

# Mounting Instructions

BM 048 – BMW F 650 GS

## Kit contents

Shock absorber 46 HRCS	BM 048	
Tie rap	00231-01	2
Sticker Öhlins	00192-01	2
Memo sticker	01180-01	1
Owners manual		1

## Set-up data

Lenght	328.5 mm
Stroke	60.5 mm
Rebound adjustment	14 clicks
Compression adjustment	12 clicks
Spring Preload	15 mm

## Recommendations

F1 - F2:	40 - 50 mm
F1 - F3:	55 - 65 mm
R1 - R2:	20 - 30 mm
R1 - R3:	55 - 65 mm



ADVANCED SUSPENSION TECHNOLOGY

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ADVANCED SUSPENSION TECHNOLOGY



**⚠ WARNING!**

The shock absorber is provided with a separate type reservoir filled with high pressure nitrogen gas. To prevent danger of explosion, study and make certain that you fully understand the following information before handling the shock absorber. The manufacturer cannot be held responsible for damage to property or personal injury that may result from improper handling.

1. Never tamper with or attempt to disassemble the cylinder or the reservoir.

2. Never expose the shock absorber to an open flame or other excessive heat. The shock absorber may otherwise explode due to too high pressure.

3. Be careful not to damage any part of the gas reservoir. A damaged gas reservoir will impair the damping performance or cause malfunction.

4. Take care not to scratch the contact surface of the piston rod of the cylinder; oil could otherwise leak out.

5. Never attempt to remove the plug at the bottom of the nitrogen gas reservoir. Any attempt to remove the plug implies serious danger.

6. When scrapping the shock absorber, follow the instructions for disposal.

**Notes**

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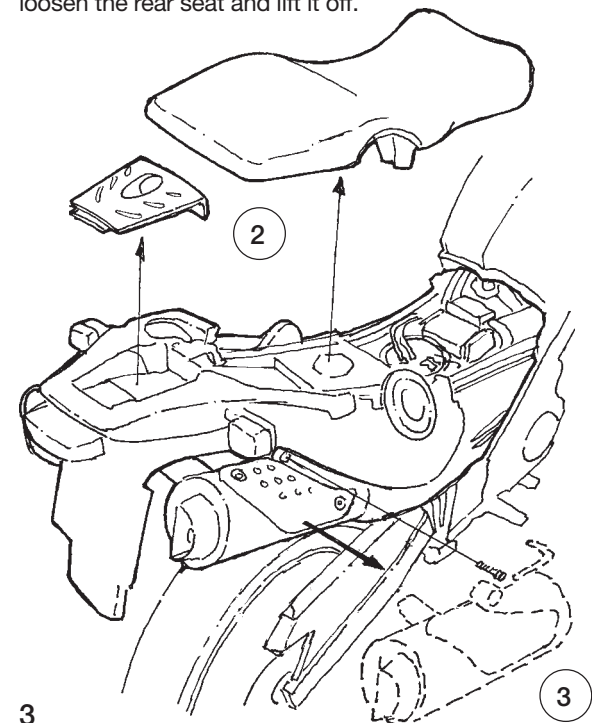
**Mounting instruction**

1 Put the motorcycle on a stand so the rear wheel is clear of the ground. The swing arm must be free, so the suspension is unloaded. Make sure it's steadily fixed so it will not fall over.

**⚠ WARNING!**

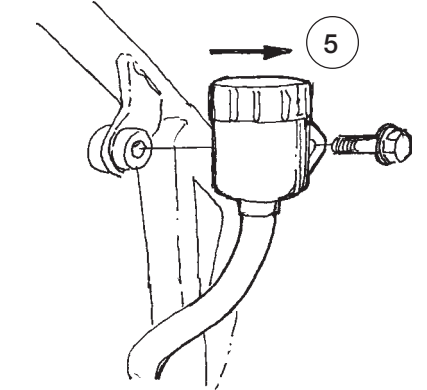
- 1. It's advisable to have an Öhlins dealer or other qualified person to fit your shock absorber.
- 2. Instructions in the vehicle service manual are to be followed when changing the shock absorber.
- 3. When working on a lifted vehicle it must be securely supported to prevent it from falling.

2 Open the toolbox and pull the T-handle to loosen the rear seat and lift it off.



3 Loosen the screw of the right silencer bracket and remove the right silencer just by pulling it outwards.

- 4 Loosen the exhaust pipe with a 15mm key and remove the left silencer by pulling it straight rearwards.
- 5 Loosen the brake fluid reservoir on the right side and let it hang down.

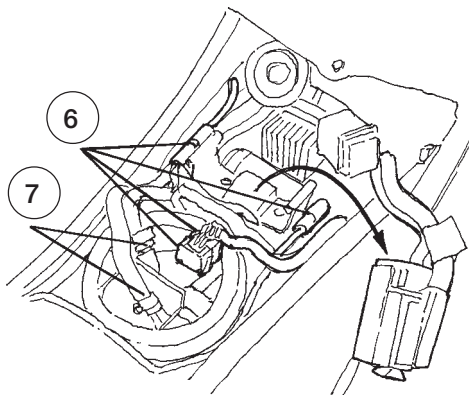


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Remove the control box and all electric connections (4 pcs) and let the loose wiring hang out to the right side of the motorcycle.

**CAUTION!**

*When removing the fuel tank it must be emptied or contain very small amounts of fuel. Otherwise it will flow over when the fuel lines are loosened.*

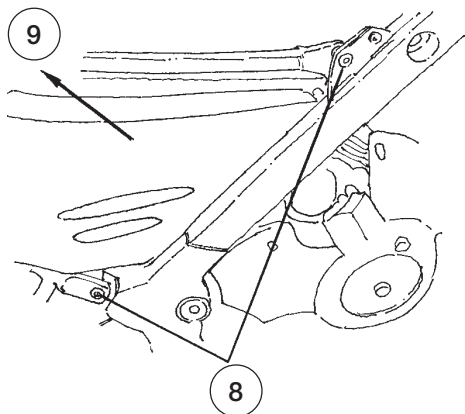


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Loosen the two fuel lines.

8

Loosen the four bolts holding the rear subframe unit.



9

Lift the rear unit backwards, upwards and remove it from the motorcycle.

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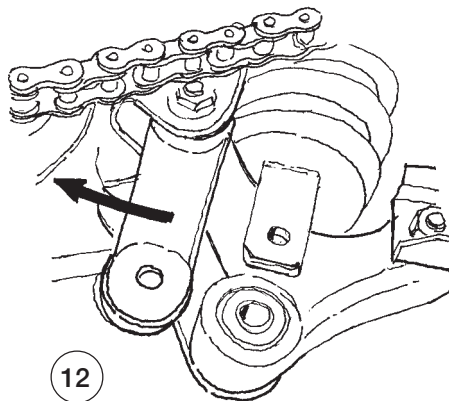
Remove the original reservoir by loosening the two o-rings of the bracket.

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Loosen and remove the original hydraulic pre-load adjuster and the bracket.

12

Loosen the lower bracket of the right droplink and pull it backwards, so the lower shock absorber mount is reachable.



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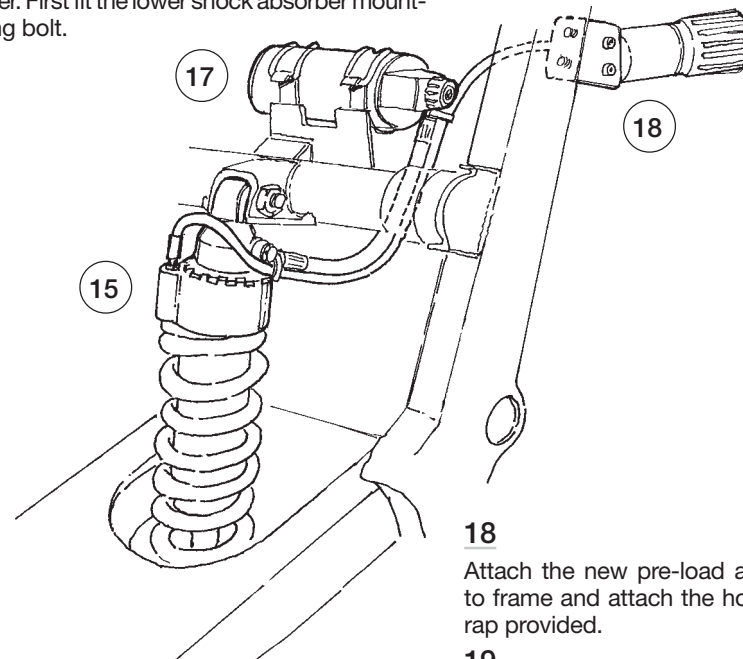
Loosen the lower shock absorber mounting bolt to release the shock absorber from the triangle link.

14

Loosen the upper shock absorber mounting bolt and remove the shock absorber by lifting it upwards.

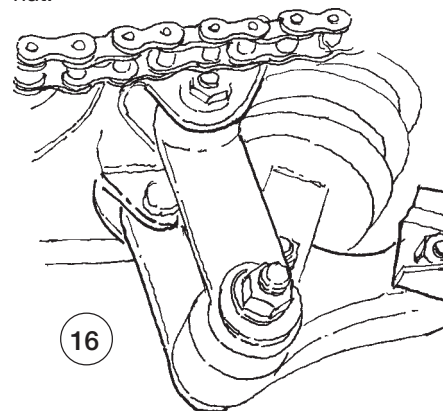
15

Fit the Öhlins shock absorber in reverse order. First fit the lower shock absorber mounting bolt.



16

Then fit the upper shock absorber mounting bolt and tighten. Bring the droplink back in position again and fit the pivot bolt and nut.



17

Fit the reservoir in the original bracket. Pull the hose under the upper shock absorber bracket.

18

Attach the new pre-load adjuster bracket to frame and attach the hose with the tie-rod provided.

19

Refit the fuel tank and fix the bolts. Refit the fuel lines and the electrical connections. Refit the control box.

20

Put the brake fluid reservoir back in position.

21

Refit first the left and then the right silencer.

22

Put the seat back in position and lock it. Close the toolbox lid.

**NOTE!**

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

23

Continue your work according to Owners manual.