

**Installation Instructions**  
**M7 R53 Strut Tower Brace (STB)**  
**p/n: 53-5M7102**  
Installation Guide



Mark Raker

**This product DOES NOT FIT the base model MINI Cooper (Non 'S')**

**Tools** (not included):

- 13 mm Socket
- Ratchet
- Torque Wrench
- (Optional) Wood block 2"x4" x 6"-12"
- (Optional) Hammer



Mark Raker

- 1) Inspect the top of each strut tower. Use a short 6" straight edge and inspect the tops of your strut towers. If you notice any mushrooming, where the straight edge does not lay flat against the steel, continue with step 1a. If your strut towers are flat, move to step 2.

**You can find additional information on YouTube or by doing a GOOGLE Search for MINI COOPER MUSHROOM STRUT TOWER TOPS**

- a. Jack up the front end of your car to relieve pressure on the strut towers.

**CAUTION: DO NOT HAMMER ON THE STEEL WITHOUT THE WOOD BLOCK.**

- b. Place a wood block (a short scrap of 2"x4" will work) over the mushroomed portion of the strut tower and hammer on the wood until the strut tower becomes flat again. You will have to hit the block hard to get the steel structure to return flat.
- c. When the strut towers have flattened out, bring the car back onto the ground and move on to step 2.

- 2) Assemble the M7 Strut Tower Brace:



Be sure the notched bar is on the left side or driver's side (US) of the car or the bar will not fit correctly.

Leave the bolts that connect the base plates to the bar loose until the final step. This will allow you to move the plates for proper placement of the entire unit.



**CAUTION:**

**STEPS 3 through 5 MUST BE DONE WITH WEIGHT ON THE WHEELS - DO NOT ATTEMPT TO DO IT WITH THE CAR JACKED UP AND NO WEIGHT ON THE WHEELS**

- 3) Using the 13mm socket, remove the 6 nuts at the top of the strut towers (3 on each side).

Line up the holes of the strut tower brace with the bolts from the struts and place the Strut Tower Brace plates over the strut towers.

- 4) Using the same 6 nuts from step 3, secure the M7 Strut Tower Brace plates to the strut towers and torque down to **25 lb-ft (34 Nm)** each. Do not attempt to tighten over this specification as it may cause damage to your struts.





5) Tighten all M7 Strut Tower Brace bolts to **35 ft-lbs (47.5 Nm)**

***You are Finished. Take your car for an aggressive ride on your favorite curvy stretch of road and feel the difference in steering response and overall increased control.***

***Enjoy the Ride.....***



If you are still experiencing fitment issues please contact technical support. Please call our office at 704-663-0094 Monday – Friday, 9:00 AM -4:00 PM Eastern time or email us at [info@m7speed.com](mailto:info@m7speed.com)



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## **ADDENDIUM**

**If The Strut Tower Brace is lifting the hood when it is closed do the following:**

### **SUPPLIES NEEDED:**

- Water Spray Bottle (distilled water is recommended or it may leave mineral stains)
- Plastic sheeting (garbage bags also work well)
- 1/8" to 1/4" corrugated cardboard
- Scissors or razor knife
- Pencil or marker
- Masking or duct (duck) tape

Best to do this at the end of the day when the car is warm, but not hot, and can sit overnight.

- 1) Lay a single thickness of cardboard on top of the strut tower brace and trace the cross bar outline.
- 2) Cut out the outline of the STB.
- 3) Lay the cardboard cut-out on top of the strut tower brace and tape in place.
- 4) Cover the cardboard and M7 Strut Tower Brace with plastic. Use a plastic garbage bag or multiple shopping bags. Tape them in place so they do not slip off.
- 5) Generously wet the underside hood liner with water everywhere it makes contact with the M7 Strut Tower Brace. To do this, hold the bottle nozzle directly on the liner and inject the water until the entire area is thoroughly soaked.
- 6) Firmly close the hood. Once closed apply moderate hand pressure in the area directly above the area of the strut tower brace to form an impression into the underhood liner.
- 7) Let the car sit overnight to dry.
- 8) The next day remove the tape, plastic and cardboard.
- 9) The liner should now be molded around the brace and fitment should be well within acceptable tolerances.

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**Enjoy the Ride,**

**Team M7**

## R53 M7 Under Strut Sytem Installation Guide



### CAUTION:

WHEN WORKING UNDER YOUR CAR ALWAYS USE THE RIGHT EQUIPMENT FOR THE JOB. DON'T BE TEMPTED TO TAKE SHORT CUTS OR USE INAPPROPRIATE ITEMS. NEVER WORK UNDERNEATH A VEHICLE THAT IS ONLY SUPPORTED BY A JACK; USE AXLE STANDS OR CAR RAMPS THAT ARE IN GOOD CONDITION AND PROPERLY RATED FOR YOUR VEHICLE'S WEIGHT.

## Tools

5mm Allen wrench  
8mm Allen wrench  
12mm open end wrench  
19mm open end wrench  
Red Loc-tite  
Air Impact gun (or electric)



## Parts List

### Front Brace:

- 1. Drill
- 1. Nut insert tool
- 4. Small washers
- 2. large washers
- 2. Nut inserts
- 2. long Bolts
- 2. Short Bolts



### Middle Brace:

- 2. Bolts
- 2. Washers
- 2. Hex nuts



### Rear Brace:

- 4. Bolts
- 4. Washers



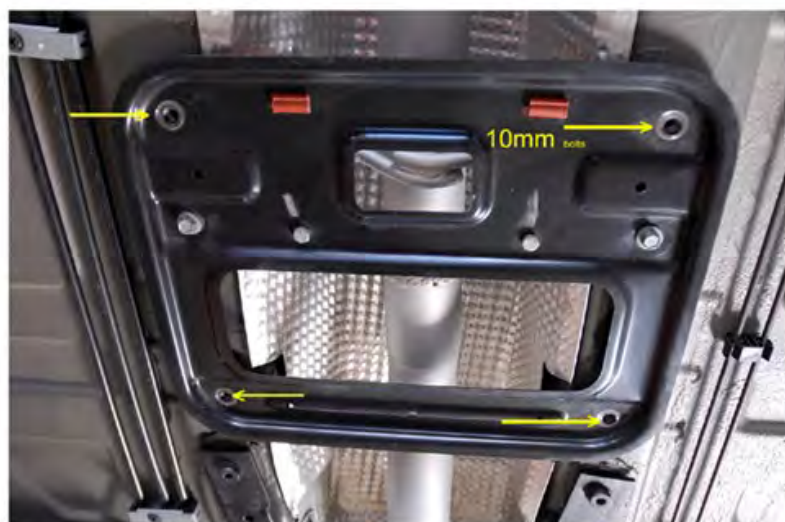
## Rear Brace

Remove the four 10mm bolts  
as indicated in the picture.

Install the M7 USS rear plate  
with the included (4) bolts.

Use red Loc-tite to secure  
the bolts.

(Do not use the included washers)





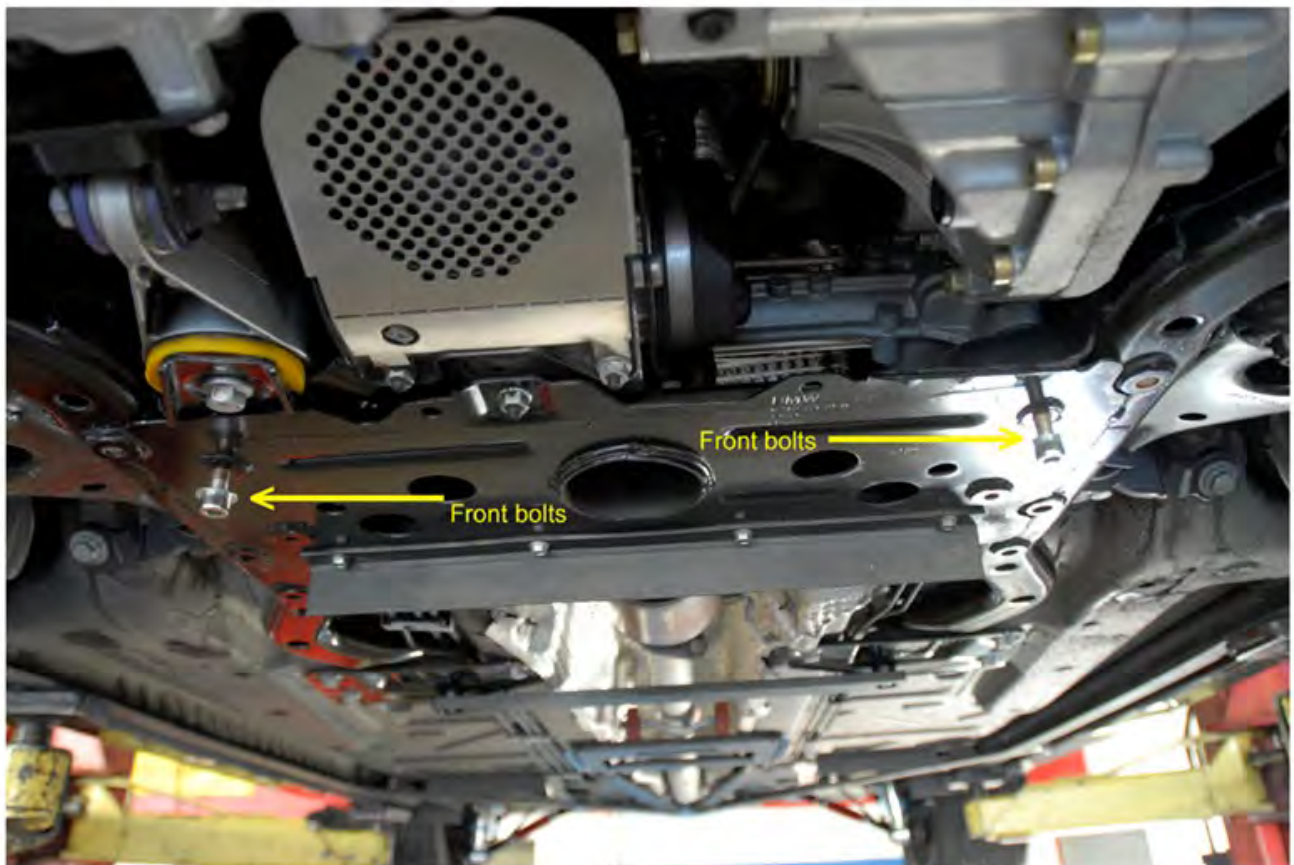
## Middle Brace

Place the middle brace cross bar up to the factory 3 bolt brackets. Align it with the 2 open holes in the brackets. Insert the M8 bolts & flat washers from the bottom side and install the flange nuts from the top side. Use one drop of red Loctite. Tighten and torque to 45 lb-ft (60Nm)



## Front Brace page 1.

The front brace comes pre assembled (do not tighten the bolts) hold the brace assembly up to the bottom of the car and align it with the holes. Make a mental note how the holes line up.



## Front Brace page 2

Locate the hole shown in the image, use the supplied drill open up the existing hole. This will allow the supplied nut insert to fit properly.



## Front Brace page 3

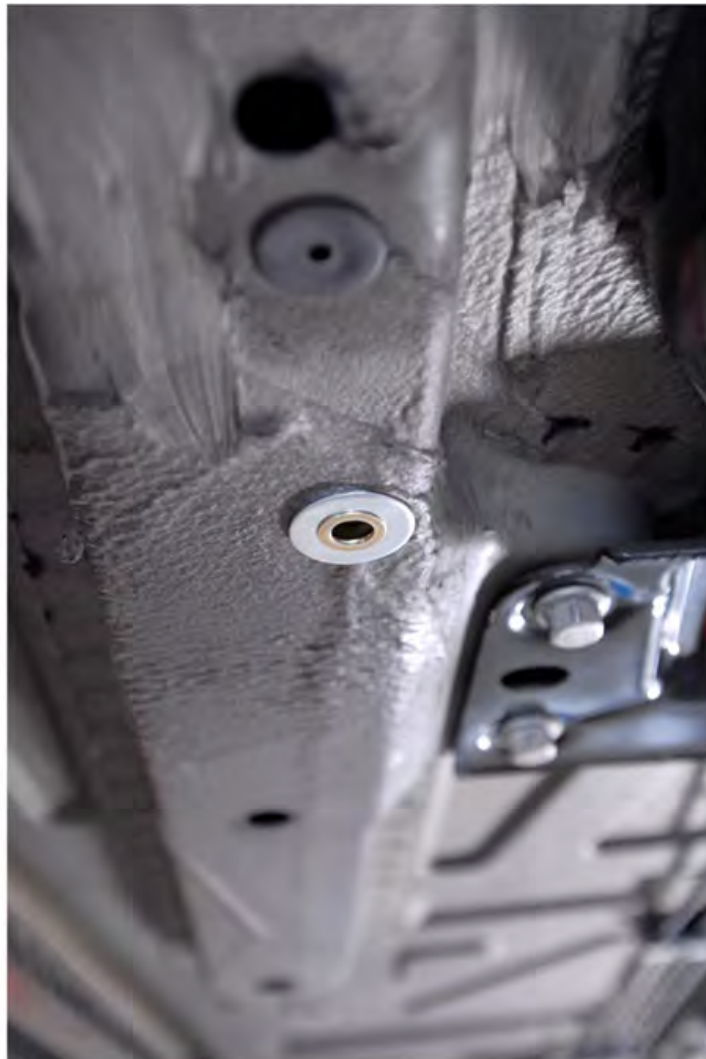
Thread the Nut insert tool on to the insert, slide the large washer over the nut insert. Push the nut in to the hole, and tighten as in picture.

Do not over torque.



## Front Brace page 4

Correct install of nut insert.



## Front Brace page 5

This view will show a correctly installed M7USS. The last step will be to tighten the eight bolts that holds the brace together.



***Thank you and stay M7 Tuned.....***