

**Thanks for Ordering The Kawasaki Vulcan
Front Suspension Lowering Kit from**



READ THIS BEFORE UNPACKING YOUR KIT!

This instruction booklet contains detailed steps for installing the front suspension lowering kit on your Kawasaki 400/800 Standard (A model), 400/800/1500 Drifter motorcycle. This kit WILL NOT work with the "Classic" series. Please pay careful attention to the instructions regarding the disassembly and re-assembly of your motorcycle. If you have any questions concerning installation of your new Scootworks Front Lowering Kit, please contact us via e-mail at support@scootworks.com. This will ensure you receive the most prompt and accurate reply.

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Instructions for Installing the Scootworks Front Suspension Lowering Kit

(Be sure to visit www.scootworks.com and select ["Information Resource Center", then "Installation Instructions"] from the main page, for more info and pictures!)

Tools Needed:

- Motorcycle lift, or method of raising the front wheel off of the ground
- Large Phillips screwdriver
- Small straight screwdriver

The installation of the Scootworks Front Suspension Lowering Kit follows basically the same procedure as adding lubricant to the front forks. However, Scootworks wanted to assist you as much as possible with the installation process, and developed this instruction package. If there are any steps you feel need improvement in instructions, please email support@scootworks.com and specify the area you are having trouble with.

Unpacking!

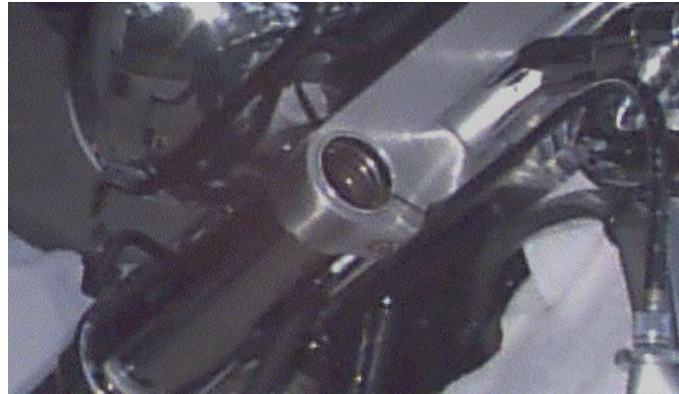
The shipping container and contents must be inspected by the purchaser for damage to goods immediately upon receipt of goods, and a claim must be filed with the carrier if damage is discovered. The purchaser must contact Scootworks within 24 hours from receipt of damaged goods to file a claim, and for further instructions.

Your Scootworks Front Suspension Lowering Kit will come packed with two long tubular spacers labeled as [1"], two medium length tubular spacers labeled as [2"], two short tubular spacers labeled as [3"], and these printed instructions.

BEGIN INSTALLATION

- 1.** This lowering method requires replacement of the front spring spacers. This is a simple task, and is completely reversible. First, raise the front tire off of the ground before you begin. Raise the motorcycle so no weight is applied to the front wheel.
- 2.** Cover the gas tank with a thick towel to prevent scratching. Don't omit this...you'll be sorry if you do!
- 3.** If the handlebar risers are OEM (stock), loosen the handlebars in their clamps and lift them from the risers, carefully placing them on the gas tank on a thick towel to prevent scratching. This will allow room for the spring spacers to be removed from the front forks.
- 4.** Using a small knife blade, sharp screw driver, etc. in the pinch groove on each side of the triple clamp, gently pry upwards and pop the chromed plastic covers off. These are the covers on the top of the front forks, covering the spring retainers. Below these chrome caps, you'll find a gold anodized metal plug with a small counter bore in the center. This is the part used to retain the springs within the front fork tubes. Using an extension bar, large Phillips screwdriver, etc., press down a bit in the counter bored area of the plug to take the pressure off of the small internal "C" ring. While this "gold" colored plug is depressed, remove the internal C-ring. The C-ring is made of small diameter wire. Once the C-ring is removed, slowly release the pressure on the plug and it'll push

itself out of the top of the shock. The picture below is of the upper fork leg with the gold retaining plug removed.



5. Stick a finger into the fork tube, and slide the OEM tubular spacer up and out of the fork tube.

6. The picture below illustrates the use of a Scootworks lowering spacer with the fork spring. On the right hand end of the you'll see a Scootworks lowering spacer. The fork spring stays in the front fork, and you'll drop in the spacer with the desired amount of lowering. The approximate amount of lowering is marked on each Scootworks spacer.



7. Select the spacers for the desired amount of lowering. The longest spacers supplied are marked as [1] and will lower the front suspension 1". The spacers of middle length are marked as [2] and will lower the front suspension by 2". The shortest spacers supplied in the kit are marked as [3] and will lower the front suspension by 3". Omission of the spacers completely will lower the front suspension by approximately 4".

8. Install the selected spacers in the fork tubes, on top of the internal fork spring. Place the gold anodized metal plugs on top of the spacers and press them back into the fork tube. Be sure to turn the metal plug so the side with the counter bore is facing outwards. Reinstall the C-rings, and gently lower the front end back to the ground. Make sure the C-rings seat themselves in their respective grooves when the weight of the bike is placed back on the front end. Re-install the chrome caps.

9. Reinstall the handlebars in the risers and secure tightly.

We're almost finished...

The only thing left to do, after a radical lowering job, is to correct the kickstand angle. Most often, lowering the entire bike 2", or the rear down to 4", doesn't require modification to the kickstand. However, there are many variables, and you must test this on your individual application. Don't worry, this is an easy task and can be handled by many individuals at home, or at most machine and/or sheet metal shops with a standard hydraulic press.

Below, you'll see a Vulcan 800 that has been lowered 4" in the rear, and 5" in the front. The kickstand was modified somewhat, and was a simple task.



A simple method to alter the angle of the stand with a torch is to heat the kickstand, just below the lower spring tab, until the kickstand is soft enough to bend. Heat the kickstand until red hot in the desired location of bend. Lean the bike against the stand until the desired angle is obtained, then allow the stand to cool on it's own. I've altered many kickstands with this method successfully, and never had a failure.

Another method, is to place the kickstand in a hydraulic metal brake, and bend it just below the lower spring tab, about 15 degrees. This is my preference, and is about a 5 minute job.

Other riders have removed the stand, cut it from it's hinge, and re-welded it at an increased angle. I've never tried this method, but have seen it done several times with success.

Another good and inexpensive solution for the 400/800 Vulcan "A" (Standard) is to replace it with the kickstand from a Vulcan 800 Classic. For the 400/800 Drifter, replace it with the sidestand from the 1500 Drifter or Nomad. For the 1500 Drifter, remove material from the front of the kickstand stop, allowing it to pivot further forward when deployed.

Once the kickstand angle has been altered to the desired angle, grind or file a small amount of metal from the kickstand "up stop", located on the frame. This is the small area that the kickstand contacts when in the "up" position. This will allow the kickstand to tuck in cleanly and very close to the frame when in the "up" position, and lessen the likelihood of dragging in hard left turns.

Lowering the Front of your Vulcan

Why lower the front?? Don't mistake this to suggest that you must lower the front when you lower the rear, because you don't! The look of a bike with a lowered rear has intrigued riders ever since there have been motorcycles. However, there are other reasons for lowering the front end, and I'll attempt to explain them...

Maintaining the OEM (stock) geometry... The manufacturer designed your bike a certain amount of "rake" (the measurement of the angle of your front end with respect to the rest of the bike). Varying the rake changes the handling characteristics of your motorcycle. If you like the way it handled in it's stock condition, you may want to maintain the original geometry when lowering the rear of your bike, and lowering the front will allow you to do so.

Additionally reducing the overall height of the bike... Lowering only the rear of the rear of the bike will provide you with about 1/2 the reduction in rider height that lowering both front and rear can yield. If you have a problem with "flat-footing" your bike at stops, lowering the front will allow you to better reach the ground. Those who are "vertically challenged" benefit from this mod.

Reducing "trail" to reduce strength needed for slow maneuvers... "Trail" is a illusive term, that often gets tossed around incorrectly. If you draw an imaginary line straight down through the steering head pivot to the ground, then measure backwards to the point where the tire contacts the ground, you'll have a measurement of "trail". The smaller the trail, the lesser the amount of upper body strength that is required to handle the bike at low speeds and when stopped. Smaller riders absolutely benefit from a reduction in trail. The Vulcans come from the manufacturer set up a bit "nose high", that is, the front of the bike is actually a bit higher than the rear. While this looks great, it may not be the best thing for a smaller rider.

Lowering the center of gravity... This is another advantage welcomed by smaller riders, as well as riders with less upper body strength. The lower the center of gravity, the "lighter" the bike will feel to the rider at slow speeds and when stopped.

Having said all of this, it's now obvious why all of the items mentioned above are desirable to smaller riders. It allows for the "taming" of a larger and heavier bike than might be normally ridden by the smaller and/or vertically challenged rider. A good example is of LoRidr's bike at <http://www.2vulcans.net> , where a 5'2" 108 lb. female rider now rides a 565 lb. bike comfortably. Her bike has been lowered 4" in rear, and 5" in front. Lowering the front minimized trail while allowing enough ground clearance to easily operate it on any highway.

You're finished!

Now that you're finished, enjoy the lowered look and feel of your bike. While the kickstand and/or front lowering procedures may not be required in your application, Scootworks wanted to provide you with the best tools and information possible, to help insure the success of your project. In the event of any questions, feel free to email us at support@scootworks.com . I check this address daily, and will try to answer all questions as promptly as possible. - D. H.