

# **Front Control Arm Gusset Kit**

## Can Am Maverick X3 | 2017+ Part #: 5502013

Rev. 022219

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#### **SAFETY WARNING**

RT Pro UTV recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known.

#### **WHY BUY RT PRO UTV**

Great off-road driving and racing comes with having the most rugged and durable machine in the pack.

RT Pro UTV performance enhancing products will make your off-road machine stronger, tougher and safer so you can have more fun and less breakdowns.

For over a decade, RT Pro UTV staff have been taking brand new UTVs and driving them to their breaking point. When they bend, break or falter, we take them back to shop and create a fix that stops the problem from happening again.

There is no other company in the industry that puts more thought, engineering and design innovation into their products than we do. Our team is made up of off-road racers, mechanical engineers and talented fabricators who live and breathe all things motorsport. Above all, we share a passion for innovation, quality construction and getting things right.

All of our products are designed for assembly by weekend warriors with normal garage tools and the occasional spot-weld. Assembly directions are complete and thorough.

Remember, when you buy a RT Pro UTV product for your UTV, all of the parts have been designed and manufactured in the United States with U.S. steel and other high quality American components.

RTP5502013		
Part #	Description	QTY
04620	Front Gusset Plate	1
04621	Middle Gusset Plate	1
04622	Upper Brace	1
04623	Rear Upper Arm Gusset	1
04624	Rear Lower Arm Gusset	1
04625	Spacer Tube	1
04066	Spacer Sleeve	2
342701	Loctite	1

RTP55502013		
Description		
1/2"-13 x 1-1/4" Bolt - Yellow Zinc - Grade 8	2	
1/2"-13 Prevailing Torque Nut - Yellow Zinc	2	
12mm-1.75 x 100mm - Clear Zinc - Class 10.9	2	
12mm-1.75 Prevailing Torque Nut - Clear Zinc	4	
1/2" SAE Washers - Yellow Zinc	10	
1/4"-20 x 3/4" Bolt - Yellow Zinc - Grade 8	2	
1/4"-20 x 1" Bolt - Yellow Zinc - Grade 8	2	
1/4"-20 Prevailing Torque Nut -Yellow Zinc	4	
1/4" SAE Washers - Yellow Zinc	8	
10mm - 1.50 x 45 mm, Button Head Cap Screw	2	
3/8"-16 x 1" Bolt - Yellow Zinc - Grade 8	2	
3/8" - 16 Prevailing Torque Nut - Yellow Zinc		
3/8" SAE Washers - Yellow Zinc		
12mm - 1.75 x 80 mm Button Head Cap Screw		

#### FITMENT NOTES

May not work with aftermarket front bumpers. Will not work with X MR Models

### SPECIAL TOOLS

Basic Socket Set Torx Set

## INSTALLATION TIME

Approximately 3 hours

Medium Difficulty

#### **INSTALLATION INSTRUCTIONS**

- 1. Lift the front end of vehicle and support with quality jack stands. Ensure jack stands will not interfere with bracing locations, mainly front control arms.
- 2. Remove front wheels from the vehicle.
- 3. Remove front outer plastics (6 fasteners & 8 metal clips).

Note: The outer plastics are the two pieces on each side (most likely colored white or the primary color of the vehicle)

Figure 1



Figure 2



Figure 3



Figure 4



Remove front hood. Pull up to remove hood. The hood is shown removed in Figure 9.

Note: The hood is held in with 4 push in fittings.

Remove front plastics (12 fasteners). 5.

Figure 5



Figure 6



Figure 7



Figure 8



Figure 9



- 6. Unplug headlights. (4 connectors total)
- 7. Carefully remove front plastics from the machine.
- 8. Remove the bolts attaching the radiator to the vehicle on the front bumper and factory front shock brace. Save hardware. To help with installation, hold the radiator up out of the way with a bungee cord. Be careful not to damage the fins of the radiator.

Figure 10



Figure 11



- 9. Remove front bumper and hardware (2 bolts for the upper control arm and 2 nuts for the lower control arms).
  - Note: The lower control arm bolts will stay on the vehicle at this time.
- 10. Disconnect sway bar from each upper control arm. Keep hardware.
- 11. Remove the two rear bolts from both upper control arms. The upper control arm should be free to move at this time.

Note: It may be easier to remove the coilovers from the vehicle to aid in moving around the upper control arm for gusset installation later. If this is done be care not to over extend any brake lines. A ratchet strap can be used to support the front end components

Figure 12A



Figure 12B



12. Remove the 4 bolts connecting the front differential to the frame.

Figure 13



13. Remove the two front bolts from the lower control arms. They are a bolt tab that will need to be removed through the back of the frame. The two rear nuts and gusset plate for the lower control arm may also need to be removed and the lower control arms removed from their mount to aid in removal of the bolt tab.

Note: The front differential will need to be shifted around to remove the bolt tab.

14. Drill out the two smaller bolt holes connecting the front bolt tab to the frame to 5/16".

Figure 14



- 15. Remove the factory lower radiator deflector. There are two bolts on each side of the vehicle. The lower radiator deflector also mounts with the front bolts for the upper control arm.
- 16. Install the front frame brace. The front differential and upper control arm do not need to be removed to install the brace. The differential may need to be slid around to allow enough clearance for the front frame brace. The front frame brace will have a clearance for the front differential.

Note: The front brace is the plate with the two small "wings." The wings will face towards the rear of the vehicle.

Figure 15



Figure 16



17. Install the upper arm brace along with the factory hardware for the rear upper control arms mounts. Leave hardware loose. Do not reinstall the factory rear upper arm brace.

Note: The upper arm brace will have a cut out for the breather tube to run through. Make sure the cut out is above the breather on the front differential.

Figure 17



18. Install the upper arm rear brace along with 1/2" hardware to the frame (Figure 19) and the 3/8" hardware to the upper arm brace (Figure 20). Leave hardware loose.

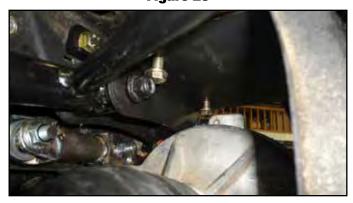
Figure 18



Figure 19



Figure 20



19. Install the 1/4" hardware to the front frame brace at the bottom near the differential (Figure 21A) and on the "wings" of the front frame brace (Figure 21B). Leave hardware loose.

Note: The front frame brace will use the two 1" long bolts (Figure 21A) and the two wings will use the 3/4" long bolts (Figure 21B).

Figure 21A



Figure 21B



20. Install the front bumper along with the front bumper frame brace. The front bolts for the upper control arm will use the new provided 12mm hardware, running the bolts from front to rear (Figure 22). The front bolts for the lower control arm will use the factory 12mm bolt previously used for the front upper control arms and the new provided 12mm nut (Figure 23) through the front frame braces.

Note: Be sure to reinstall the lower control arms to the bolts on the rear, do not install a nut at this time.

Figure 22



Figure 23



21. Install the front spacer tube between the front frame brace and the front bumper frame brace. Use the provided 12mm button head cap screws and Loctite install the bolts through the front bumper frame brace tightening to the front frame brace.

Figure 24A



Figure 24B



22. Tighten the hardware in the following order, tighten the 1/2" hardware to 65 ft-lbs, 3/8" hardware to 30 ft-lbs, and 1/4" hardware to 10 ft-lbs. Last, tighten all 12mm control arm and spacer tube hardware to 65 ft-lbs.

Note: Do not tighten the rear bolts/ nuts for the lower control arms.

23. Install the lower control arm rear brace to the two bolts. Attach with the factory nuts. Leave hardware loose. Do not reinstall the factory rear lower arm brace. Install spacers and provided 10mm button head cap screws and Loctite to the rear holes of the front differential mounts.

Note: The two spacers may need to be installed simelataneuosly with the lower control arm rear brace.

Note: You may need to applied pressure upwards to install the rear arm brace onto the bolts for the lower control arms.

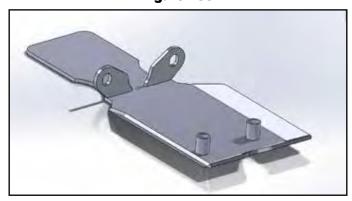
Figure 25A



Figure 25B



Figure 25C



- 24. Loctite and install the factory hardware for the front mounts for the front differential.
- 25. Tighten the lower control arm nuts to 65 ft-lbs. Tighten all differential hardware to 40 ft-lbs.
- 26. Reinstall the radiator to the factory mount locations.
- 27. Reinstall the coilovers if removed.
- 28. Reinstall the front sway bar links to the upper control arms.
- 29. Reinstall all body plastics in reverse order as how they were removed.
- 30. Check all hardware for proper torque.
- 31. Check hardware after 10 hours.

#### **THANK YOU FOR YOUR BUSINESS!**

For questions or additional information feel free to call and ask for tech support or email us through our website at: rtproutv.com/contact



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