

# MSS Install Guide

Supplied for the BMW X3/X3M - X4/X4M



R5 MSS I td MSS House A3 Albion Daedalus Park Daedalus Drive Lee On The Solen Gosport Hampshire P013 9FX United Kingdom Company No. 09360144 mss.company

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This is best done with struts removed from the vehicle. Refer to the manufacturer's workshop manual for steps on how to safely remove the struts from the vehicle, remove and refit the springs and on the correct torque settings.

## Difficulty level: High

Etimated Time: 90 to 120 minutes per side, assuming the bolts are not seized. Installing your new MSS Kit is best undertaken by an experienced BMW workshop/engineer.

- Remove the OE springs. These will be replaced by the MSS front system supplied. 1
- Remove the OErubber dust boots. Keep these as they will be re-used. 2
- Remove the OE bump stop. This will be replaced with the rear o.e. 3.
- Remove the bottom O.E rubber spring mount and replace with black MSS PU seat. **4**.
- Sit the adjuster on the PU seat 5.
- 6. OPTIONAL: Fit the MSS protective sleeves over the adjuster and bearing for dust protection
- 7. spring flush to the adjuster seat and keep together
- Now fit the protective rubber boot over the strut shaft to protect it from debris, insert the rear OE 8. bump stops
- 9. Fit the camberplate,
- Use a spring compressor to reduce spring height and help secure the arrangement. 10.
- Tighten to the correct torque with appropriate tools used to remove the camberplate. 11. Set the adjuster to the desired position; you can always re-adjust as required.

# Introduction

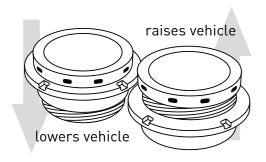
This short guide is intended for use with MSS Kit for the BMW X3/X3M - X4/X4M

#### Pre-install steps

Refer to pages 3 and 4 of the latest version of the 'MSS INFO for Installer' or email **support@mss.company** for the latest copy, to measure the current ride height.

#### Front Axle Install Parts List

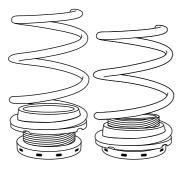
Before you start installing your new MSS Kit, check if all parts listed below have been supplied:



Large adjusters - these are the larger of the 2 sets

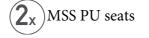


OPTIONAL Large protective sleeves these fit around the large adjusters



Large diameter MSS 225-3 Orange springs These fit the Large Adjuster







Acetal rings- These sit on the  $2\mathbf{x}$ adjuster seat to allow tension relief and ease of adjustment.

#### NOTE; PLEASE CARRY OUT REAR INSTALATION FIRST AS BUMPSTOPS ARE REQUIRED FOR FRONT SHOCK ABSORBER

FRONT ASSEMBLY



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#### FRONT AXLE INSTALL PROCEDURE

Fit the Acetal ring on the the adjuster seat then proceed to fit the grounded face of the MSS 225-3 large

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For the rear stacked arrangement, refer to the latest version of the 'MSS INFO for Installer' guide or email support@mss.company for the latest copy.

Please refer to workshop manual for steps on how to safely remove and refit the struts from the vehicle. Difficulty level: Medium

Estimated Time: 30 to 45 minutes per side, assuming the bolts are not ceased.

- Installing your new MSS Kit is best undertaken by an experienced BMW workshop/engineer. 1. Remove the OE spring from the shock absorber. This will be replaced with the MSS System
- 2 Remove the lower OE rubber spring seat and replace it with the MSS rubber slip mat.
- 3. Now fit the black short spring on the base of the spring seat
- 4. Remove the OE bump stops and replace them with the smaller MSS supplied ones. OE Will be used on the front
- 5. Place the MSS large adjuster on top of the black spring. It will sit in the wider diameter part once the weight is applied
- 6. Then fit large MSS 225-1 orange spring on to adjuster. Place OE dust cover over the shock absorber for protection, insert the shorter MSS bump stop.
- 7. Fit the camberplate onto the orange spring and tighten the nut on the strut
- 8. Tighten the suspension parts that had been removed. Refer to the manufacturer's workshop
- 9. Set the rear ride height to sit 15mm higher than the front when measured from fender edge to wheel hub centre. Please be aware this is a MUST DO.

POST INSTALL STEPS

Complete a 5-mile journey before setting the ride height and 4-wheel alignment.

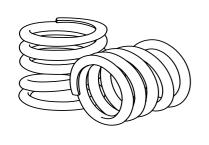
Refer to pages 3 and 4 of the latest version of the 'MSS INFO for Installer guide for assistance on how to measure ride height. This is a KEY step.

The rear axle ride height should be set to at least 15mm higher than the front axle ride height when measured as per page 3 of the latest version of the 'MSS INFO for Installer' guide. This is a KEY step

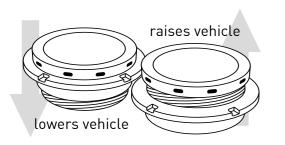
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#### **Rear Axle Install Parts List**

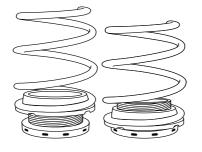
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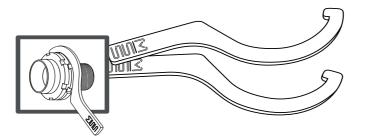




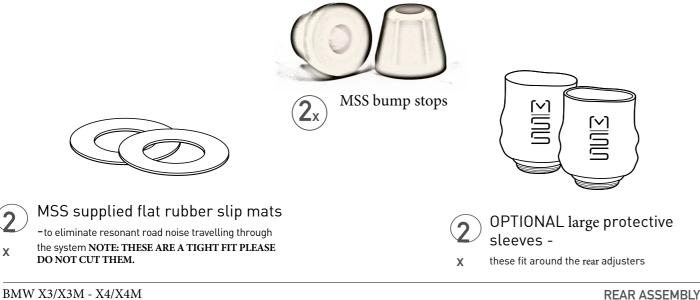
Large adjusters - these are the larger of the 2 sets



Large diameter MSS 225-1 orange springs these fit the larger adjusters



Adjuster spanners - for both front and rear adjusters





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## **REAR AXLE INSTALL PROCEDURE**



# Triple Engineered Suspension for Ultimate Performance, Comfort & Safety

MSS Support Team Telephone: +44 (0)20 3507 1973 (select appropriate option when prompted) Email: support@mss.company