



BMW Steering Rack Tool Kit



by x8rltd

The symptoms

Clunking noise from steering when turning into full lock, clunking noise when driving over bumps, speed bumps and potholes

The problem

Over time the thrust bush within the steering rack disintegrates & wears down, this causes excess noise coming from the steering. BMW has recognised this issue and introduced a “quality improvement” kit- a OEM kit that includes an improved design bush, spring, bung, jubilee clamps for the steering gaiters and a replacement locking screw cap complete with o ring.

The locking screw cap also requires a specialist tool, which can also be purchased from BMW but at a hefty price tag. You also require the BMW-spec steering grease. Up until now there was nowhere in the UK selling this complete kit.

Our solution

To make the fix as easy as possible, we have created our kit where all the components can be purchased from the same place. Our complete kit comes with the OEM BMW improvement kit (which comes with 2 years BMW warranty), the OEM BMW grease, and the Steering Rack Tool.

Vehicles affected

BMW Applications:

1 Series (F20, F21) 2011-2019

3 Series (F30, F31, F34, F35) 2011-2019

4 Series (F32, F33, F36) 2013-2020

X1 (F48) 2015-present

X3 (F25) 2010-2017

Mercedes Applications: (please note this is for the steering rack tool ONLY and not the complete kit)

C Class (W205) 2014-2021

S Class (W222, C217, A217) 2014-2020

OEM Part Numbers:

32106891974 – rack repair kit

83232208093 – steering grease

You will receive

1 x BMW & Mercedes Steering Rack Socket

1 x BMW OEM bush repair kit equivalent to 32106891974

1 x Tube of OEM BMW steering grease equivalent to 83232208093



Step 1: Remove the First Undertray

Firstly either jack the front of the vehicle up or put it on a ramp.

Remove all 25 bolts on the undertray using an 8mm socket & ratchet, remember to also remove the 4 at the front of the vehicle under the bumper.

Carefully remove the undertray.



Step 2: Remove the Second Undertray

There is a second undertray protecting the steering rack, remove a further 3 bolts to remove this undertray. They also require a 8mm socket.

This exposes the steering rack and the three pin locking cap (where our tool fits onto).



Step 3: Use the Steering Rack Tool

Place the Steering Rack Tool onto a flexi joint socket and ratchet, this is due to the lack of space around the steering rack in order to carry out the repair. (if you are carrying out the work on a bench, you can do this with just a ratchet).

Spray some WD40 onto the locking cap (if required) and leave for a few minutes to penetrate.

Lock the tool into place on the cap with the three pins, and twist until the cap is completely loose.

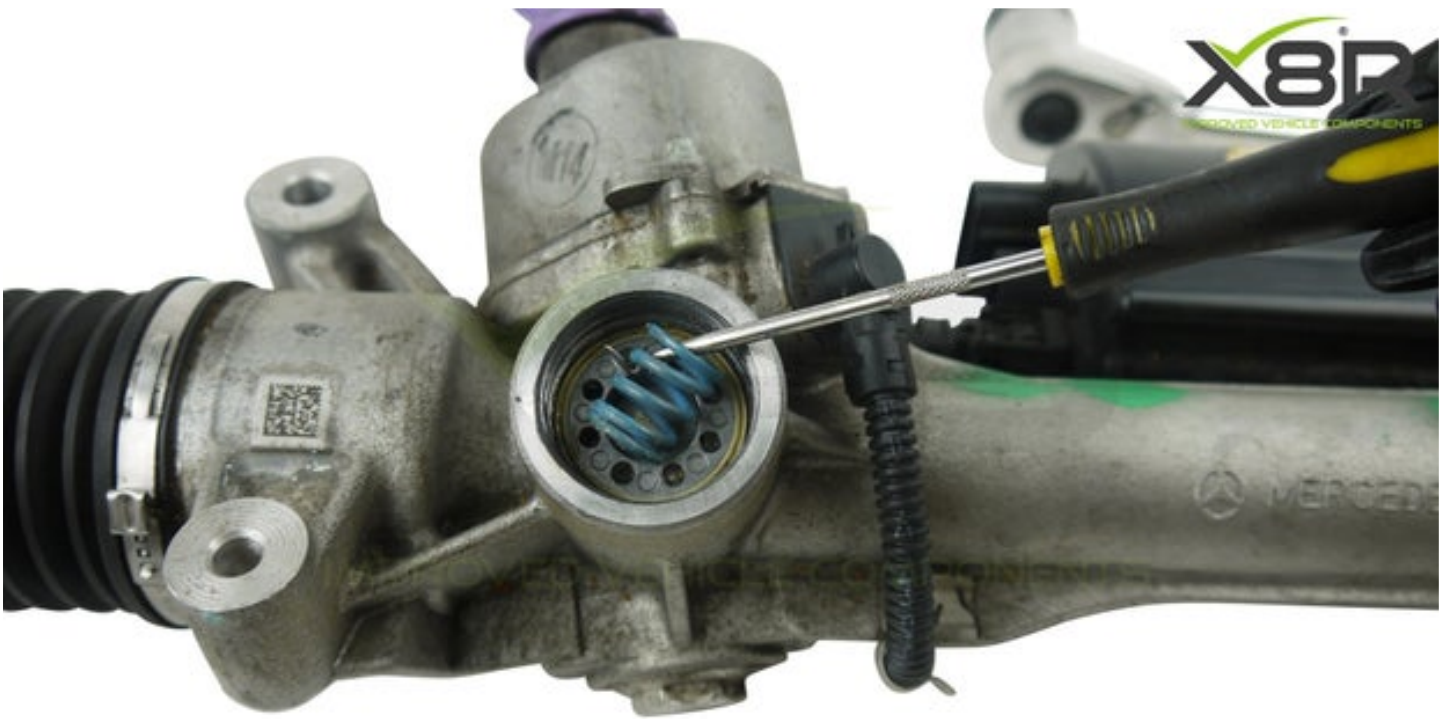


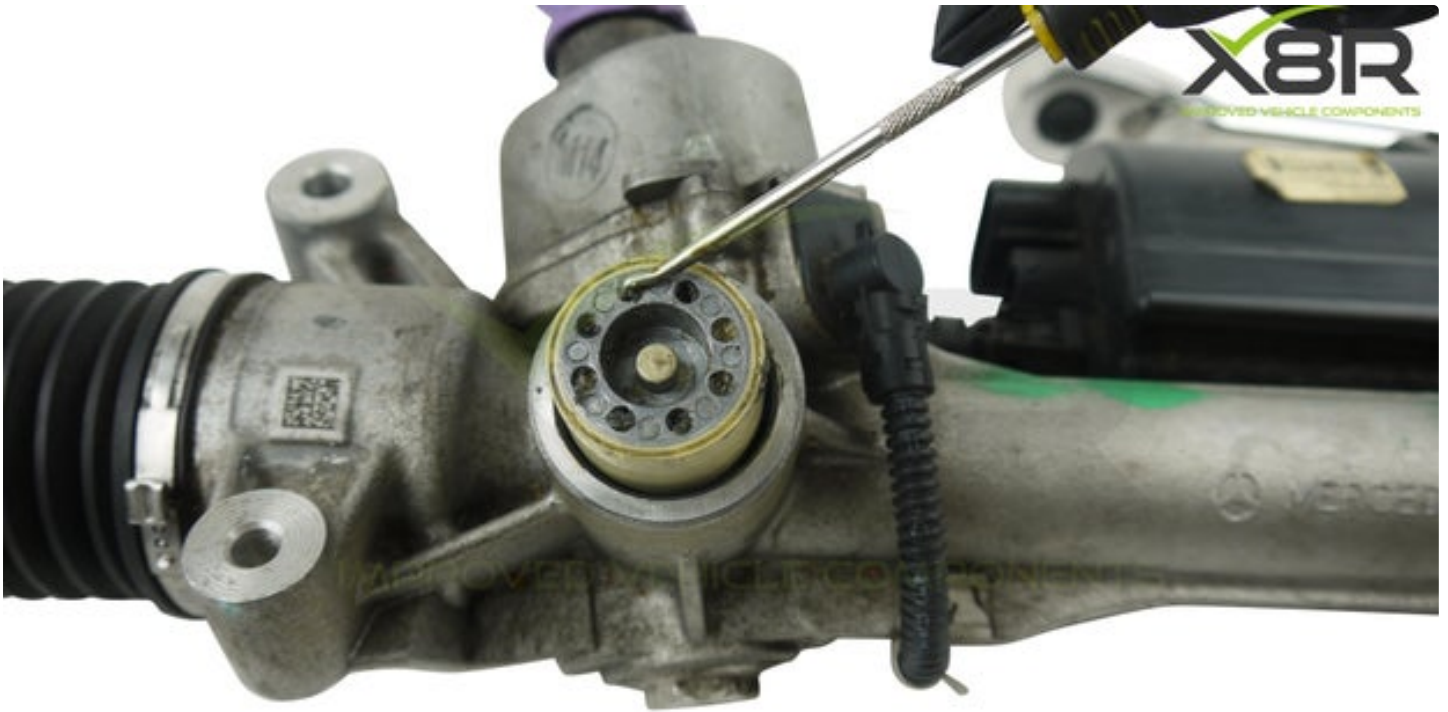


Step 4: Remove Old Components

Remove the locking plate followed by the spring and then the bush.

We found the easiest way to get the old bush out (as it will be stuck in place) is with a pick or prying tool. If your steering rack has been making noise or vibrations as per the symptoms of the fault, you will notice some wear marks on the bush.





Step 5: Replace With New Components

Replace the old bush with the new & improved bush. Firstly cover it with the steering rack grease provided (be generous) and push into the steering rack.

You can see that the new bush is an improved design made with integrated o rings and made from improved materials, it also has two rubber pads on the top to prevent excessive wear and has a wider gap where the internals of the steering rack sit.

Fit the new spring.

Fit the new bung into the center of the new locking cap (may require a bit of force) and then loosely fit the locking cap by hand.







Step 6: Tighten the New Locking Cap

Please be aware that torque settings will vary between vehicles, make sure to check your vehicles specific torque setting before you tighten the bush.

Tighten the cap up using the tool kit. Then tighten it up to 70nm of torque which is the recommended measurement from BMW. We recommend trying out the steering at this stage, as if the steering feels considerably tighter than loosen it by a quarter turn at a time until it feels right (we had to loosen ours by two quarter turns as the steering felt very tight at first).



Step 7: Replace the Undertrays

Replace the undertrays, if you have used a ramp it is handy to have a helping set of hands to hold the undertray whilst you fit the bolts.

This completes the repair. If you need any further guidance on this install or would like to purchase the parts shown please call us on +44 01843 446643 or email us at sales@x8r.co.uk.

Please also check out our instruction guide on YouTube. www.x8r.co.uk Installation is carried out at installers risk, if unsure please contact us or a professional, X8R Ltd cannot be held responsible for any adverse result of installing this product or any injuries caused by install, if in doubt ask a professional. All images and texts are copyright X8R Ltd 2021.

