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GL1800 AK-20 AXXION CARTRIDGE KIT INSTALLATION

We are pleased you that you have purchased our product. Your AK-20 Axxion Cartridge Kit is made of the finest materials available, and put through a rigorous manufacturing process to ensure optimum performance. If you have any questions about the installation, don't hesitate to call. If properly installed, our product will work exceptionally. If you are dissatisfied for any reason, let us know. We want you to be happy with our product.

READ THESE INSTRUCTIONS ENTIRELY BEFORE YOU GO ANY FURTHER!!!

These instructions assume you are willing to purchase proper tools, and do a professional quality job.

These instructions will only show you how to correctly do this job, without "shortcuts", and without home-rigged devices and improper tools.

YOU WILL NEED A HONDA GL1800 SERVICE MANUAL TO PROCEED!!!

WARNING: Always work in a well-lit area, use the proper tools, and wear safety glasses. In general, springs can be dangerous, and you should work with great caution and care.

NOTE: Before you remove the forks from the bike, loosen the upper triple clamp bolts, and then loosen the fork caps. Do not remove the caps, just loosen them. If one is stuck, place a socket on top of the fork, and whack it several times with a ball peen hammer. This should loosen the threads. Then remove the forks from the bike, per the Honda Service Manual.

You will need to have a 5" or larger bench vise mounted near the edge of a workbench. Clamp the fork in a bench vise, using a pair of aluminum jaws (**See Figure 1A**). Many hardware stores have aluminum vise jaws with a variety of clamping grooves that make this job easier (available from Traxxion Dynamics for \$15). Do not grab the fork near the top (you will pinch the cap and make it difficult to remove), nor in the area where the seal slides (**See Figure 1B**).

Disassembly is per Honda Service Manual.

Some helpful tips:

Remove the Left Fork Cap (anti-dive fork) slowly, as it can release with great force. Keep firm constant pressure on your ratchet or wrench, to prevent the fork cap from flying off and **potentially injuring you or causing unnecessary damage**.

There should be no danger from unscrewing the right fork cap (cartridge fork). Once you unscrew the fork cap from the fork tube, pull up on the cap to expose the jam nut. Loosen the jam nut at the base of the fork cap, and then unthread the cap.

After the fork caps have been removed, extract the stock washers, spacers and springs.

Remove the bottom bolts from each leg.

Remove the dust seals and oil seal retention clips.

“Slide Hammer” the tube and leg apart.

Perform SUBSET INSTRUCTIONS, “LEFT FORK TUBE MODIFICATIONS”.

Thoroughly clean and inspect all parts. Pay close attention to the Teflon on each fork bushing. The lower (or inner) fork bushings are almost always worn out. Especially if your GL1800 has 20,000 miles or more on the forks since the last rebuild. If you can see brass through the Teflon, you must replace the bushings to avoid damage to the lower fork leg.

Polish the fork tubes using a 400# emory cloth. Use the cloth as if you were shining a shoe. Roll the tube in 1/3 rotations to make sure tube is evenly polished.

Clean all parts using Next Dimension Brake Cleaner or Contact Cleaner. We recommend this brand only as it is like contact cleaner, not brake cleaner. It is also very inexpensive (\$3 a can). Expect to use two cans in this process.

Reassemble legs and tubes per the Honda Service Manual, making sure to use a high quality seal grease to reduce stiction. Fill the inner lip of the oil and dust seals with this grease. Traxxion Dynamics has a good product for this.

Install cartridge in right leg and tighten bolt BY HAND, USING NO LOCTITE, until it stops, and will not rotate any further using a hand ratchet. This will be obvious. DO NOT use an air tool, and DO NOT trust a torque spec. If the bolt will spin, the crush washer will leak. DO NOT OVERTIGHTEN. If the cartridge wants to spin, use the AK-20 Cartridge holding tool supplied with your kit (straight black box section tube).

Drop stainless steel “hat” into left fork, and look inside the fork. Jiggle the fork up and down, until the flat side of the hat lands UP, and then install the cartridge, following the instructions for the preceding paragraph.

Fill each fork with ½ quart of Maxima 125/150 Suspension Fluid.

Pump the chrome tube up and down to bleed air from in between the tube and leg. DO NOT pull up on the leg more than six inches (6”).

Bleed both cartridges thoroughly using a Fork Bleed Tool (available from Traxxion Dynamics \$10-20, **See Figure 3B**). Start by making one full up and down stroke, then move in short one inch strokes until you feel resistance start, and then make each stroke thereafter progressively longer, until you are again using full strokes. A well bled fork will have no “skips” in the stroke as you pull up on the cartridge rod (**See Figure 3C**).

Install the Metering Rod into the center of the cartridge rod.

Set the oil level with a fork oil level gauge (available from Traxxion Dynamics, **See Figure 3A**). You MUST set the oil by level, not by pouring in a pre-measured volume, or your bike will not work properly, and you will be wasting your time and money, and creating a DANGEROUS and UNSAFE motorcycle.

Oil level is measured from the top of the fork tube with the spring out, and all parts of the fork collapsed as far as possible (**See Figure 3D**).

Traxxion Recommended Oil Level for the GL1800 is 125mm.

Insert Black Washer into fork and drop on top of AK-20.

Insert Traxxion Springs into each tube.

Pull cartridge rod up using fork bleed tool, and place Lower Omni Washer on spring, and slide Omni Buffer onto rod. Place Upper Omni Washer onto Omni Buffer, and put aluminum spring spacer onto buffer.

Using Traxxion Fork Spring Compressor Kit, push down on spring. This will take a minute, so be ready.

Have a helper pull up on the bleed tool, remove the bleed tool, slip Traxxion Top Washer over cartridge rod, and then install new jam nut onto the rod, threading it all the way down.

Then have the helper slide the Fork Spring Hold Down Tool between the jam nut and the Top Washer.

Thread the fork cap all the way on the rod until you feel it GENTLY bottom out, and then DO NOT FORCE IT FURTHER.

Put a dot on the edge of the fork cap with a marker.

Back the cap off of the rod 1 1/2 turns.

Have your helper push down on the spring to take the tension off the nut. Thread the jam nut up to the cap, taking care to move ONLY the nut and NEVER the rod.

WARNING!!!! Failure to take great care to perform the preceding steps correctly can mean the motorcycle will have the incorrect amount of damping in the system, and the motorcycle will be UNSAFE, and can INJURE or KILL the operator!!!!

Tighten the jam nut to the fork cap. DO NOT OVERTIGHTEN THIS NUT!!! Firm pressure on the wrenches is all that is required. Do NOT use Loctite!

SEE DIAGRAM IF YOU DON'T UNDERSTAND THE LOCATION OF ALL PARTS!!!

Slide the fork tube up to the fork cap and thread the fork cap down into the tube. Be careful not to cross-thread the cap. Do not use any threadlocking agent. DO NOT OVERTIGHTEN THE FORK CAP!!! 6 ft/lbs of torque is all that is required (like a little tiny screw!!!).

Reassemble the bike per the Honda Service Manual.

Now, go have fun! We hope you enjoy your new suspension!