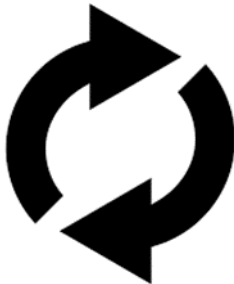
Stage 2. Securing the Camper Support Rail of the Jack Off System

	<p>Step 1. There are 4 location (one on each corner of the camper) where the Camper Support Rails will be attached.</p> <p>Each location will have a Camper Support Rail Bay (large red circle) and a Camper Support Rail Securing Bolt small red circle).</p>
	<p>Step 2. Starting at the Driver's side rear position, place the socket of the Winding Handle over the head of the Securing Bolt and rotate the handle anti-clockwise. Continue to rotate handle until Securing Bolt is removed.</p>
	<p>Step 3. Remove the Securing Bolt.</p>
	<p>Step 4. Pick up 1 of the Camper Support Rails with the Aluminium Tab orientated vertically.</p>
	<p>Step 5. Insert the longest side of the Camper Support Rail into the Camper Support Rail Bay. The Aluminium Tab MUST be orientated vertically.</p>

	<p>Step 6. Push the Camper Support Rail in until the Aluminium Tab is in contact with the camper.</p>
	<p>Step 7. Insert the Securing Bolt through the hole in the Aluminium Tab of the Camper Support Rail and turn the Securing Bolt clockwise to engage the thread of the Securing Bolt.</p>
	<p>Step 8. Use the Winding Handle to tighten the Securing Bolt. DO NOT OVER TIGHTEN. The Securing Bolt only needs to be "Hand Tight". If you over tighten the securing bolt you may damage the bolt thread in the camper.</p>
	<p>Step 9. The Camper Support Rail and Securing Bolt is engaged, ready to accept the Jack Leg.</p>
	<p>Step 10. Repeat Step 1 To 9 for the Passenger's side rear position, Driver's side front, and Passenger's side front position. All Camper Support Rails should now be secured to the Camper.</p>

Stage 3. Attach the Jack Legs to the Camper Support Rail

	<p>Step 11. Starting at the Driver's side rear position.</p> <p>Check that the Securing Bolt of the Jack Leg won't interfere when the Camper Support Rail is inserted. If necessary, wind the Securing Bolt anticlockwise so that the thread of the bolt does not intrude into the Jack Leg Anchor Point.</p>
	<p>Step 12. Insert the Camper Support Rail into the Jack Leg Anchor Point. The square tube of the Camper Support Rail should pass through the square tube of the Anchor Point and protrude slightly past the outer edge of the Anchor Point. It does not matter that the Jack Leg is not in contact with the ground.</p>
	<p>Step 13. Using the Winding Handle, tighten the Securing Bolt clockwise so that it engages the Camper Support Rail, locking the Rail to the Jack Leg.</p>
	<p>Step 14. Lengthen the Jack Leg by removing the Spring Clip from the Cotter Pin.</p>
	<p>Step 15. Remove the Cotter Pin. While supporting the foot of the Jack Leg, pull out the Cotter Pin.</p>

	<p>Step 16. Cotter Pin removed.</p>
	<p>Step 17. Extend the Jack Leg to the 5th hole from the bottom of the leg. Reinsert the Cotter Pin and the Spring Clip. Close the Spring Clip. At this point the Jack Leg is likely not to be in contact with the ground. This is normal.</p> 
	<p>Step 18. Repeat Steps 11 to 17 for the Passenger's side rear position, Driver's side front, and Passenger's side front position. All Camper Jack Legs should now be secured to the Camper Support Rails.</p>

Stage 4 Grounding of all Four the Jack Legs



Step 19.

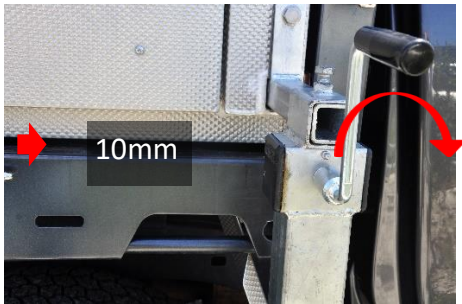
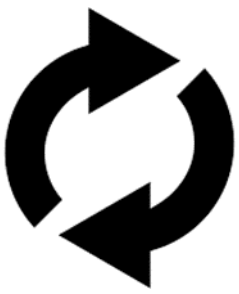
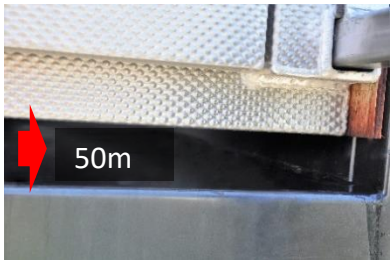
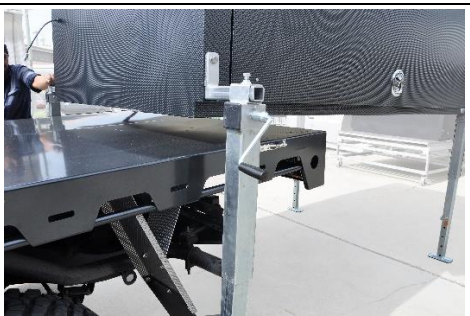
Starting at the driver's side front Jack Leg. Attach the Winding Handle to the Jack Leg.



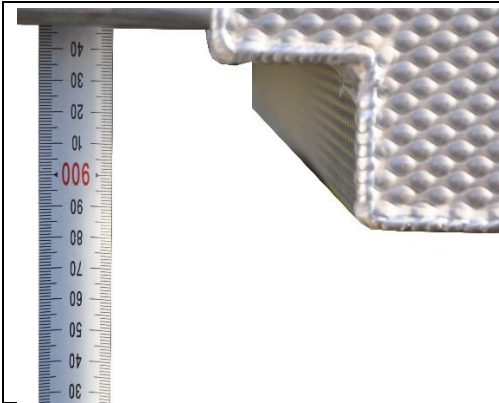
Step 20.

Turn the Winding Handle clockwise until the Jack Leg makes contact with the ground. Repeat for each Jack Leg until all four Jack Legs are in contact with the ground.

Stage 5. Jack the Camper Upwards so that it Clears the Tray of your Vehicle

	<p>Step 21. Starting at the Driver's front Jack Leg. Wind the Winding Handle clockwise until an approximate 10mm gap appears between the camper and the vehicle tray.</p> <p>NOTE: Starting at the front of the vehicle cause the camper front wall to pivot backward away from the vehicle headboard and prevents the two surfaces rubbing. In some vehicles a spacer already exists separating the camper and the headboard.</p>
	<p>Step 22. Repeat for the Passenger's side front Jack Leg, the Driver's side rear Jack Leg, and the Passenger's side rear Jack Leg.</p>
	<p>Step 23. Repeat Step 21 and 22 four more times. You want to create a >50mm gap between the camper and the Vehicle Tray.</p> <p>Warning: If you wind too far, one of the Jack Leg Feet may lift of the ground. This is not a problem. The goal is to raise the camper of the tray while keeping the camper close to level.</p>
	<p>Step 24. With the Camper now clear of your Tray. Very carefully drive the vehicle forwards until it clears the Camper. The first few times you do this, it's essential to have a spotter to assist.</p> <p>WARNING: Your tray height relative to the ground, may differ from the headboard to the rear of the tray. As you drive the vehicle out, watch closely to see if the >50mm gap begins to reduce. If so, you will need to stop and increase the clearance height by raising the rear of the camper.</p>

Stage 6. Camper in Storage Mode



Step 25.

FOR SAFETY, lower the camper to lower the centre of gravity. Typically, the camper can be lowered to a ground clearance of approximately 900mm.



Steps to Attach your Tong Metal Camper to your Ute Tray

Securing the Camper to your Ute Tray



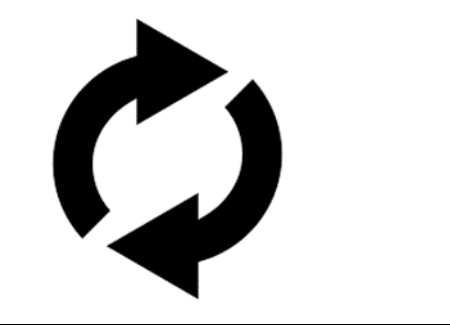

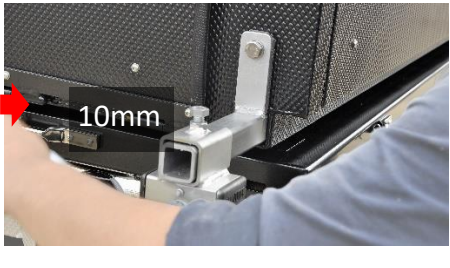
Before you Start – Safety



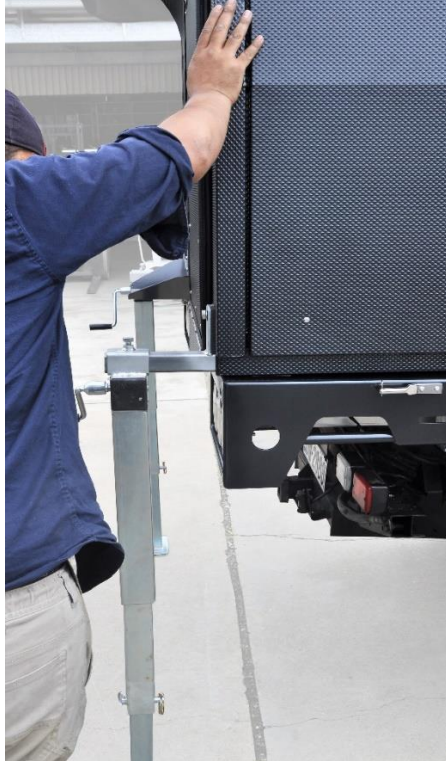
Before you commence the installation process of your camper, you need to complete an equipment and site check.

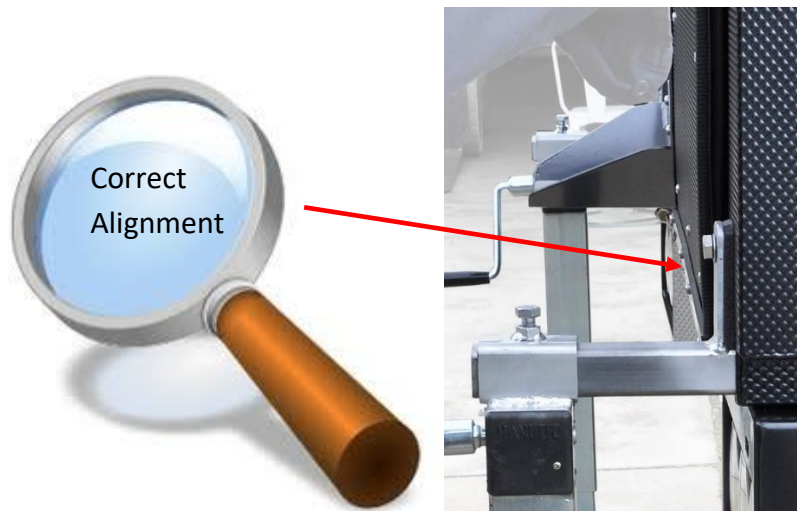
THINK:

- Safety First
- Heavy Object – Two Person Operation
- NO CHILDREN in the vicinity
- All of the Jack Off components are ready for use.
- You have clear and easy access for a reversing vehicle to manoeuvre. It's always the best option if you can reverse your vehicle in a straight line directly to the drop off/pick up point.
- The camper is clear and free of any object or materials.
- The camper is level.
- The ground on which the vehicle is to be driven and on which the camper is stored is firm and stable.

Stage 1. Aligning the Camper to the Vehicle

	<p>Step 1. With the guidance of your spotter, reverse your vehicle towards the front of your camper. Stop the vehicle when the rear edge of vehicle tray is approximately 400mm from the front of the canopy.</p>
	<p>Step 2. Attach the Winding Handle to the passenger's side front Jack and wind clockwise 10 turns.</p>
	<p>Step 3. Repeat Step 2 for each Jack Leg. Continue increasing the height of the camper until the camper floor is approximately 50mm higher than your vehicle tray from the ground.</p>
	<p>Step 4. With the guidance of your spotter, reverse your vehicle so that the tray is under the camper. Stop the vehicle when the rear edge of vehicle tray is level with the rear edge of the camper.</p> <p>Note: It's unlikely that the camper and the tray will be perfectly aligned. Alignment will be resolved in the next step.</p>
	<p>Step 5. Attach the Winding Handle to the driver's side rear Jack and wind anticlockwise 10 turns. Repeat for each Jack Leg. Continue decreasing the height of the camper until the camper floor is approximately 10mm higher than your vehicle tray.</p>

	<p>Step 6. Aligning the camper to your tray is the most critical step in the installation process. In this step, you are going to use the sideways movement inherent in the Jack Legs.</p> <p>Identify which of the rear corners of the camper is closest to being aligned with the rear of the tray. While pushing the camper with one hand to maintain correct alignment, wind the Jack Handle anticlockwise until the camper and the tray make firm contact.</p>
	<p>Step 7. Identify which of the front corners of the camper is furthest out of alignment from the tray. While pushing the camper with one hand to maintain correct alignment, wind the Jack Handle anticlockwise until the camper and the tray make firm contact.</p> <p>Note: If you are mounting the camper onto a Tong Tray, the Headboard of the Tray can assist as an alignment guide. Red Square.</p>
	<p>Step 8. At this point, the weight of the camper is distributed between the jacks and the vehicle tray. With a little effort, it is relatively easy to move the camper into its final alignment position. Once the camper is correctly aligned to the rear of the tray and approximately centred to the tray, lower the camper onto your vehicle tray.</p>




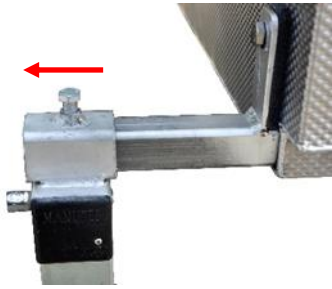

Stage 2. Retracting the Jack Legs from the Camper

Now that the camper is resting firmly on the tray, the jack legs can be prepared for removal.

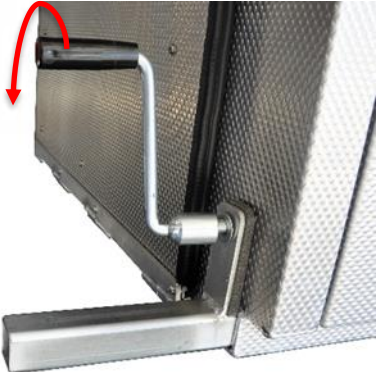


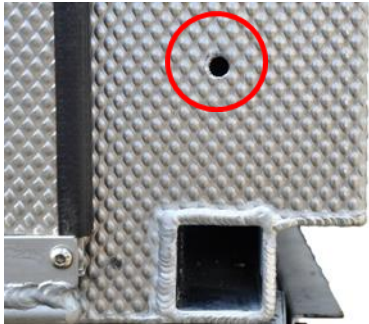
	<p>Step 9. Attach the Winding Handle to the driver's side front Jack and wind anticlockwise until the handle stops. The Jack Leg will be clear of the ground.</p>
	<p>Step 10. Repeat Step 9 for the remaining 3 Jack Legs.</p>
	<p>Step 11. Remove the Cotter Pin from the 5th hole of the Jack Leg.</p>

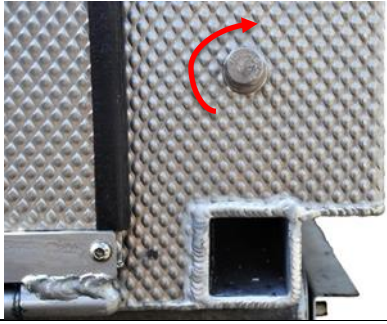


	<p>Step 12. Slide the Jack Leg back into the Jack until the first hole in the Jack Leg is aligned to the hole in the Jack.</p>
	<p>Step 13. While supporting the foot of the Jack Leg, insert the Cotter Pin.</p>
	<p>Step 14. Insert the Spring Clip into the Cotter Pin to secure the Cotter Pin in the Jack Leg.</p>
	<p>Step 15. Repeat Steps 11 to 14 for the remaining 3 Jack Legs.</p>

Stage 3. Removing the Jack Legs from the Camper

	<p>Step 16. Starting at the Driver's side front Jack, use the Winding Handle and turn anticlockwise to loosen the Securing Bolt of the Jack Leg that engages the Camper Support Rail.</p>
	<p>Step 17. Slide the Jack Leg of the Camper Support Rail by sliding the Jack Leg away from the camper.</p> <p>Note: The Jack Leg weighs around 9kg so be careful when removing the Jack Legs from the Camper Support Rails. Make sure you have the Jack Leg grasped firmly and are able to support the weight of the Jack Leg as it slides off the Camper Support Rail.</p>
	<p>Step 18. Repeat Steps 16 and 17 for the remaining 3 Jack Legs.</p>

Stage 4. Removing the Camper Support Rails from the Camper

	<p>Step 19. Use the Winding Handle to remove the Securing Bolt. The Securing Bolt should only be “Hand Tight”. Turn the Winding anticlockwise to loosen the Securing Bolt.</p>
	<p>Step 20. Remove the Securing Bolt.</p>
	<p>Step 21. Remove the Camper Support Rail by sliding the Camper Support Rail out of the Camper Support Rail Insertion Bay.</p>
	<p>Step 22. Reinsert the Camper Rail Securing Bolt back into the Camper Support Rail Securing Bolt attachment point.</p>

	<p>Step 23. Insert the Camper Support Rail Securing Bolt into the attachment point and turn clockwise to tighten the Securing Bolt.</p>
	<p>Step 24. Repeat Steps 19 and 23 for the remaining 3 Camper Support Rails.</p>
	<p>Step 25. Insert the Quick Release Catches into the Camper Support Rail Insertion Bay.</p> <p>Insert the hook into the tray Quick Release link point. Close the Blue Handle to Lock the Quick Release Catch into place.</p> <p>You should always secure the Blue Handle of the Quick Release Catch with the nut and bolt provided to prevent accidental opening or interference by a third party. Some customers will replace the bolt and nut with a small padlock for additional security.</p>

Your Notes: