



#### **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                  | Part No  | Pcs |
| Shock absorber left          | BMS 1I30 | 2   |
| Shock absorber right         | BMS 2I30 | 2   |
| Dust Boot                    | 10216-01 | 2   |
| Spring                       |          | 2   |
| Lock nut M14                 | 24627-04 | 2   |
| Lower spring seat            | 24635-03 | 2   |
| Lock ring                    | 24636-03 | 2   |
| Washer                       | 24619-06 | 2   |
| Rebound adjuster             | 24631-02 | 2   |
| Used for both front and rear |          |     |
| C-spanner 1                  |          | 1   |
| C-spanner 2                  |          | 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 E46 and E46 M3

# **BMS MI30 FRONT**

## Mounting Instructions



# MOUNTING INSTRUCTIONS

## **⚠ Warning!**

*We strongly recommend to let an Öhlins dealer install this product.*

## **⚠ Warning!**

*If you work with a lifted vehicle, make sure that it is safely supported to prevent it from tipping over.*

## **👁 Note!**

*When you work with this product, see the vehicle service manual for vehicle specific procedures and important data.*

## **👁 Note!**

*Before you install this product clean the vehicle.*

**1**

Raise the vehicle and put it on jack stands.

## **⚠ Warning!**

*Ensure that it is securely supported.*

**2**

Remove the front wheels.

**3**

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.*

**4**

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

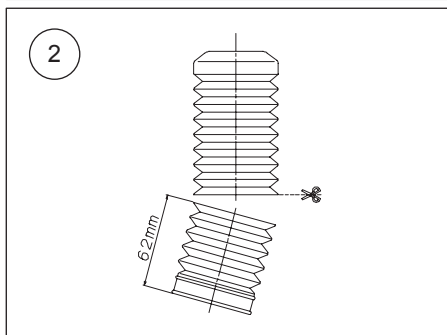
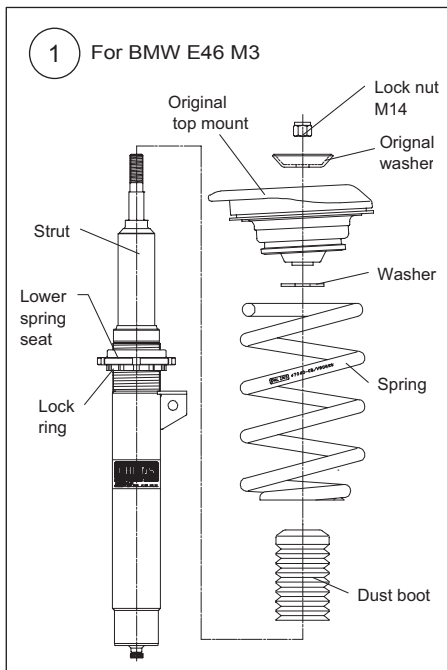
**5**

Cut the dust boot 62 mm from the lower end with a pair of scissors according to fig 2.

## **6 – BMW E46 M3**

Tighten the lower spring seat and the lock ring to 50 - 60 Nm.

Fit the dust boot, the spring, the washer, the original top mount, the original washer, and the lock nut M14 to the strut according to fig 1. Tighten the lock nut to 35 - 40 Nm.



## **👁 Note!**

*You need to purchase the M3 top mount parts, see fig 4.*

## **BMW E46 non M3**

Tighten the lower spring seat and the lock ring to 50 - 60 Nm. On the E46 M3 OEM top mounts, remove the pin according to fig 3. Fit the dust boot, the spring, the washer, the M3 original top mount, the M3 original washer, and the lock nut M14 to the strut according to fig 4. Tighten the lock nut to 35 - 40 Nm.

# MOUNTING INSTRUCTIONS

7

Install the Öhlins McPherson struts on the vehicle according to fig 3. Fit the stabilizer link.

8

Fasten the upper attachments.

## 👁 **Note!**

*When tightening the top mount nut, the shock absorber shaft must be held in position with a 6 mm Allen key.*

9

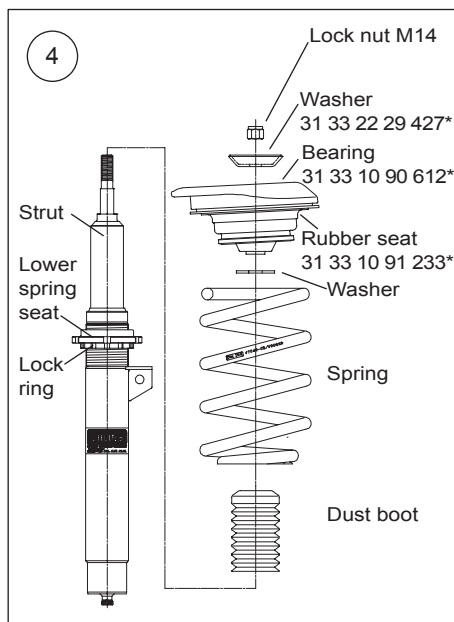
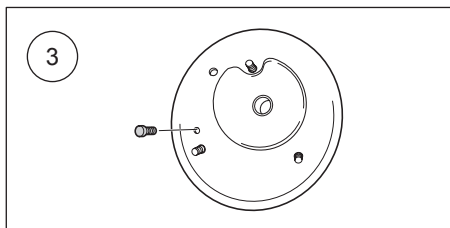
Raise the wheel hub with a jack to remove the freeplay of the lower strut attachment bolts before tightening them.

## 👁 **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.*

10

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 you ride/drive, always make sure that the setup is according to the recommended setup 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 standard preload is 4 mm, see fig 3

## SETUP DATA

**Recommended set-up**

Rebound setting

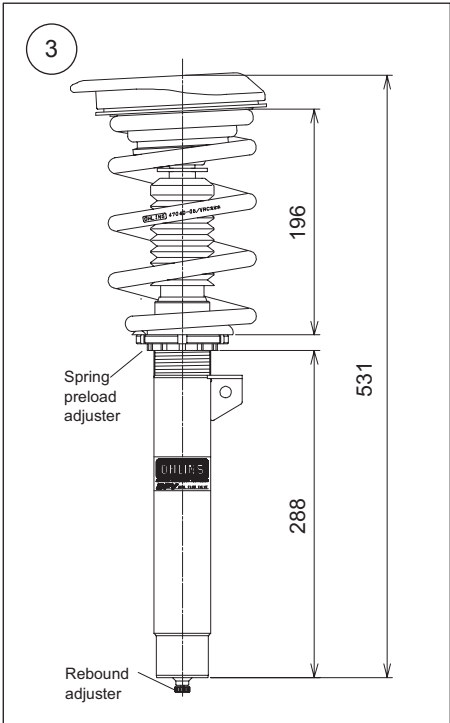
|                |       |        |
|----------------|-------|--------|
| Track          | 0-7   | clicks |
| Winding road   | 5-10  | clicks |
| Street         | 10-20 | clicks |
| Spring preload | 4     | mm     |

**Spring**

Spec H200, ID65-103, 70 N/mm

**The actual vehicle height**

With both the preload and height adjustments in their standard positions, the vehicle is lowered approximately 30 mm when compared to the original suspension. As the height adjuster is turned one rotation, the position moves 1.5 mm.



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.

Part no. MI\_BMS\_MI30\_3  
Issued 2017-03-01  
Revised 2020-11-13

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Öhlins Racing AB  
Box 722  
S-194 27 Upplands Väsby, Sweden  
Phone +46 8 590 025 00  
fax +46 8 590 025 80



[www.ohlins.com](http://www.ohlins.com)



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#### 👁 **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                         | Part No  | Pcs |
| Shock absorber                      |          | 2   |
| Spacer                              | 24629-01 | 2   |
| Lock nut M10                        | 24626-01 | 2   |
| Screw (M4)                          | 24633-02 | 2   |
| Handle                              | 24633-01 | 2   |
| Control wire                        | 24632-04 | 2   |
| Rebound adjuster                    | 24631-03 | 2   |
| Allen key                           |          | 1   |
| Bushing spacer                      | 24629-04 | 4   |
| Lock ring                           | 24636-03 | 4   |
| Dust boot                           | 10216-01 | 2   |
| Spring                              |          | 2   |
| Spring preload adjuster             | 25617-01 | 2   |
| Rubber seat                         | 25601-03 | 4   |
| Upper plastic seat                  | 25618-04 | 2   |
| Lower plastic seat                  | 24635-03 | 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   |

#### 👁 **Note!**

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#### ⚠ **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 E46 and E46 M3

# **BMS MI30 REAR**

## Mounting Instructions



# MOUNTING INSTRUCTIONS

## **⚠ Warning!**

We strongly recommend to let an Öhlins dealer install this product.

## **⚠ Warning!**

If you work with a lifted vehicle, make sure that it is safely supported to prevent it from tipping over.

## **👁 Note!**

When you work with this product, see the vehicle service manual for vehicle specific procedures and important data.

## **👁 Note!**

Before you install this product clean the vehicle.

**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**

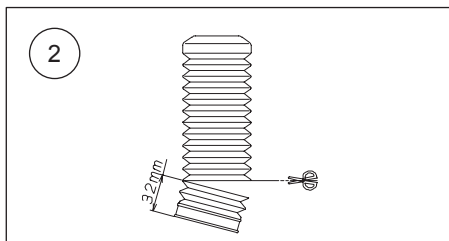
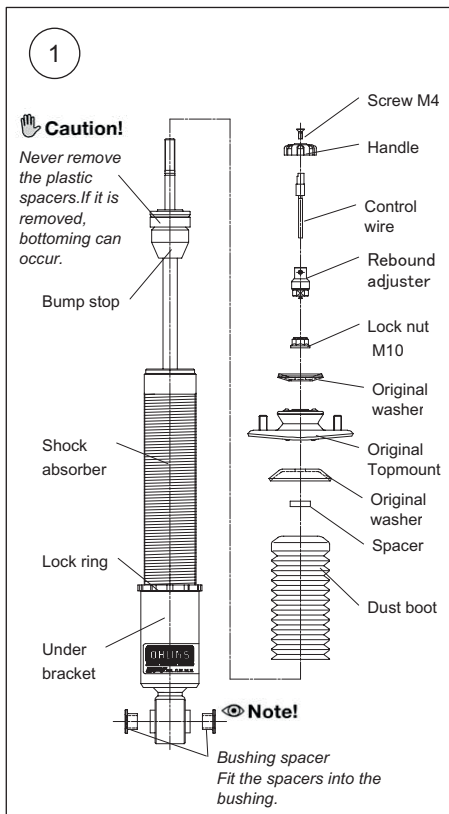
Set the spring seat of the spring preload adjuster to the position according to fig 5.

**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 1.  
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

Install the Öhlins shock absorbers on the vehicle.

10

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

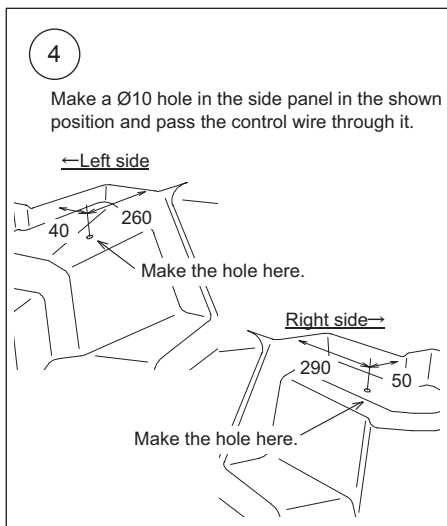
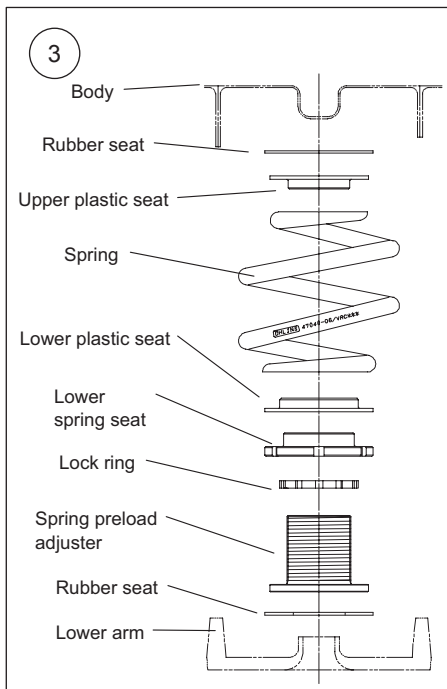
## **Note!**

*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.*

11

Sub-assemble the wire.

(Fasten the handle by tightening the M4 screw.) As shown in fig 4, insert the wire through the Ø10 hole which is made in the side panel, and run it inside the panel. Insert the top end of the wire into the adjuster and fasten it with the supplied Allen key.



# ADJUSTMENTS

## ⚠ Warning!

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## SETUP DATA

### Recommended set-up

#### Rebound setting

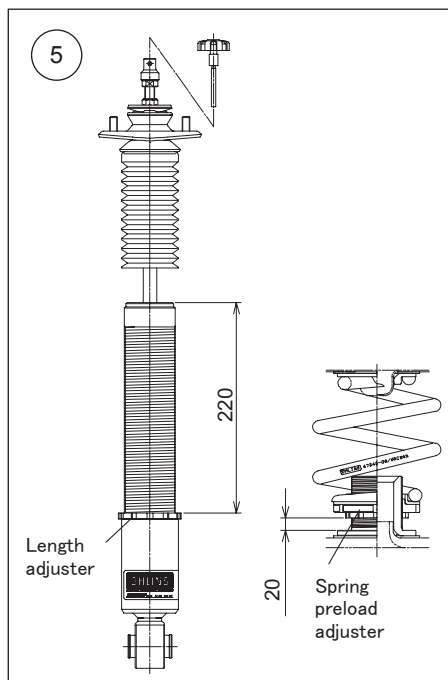
|              |       |        |
|--------------|-------|--------|
| Track        | 0-7   | clicks |
| Winding road | 5-10  | clicks |
| Street       | 10-20 | clicks |

### Spring

Spec H130, ID52-65, 110 N/mm

### The actual vehicle height

With both the preload and height adjustments in their standard positions, the vehicle is lowered approximately 30 mm when compared to the original suspension. As the height adjuster is turned one rotation, the position moves 1.5 mm.



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Revised 2019-11-13

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Öhlins Racing AB  
Box 722  
S-194 27 Upplands Väsby, Sweden  
Phone +46 8 590 025 00  
fax +46 8 590 025 80



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