

👁 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 |
| Cartridge kit | FKR 222 | 1 |
| O-ring | 00438-26 | 2 |
| Main spring 9.5 N/mm | 04744-95 | 2 |
| Main spring 10.0 N/mm | 04744-10 | 2 |
| Main spring 10.5 N/mm | 04744-05 | 2 |
| Sticker set Öhlins | - | - |
| Owner's manual | 07291-02 | 1 |
| Optional preload tube* | 01460-70 | 2 |

👋 Caution!

*The optional preload tube can be used to extend the stroke to 130 mm. To extend stroke contact an Öhlins service center.

👁 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.

Cartridge kit for BMW S1000RR, BMW M1000RR

FKR 222

Mounting Instructions



ÖHLINS

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.

Warning!

Spring compression creates a potential danger because of the violent force that loaded springs are capable of. Beware of this when you work with the front fork.

| Tool | Part no | Applies | Size |
|------------------------|----------|----------------------------------|-------|
| Vehicle service manual | | | |
| Torque wrench 10-60 Nm | | Torque | |
| Hex key | | Compression and rebound adjuster | 3 mm |
| Extended hex key | | Cylinder tube assembly | 14 mm |
| Socket | | Main preload adjuster | 14 mm |
| Wrench | | Spring support | 19 mm |
| Suspension fluid | 01309-xx | | |
| Grease | 00146-01 | | 100 g |
| Shaft extension tool | 01765-03 | | |
| Seal head tool | 01797-07 | | |
| Clip | 02810-01 | | |
| Top cap tool | 00797-08 | | |

MOUNTING INSTRUCTIONS

1 Remove original front fork

Note!

The following procedure applies to both front fork legs.

1

Put the motorcycle on a workstand so that the front wheel barely touches the ground.

Warning!

Make sure the vehicle is securely supported so that it will not fall over.

2

Remove front fender, brake calipers, speed sensor (if present) and front wheel.

3

Release main spring preload fully (if present).

4

Note front fork leg position.

5

Loosen upper triple clamp.

6

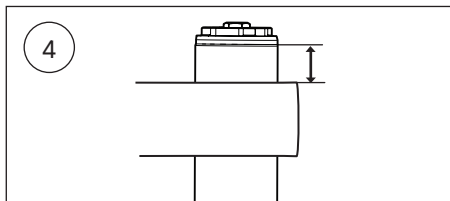
Loosen (do not remove) top cap ½ turn.

7

Loosen lower triple clamp.

8

Remove front fork legs from triple clamps.



MOUNTING INSTRUCTIONS

2 Disassemble original front fork

Note!

The following procedure applies to both front fork legs.

1

Remove top cap from outer tube.

2

Slide outer tube down until it stops.

3

Remove top cap from shaft according to instructions in the vehicle service manual.

4

Remove main spring and associated parts according to instructions in the vehicle service manual.

Warning!

The plastic tube (A) inside outer tube shall not be removed.

5

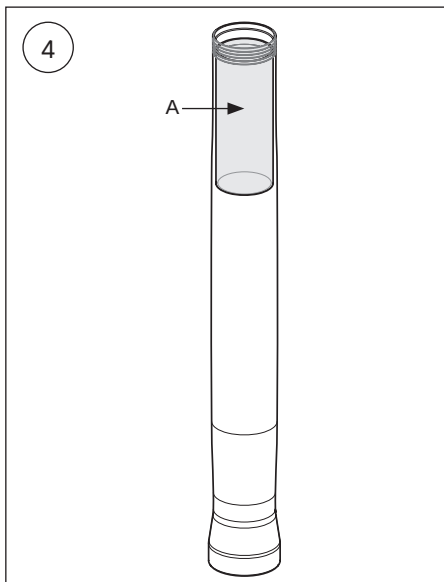
Drain front fork leg from suspension fluid.

6

Remove cartridge from front fork leg according to instructions in the vehicle service manual.

7

Remove valve from fork bottom according to instructions in the vehicle service manual.



MOUNTING INSTRUCTIONS

3 Install Öhlins cartridge kit

Note!

The following procedure applies to both front fork legs.

Caution!

The cartridge kit is divided into compression and rebound cartridges.

Install compression cartridge marked "COMP" in left hand side front fork leg.

Install rebound cartridge marked "REB" in right hand side front fork leg.

1

Remove top cap, spring support and preload tube.

2

Remove cylinder tube assembly from shaft assembly.

3

Insert cylinder tube assembly in front fork leg. Use a 14 mm extended hex key to rotate adaptor to connect to the hexagon inside fork bottom.

Caution!

Make sure that the adaptor connects correctly to fork bottom.

4

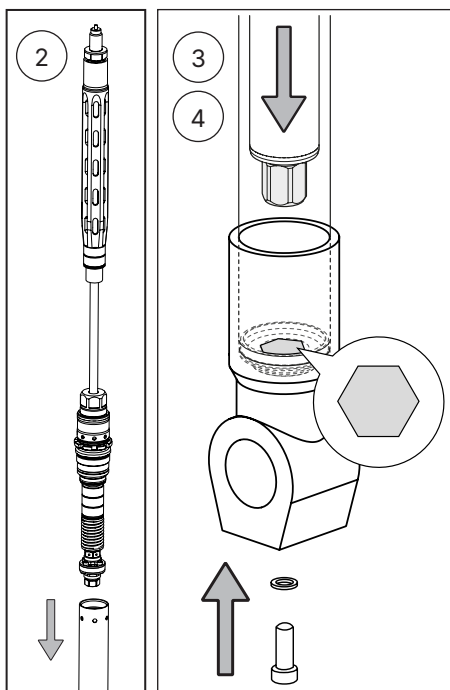
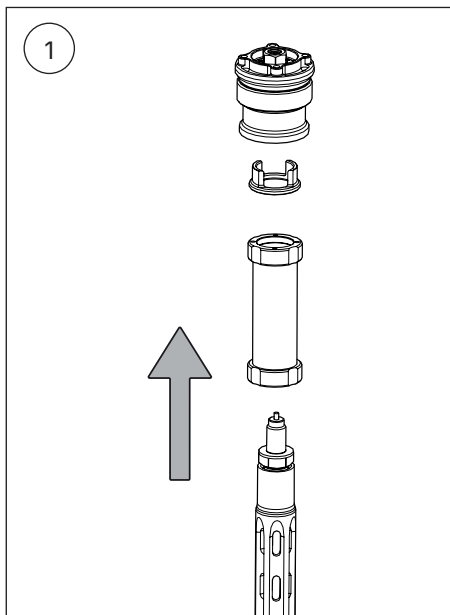
Install bottom screw according to instructions in the vehicle service manual.

7

Pour approximately 0.5 litre Öhlins suspension fluid in front fork leg.

Warning!

Fluid level must be approximately 50 mm above top of cylinder tube assembly.



MOUNTING INSTRUCTIONS

8

Install tool on shaft extension.
[01765-03 shaft extension tool]

9

Install tool on seal head.
[01797-07 seal head tool]

Note!

Make sure teeth are securely connected to seal head.

10

Compress top out spring fully and insert clip.
[02810-01 clip]

Warning!

If top out spring is not completely compressed, adjust shaft extension tool to achieve complete compression of top out spring.

11

Insert shaft assembly in front fork leg.

Warning!

Make sure no air is trapped in piston by carefully pump shaft assembly up and down with piston below fluid surface.

12

Install shaft assembly and tighten with your hand.

13

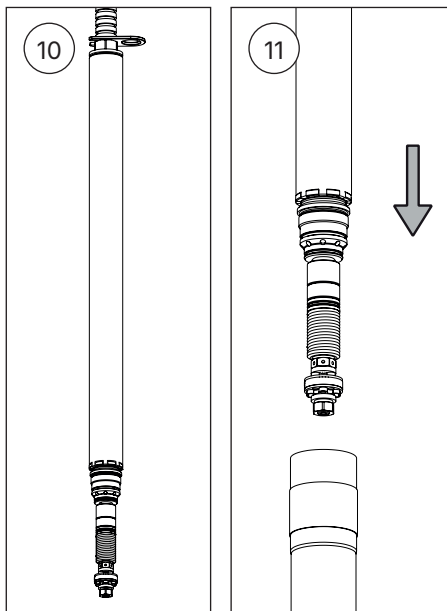
Remove clip and shaft extension tool.

14

Tighten seal head to 30 Nm and remove seal head tool.

15

Make sure that shaft assembly and outer tube are in their bottom positions.
Set suspension fluid level according to chapter "Setup Data".



MOUNTING INSTRUCTIONS

16

Install tool on shaft extension.

Install preload tube (A), main spring (B) and spring support (C) over shaft extension tool. Select main spring according to chapter "Main spring guide".

[01765-03 shaft extension tool]

Caution!

Make sure that preload tube is turned right side up.

17

Pull up shaft assembly and grab spring support with a wrench.

[Wrench 19 mm]

18

Remove shaft extension tool.

19

Make sure that compression and rebound adjusters are fully open before installing top cap. Use a hex key to open compression and rebound adjusters.

[Hex key 3 mm]

20

Install o-ring on top cap. Apply grease on o-ring and thread.

[00438-26 o-ring]

[00146-01 grease]

21

Install top cap on shaft extension. Tighten to 20 Nm.

[Socket 14 mm]

22

Remove wrench from spring support.

23

Pull up outer tube. Make sure front fork leg is in a fully extended position. Use top cap tool to tighten top cap to outer tube. Tighten to 10 Nm.

[00797-08 top cap tool]

24

Set compression, rebound and main spring adjusters according to chapter "Setup Data". Use a hex key for compression and rebound adjusters. Use a socket for main spring preload adjuster.

[Hex key 3 mm]

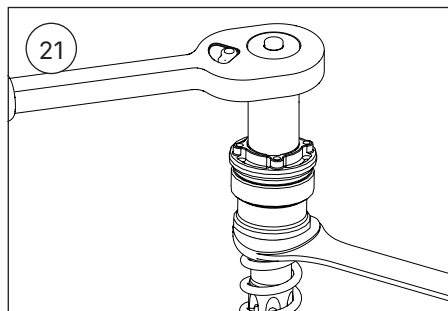
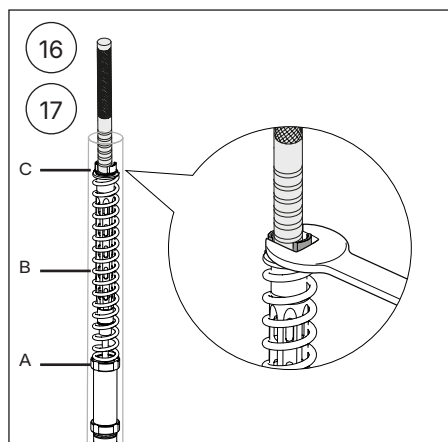
[Socket 14 mm]

25

Install front fork legs in vehicle at recommended front fork leg position, according to chapter "Setup data".

26

Remaining installation, instructions according to vehicle service manual.



SETUP DATA

Recommended setup

| | | |
|--------------------------------|----------|--------|
| Compression adjustment | 14 | clicks |
| Rebound adjustment | 14 | clicks |
| Suspension fluid level | 190 | mm |
| Minimum suspension fluid level | 215 | mm |
| Suspension fluid part number | 01309-xx | |
| Front fork leg position | Standard | |

MAIN SPRING GUIDE

Make sure you choose the correct main spring for your rider weight, driving style and preferences. Below you find a general recommendation of main spring rate for your weight. Contact an authorized Öhlins service center for advice.

Note!

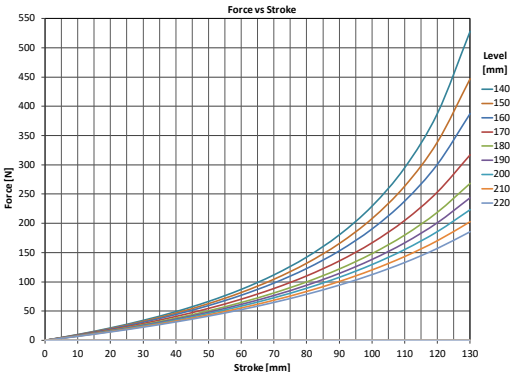
Only 8790-xx main springs are packed in pairs.

FKR 222 BMW S1000RR

| | | | | | | | |
|----------------------|----------|----------|----------|----------|----------|----------|----------|
| Rider weight [kg] | 50 | 60 | 70 | 80 | 90 | 100 | 110 |
| Spring rate [N/mm] | 9 | 9,5 | 10 | 10 | 10,5 | 11 | 11 |
| Preload [mm] | 3 | 3 | 2 | 4 | 4 | 3 | 5 |
| Part number (pair) | 08790-90 | 08790-95 | 08790-10 | 08790-10 | 08790-05 | 08790-11 | 08790-11 |
| Part number (single) | 04744-90 | 04744-95 | 04744-10 | 04744-10 | 04744-05 | 04744-11 | 04744-11 |

FKR 222 BMW M1000RR

| | | | | | | | |
|----------------------|----------|----------|----------|----------|----------|----------|----------|
| Rider weight [kg] | 50 | 60 | 70 | 80 | 90 | 100 | 110 |
| Spring rate [N/mm] | 9 | 9,5 | 10 | 10 | 10,5 | 11 | 11 |
| Preload [mm] | 2 | 1 | 1 | 3 | 2 | 2 | 4 |
| Part number (pair) | 08790-90 | 08790-95 | 08790-10 | 08790-10 | 08790-05 | 08790-11 | 08790-11 |
| Part number (single) | 04744-90 | 04744-95 | 04744-10 | 04744-10 | 04744-05 | 04744-11 | 04744-11 |



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_FKR222_0
Issued 2025-10-01

© Öhlins Group AB. All rights reserved. Any reprinting or unauthorized use without the written permission of Öhlins Group AB is prohibited.

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

