



**👁 Note!**

Please note that there can be small differences between your product and the images in these instructions.

**👁 Note!**

Please note that during storage and transport, especially at high ambient temperature, some of the oil and grease used for assembly may leak and stain the packaging. This will not cause damage to the product, wipe off the excessive oil or grease with a cloth.

**Kit Contents**

Description	Pcs
Shock absorber	2
Upper spring seat	2
Dust boot	2
Spring	2
Washer	2
Nut M14	2
<b>Used for both front and rear</b>	
C-spanner	1
C-spanner	1
Öhlins Sticker	1
Öhlins Owner's Manual	1

**👁 Note!**

Before you install this product, check the kit contents. If anything is missing, please contact an Öhlins dealer.

**⚠ Warning!**

Before you install this product, read the Öhlins Owner's manual. This product is an important part of the vehicle and the vehicle stability.

## Shock Absorber Kit for BMW Z4 (E89)

# **BMS MP50** front

## Mounting Instructions



# MOUNTING INSTRUCTIONS

## **⚠ Warning!**

*It is advisable to have an Öhlins dealer install the shock absorber.*

*When installing, read your Vehicle Service Manual.*

**1**

Raise the vehicle and put it on jack stands.

## **⚠ Warning!**

*Ensure that it is securely supported.*

**2**

Remove the front wheels.

**3**

Remove the stabilizer links and brake hose brackets from the standard struts.

**4**

Loosen the bolts for the lower strut attachments.

## **👉 Caution!**

*Support the wheel hubs in an appropriate way on each side of the vehicle so that the brake hoses can not be damaged.*

**5**

Loosen the upper attachments. Remove the original struts from the car.

**6**

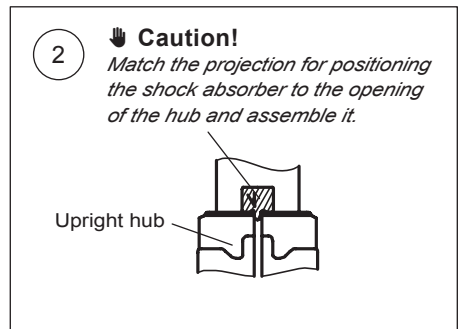
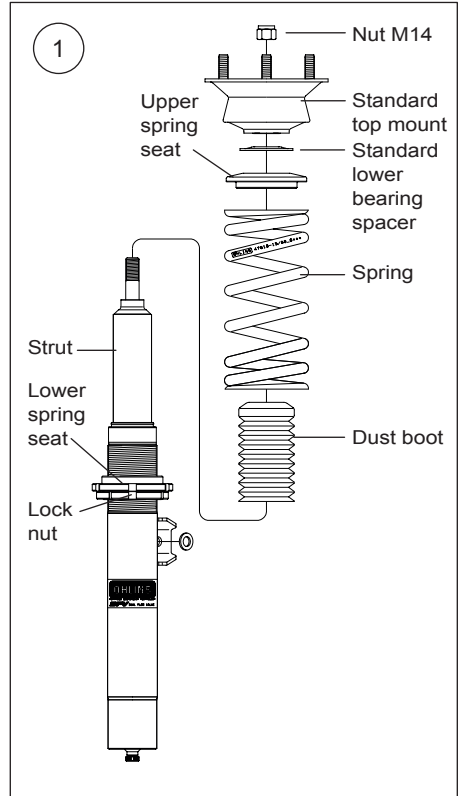
Tighten the lower spring seat and the lock nut to 50 - 60 Nm. Fit the dust boot, the spring and the upper spring seat to the strut according to fig 1. Fit the standard lower bearing spacer, the standard top mount and the M14 nut. Tighten the top nut to 35 - 40 Nm.

## **👁 Note!**

*When tightening the top mount nut, the shock absorber shaft must be held in position with a 5 mm Allen key.*

**7**

Install the Öhlins McPherson struts on the vehicle according to fig 2.



# MOUNTING INSTRUCTIONS

8

Mount the standard stabilizer links and standard brake hose brackets to the Öhlins struts according to fig 3. Tighten the nut to 6 Nm.

9

Fasten the upper attachments.

10

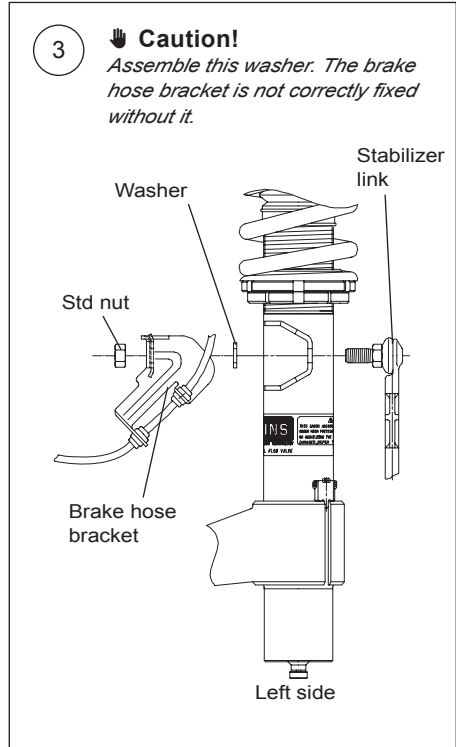
Raise the wheel hub with a jack to remove the freeplay of the lower strut attachment bolts before tightening them.

**Note!**

*Make sure that all bolts are tightened to the correct torque and that nothing fouls or restricts movement of the strut when it is being fully compressed or extended. Test this over the whole steering range from lock to lock.*

11

Make sure that all removed parts are reinstalled in the same way as they were before the installation of the Öhlins shock absorber.



# ADJUSTMENTS

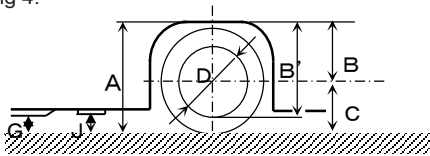
## ⚠ Warning!

Before driving, always make sure that the basic settings made by Öhlins are according to recommended Set-up Data. Read about adjustments and setting up in the Öhlins Owner's Manual before you make any adjustments. Contact an Öhlins dealer if you have any questions about setting up the shock absorber.

# SETUP DATA

Recommended set-up		
Rebound adjuster	10	clicks
Height of car (B) (front)	367	mm
(original height of car (B))	378	mm)

Reference values for the damper according to fig 4.

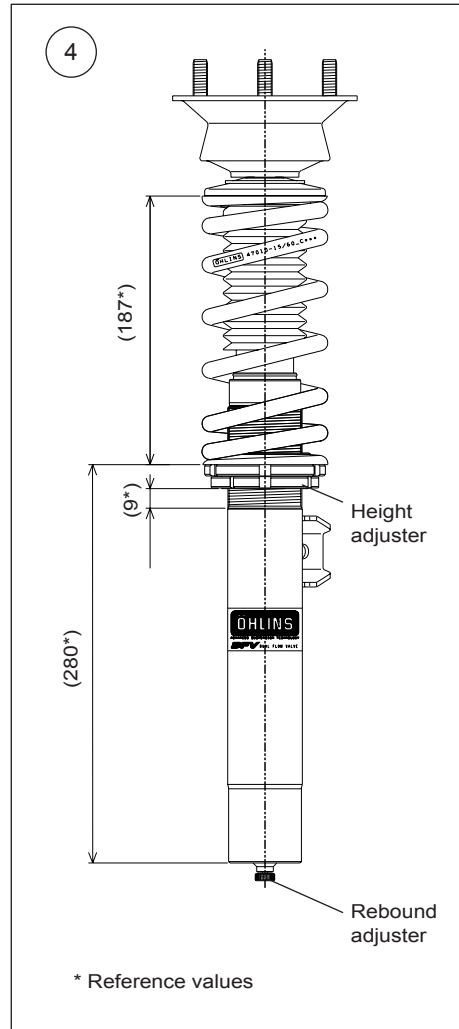


## The actual vehicle height

With both the preload and height adjustments in their standard positions, the vehicle is lowered approximately 10 mm when compared to the original suspension. As the height adjuster is turned one rotation, the position moves 2.0 mm.

## ⚠ Warning!

The adjustment range is the standard position -5 to +5 mm on the preload adjuster.



Öhlins products are subject to continuous improvement and development, therefore, although these instructions include the most up-to-date information available at the time of printing, minor updates may occur.

To find the latest information contact an Öhlins distributor. Please contact Öhlins if you have any questions regarding the contents in this document.

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Kit Contents	
Description	Pcs
Shock absorber	2
Spacer (5 mm)	2
Spacer (9.5 mm)	2
Lock nut M10	2
Adjustment tool (with 3 mm Allen key)	1
Bushing spacer	2
Dust boot	2
Spring	2
Spring preload adjuster	2
Rubber seat	4
Upper plastic seat	2
<b>Mounted on shock absorber</b>	
Adjuster	2
<b>Used for both front and rear</b>	
C-spanner 1	1
C-spanner 2	1
Öhlins sticker	1
Öhlins Owner's Manual	1

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## Shock Absorber Kit for BMW Z4 (E89)

# **BMS MP50** rear

## Mounting Instructions

# MOUNTING INSTRUCTIONS

## **⚠ Warning!**

*It is advisable to have an Öhlins dealer install the shock absorber. When installing, read your Vehicle Service Manual.*

**1**

Raise the vehicle and put it on jack stands.

## **⚠ Warning!**

*Ensure that it is securely supported.*

**2**

Remove the rear wheels.

**3**

Remove the lower and the upper attachments and remove the original shock absorbers.

**4**

Remove the spring.

**5**

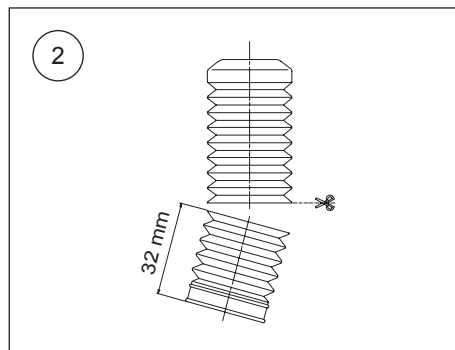
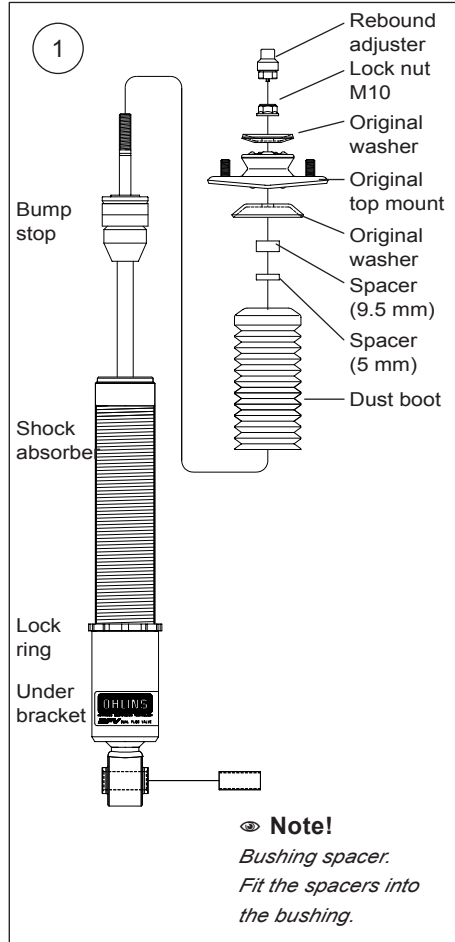
Set the spring seat of the spring preload adjuster to the position according to fig 3.

**6**

Install the Öhlins spring and the spring preload adjuster on the vehicle according to fig 3.

**7**

Cut the dust boot 32 mm from the lower end with a pair of scissors according to fig 2.



# MOUNTING INSTRUCTIONS

8

Fit the bushing spacers, the dust boot, the spacer, the original washer, the original topmount, the original washer, the lock nut and the adjuster according to fig 3. Tighten the lock nut to 30 Nm.

**Note!**

*When tightening the lock nut, the shock absorber shaft must be held in position with a 5 mm Allen key.*

9

To get access to the rebound adjuster you need to make a  $\varnothing 5-6$  mm hole through the carpet in the trunk, see figure 4.

10

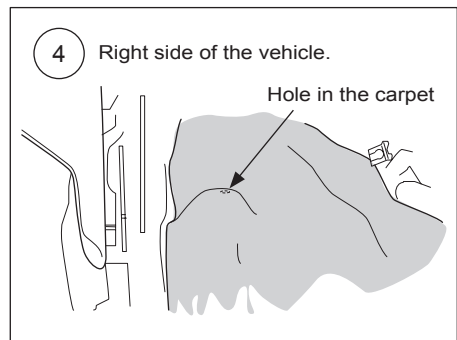
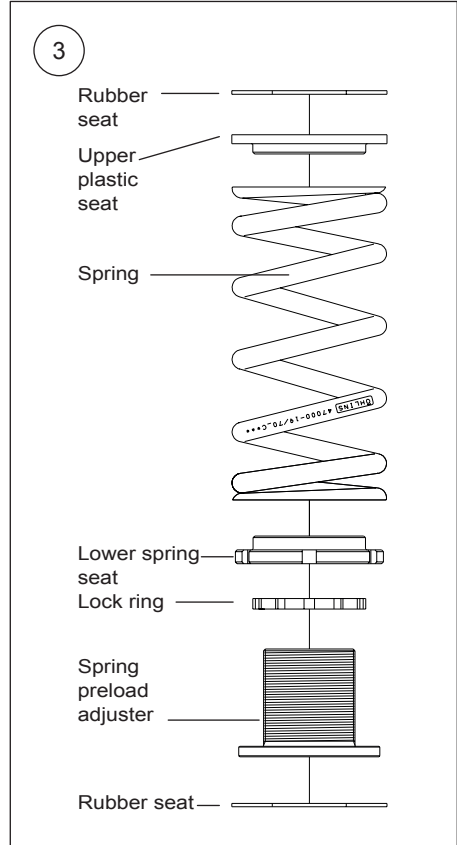
Install the Öhlins shock absorbers on the vehicle.

11

Make sure that all removed parts are reinstalled in the same way as they were before the installation of the Öhlins shock absorber.

**Note!**

*Make sure that all bolts are tightened to the correct torque and that nothing fouls or restricts movement of the shock absorber when it is being fully compressed or extended.*



# ADJUSTMENTS

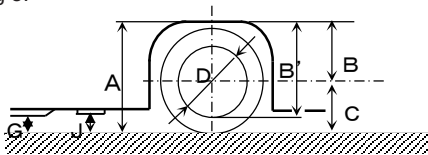
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## SETUP DATA

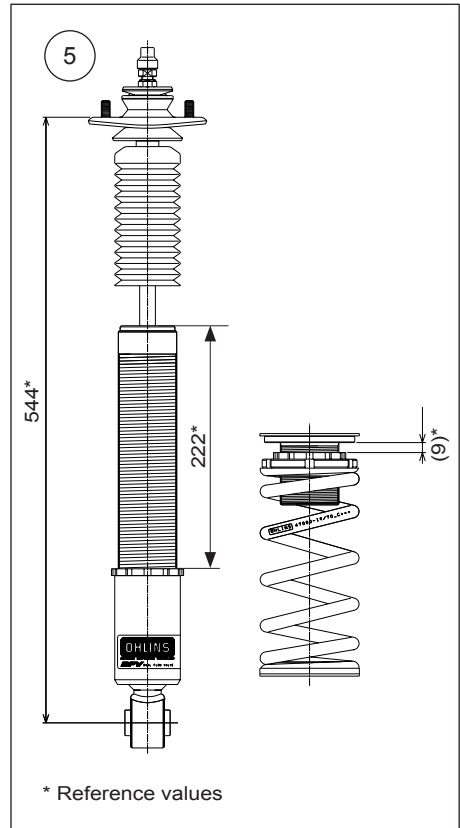
Recommended set-up		
Rebound adjuster	10	clicks
Height of car (B) (rear)	367	mm
(original height of car (B))	367	mm)

Reference values for the damper according to fig 5.



### Vehicle Height

With both the preload and height adjustments in their standard positions, the vehicle is lowered approximately 0 mm when compared to the original suspension. As the height adjuster is turned one rotation, the position moves 2.0 mm.



## ⚠ Warning!

The adjustment range is the standard position -9 to +15 mm on the preload adjuster. Height adjustment is done by changing the preload of the spring, not the length of the damper. The length of the damper should be as described in figure 5.

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