



BMW E9x Non-M Fixed Front Camber Plates Installation Instructions



Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

INSTALLATION NOTES

- **RH** refers to the *passenger side* of the vehicle.
- **LH** refers to the *driver side* of the vehicle.
- Always use the proper torque specifications.
- If applicable to this installation, torque specifications will be listed throughout the document and at the end as well.
- Please read all of these instructions and familiarize yourself with the complete process **BEFORE** you begin.

GENERAL PREPARATION AND SAFETY INFORMATION

Turner Motorsport cares about your health and safety, please read the following safety information. This information pertains to automotive service in general, and while it may not pertain to every job you do, please remember and share these important safety tips.

- Park your car in a safe, well lit, level area.
- Shut the engine off and remove the key from the ignition switch.
- Make sure any remote start devices are properly disabled.
- **ALWAYS** wear safety glasses.
- Make sure the parking brake is applied until the vehicle is safely lifted and supported.
- Whether lifting a vehicle using an automotive lift or a hydraulic jack, be sure and utilize the factory specified lift points.
- Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear.
- **ALWAYS** support the vehicle with jack stands.
- **ALWAYS** read and follow all safety information and warnings for the equipment you are using.



NEVER get underneath a vehicle that is supported only by a jack, and **ALWAYS** make sure that the vehicle is securely supported on jack stands.

REMOVING THE STRUT ASSEMBLIES

Step 1:

Remove the strut assembly from the spindle by doing the following:

- Safely raise and support the vehicle and remove the front wheels.
- Remove the brake caliper and hang it safely out of the way.
- Remove the rotor and set it aside.
- Unclip the leveling sensor arm from the control arm.
- Remove the nut and pull end link out of the bracket on the strut.
- Remove the nut and pull the tie rod out of the spindle housing.
- Loosen the bolt which secures each control arm to the subframe.
- Remove the pinch bolt from the spindle housing.
- Spread the spindle housing and pull the strut out of the housing.

Step 2: 14mm E-Torx, 18mm E-Torx & Ratchet

If equipped your vehicle is equipped with a strut tower brace, it must be removed in order to access the three nuts holding the strut mount to the strut tower.

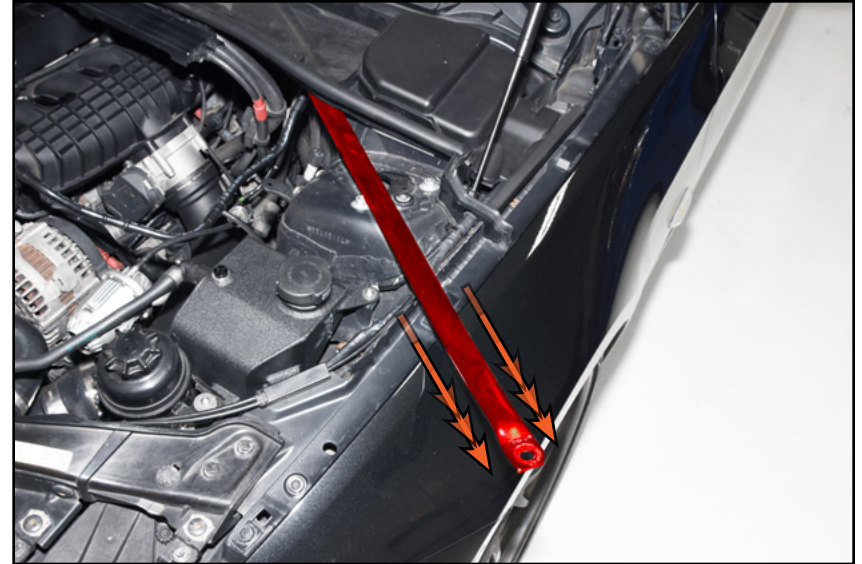
Loosen the three bolts (circled in **YELLOW**) which secure the strut tower braces to the vehicle.



REMOVING THE STRUT ASSEMBLIES

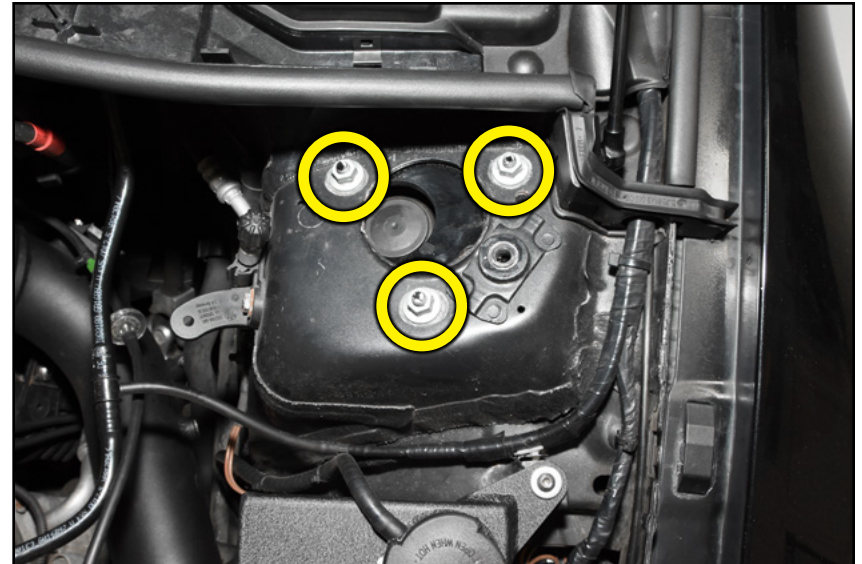
Step 3:

Carefully, so as not to damage the paint on the fender, pull each brace (highlighted in **RED**) out from the rain tray and set it aside.



Step 4: 13mm Socket & Ratchet

Remove the three nuts (circled in **YELLOW**) which secure the strut to the strut tower and carefully guide the strut out of the fender well.



INSTALLING THE CAMBER PLATES

Step 1:

Place the strut assembly into a bench vise so that the upper strut mount is secured in place.

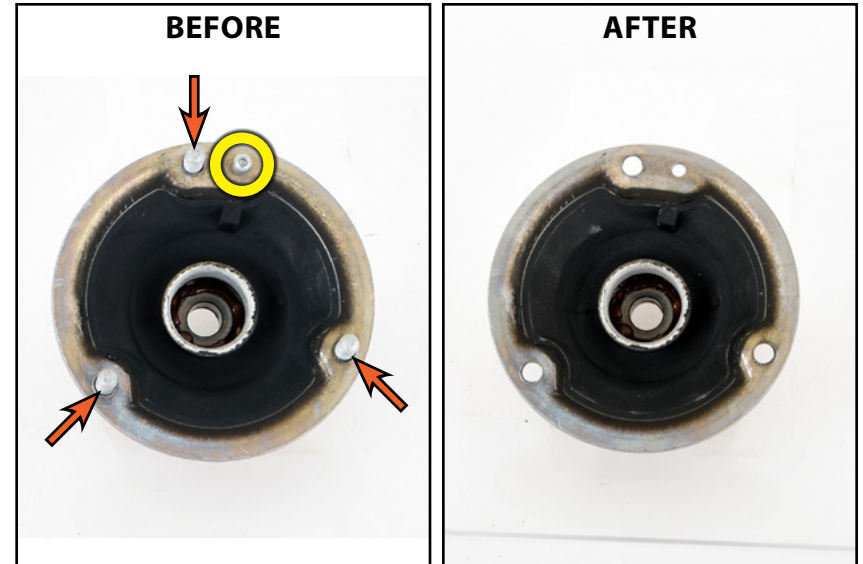
Installation of our camber plates requires us to remove the centering pin (circled in **YELLOW**) and three studs (arrows).



For illustrative purposes we are showing installation of our camber plates on a upper strut mount that has been removed from the strut assembly, you **DO NOT** have to remove the upper strut mount to install our camber plates.

Step 2: Vise Grips

Using a pair of vise grips, grab hold of the centering pin and rotate it counter-clockwise until it comes free.



INSTALLING THE CAMBER PLATES

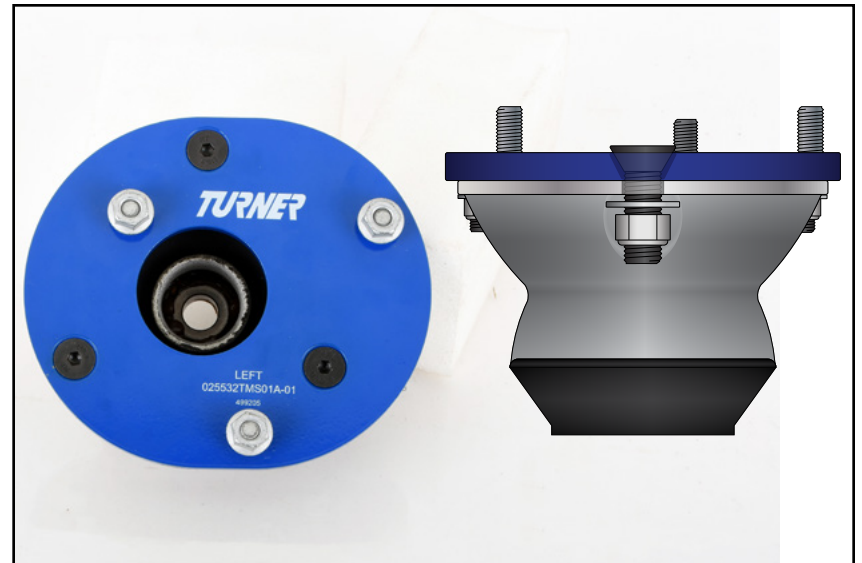
Step 3: Hammer

Using a hammer, strike the head of each stud to knock it out of the holes in the upper strut mount.



Step 4: 5mm Hex (Allen), 13mm Socket & Torque Wrench

Install the camber plate onto the upper strut mount, and slide the provided counter-sunk bolts through the plates and down through the holes in the upper strut mount. Install the washers and nuts as shown in the illustration on the right, then torque the nuts to 34 Nm (25 Ft-lbs).



INSTALLING THE CAMBER PLATES

Step 5:

Remove the nuts which come threaded onto the studs of the camber plates, we will be using them in the next step.



Step 6: 13mm Socket & Torque Wrench

Lift the strut assembly back up into the fender well and reinstall the three nuts and torque them to 34 Nm (25 Ft-lbs).



INSTALLING THE CAMBER PLATES

Step 7: 14mm E-Torx, 18mm E-Torx & Torque Wrench

If equipped, reinstall the strut tower braces and bolts. Torque the center bolt to 100 Nm (74 Ft-lbs) + 100° and the outer bolts to 40 Nm (30 Ft-lbs) + 60°.



Step 8:

Reinstall the strut in the reverse order of removal, referencing the torque specifications listed on [page 9](#).



TORQUE SPECIFICATIONS

Camber Plate to Upper Strut Mount Nuts.....	34 Nm (25 Ft-lbs).....	(Page 6)
Camber Plate to Strut Tower Nuts.....	34 Nm (25 Ft-lbs).....	(Page 7)
Strut Tower Brace to Body Bolt	100 Nm (74 Ft-lbs) + 100 degrees	(Page 8)
Strut Tower Brace to Strut Tower Bolts	40 Nm (30 Ft-lbs) + 60 degrees	(Page 8)
Spindle Housing Pinch Bolt and Nut	45 Nm (33 Ft-lbs)	(Page 8)
Front Control Arm Bolts.....	68 Nm (50 Ft-lbs) + 90 degrees	(Page 8)
Tie Rod End Nut.....	165 Nm (122 Ft-lbs)	(Page 8)
	4WD Models: 80 Nm (59 Ft-lbs)	(Page 8)
Sway Bar End Link Nut	58 Nm (42 Ft-lbs)	(Page 8)
Brake Rotor Screws.....	16 Nm (12 Ft-lbs).....	(Page 8)
Brake Caliper Mounting Bolts.....	110 Nm (81 Ft-lbs)	(Page 8)

Your Fixed Front Camber Plates installation is complete!



These instructions are provided as a courtesy by Turner Motorsport

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