

# 667-293 & 667-296 STEERING RACK SECURITY MOUNT

Installation Instructions

## For Left-Hand Drive: TR4 CT20064 ON, 4A, TR250, TR6 and SPITFIRE

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One unfortunate design aspect of the rack & pinion steering unit in the TR4-6, is that the pinion housing is not directly mounted to the chassis. Instead, the rack tube is mounted to the chassis, and the pinion housing is held in place by the press fit connection of pinion housing to rack tube. This is not ideal. If the joint fails, it is possible for the pinion housing to move around, thus affecting steering. As a safety measure, we have created the Steering Rack Security Mount. This specially designed upper mounting block surrounds the flange cast into the side of the pinion housing. If the housing to rack tube joint becomes loose, the Security Mount is intended to stop a catastrophic failure of the joint. The security mount is intended as a onetime use device that may, in the event that the steering rack begins to separate, help you keep control of the vehicle . It is not intended to repair a loose or separated steering rack. If the steering rack has begun to separate, it must be replaced. This product does not strengthen the joint. It only acts as a safety device to control the effect of a joint failure. You must continue to occasionally inspect the steering rack after the security mount has been installed.

#### **Tools required:**

- Shop manual
- Floor jack & jack stands or ramps
- Ratchet
- 1/2" deep socket
- 3" extension
- 1/4" allen wrench
- Removable thread locker
- Torque wrench(s) capable of 19 and 28 ft. lbs.

Warning: Never work on a vehicle only supported by a jack. Always use jack stands to support the weight of the vehicle.

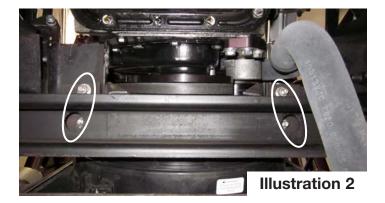
Notes: The security mount must be used with solid rack mounts. The use of rubber or poly steering rack mounts is not permitted.

See your shop manual for supplemental information on removing and installing steering rack mounts.

The steering rack must be disconnected from the frame of the vehicle during this installation. For this reason you may need to reset the toe. If you cannot reset the toe on your own, plan on having an alignment shop to do it for you.

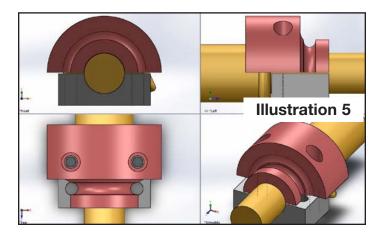
1. On level ground, lift the front of the vehicle using a floor jack. Support the vehicle using Jack stands.

2. Front the underside of the car; remove the nuts securing the steering rack U-bolts to the car. Take note of the reinforcement plates and remove them if they are loose. If they want to stick to the frame, leave them be.



- 3. Remove the upper and lower steering rack mounts from the driver's side. If your vehicle has rubber mounts, remove the passenger side steering rack mounts as well. If solid mounted, leave the passenger side rack mounts in place.
- 4. Install the driver's side lower mount so that the threaded set of holes are closer to the pinion castings. Install the passenger side lower solid mount (no threaded holes) if you previously had a rubber or poly bushing.

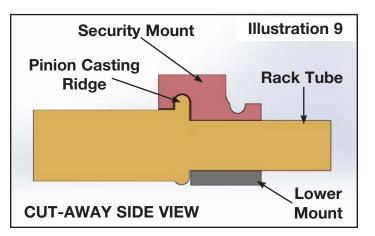
5. Set the security rack mount in place on the driver's side, so that the groove in the mount captures the ridge on the pinion casting. If you removed the passenger side rack mount, install it as well.



- 6. Place a small amount of removable thread locker on to the threads of the U-bolts and Allen head cap screws. Install U-bolts thought both driver's and passenger's side rack mounts. Install the cap screw thought the security mount and begin threading them into the lower mount. Snug the cap screws down hand tight only. Make sure the gap between the security mount and lower mount is even all around.
- From under the car, make sure the reinforcement plates are in place. Install the washers and nuts onto the U-bolts. Tighten the U-bolts down evenly to 19 ft.-lbs. Make sure the gaps between the upper and lower rack mounts are even all around.
- 8. Now, evenly tighten the caps screws in the top of the security mount to 28 ft.-lbs using a <sup>1</sup>/<sub>4</sub>" Allen wrench.

 Inspect your work. Make sure all fasteners are tight. Look at the gaps between the upper and lower rack mounts to confirm they are even all around. You do not want one side touching and the other side to have a gap. Adjust accordingly.

Make sure the security mount is not bound up on the pinion casting. If the gap between the security mount and lower mount gets larger as it get closer to the pinion casting, you must file casting slightly. The security mount is not supposed to "grasp" the ridge on the pinion casting. Light contact is between the two is okay but it should not affect the gap between the security mount and lower mount.



10. Once everything is tight, set the car on the ground and take a short test drive. Double check all of your work. Make sure all the fasteners are still tight after the test drive. If your steering wheel is not centered, you need to adjust the toe alignment. See your shop manual or bring your vehicle to an alignment shop. Enjoy your new Steering Rack Security Mount! See MossMotors. com for all of your British car parts needs.

### 667-293

No.	Description	QTY. per	Unit of Measure
310-290	NUT, NYLOC, 5/16 UNF	4	EACH
365-720	WASHER, FLAT, 5/16 IN	4	EACH
667-285	CLAMP BLOCK, RACK MOUNT	1	EACH
667-290	CLAMP RING, RACK MOUNT	2	EACH
667-301	U-BOLT, RACK MOUNT, 5.16-24	2	EACH
667-292	RACK SECURITY MOUNT, UPPER	1	EACH
667-286	CLAMP BLOCK, RACK MOUNT	1	EACH
053-482	AHCS, 5/16-18 X 1.125"	2	EACH
053-484	INSTRUCTIONS FOR 667-293	1	EACH

#### 667-296

No.	Description	QTY. per	Unit of Measure
667-286	CLAMP BLOCK, RACK MOUNT	1	EACH
667-292	RACK SECURITY MOUNT, UPPER	1	EACH
053-482	AHCS, 5/16-18 X 1.125"	2	EACH
770-273	BOX, 6 X 6 X 6	1	EACH
053-484	INSTRUCTIONS FOR 667-293	1	EACH
310-290	NUT, NYLOC, 5/16 UNF	4	EACH

Although every effort has been made to ensure the accuracy and clarity of this information, any suggestions that you may have that will improve the information (especially detailed installation notes and photos) are welcome. These instructions were developed and written by Moss Technical Support. If you have any questions or difficulties with your installation of this product, telephone 800-667-7872 between 7:00 a.m. and 4:00 p.m., Pacific Time for assistance.

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