

# MINI COOPER ENGINE TORQUE DAMPER INSTALLATION GUIDE

## EARLY MODEL YEARS – 3<sup>rd</sup> revision!!

Updated February 7<sup>th</sup>, 2006

### PARTS INCLUDED:

- 1x Engine torque damper
- 1x support plate
- 2x "L" brackets
- 3x lock nut
- 3x lock washer
- 2x M10 - 1.50x40mm bolt (17mm head, referred to as **10mm BOLT**)
- 1x M12 - 1.50x40mm bolt (19mm head, referred to as **12mm BOLT**)



## REQUIRED TOOLS:

17mm open ended wrench

19mm stubby wrench

18mm socket

19mm socket

Socket wrench

Pair of pliers

Telescopic magnet

Anti Seize Paste (optional but recommended)

Please make sure all parts listed have been included in your package.

Do yourself a favor and please purchase all of the required tools. Not only are they cool tools but they really make your installation much easier.

Contact [sales@shoe-in.net](mailto:sales@shoe-in.net) if you have any questions.

**FOR YOUR OWN SAFETY MAKE SURE THE ENGINE IS COOL TO THE TOUCH PRIOR TO INSTALLING THIS DAMPER!**

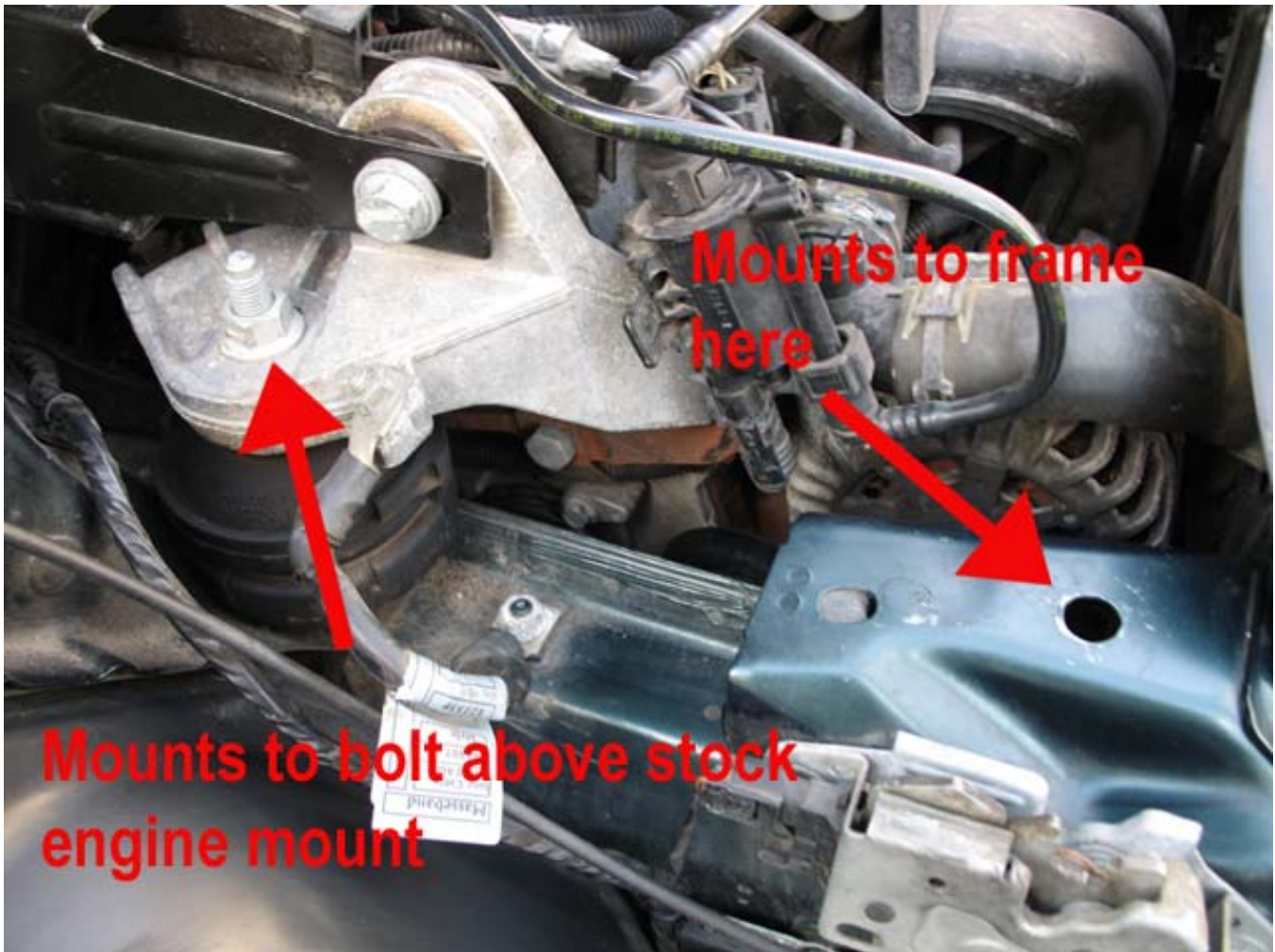
This kit is 2002 build year cars – this includes 2002 model year and early 2003 model year MINIs.

IF YOU ARE UNSURE ABOUT WHICH KIT YOU NEED, PLEASE CONTACT ME VIA E-MAIL.

**\*\*\*NOTE\*\*\* This is the latest version of the kit and includes TWO 10MM bolts + ONE 12mm bolt (earlier version contain THREE 10mm bolts)**

## 1. MOUNTING LOCATIONS

The damper attaches to the frame area and the bolt that protrudes from the stock engine mount. Remove the 18mm nut from the bolt on the left.



## 2. ENGINE SIDE BRACKET INSTALLATION

*Apply a light coat of anti seize paste on both the stock and the supplied 10mm bolts.*

Take one of the **10mm BOLTS** supplied and slide it through the L bracket so that the head of the bolt is to the **RIGHT** of the bracket (i.e. on the driver side of the car).

Place one of the "L" brackets over the bolt as shown below and **HAND TIGHTEN** for now (the pic below does not show the bolt in place but you will quickly find out that if you tighten down the bracket first without slipping the bolt through there will be no way to slip it in afterwards. ☺)



### 3. FRAME SIDE BRACKET INSTALLATION

First put the **support plate** over the frame area and slip the **12mm bolt** through.

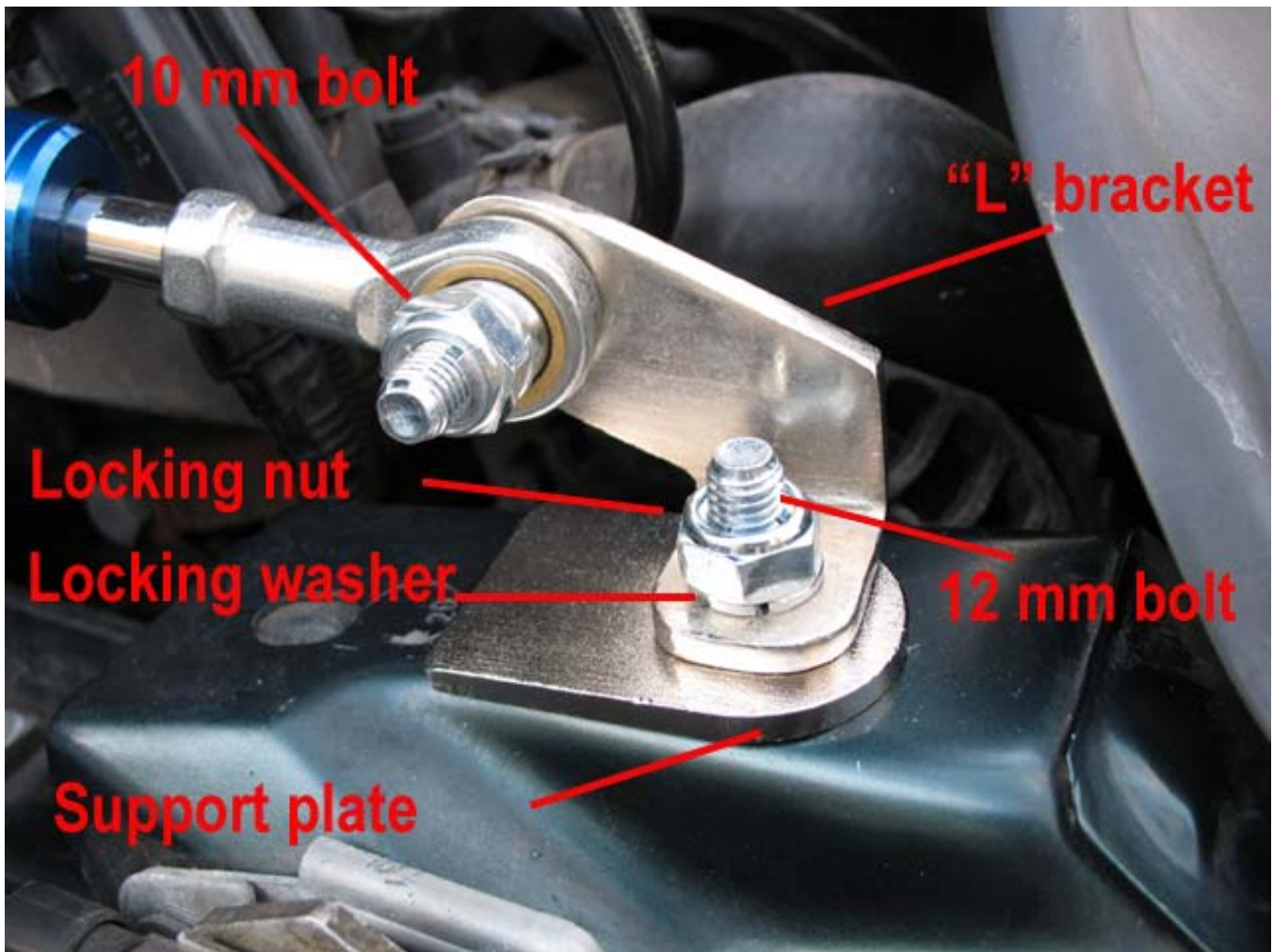
Make sure that the head of the bolt is **UNDERNEATH** the frame area.

Slip the other "L" bracket over the bolt. The two "L" brackets are identical and when installed properly should be **almost parallel**, facing each other in opposite directions. This will be discussed later on.

Slip a lock washer over the "L" bracket and tighten down with a lock nut.

You will need the stubby **19mm** wrench to hold the head of the bolt as you tighten the lock nut from above with a **19mm** socket + wrench.

You can tighten this nut down all the way. Make sure the "L" bracket points straight to the back of the car.



#### 4. DAMPER LENGTH ADJUSTMENT

You want to adjust the length of the damper so that it is very close to what is pictured below. In this configuration the damper will have some pre-tension set on it.



## 5. ATTACHING THE DAMPER TO THE BRACKETS (ENGINE SIDE)

Now that the **brackets** are in place (hand tightened on the engine side, tightened all the way on the frame side), start with the engine side bracket and mount the damper to the bracket.

*Apply a light coat of anti seize paste on the bolt.*

Slip one **10mm** bolt through bracket with the head facing the middle of the car, through the heim joint, put a lock washer on, and **hand tighten** the lock nut.

**DO NOT TIGHTEN DOWN THE LOCK NUT ALL THE WAY YET.**

*Note: You can also choose to mount the heim joint on the **INSIDE** of the bracket. The only reason I've lined it up on the outside is to give you a little room to work with. It works **either** way.*



## 6. ATTACHING THE DAMPER TO THE BRACKETS (FRAME SIDE)

*Apply a light coat of anti seize paste on the bolt.*

Slip the remaining **10mm** bolt through bracket, through the heim joint, put a lock washer on, and **tighten** the lock nut **all the way**.



## 7. COMPLETE THE INSTALLATION

Now here's the somewhat tricky part. Up to this point we have attached both brackets and attached the damper to each bracket. The frame side has been completely tightened down, however the ENGINE side is still only hand tight.

What you want to do is rotate the "L" bracket on the engine side so that you are at a slight angle compared to the frame side "L" bracket as pictured below.

Tighten down the 18mm nut holding the engine side "L" bracket.

Tighten down the bolt holding the damper to the "L" bracket on the engine side.

The reasoning is that by having the damper at a slight angle, you will be "pinching" the heim joints slightly, therefore PREVENTING the damper from rotating and thus preventing it from *possibly* causing a "clack-clack" sound.

If you grab the damper body and try to rotate it slightly (i.e. very little force), it should not move. If it does then it means the brackets haven't been lined up properly.



Make sure all the nuts are tight and account for all your tools and go for a ride!

If you have any questions, please e-mail me at [sales@shoe-in.net](mailto:sales@shoe-in.net).

Thank you for your purchase!

Shoe

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### **WARNING**

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