



**CFMOTO**

# **KYB Shock Absorber Service Manual**

## **Applicable Models**

Model Name	Model Number	Model Years
Ibex 450	CF400-8US	2025, 2026
675SS	CF650-10US	2025, 2026
675NK	CF650-11US	2026
700CL-X	CF700-2US	2022, 2023, 2024
Ibex 800 E	CF800-5BUS	2025, 2026
800NK	CF800-7US	2024, 2025, 2026

## About This Manual

This manual is intended for use by experienced technicians in a fully equipped workshop and is intended primarily for reference. All references to left and right are made from the perspective of the driver while seated in the driving position.

Certain procedures outlined in this manual require a sound knowledge of mechanical or electrical theory, tool use and shop procedures in order to perform the work safely and correctly. Technicians should read the contents of this manual and understand the procedures before beginning repairs. Certain procedures require the use of specialized tools. Use only the proper tools specified. If you have any questions about your ability to perform any of the procedures outlined in this manual, contact an authorized dealer for service.

The information in this manual includes the most current product information available at the time of publishing and may contain product information that does not apply to your particular market. The instructions contained in this publication are not legally binding. CFMOTO reserves the right to modify or completely delete technical instructions, service instructions, maintenance instructions, prices, colors, shapes, materials, designs, configurations and similar content without prior notice and without reason. Due to continuous improvements in the design and quality of production components, minor discrepancies may result between the actual vehicle and the information provided within. No liability can be accepted for omissions, deviations, inaccuracies, printing defects or errors in the delivery method, drawings and instructions. Any reproduction or reuse of the images, descriptions and/or procedures within, whether whole or in part, is expressly prohibited without written permission from the copyright holder.

## Signal Words

Signal words call attention to safety or property damage messages, and they designate a level of hazard seriousness. Readers should familiarize themselves with signal word meanings. The signal words below may appear in this manual.

**DANGER:** This signal means serious injuries or death may occur if the stated advice or procedure is not followed.

**WARNING:** This signal means injuries or vehicle damage may occur if the stated advice or procedure is not followed.

**CAUTION:** This signal means vehicle damage may occur if the stated advice or procedure is not followed.

**NOTE:** This signal highlights important information or instructions.

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### 1.1 Special Tools

Spring compressor  
6KWV-050000-922-001



Cover lock nut wrench  
6KWV-050000-922-002



## 1.2 Shock Absorber Disassembly

### Prework

Remove shock absorber from the vehicle. Suspension chapter of the vehicle's service manual has the details.

If the shock has adjustable damping, rotate the damping gear counterclockwise and count the clicks until the gear stops. Then record this damping setting for future reference.

### Disassembly

Use a bench vise to clamp the middle of the shock absorber. A shock holding tool **1** is recommended.

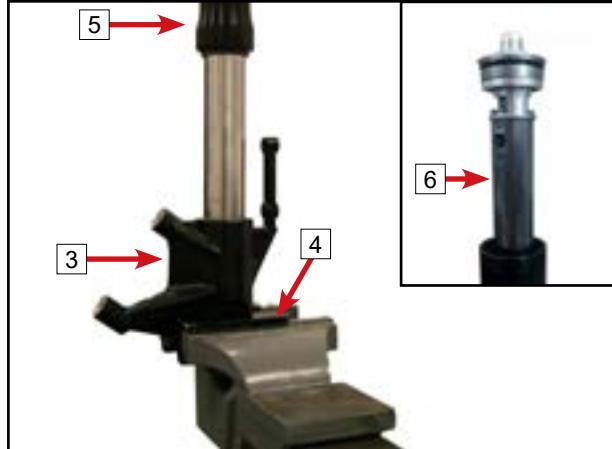
Unscrew the top cover **2** using a socket wrench.



Secure the axle mount **3** in a bench vise as shown.

#### ⚠ CAUTION

Use soft jaws **4** to protect the shock's axle mount **3**.



Push down the outer tube **5** to expose the spacer **6**.

Install spring compressor **A** on spacer.

Spring compressor **A**

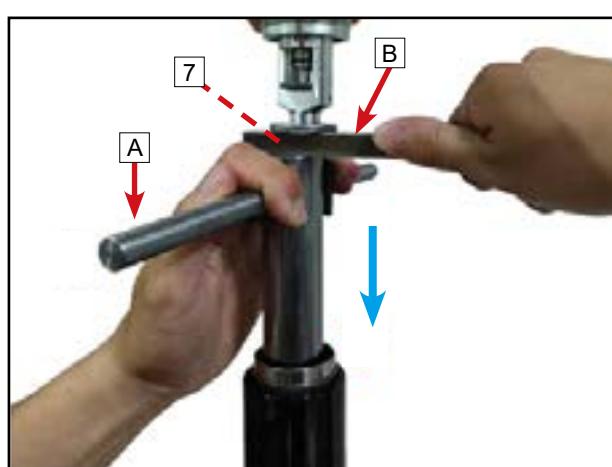
See section Special Tools.

Press down the spring until it is lower than the lock nut **7**.

Place the cover lock nut wrench **B** on the lock nut **7**. An appropriate open-end wrench can substitute if necessary.

Cover lock nut wrench **B**

See section Special Tools.

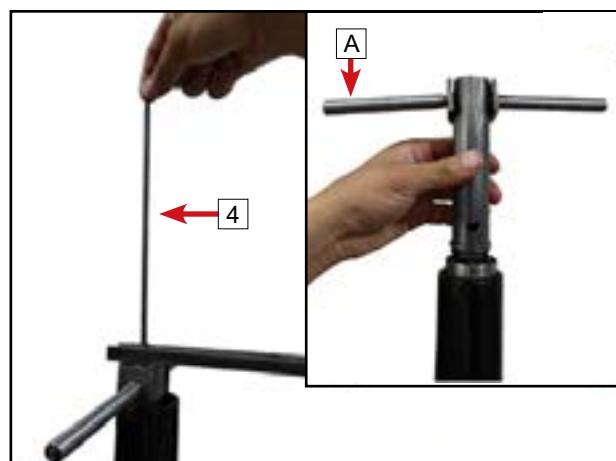


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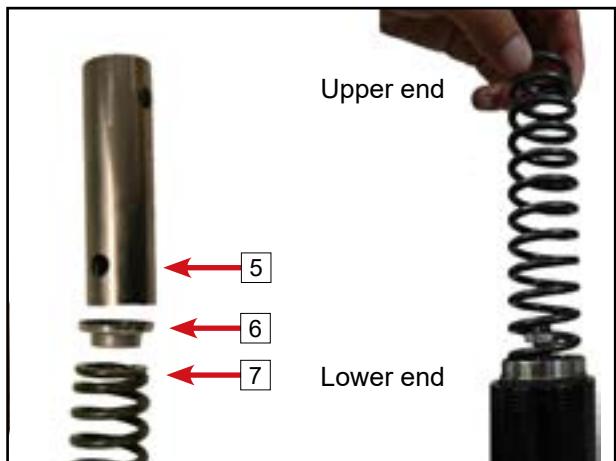
Loosen lock nut **1** by 1/8 turn. Then remove the top cover **2** from the damping rod using a socket wrench.  
Remove the upper gasket **3**.



Remove the damping adjustment rod **4** from the damping rod.  
Remove the spring compressor **A**.

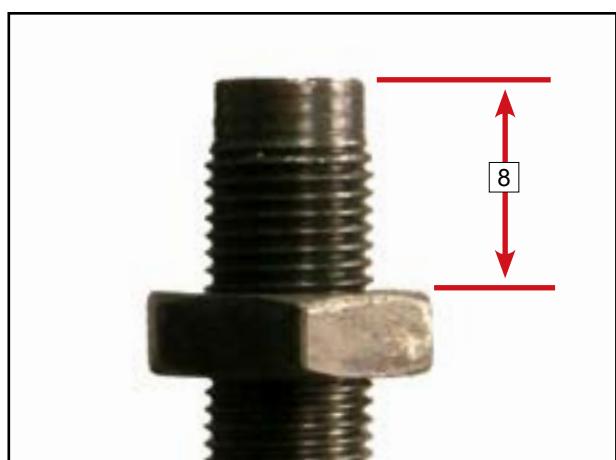


Remove the spacer **5**, lower gasket **6** and spring **7**.  
Mark upper and lower ends of the spring for future reference.



Record the number of threads **8** between the lock nut and end of the damping rod for future reference.

NOTE
Lock nut position affects the total number of damping clicks and the number of threads available for top cover installation. Lock nut must be positioned properly for both functions.

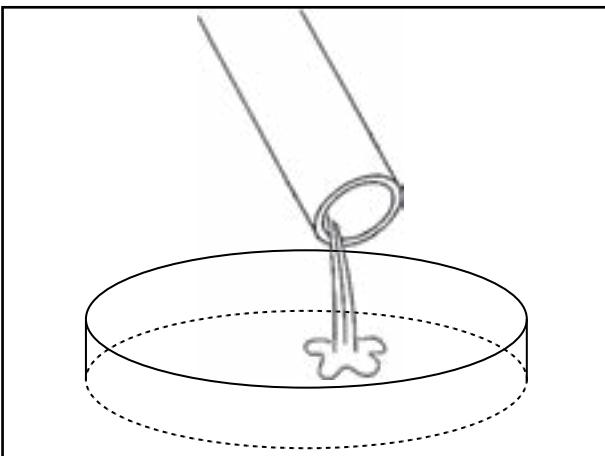


Remove the shock from the vise, and drain its oil into a clean container suitable for waste oil collection. As oil drains, slowly pump the inner tube **1** to empty all oil. Allow the shock to drain for 2~3 hours, periodically shaking it.

Drained oil must not be reused.

## **WARNING**

Shock absorber oil can irritate skin. Wear chemical-resistant gloves to avoid direct skin contact with shock oil.



## **CAUTION**

Damage to the shock's inner tube can cause premature seal failures and leakage of shock oil.

Dislodge the dust boot **2** using a plastic blade or another appropriate tool. Press this tool firmly against the dust boot lip, and gently pry. Avoid scratching the inner tube **1** while dislodging the dust boot.



Dislodge the retaining ring **3** using a plastic blade or another appropriate tool. Press this tool firmly against the ring, and gently pry. Avoid scratching the inner tube while dislodging the ring.



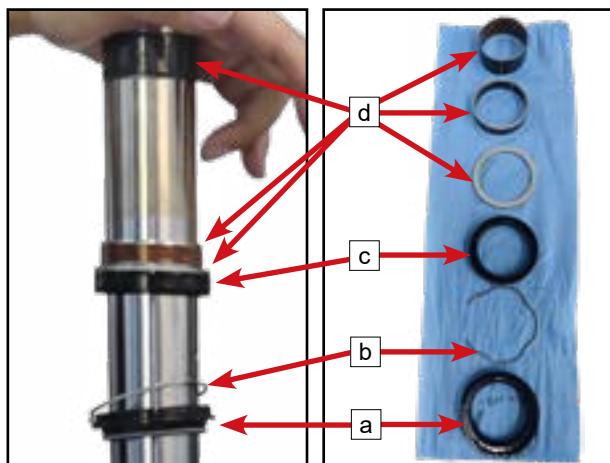
Tightly hold the outer tube **4** with one hand and the inner tube **1** with the other hand. Jerk the outer tube upwards until the inner tube separates from the outer tube.



Remove the guide bushing set **d**, oil seal **c**, retaining ring **b** and dust boot **a** from the inner tube. Record the removal sequence for future reference.

## NOTE

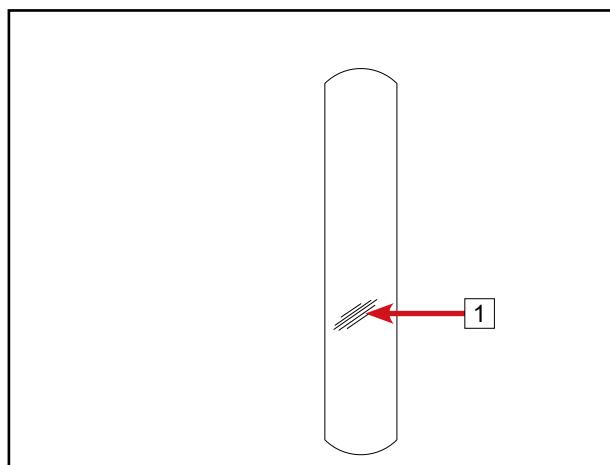
Take photos during disassembly to document the specific positions of the guide bushing set, oil seal, retaining ring, and dust boot, as well as which side faces the outer tube. These photos will serve as a reference during installation.



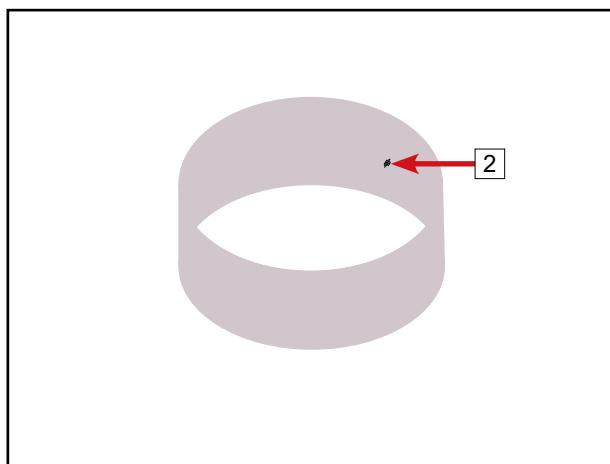
Check the inner tube for signs **1** of wear, scratches you can feel with a fingernail, rust or pitting. If damage on the inner tube would compromise a new oil seal, then the inner tube or the entire shock absorber assembly must be replaced.

## ⚠ CAUTION

Damage to the shock's inner tube can cause premature seal failures and leakage of shock oil.



Check each bushing for wear. If its sliding surface is worn **2**, replace the bushing.



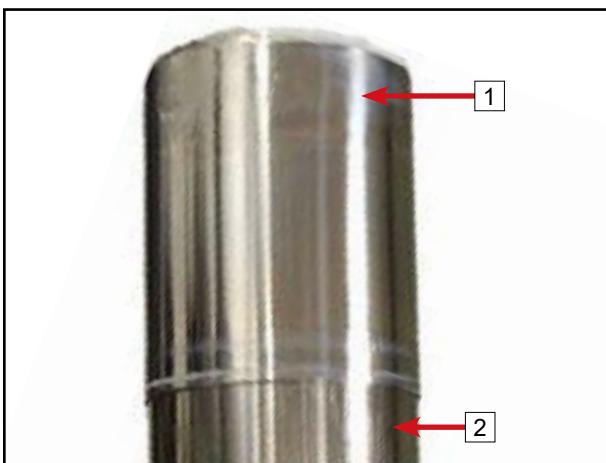
## 1.3 Shock Absorber Assembly

### Prework

Clean and dry all parts.

Dust boot, retaining ring and oil seal must be replaced. Any other damaged parts also should be replaced.

Install a protective sleeve **1** over the edge of the inner tube **2** to prevent damage to the oil seal and dust boot during installation.



### Assembly

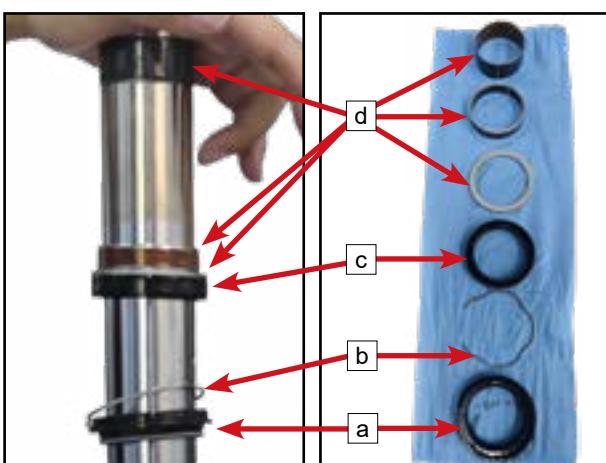
Lubricate the new oil seal and dust boot to facilitate assembly and prevent damage.

Slide the dust boot **a**, retaining ring **b** and oil seal **c** onto the inner tube in the proper sequence.

Remove the protective sleeve, and install the guide bushing set **d** onto the inner tube in the proper sequence.

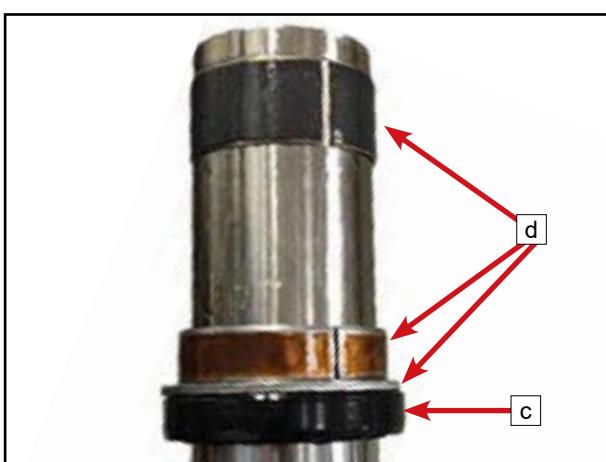
#### NOTE

Refer to the previously documented positions of the guide bushing set, oil seal, retaining ring, and dust boot on the inner tube, as well as which side faces the outer tube, to ensure proper assembly.



Position the oil seal **c** and guide bushing set **d** on the inner tube as shown.

Position the retaining ring and dust boot further away.



Secure the axle mount **3** in a bench vise as shown.

#### CAUTION

Use soft jaws **4** to protect the shock's axle mount **3**.



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Place an oil seal impact tool **1** on the inner tube as shown.



Insert the inner tube into the outer tube **2**. Then strike the oil seal with the oil seal impact tool **1** until the oil seal is firmly pressed into the outer tube and the groove for the retaining ring is visible.

Remove the oil seal impact tool.



Install the retaining ring **3** into its groove in the outer tube using a plastic blade or another appropriate tool.

## CAUTION

Damage to the shock's inner tube can cause premature seal failures and leakage of shock oil.

## NOTE

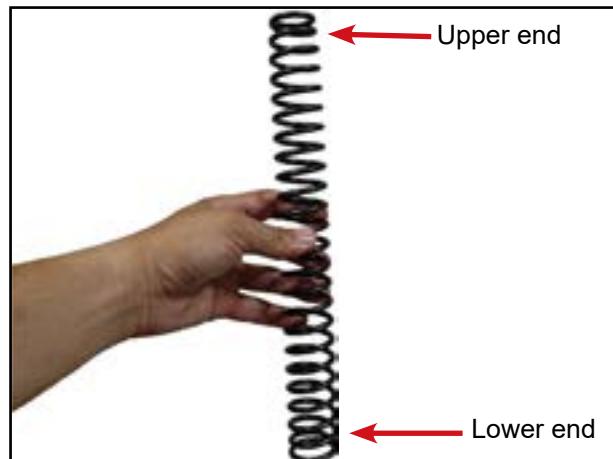
Verify that the retaining ring is accurately inserted into its groove in the outer tube.



Install the dust boot **4** by hand. Its lip should sit flush with the outer tube end.



Install the spring. Refer to the upper and lower end marks you made during disassembly to ensure proper installation.

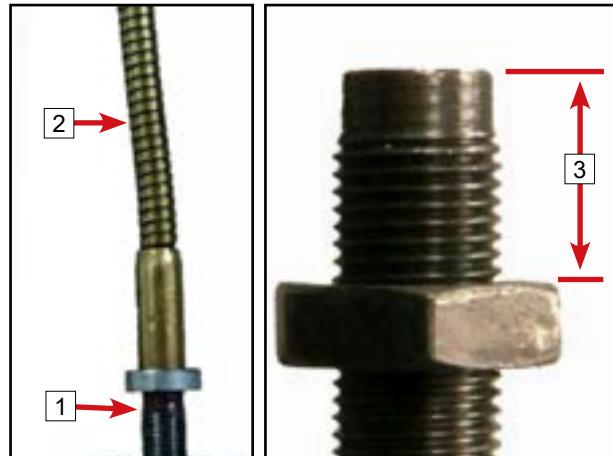


Retrieve the damping rod **1** using a magnet or grabbing tool **2**.

Verify the number of threads **3** between the lock nut and end of the damping rod matches the previously recorded number.

#### NOTE

Lock nut position affects the total number of damping clicks and the number of threads available for top cover installation. Lock nut must be positioned properly for both functions.



Install the spring compressor **A** on the spacer **4**. Then put the lower gasket **5** and spacer on top of the spring **6**.

Spring compressor **A**

See section Special Tools.



Retrieve and hold the damping rod to prevent it from dropping.

Press down the spring until it is lower than the lock nut **7**.

Place the cover lock nut wrench **B** on the lock nut **7**. An appropriate open-end wrench can substitute if necessary.

Cover lock nut wrench **B**

See section Special Tools.



Insert the damping adjustment rod **1** into the damping rod **2**.

Place the upper gasket **3** over damping rod. Add some thread locker to the threads of the damping rod **2**.

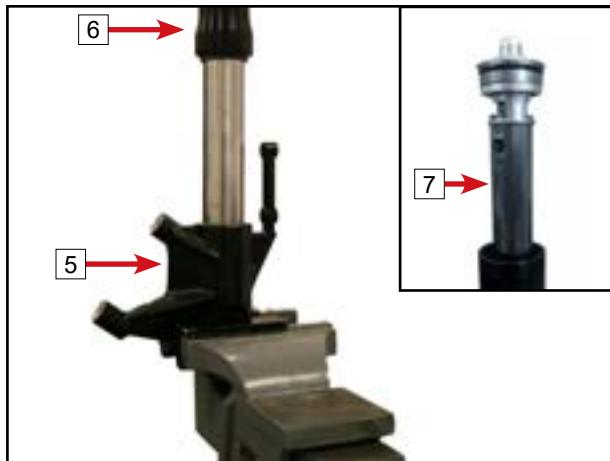
Screw the top cover **4** onto the damping rod until it reaches the lock nut.

Tighten the lock nut against the top cover. Align parts as shown in rightmost image, and remove the spring compressor **A**.



Reposition the shock absorber's axle mount **5** in the bench vise as shown.

Push down the outer tube **6** to expose the spacer **7**.



Refill the shock absorber with oil according to the stated specifications.

Remove air bubbles by slowly pumping the outer tube 3~5 times after oil filling.

## ⚠️ WARNING

Shock absorber oil can irritate skin. Wear chemical-resistant gloves to avoid direct skin contact with shock oil.



## 1.3.1 Shock Absorber Oil Specifications

Vehicle Model	Oil Code	Shock Oil Volume
Ibex 450 CF400-8US	OILNO-00M01	LH side: 365±2ml, RH side: 365±2ml
675SS CF650-10US	OILNO-00M01	LH side: 450±2ml, RH side: 450±2ml
675NK CF650-11US	OILNO-00M01	LH side: 465±2ml, RH side: 465±2ml
700CL-X CF700-2US	OILNO-00M01	LH side: 530±2ml, RH side: 525±2ml
Ibex 800 E CF800-5BUS	OILNO-00M01	LH side: 610±2ml, RH side: 610±2ml
800NK CF800-7US	OILNO-00M01	LH side: 500±2ml, RH side: 500±2ml

Screw the top cover into the outer tube.  
Remove the shock absorber's axle mount from the bench vise.  
Clamp the shock middle with a bench vise.  
A shock holding tool **[1]** is recommended.



Torque the top cover **[2]** to specification using the correct socket and torque wrench.

**Top cover torque: 25 N·m (18 ft-lb)**



Remove the shock absorber from the bench vise.

Check and confirm the movement of the shock absorber, oil sealing, and damping adjustment functions (if applicable).

Remove any oil or oil stains on the external surfaces of the shock absorber.

If the shock has adjustable damping, restore the damping setting. Rotate the damping gear counterclockwise until the gear stops. Then rotate it clockwise the number of clicks you previously recorded.

Install shock absorber on the vehicle. Suspension chapter of the vehicle's service manual has the details.

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