

# TKOSROD1493K 2003-2017 DODGE VIPER CAMBER CASTER LOCK OUT PLATE KIT

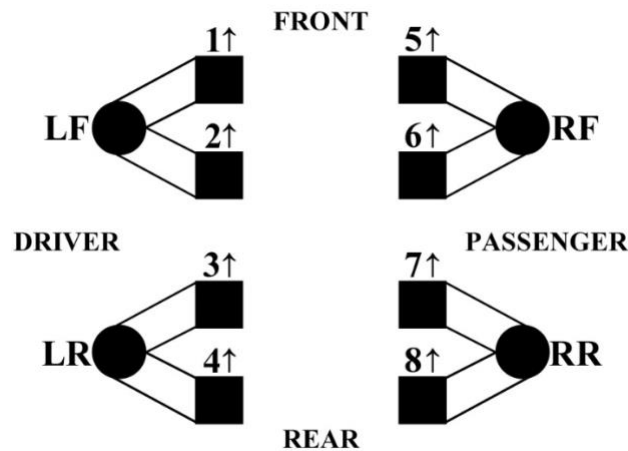
## INSTALLATION INSTRUCTIONS TKOMOTORSPORTS.COM

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### PLACEMENT OF LOCK OUT PLATES ON LOWER CONTROL ARMS



For the following steps it will help if you use a lift, jack stands or turntables to lift your vehicle off of the ground, making it easier to move the lower control arms.

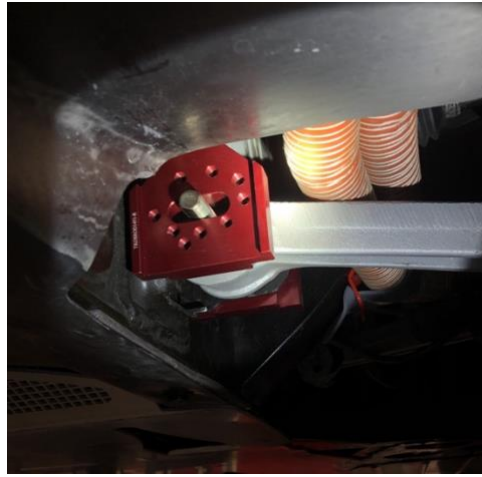
**Important Note:** The lock out plates have already been assembled to show how they will be positioned on the vehicle when properly installed. Make sure the arrows are pointing forward and the eccentric washers are mirrored when you begin to install them.

**STEP 1:** Use a 19mm wrench and socket to remove the factory control arm bolt and eccentric washer.

**STEP 2:** Place the lock out plate on the control arm box and slide the bolt with the welded eccentric washer through the lock out plate and control arm. Place the lockout plate on the other side of the control arm box and slide the eccentric washer onto the bolt. (**Ensure the eccentric washer is mirrored to the eccentric washer that is welded to the bolt, otherwise the adjustment holes will not align**). See pictures below.

### **Important note for 2013-2017 Vipers: PASSENGER SIDE AFT LOCK OUT PLATE POSITION 6**

Lock out plate position 6 for 2013-2017 Dodge Vipers may require modification to the engine mount nut. Some, but not all, 2013-2017 Dodge Viper passenger side engine mounts may require modification to the engine mount forward weld nut to allow for the lock out plate adjustment. An air powered rotary file works best to provide clearance for the proper lock out plate adjustment. In severe cases, it may require complete removal of the weld nut. In this case, we have provided a new M10 bolt and nylock nut to allow for you to install the engine mount bolt as a "bolt through."



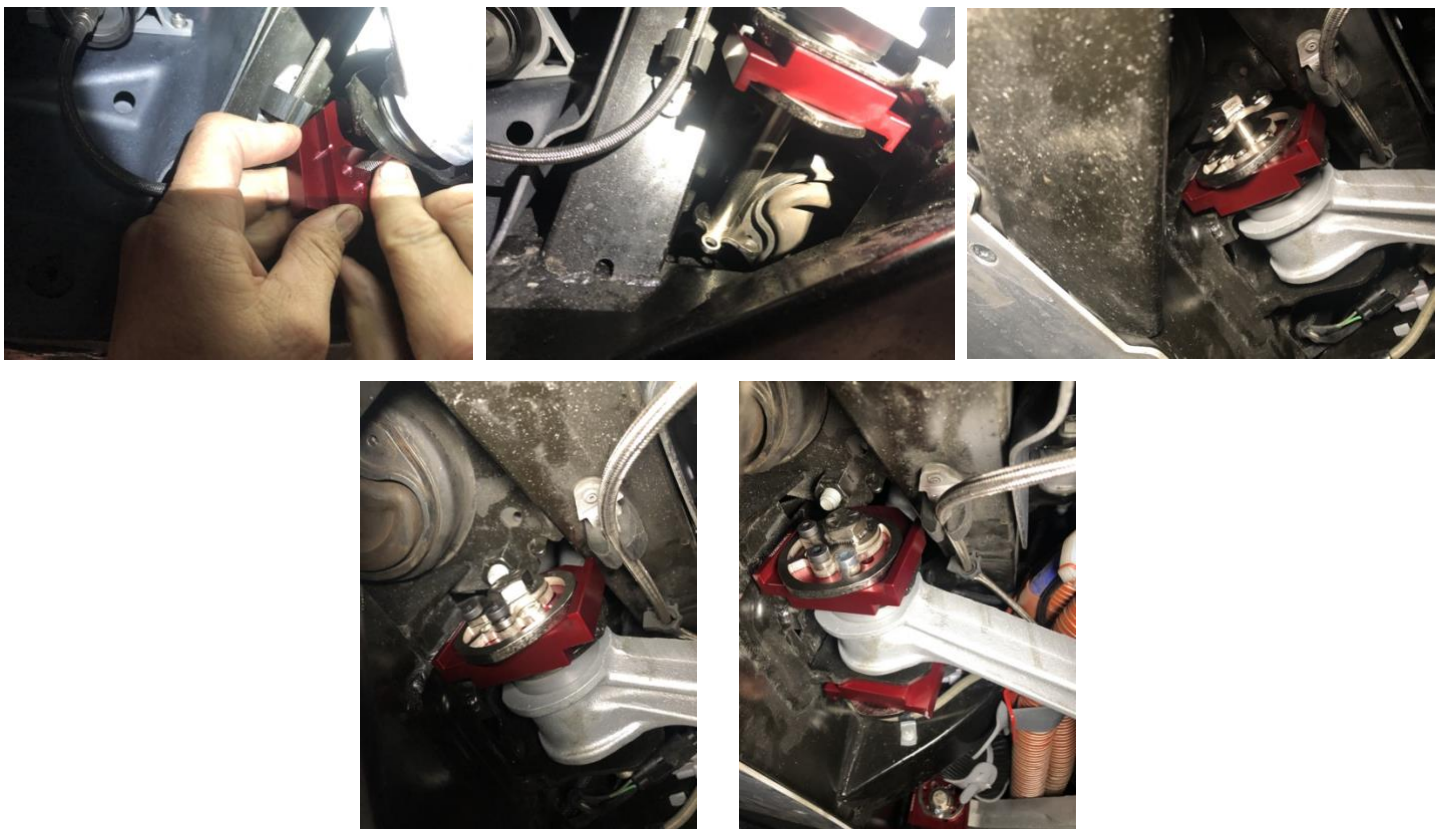
**STEP 3:** Use a 19mm wrench to loosely tighten the nut so that you can still turn the bolt to adjust the camber/caster. Use a wrench to turn the bolt until the eccentric washers align with a hole in the lock out plate that gives you the desired amount of camber/caster. Use a 4mm allen key and loosely thread in the adjustment bolt to hold the position. Screw the adjustment bolt in the mirrored position on the other lock out plate. **(Ensure the adjustment bolt is not tight, you may need to slightly turn the bolt to get the eccentric washer to align with hole position on other side).** Once both adjustment bolts are threaded in, tighten them, then tighten the nut on the control arm bolt. See pictures below.



**INSTALLING THE LOCKOUT PLATES IN POSITIONS 2&6:** In these positions, the lock out plates were designed differently to accommodate for the lack of working space. They function the same as the others and will be installed the same. However, the control arm bolt gets bolted to the eccentric plate using a 4mm allen key. Once these black bolts are screwed in, they will not need to be removed to make adjustments. You will make adjustments the same way as the others. See pictures below.







### **ENGINE MOTOR MOUNT MODIFICATION**

With some 5<sup>th</sup> Gen Vipers, it may be necessary to modify the passenger side motor mount. The nut welded to the bottom of the passenger side motor mount may interfere with the installation of your camber caster lock out plate. See Picture #5 for the location of the nut that needs to be removed.



PICTURE #5 - PASSENGER SIDE MOTOR MOUNT WELDED NUT LOCATION



PICTURE SET #6 - REMOVAL OF THE MOTOR MOUNT WELDED NUT USING A ROTARY FILE

Once you have removed the welded nut, you can now drill a hole for the relocated engine mount bolt. A new engine mount bolt and nut are supplied in your hardware kit. You will use an existing hole in the chassis motor mount (See Picture #7). Picture #8 shows the location of the hole and drill. You will drill through the engine motor mount and install the new bolt and nut (Picture Set #9).



PICTURE #7 – THE CHASSIS MOTOR MOUNT FACTORY HOLE JUST LEFT OF WHERE YOU REMOVED THE WELDED NUT





PICTURE #8 – DRILL A NEW HOLE FOR THE NEW MOTOR MOUNT BOLT AND NUT



PICTURE SET #9 - THE NEW ENGINE MOUNT BOLT AND NUT INSTALLATION AFTER DRILLING THE NEW HOLE

## **INSTALLING THE FRONT PASSENGER SIDE REAR CAMBER CASTER CONTROL ARM BOLT**

The front passenger side rear lower camber caster bolt can be tricky to install. With the lock out plate (the red anodized part), the threaded cam plate and the camber caster control arm bolt all having to be installed at the same time in sequence, it gets a little busy. With the motor mount and part of the passenger footwell bulkhead taking up a lot of space, you need to clock the camber caster control arm bolt as seen in Picture #10 and Picture #11.



PICTURE #10



PICTURE #11



## **MAKING ADJUSTMENTS TO THE FRONT REAR LOWER CAMBER CASTER LOCK OUT PLATES**

In your hardware kit you are provided with a small mirror and a small ratchet. The mirror is for aligning the cam plate holes with the lock out plate (the red anodized part). See Picture #12. The small ratchet makes installing the black lock bolts, once you have the desired adjustment, much easier than using a standard full-size ratchet.



PICTURE #12 – USING THE MIRROR AND THE SMALL RATCHET PROVIDED TO ALIGN THE HOLES FOR INSTALLING THE BLACK LOCK BOLT