

# Castor Decreasing Kit

## Installation Instructions For: MGB

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#### **Before You Begin:**

Please read and understand these instructions. We recommend professional installation. Vehicle will require an alignment once the castor kit has been installed. Actual parts may vary from images.

This kit was designed to DECREASE the castor angle of the front tires. This is desirable because most MGB owners now use radial ply tires rather than the bias ply tires that were OE at the time most MGB were built. Radial tires need less castor angle to keep the vehicle going straight down the highway. Reducing castor angle should also reduce steering effort at low speed. On our 1973 MGB we noticed more responsive steering at highway speeds and just a bit less effort to turn the wheel at parking lot speeds.

#### **Castor Angles**

Before: 6.4°

After: 4.3°

The castor angles above are provided solely as and A to B comparison on a single vehicle. They should not be used as target castor angle but instead give an idea of how many degrees of castor angle could change on your car. Results can vary depending on the rubber isolators, how far the shims are pushed back or forward in the car and individual chassis uniqueness.

#### Tools:

- 1/2" Wrench x 2
- 1/2" Socket
- Ratchets 3/8" & 1/2"
- Torque Wrench (50 ft-lb)
- 1/2" Drive Breaker Bar
- 1/2" Extension 12" Long
- 1/2" Universal Joint
- 3/4" Socket (1/2" Drive)
- Floor Jack
- Jack Stands
- Wheel Chocks
- Hammer
- 6" Drift (Punch)

#### Contents of the Kit:



Part	Qty	Moss Part #	Description
A)	2 each	773-024	Castor Shims
B)	10 each	365-720	5/16" Washers
C)	2 each	310-290	⁵⁄16" Lock Nuts
D)	4 each	310-400	1/2" Lock Nuts
E)	1 each	220-136	Thread Locker

### Installation Instructions

1) Chock the rear wheels. Jack up the front of the car and place jack stands under the car (not on subframe) so that the front wheels are off the ground.

2) Remove the steering rack bolts using ½" wrenches, socket and a ratchet.



- Back off the rearward subframe nuts under the car but do not fully remove them. They need to stay on to support the subframe later.
- Lightly support the subframe with the jack, but do not lift the car off the jack stands. Just enough to hold the subframe in pace.
- 5) From the top side (engine bay) remove one of the forward subframe nuts and washers. Loosen the opposing side so that it is only held on by a few threads.



6) Use a drift and hammer to gently push the forward subframe stud (with nut removed) down into the subframe. You may need to take a little tension off the jack holding the subframe up.



7) Lower the subframe enough to install the castor wedge on the side which you have full removed the nut and pushed down the stud. Install the castor wedge. The thick end of the shim should be toward the front of the car and the thin end toward the back.





8) Once the shim is in place, push the forward stud back up through the chassis and start the new nut with just a few threads. After you align the stud with the hole, use the drift and hammer to gently tap the stud back up through the chassis.



- 9) Repeat steps 5–8 on the opposite side of the car.
- 10) Begin tightening the 4 subframe nuts to suck the subframe back up to the chassis. Once the subframe is up, go back and replace each nut one at a time with the new nuts. **Optional:** use medium strength thread locker on the forward nuts as the nylon part of the nut may no longer engage the threads do to the subframe being a bit lower on the front side.
- 11) Torque all 4 of the removed subframe bolts to 50 ft-lb.

## **Installation Instructions**

12) Try to fit the steering rack back onto the subframe. If the holes do not line up, you must loosen the steering shaft universal joint bolts (but do not remove) to allow the steering rack more freedom.



13) If the steering rack does not sit flat on the subframe brackets; use the provided flat washers in between the steering rack and subframe. For instance: if there is a gap at the front bolt holes of the steering rack but the back of the rack is touching the subframe brackets. In this case you would install a washer(s) at the front of the rack. You may end up with washers for the rear bolts as well and that is OK. It is important that the steering rack does not bind up as the rack is tightened down. To the subframe. Turn the wheels side to side after the rack is tightened to ensure the rack does not feel bound up. Re-shim if necessary. Two new lock nuts are provided for the forward rack mount bolts.



- 14) Retighten the steering shaft universal joint bolts. Again, check that the rack is not bound up by turning the wheels side to side. Re-shim the rack if it feels tighter.
- 15) Double check the torque on all hardware that was removed or replaced.
- 16) Road test the vehicle slowly to ensure everything is installed properly and to get used to the new feel.
- 17) After the road test, again check torque on fasteners to ensure nothing came loose.

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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