## Gen 2 Control Arm Bushing (PSRS) Install – W/O Removing Sub Frame

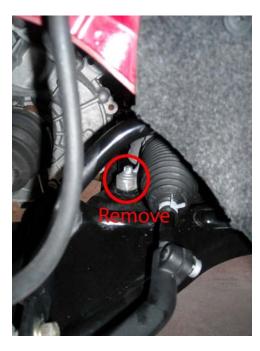
Thanks to some Pro MINIacs, & Motoring Alliance I installed new PSRS control arm bushings in my Gen2 MINI.

"SONICHRIS" gave a brief written description on this method for a Gen1 on that other forum. This method was then modified for Gen 2 MINIs and then coupled with "agokart" (Chad Miller of Detroit Tuned) Motoring Alliance Library article "R56 ALTA Positive Steering Response System (PSRS)". This article provided the final piece of the puzzle, with the idea of using the three jaw puller to remove the bushing from the control arm. No special tools are required for this install (the 3 jaw puller can purchased or rented inexpensively at most auto supply or tool stores).

For me this method is much less complex than dropping the entire sub frame. Perhaps the MINIac pros can point out any defects in this method of installing control arm bushings on the MINI.

#### Remove Torx Star Bolt from steering assembly

Driver Side Passengers Side





Remove Rear Sub Frame to Bumper Connecting Bolts and Loosen Front Bolts

Drivers Side Passengers Side





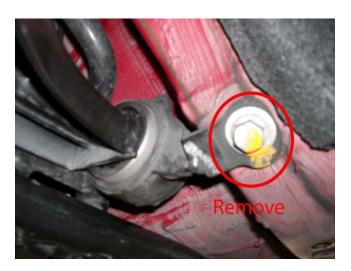
# Remove Upper Sub Frame Connecting Bolts (the ears going up from the sub frame) Driver Side Passengers Side





Remove Wishbone / Control Arm Carrier Bolt

Driver Side Passengers Side





**Remove Motor Mount Attaching Bolt** 



# Remove Rear Sub Frame <u>— While Supporting Sub Frame with Jack</u> Driver Side Passengers Side



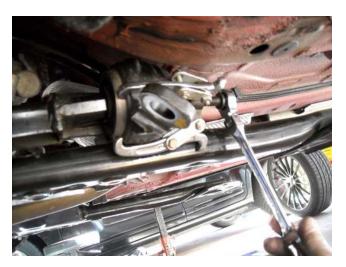


Lower Sub Frame and remove 2 Control Bushing Carrier Mounting Bolts (very tough)





Use 3 Jaw Puller and Remove Control Arm Bushing/Carrier/Wishbone Bracket
Driver Side Passengers Side





#### **Press Out OEM Bushing and Press in New Bushing**



Reverse the above sequence and reinstall.

If you do not have easy access to a press, I would suggest purchasing the PSRS Bushings pressed into the carrier/wishbone bracket. The PSRS bushing can be installed on the control arm without pressing (a nice advantage over poly bushing which may need to be pressed on the control arm). The control arms can be removed to install poly bushing using this method; it just adds a little more time and complexity.

Many MINIac-s suggest tack welding the PSRS bushing to the control arm. I did not have access to a welder so I replaced the supplied set screws with pointed stainless steel set screws and used lots of blue loctite.

<u>Have the alignment checked – everything has moved.</u>

### **Tools:**

**Safety Glasses and Gloves** 

Floor Jack

**Safety Stands** 

wood 2x4s or like for supporting sub frame

3 jaw puller (I used a 3" puller that was perfectly sized)

Metric socket set

Metric combination wrench set

Metric torx / star socket set

Optional - but very helpful- Impact wrench (I use a Dewalt 18v)

Safe work is paramount in this endeavor, Severe injury or Death can happen, If you not sure - don't do it!!!!