

# **Rekluse Motor Sports**

## **The e-Axle**

**2003 – 2006 KTM**

### **Installation Guide**

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e-Axle Revision 1.000  
RMS 2733

195-2733

Manual Revision: 021706

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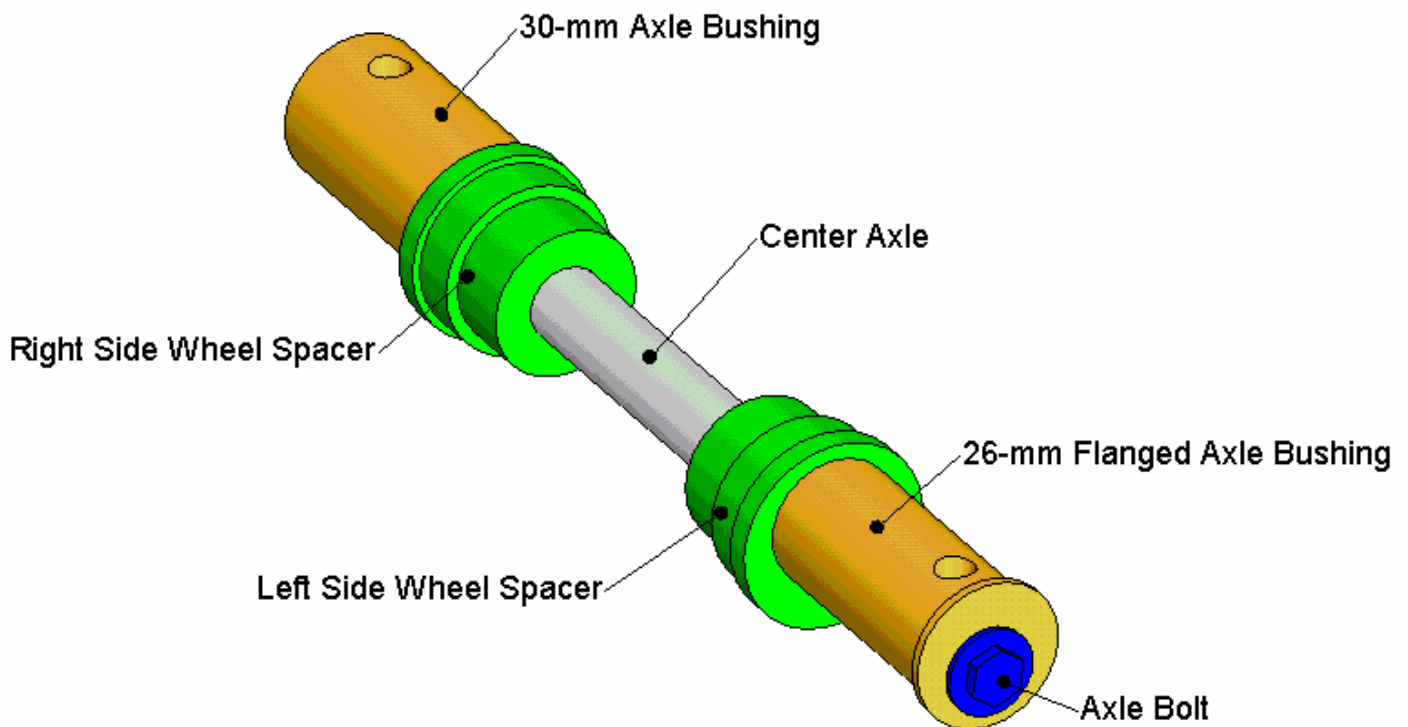
208-426-0659

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## Required Tools

10mm socket	Needle Nose Pliers
12mm socket	27-mm socket
Torque Wrench	

## e-Axle Overview



**Warning:** The 2 set screws in each bushing are installed by Rekluse and should **NEVER** be removed or tightened. The axle bolt on the 30-mm Axle Bushing (right) end of the axle is also installed by Rekluse and should **NEVER** be removed.

**Note:** This manual refers to right and left as you would be sitting on the motorcycle.

## Included Parts for the e-Axle

KTM 03+ 15 mm Center Axle	1 x M8 x 1.25 Socket Head Cap Screw
KTM 03+ 26 mm Bushing	1 x M8 x 1.25 x 16 Hex Flange Bolt
KTM 03+ 30 mm Bushing	2 x M8 x 10 Dog Point set screw
2 x KTM 03+ Wheel Spacer	2 x Grade 9 Washers
	Coil Spring

### Basic e-Axle Function

The e-Axle is an eccentric offset front axle that allows the rider to adjust the front wheel offset also known as front wheel trail, to change the handling characteristics of the motorcycle. Simply loosen the fork fist pinch bolts holding both ends of the axle, rotate the e-Axle by turning the Axle Bolt on the 30-mm Bushing end (right end) to adjust the front wheel offset, align the wheel, and tighten the fork fist pinch bolts.

### Bike Preparation and Disassembly

1. Place the motorcycle on a suitable stand so the front tire is no longer touching the ground.
2. Refer to your Owners Manual and remove the stock front axle and front wheel. Stow the wheel in a suitable place so that the brake rotor cannot be damaged.
3. Using a 10-mm wrench remove the 8-mm (10-mm Head) bolt from the 26-mm Flanged Bushing end (left end) of the e-axle. The 26-mm flanged bushing has a smaller diameter than the larger 30-mm bushing. Slide the 26-mm bushing off of the center axle followed by the two wheel spacers. **See following picture.**



**Warning:** The M8 set screws in each bushing are installed by Rekluse and should **NEVER** be removed.

The 30-mm bushing and right end axle bolt are assembled by Rekluse and should **NEVER** be removed from the center axle.

## e-Axle Installation

4. Remove the stock wheel spacers from both sides of the wheel hub and install both of the Rekluse wheel spacers. After installing the Rekluse wheel spacers, stow the wheel in a suitable place so that the brake rotor cannot be damaged. **See following picture.**



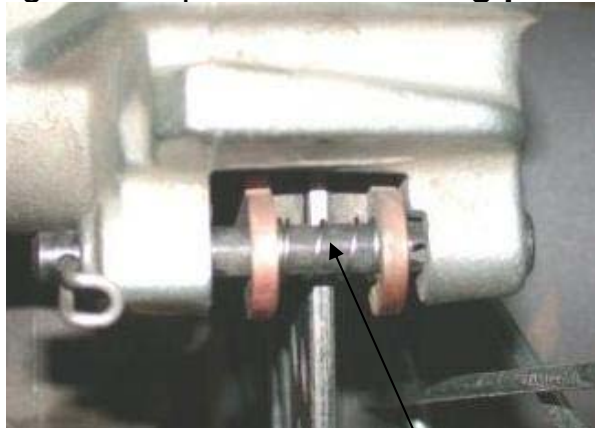
5. Remove the brake pads by removing the clips and sliding out the pin. **See following picture.**



6. Remove the leaf spring from the caliper. **See following picture.**



7. Re-install the brake pads with the included coil spring positioned on the pin between the brake pads. Secure the pin by re-installing the 2 clips. **See following picture.**



Coil Spring on the pin and  
in between the brake pads

8. Coat the center axle in a thin layer of grease to aid in sliding the center axle on and off.

**Note:** Coat the center axle in a thin layer every time it is re-installed after removing the front wheel for tire maintenance.

9. Position the front wheel back in between the forks so that the brake disk is in place between the brake pads, and so the wheel spacers line up with the hole in the fork fists.
10. Slide the center axle, with 30-mm Bushing attached, through the right-side fork fist and through the wheel spacers in the front hub. Rotate the 30-mm bushing so the set screw is facing up, this will line the "0" Offset Mark with the fork fist pinch clamp slot. Continue sliding the axle through until the 30-mm bushing is almost flush with the outer edge of the right fork fist. **See following picture.**



11. Slide the 26-mm Flanged Bushing onto the left-end of the Center Axle through the left fork fist by positioning the bushing with the set screw facing up, this will allow the bushing to slide over the end of the center axle with the set screw indexing against the flat on the left-end of the axle. Slide the 26-mm bushing in until its flange is flush against the outer edge of the left fork fist. **See following picture.**

**Note:** You may need to rock the wheel back and forth to get the 26-mm bushing to slide over the end of the center axle and through the left fork fist.



12. Moderately tighten the 2 right-side fork fist pinch clamp bolts to secure the 30-mm Bushing.
13. Install the 8-mm bolt into the left-end of the center axle and torque to 18 foot pounds (24 newton meters) with a 10-mm wrench.



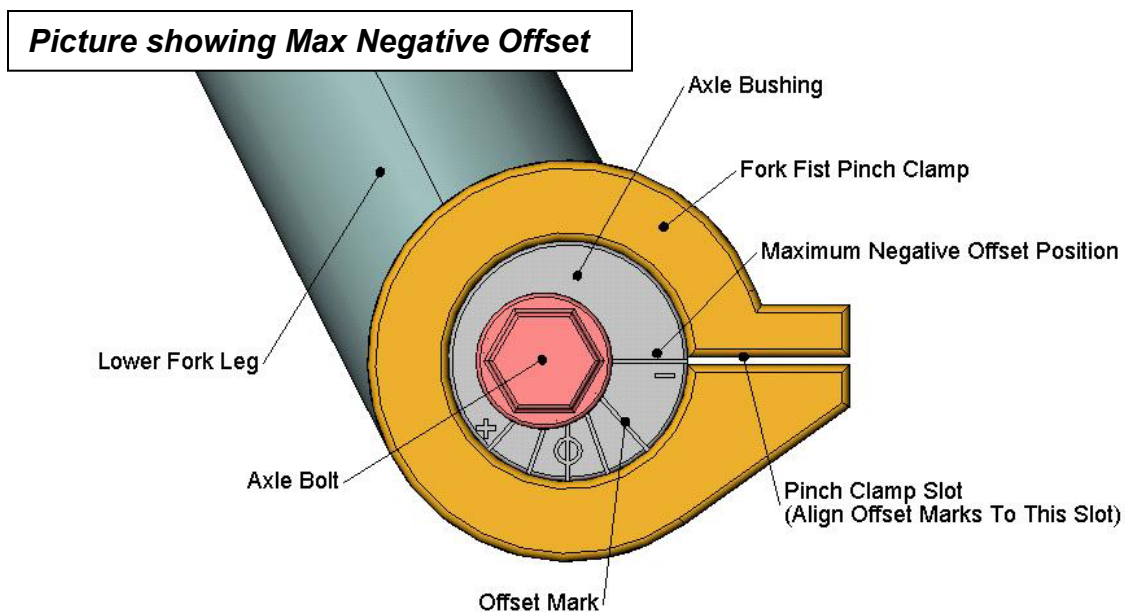
14. Loosen the 2 right-side fork fist pinch clamp bolts so the axle is free to rotate.

## Setting the e-Axle

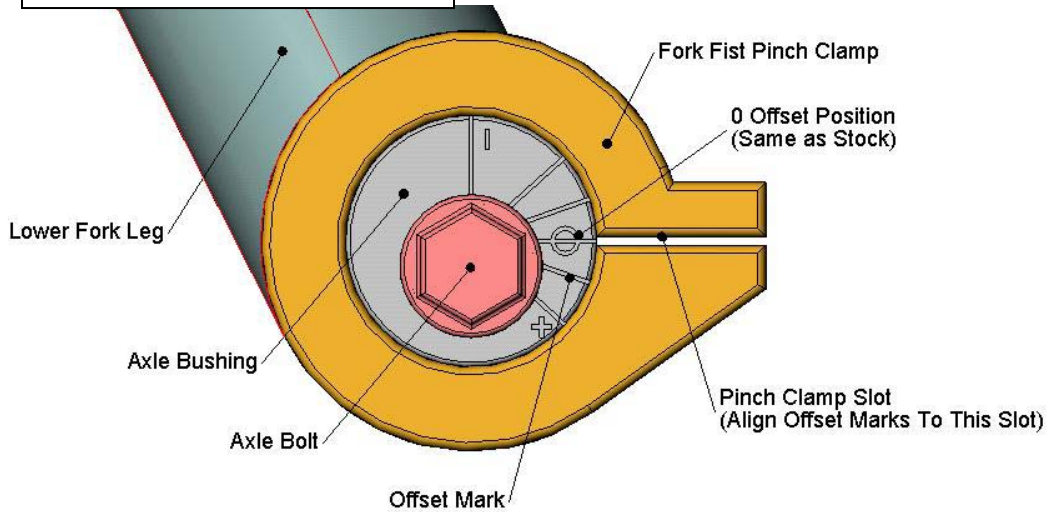
- Using a 6-mm hex key, rotate the right end axle bolt to line up one of the Offset Marks with the Fork Fist Pinch Clamp Slot. Each Offset Mark represents 1-mm of change in front wheel position—there is a maximum of 3-mm in the negative direction (moving the wheel back), and 2-mm in the positive direction (moving the wheel forward). Do not adjust past the maximum positive offset mark.

In general, the maximum negative setting improves straight line stability and increases front wheel traction when cornering, but increases steering effort.

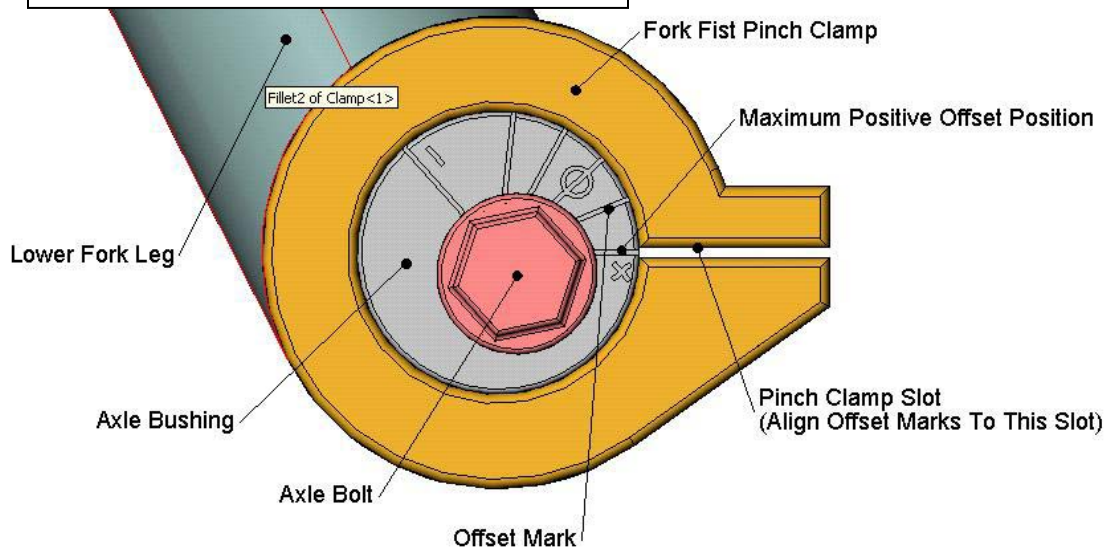
The maximum positive setting pushes the front wheel out giving lighter feeling steering, but reduces straight line stability, **See following pictures.**



**Picture showing 0-Offset**



**Picture showing Max Positive Offset**



16. Set the e-Axle to the desired offset and moderately tighten the 2 left-side (26-mm Flanged Bushing end) fork fist pinch clamp bolts. Pump the front brake lever until the pressure point returns between the brake pads and rotor.
17. Take the motorcycle off of the stand, hold the front brake, and compress the forks a few times to align the front wheel.
18. Torque both right and left-side fork fist pinch clamp bolts to 11 ft-lbs (15 N-m).

## Adjusting the e-Axle

19. Loosen both right and left-side fork fist pinch clamp bolts.
20. Using a 10-mm wrench or 6-mm hex key rotate either axle bolt to turn the axle to the desired offset.
21. Re-tighten both right and left-side fork fist pinch clamp bolts.

## Axle Removal

22. Place the motorcycle on a suitable stand.
23. Using a 10-mm wrench, remove the left-end axle bolt and washer.
24. Loosen both right and left-side fork fist pinch clamp bolts.
25. Slide a suitable pulling tool (screw driver, 4-mm hex key, etc.) through the holes in the right-end (25-mm bushing end) axle bolt. And pull the axle out. **See following picture.**



**Note:** Removing the left-side axle bushing (20-mm Flange Bushing) from the left-side fork fist clamp may allow the axle to slide out easier.