

Cognito Can-Am X3 Radius Rod Inner Mount Conversion Kit

INSTALL INSTRUCTIONS:

Cognito Can-Am X3 Radius Rod Inner Mount Conversion Kit
SKU: 370-91041

PARTS LIST FOR SKU: 370-91041

QUANTITY	PART #	DESCRIPTION
1	6707	Top Brace Plate
1	6708	Middle Brace Plate
1	6709	Bottom Brace Plate
1	6710	Top Nut Plate
1	6711	Middle Nut Plate
1	6712	Bottom Nut Plate
1	HP9306	Hardware Pack


HARDWARE PACK HP9306

QUANTITY	PART #	DESCRIPTION
6	HARDWARE-M6-1.0X25-FB	M6X1.0 X 25mm Bolt
6	HARDWARE-M12X1.25X70-FB	M12X1.25 X 70mm Bolt
2	HARDWARE-M12X1.75-JN	M12X1.75 Jam Nut
1	THREADLOCK-BLUE	2ml Blue Medium Strength Thread-Lock

WARNING

Please read this entire instruction sheet before beginning installation. Proper installation of these components requires a qualified mechanic. Always wear safety glasses when using power tools, and take appropriate precautions when working under a vehicle. If these instructions are not properly followed you may jeopardize your, and your passenger's safety, and severe frame, suspension or tire damage may also result from improper installation.



INTRODUCTION

- The Can-Am X3 radius rods are mounted to the vehicle on six studs protruding from the frame and are all fastened in place with the factory radius rod plates. Swapping a radius rod requires the removal of the radius rod plates—unnecessary work if the studs were simply replaced by bolts. Loosening the radius rod plates—and even simply driving the vehicle aggressively enough—can result in shifting toe and camber due to the oversized mounting holes for the factory studs.
- **Enhanced Performance:** The Cognito radius rod conversion kit locks the mounting position of the radius rods in place, preventing unwanted changes in alignment and guaranteeing consistent handling from the vehicle.
- **Easy Serviceability:** By replacing the stock studs with bolts, the Cognito radius rod conversion kit removes the need to unfasten the entire radius rod assembly to service a single rod. Simply remove a bolt to separate a radius rod from the chassis.

REQUIREMENTS

- Installation requires a qualified mechanic.
- Read instructions carefully and study the pictures before attempting installation.
- Always wear proper protection equipment.
- It is necessary to raise the vehicle to perform this installation. A hoist or installation bay is recommended. Always ensure that the vehicle is properly supported before attempting installation, as serious injury could occur.
- Drilling through the frame is required.
- Cutting of stock radius rods studs is optional.
 - Cutting the stock radius rod studs will aid in this installation. This document will not cover the process of installation if the stock studs are not cut. **If you do not want to cut the studs, refer to the factory manual for how to remove and replace the stock studs. This process involves the removal of the vehicle transmission.**
 - Steps 5 through 11 in this document can be skipped if reusing the stock studs.
 - Retaining the studs will require removing the radius rod plates to service radius rods.

TOOLS NEEDED

- Ratchets, Sockets/Wrenches (10mm, 17mm, 18mm, 19mm), Torque Wrench

1. Raise the rear of the vehicle by the frame until the tires are off the ground. Remove the rear tires.
2. Use an 18mm socket to remove the six nuts fastening the radius rod plates to the vehicle. Remove the radius rod plates.

Figure 1: Remove radius rod plates.



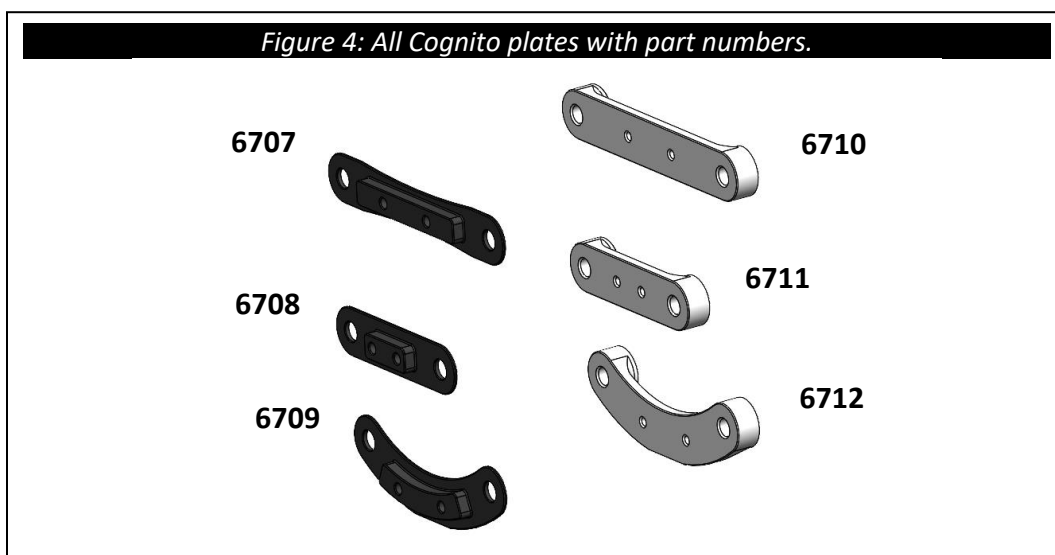
Figure 2: Remove radius rod plates.



3. Slide the radius rods off the studs and let them hang. The radius rods do not need to be unbolted from the wheel side. Remove the plate shown below from the top studs if present and discard. **Note that each row of studs is connected by a backing plate behind the frame.**

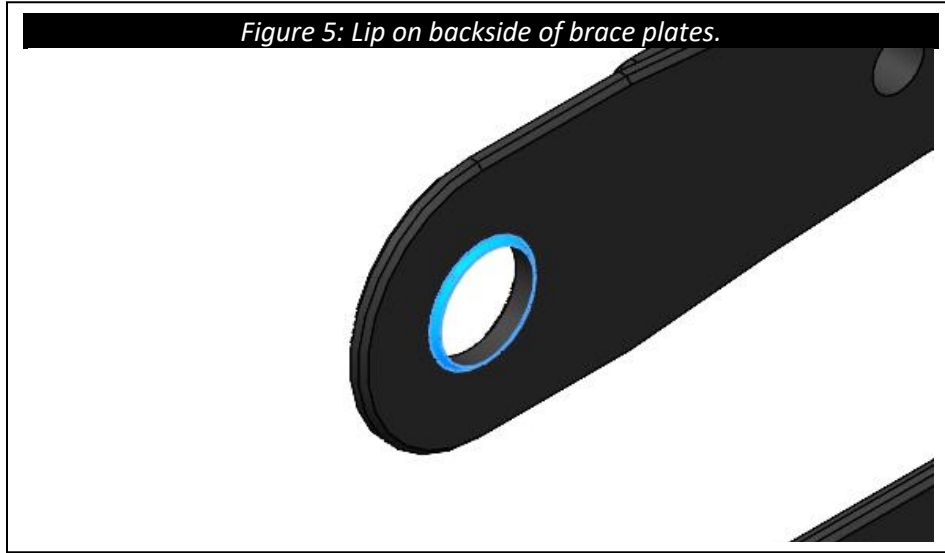


4. Locate the following:
 - 1x **6707** – Top Brace Plate
 - 1x **6708** – Middle Brace Plate
 - 1x **6709** – Bottom Brace Plate
 - 1x **6710** – Top Nut Plate
 - 1x **6711** – Middle Nut Plate
 - 1x **6712** – Bottom Nut Plate
 - **Hardware Pack HP9306**
 - 2x **M12x1.75 Jam Nut**



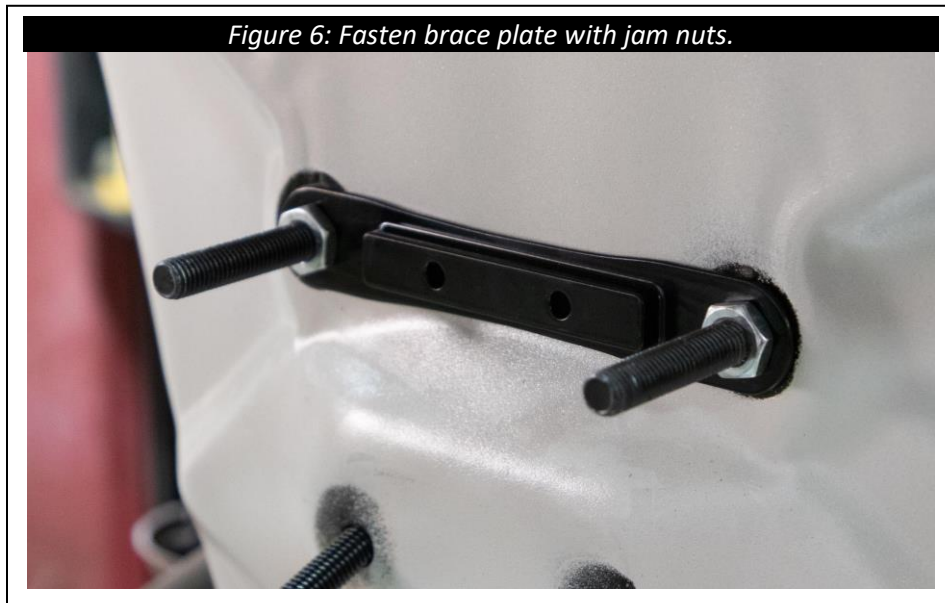
Note the small lip on the backside of the brace plates. This lip will help center the brace plates in the oversized factory holes on the frame.

Figure 5: Lip on backside of brace plates.



5. Fasten **6707** to the top studs using the **M12x1.75 jam nuts** and a 19mm wrench or socket. Before tightening jam nuts completely, ensure the lip on the backside of the brace plate is fully seated in the holes in the frame. **Tightening with the brace plates off-center may damage the frame and your Cognito parts.**

Figure 6: Fasten brace plate with jam nuts.



6. The studs will need to be removed from the vehicle for this install in a later step. Use a cutoff wheel to remove most of the length of the studs. Leaving three or four exposed threads on each stud is sufficient.

Figure 7: Cut studs.

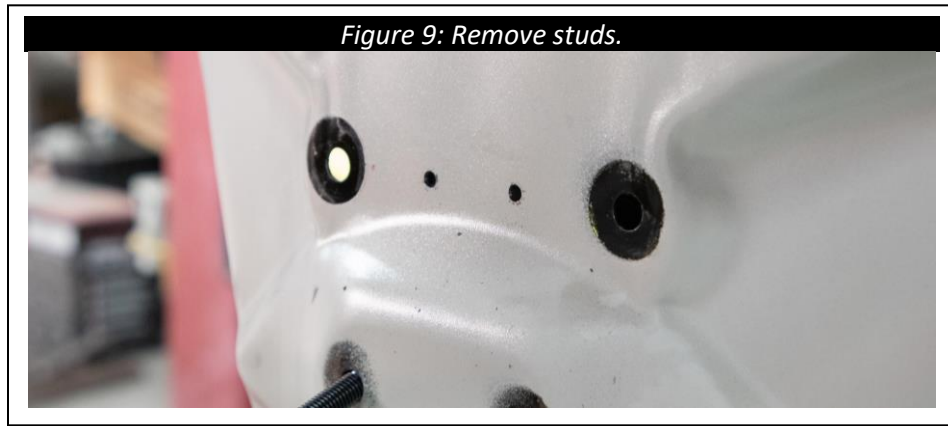


7. Use a 1/4" (.250") drill bit to drill two holes into the frame, using the two center holes in 6707 as a guide. **Do not plunge deep into the frame, as the vehicle's transmission is located closely behind the frame. The rear of the frame is only one layer of sheet metal. Use the backing plate connecting the studs as an indication to stop drilling.**

Figure 8: Drill into frame using brace plate as a guide.



8. Thread the jam nuts off the studs and push the studs through the frame to remove from the engine side. The frame should now resemble **Figure 9**.

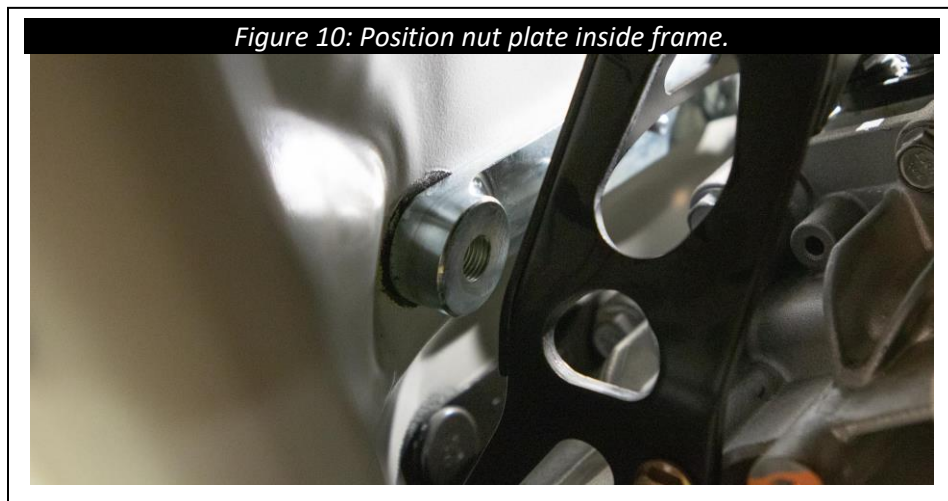


9. Repeat **Step 5** through **Step 8** for **6708** and the middle studs, and then **6709** and the bottom studs.

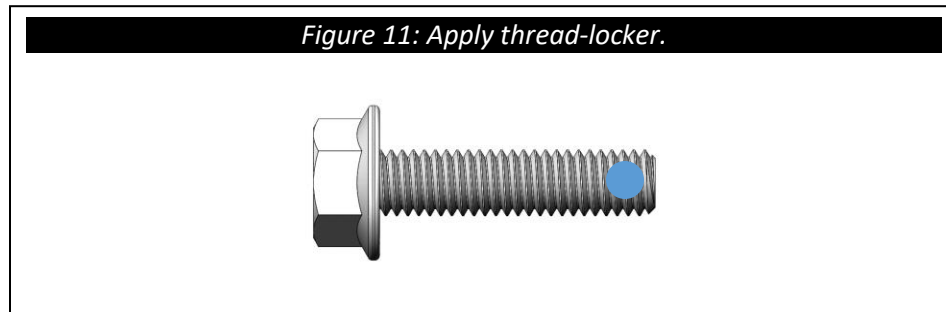
10. Locate the following:

- **Hardware Pack HP9306**
 - 2x **M6x1.0 x 25mm Bolt**
 - **Blue Thread-Lock**

Place nut plate **6710** on the inside of the frame, in the orientation shown in **Figure 10**. Align the nut plate with the top row.



Apply a small drop of thread-lock to the end of the M6 bolts as shown in **Figure 11**.

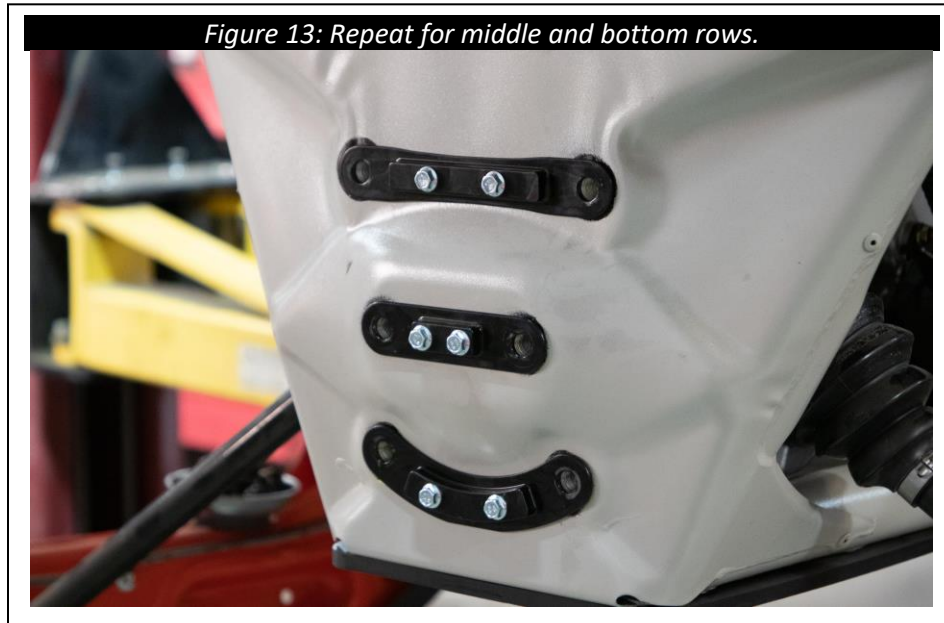


Place **6707** on the rear of the frame on the top row and fasten by inserting the M6 bolts through 6707 and threading into 6710, sandwiching the frame. Tighten bolts with a 10mm socket or wrench. **Again, ensure the brace plates are centered on the frame holes before torquing.** Torque M6 bolts to **12 ft-lbs**.

Tip: to aid in this step, insert 2x M12x1.75 x 70mm bolts through large holes in brace plate and temporarily thread into nut plate to hold assembly in place. Remove M12 bolts once completed.



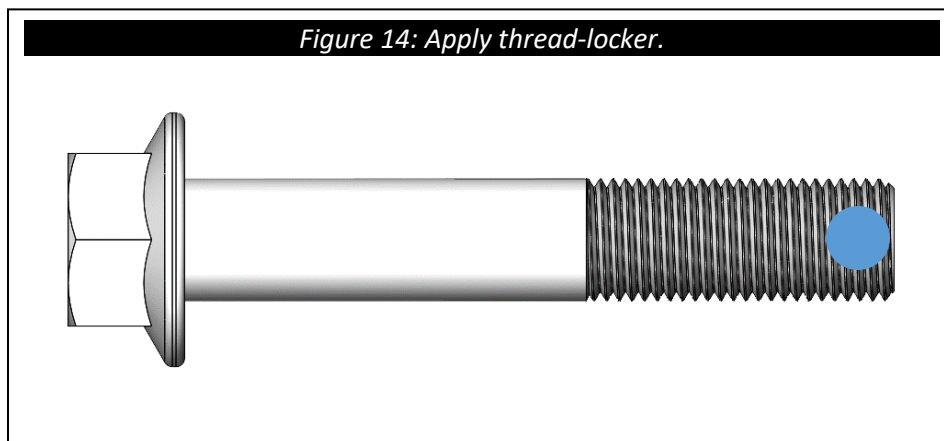
11. Repeat **Step 10** for **6708** and **6711** on the middle row, and then **6709** and **6712** on the bottom row. The frame should now resemble **Figure 13**.



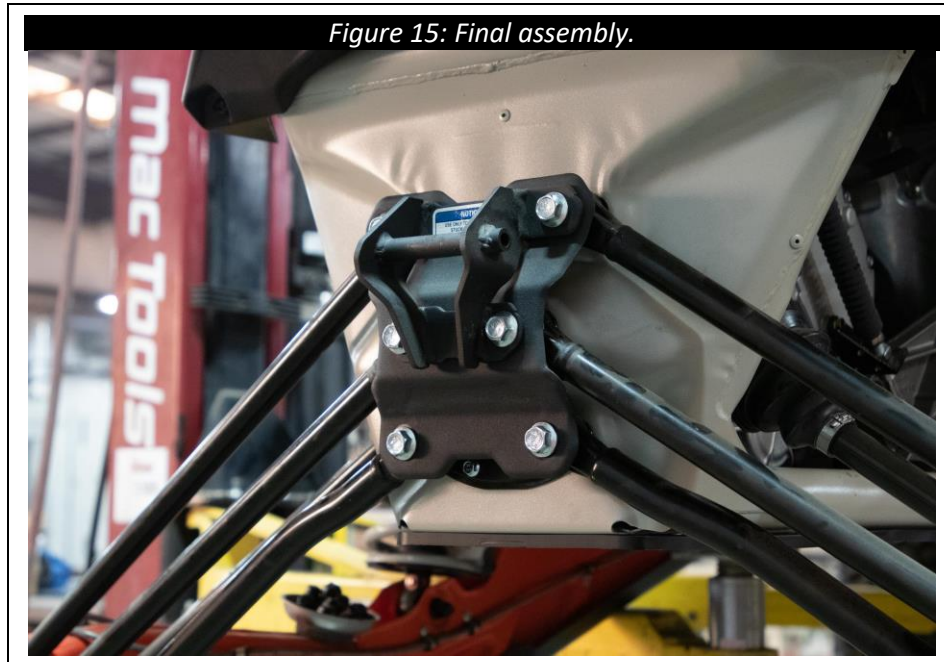
12. Locate the following:

- **OEM Radius Rod Plates**
- **Hardware Pack HP9306:**
 - 6x **M12x1.75 x 70mm Bolt**
 - **Blue Thread-Lock**

Apply a drop of blue thread-lock on the ends of the M12 bolts.



Reassemble the radius rods. Align the ends of the top radius rods with the frame holes on the top row. Hold the radius rod plates in place and fasten with two M12 bolts, inserting through the radius rods and threading into the nut plate. Repeat for the middle and bottom rows. Torque the M12 bolts to **83 ft-lbs** in a star pattern. The install is complete.





WARRANTY / RETURN POLICY / SAFETY

Cognito Limited Lifetime Warranty

Cognito Motorsports, Inc. hereinafter “Cognito,” warrants to the original retail purchaser, that its suspension products are free from workmanship and material defects for as long as the purchaser owns the vehicle on which the product(s) were originally installed. This warranty will be void if any modifications are made to the components, including alterations to the surface finish, i.e.; painting, powder coating, plating, and/or welding, or if they are improperly installed. Cognito truck suspension products are not designed nor intended to be installed on “competition” vehicles used in race applications, stunt or for exhibition purposes that are outside of the intended operating conditions specified by the manufacturer. Racing and competition are defined as any contests between two or more vehicles; or vehicles competing individually on off road circuits in timed events (whether or not such contests are for an award or prize).

This warranty does not include coverage for police, taxi, government or commercial vehicles, and the warranty does not cover Cognito products sold outside of the USA. Cognito’s obligations under this warranty are specified and applied at its sole discretion, and warranty coverage is limited to repair or replacement of the defective product(s). Any and all costs of removal, installation or reinstallation; freight charges, incidental or consequential damages associated with the covered products are expressly excluded from this warranty.

The following items are exempt from Cognito limited warranty coverage: bushings, bump stops, tie-rod ends (Heim joints) and limiting straps. These parts are “consumables” and designed to wear as a normal part of their duty cycle, therefore they are not considered defective when worn. The aforementioned products are warranted separately against defects in workmanship, for 60 days from the date of purchase. As a condition of warranty validation, respective Cognito suspension components must be installed as a complete system (not combined with non-Cognito hardware or ancillary parts). Any substitutions or omission of required components will void the warranty. Some minor cosmetic wear and imperfections may occur to parts during shipping, which is not covered under this warranty. This limited warranty does not apply to any components that have been subjected to collision damage, negligence, alteration, abuse, or misuse, and coverage does not extend to products manufactured by third-party companies. Cognito reserves the right to supersede, discontinue, or change the design, finish, part number and/or application of its parts when deemed necessary, without notice.

Return Policy

Product returns will not be accepted without prior written approval from an authorized Cognito representative. All products being returned must be shipped via trackable, prepaid freight. Returned products are subject to a 25% percent restocking fee. The eligible return period for products purchased directly from Cognito is 30 days from the verified date when the product(s) were originally received by the purchaser.

Product Safety Advisory

The installation of Cognito steering and suspension components will modify your vehicle’s original factory equipment and geometry, which may cause it to handle differently than a stock (unaltered) vehicle. Installation of these components is not intended to strengthen nor reinforce the vehicle’s frame, nor are they designed to increase rollover protection. It is necessary to periodically inspect all suspension and drive train components for proper attachment, torque specifications, operation, and for any potential unusual wear or damage. Installation of these parts will modify the height of the vehicle and may raise the center of gravity. Modifying vehicle height combined with off road operation may increase your vehicle’s susceptibility to rollover conditions, which may cause serious injury or death. Many states regulate allowable vehicle height modifications, and it is your responsibility to know and comply with the legal requirements specified by the laws where you reside. Modifications to your vehicle’s ride height may also affect the ride quality, driver input response, trackability and handling, and wear to your vehicle’s suspension components and tires.