



## Installation Instructions Monotube Cartridge Fork Kit Honda GL1800

### ATTENTION

Statements in these instructions that are preceded by the following words are of special significance:

#### **Warning**

This means there is the possibility of injury to yourself or others.

#### **Caution**

This means there is the possibility of damage to the vehicle.

#### **Note**

*Information of particular importance has been placed in italics.*

### Lifetime Limited Warranty

Progressive Suspension warrants to the original purchaser this Part to be free of manufacturing defects in materials and workmanship with a Lifetime Limited Warranty. In the event warranty service is required, you must call Progressive Suspension immediately with a description of the problem.

If it is deemed necessary for Progressive Suspension to make an evaluation to determine whether the part is defective, a return authorization number will be given by Progressive Suspension. The parts must be packaged properly so as to not cause further damage and returned prepaid to Progressive Suspension with a copy of the original invoice of purchase and a detailed letter outlining the nature of the problem. If after the evaluation by Progressive Suspension the part was found to be defective it will be repaired or replaced at no cost to you. If we replace it, we may replace it with a reconditioned one of the same design.

Progressive Suspension shall not be held liable for any consequential or incidental expenses or damages resulting from the failure of a Progressive Suspension part. Progressive Suspension shall have no obligation if a part becomes defective as a result of improper installation or abuse.

#### **Warning**

Changing the chassis and/or suspension on any vehicle will change the handling characteristics of that vehicle. Care should be taken when operating the vehicle with such modifications while getting accustomed to the new handling characteristics.

### IMPORTANT NOTICE

**Caution:** Removing and replacing fork components must be performed by a qualified mechanic or according to steps outlined in a professional workshop manual that relates to your particular make, model and year motorcycle.

The vehicle must be securely blocked to prevent it from dropping when the forks are removed. Failure to do so can cause serious damage and/or injury.

Progressive Suspension Monotube Cartridge Fork Kits are designed to work with the OEM (Original Equipment) forks. Use of this product on any forks other than OEM may produce an unsatisfactory ride and void the warranty.

## Installation

- Read all the instructions carefully before installing this kit on your motorcycle. Use your factory authorized manual as a reference while installing this kit. Special tools (such as 45mm fork-seal driver) may be required.
- Support and lift the motorcycle securely so the front wheel is off the ground. The lift point should be toward the front of the engine.
- Remove forks according to instructions contained in your factory authorized shop manual.

#### **Warning**

*For maximum performance we highly recommend that the forks be disassembled, thoroughly cleaned, and inspected. When installing Progressive Suspension Monotube Cartridge fork kit, only a small amount (330cc left fork, 265cc right) of Honda SS8 fork oil is required in the forks for lubricating the internal moving parts - the cartridge dampers are sealed. Changing the volume or viscosity of the oil is not recommended and could cause damage and/or loss of control.*

- The Progressive Suspension Monotube cartridge fork kit is a direct replacement of your stock internal fork components. You will however be re-using the stock bottoming-cone in the right fork, as well as the piston rings, wire rings and check-valve components from the anti-dive system in the left fork.

#### **Caution**

While the installation of this Monotube Cartridge fork kit will not change the compressed length of the front forks, we have found that some bikes may not have adequate clearance between the fender, fairing and / or accessories. So we recommend with the fork springs removed from both forks, re-install the forks, fender, wheel and anything else you may have removed and lift the front forks, or lower the bike to completely compress the front forks. With the forks fully compressed, check for adequate clearance between the tire, fender, fairing, crash bar, accessories, etc. while turning left to right - lock to lock. You must correct any clearance issues prior to installing this kit to avoid vehicle damage and / or vehicle control problems.

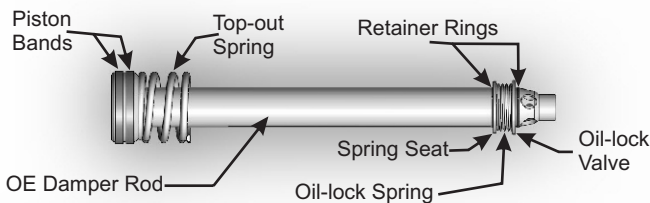
- After removing both forks, start with the left non-cartridge fork and remove the fork cap, then remove the spacer, washer, & fork spring.

**Warning**

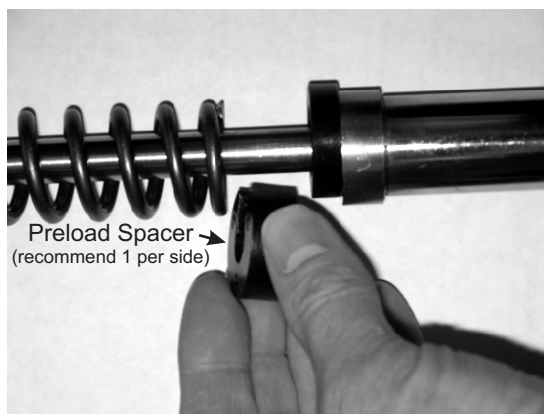
**CAUTION The fork cap is under spring pressure and care must be taken as it is removed to avoid injury!** Keep downward pressure on the cap as you unscrew the final threads, this will minimize the spring "jump" that will occur as soon as the cap is fully un-threaded

**BE CAREFUL!**

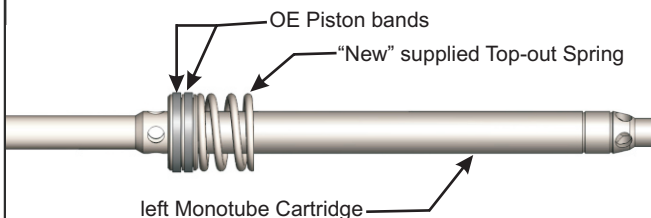
- Drain the fork oil, and completely disassemble the left fork per a factory authorized shop manual. Remove the bottom fork center bolt and sealing washer. If the damper rod spins, temporarily re-install the spring, spacer, & cap and then try again.
- Then remove the dust-seal, and fork stopper snap-ring. Slide the inner fork tube out of the lower slider.
- Carefully remove the two retainer rings, oil-lock valve, oil-lock spring, and spring seat from the protruding portion of the damper rod and set them aside - you will be re-using them. Now you can remove the damper rod & top-out spring from the fork. Carefully remove the two piston bands from the top of the damper rod as you will be re-using them as well.



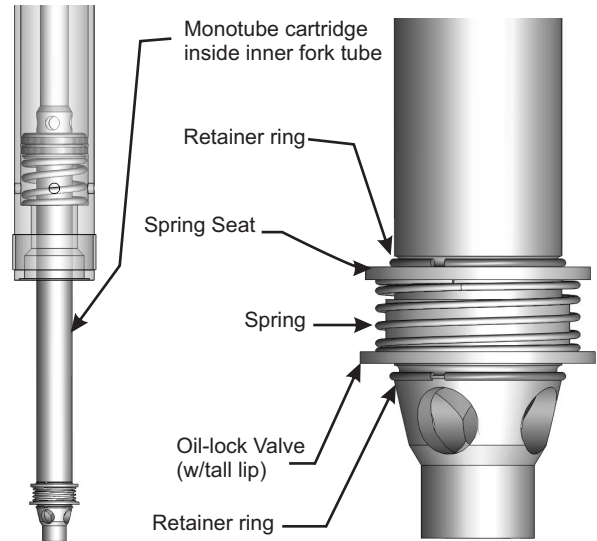
- Put one of the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat. Do this on both Monotube assemblies.



- Now put the damper-rod piston-bands (removed from the OE damper rod earlier) and one of the supplied top-out springs onto the left Monotube assembly as illustrated. Align piston-band gaps 180 degrees from each other. NOTE: the left Monotube assembly is the one that looks similar to the stock damper-rod on the end (see illustration below).



- Slide the left Monotube assembly into the fork tube, and install the oil-lock retainer ring, spring seat, spring, oil-lock valve, and the other oil-lock retainer ring (all removed earlier from the stock damper-rod) onto the end of the Monotube assembly protruding out the fork tube. It has to be assembled in that order - the same order it was on the stock damper-rod - as illustrated.



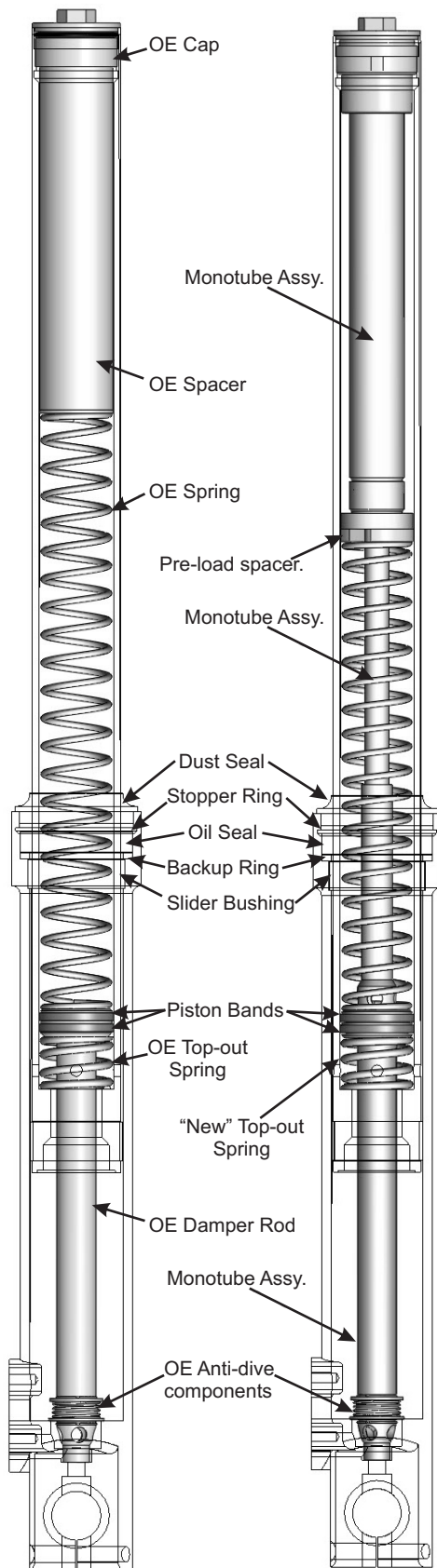
- Slide the left inner fork assembly back into the left outer slider until the Monotube assembly is seated in the bottom of it, then put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it (along with the sealing washer), tightening it up into the Progressive Suspension Monotube cartridge. Torque the bolt to the factory recommended specification of 20 N-m (14ft. lbs.).
- Using a 45mm Fork Seal driving tool drive the slider guide bushing back into the slider, followed by the back-up ring. Then drive the oil-seal back into the fork slider until the stopper-ring groove is visible. Remove the tool and re-install the stopper snap-ring, as well as the dust seal.
- Secure the fork assembly so you can fill it with fluid. This requires stroking the assembly to draw fluid from the inner fork tube in to the outer fork slider.

**Warning**

**DO NOT USE MORE THAN 330cc OF FORK OIL IN THE LEFT FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING THE LEFT FORK WITH MORE THAN 330cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.**

- Pour 330cc of Honda SS8 fluid in the LEFT fork, pausing to stroke the assembly to get the fluid into the outer fork slider. Failure to do this will cause the required amount of fluid to overflow. This fluid is to lubricate moving parts and to assure proper function of the stock anti-dive system.
- Once the proper amount of fluid is in the fork assembly, slide the inner fork tube up and install the supplied fork cap. Torque the cap to the factory recommended specification of 23N-m (17ft. lbs.)

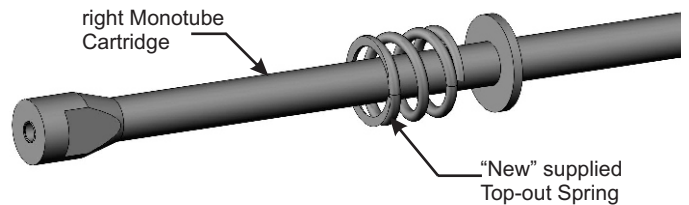
Below is an illustration of "before" and "after" basic assembly of the left fork.



LEFT fork - BEFORE

LEFT fork - AFTER

- Installation of the Progressive Suspension Monotube kit in the right fork requires less disassembly of the right fork. There's no need to separate the inner fork tube and outer slider, thus no need for fork-seal removal and re-installation.
- Loosen the right fork cap from the inner fork tube and separate the two components. Before sliding the inner fork tube down too far, tilt the right fork assembly over and pour out as much of the fork oil as possible.
- Since you're replacing the entire stock cap, spacer, spring, and cartridge assembly there's no need to disassemble these components. Once you've drained as much oil as possible, slide the inner fork tube all the way down and while keeping it there remove the bottom fork center bolt.
- Keeping the inner fork tube completely compressed (to hold the bottoming cup in place), slide the stock cap, spacer, spring, and cartridge (including the stock top-out spring) out as a unit. Allow any remaining oil to drain as well.
- Prepare the right Monotube cartridge assembly by putting one of the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat as illustrated on page 2 (if you haven't already), then slide one of the supplied top-out springs over the bottom to the Monotube cartridge assembly as illustrated below.



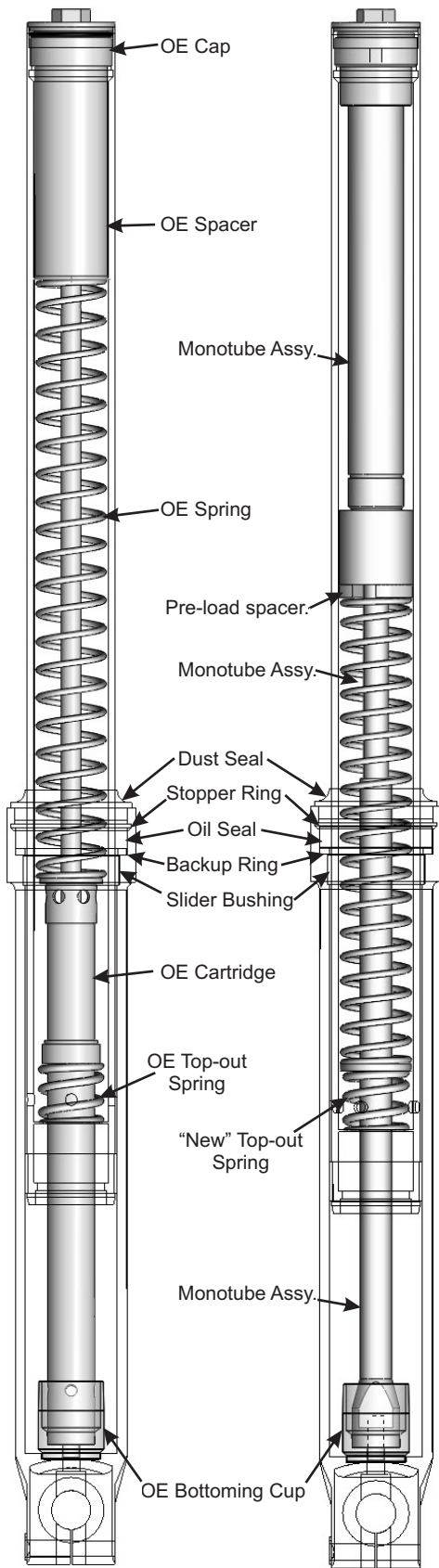
- Guide the right Monotube cartridge assembly into the still compressed stock right fork assembly, seating the bottom of the Monotube cartridge assembly in the bottoming cup in the stock fork assembly. Put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it (along with the sealing washer), tightening it up into the Progressive Suspension Monotube cartridge. Torque the bolt to the factory recommended specification of 20 N-m (14ft. lbs.).
- Secure the fork assembly so you can fill it with fluid. This requires stroking the assembly to draw fluid from the inner fork tube in to the outer fork slider.

**Warning**

**DO NOT USE MORE THAN 265cc OF FORK OIL IN THE RIGHT FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING THE RIGHT FORK WITH MORE THAN 265cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.**

- Pour 265cc of Honda SS8 fluid in the RIGHT fork, pausing to stroke the inner fork tube to get the fluid into the outer fork slider. Failure to do this will cause the required amount of fluid to overflow. This fluid is to lubricate moving parts only. Changing the volume or viscosity is not recommended and may result in poor performance, damage, and/or loss of control.
- Once the proper amount of fluid is in the fork assembly, slide the inner fork tube up and install the supplied fork cap. Torque the cap to the factory recommended specification of 23N-m (17ft. lbs.).
- Reinstall the forks and all other components on the motorcycle per your factory authorized manual being sure to double check all fasteners for proper torque per said manual.

Below is an illustration of "before" and "after" basic assembly of the right fork.



RIGHT fork - BEFORE

RIGHT fork - AFTER

Pre-load fine tuning: Though we feel the recommended single preload spacer on each cartridge assembly should be optimum in most cases, preload can be decreased to lower the ride height and soften the ride or increased to raise the ride height and stiffen the ride by adding or subtracting the supplied preload spacers.

**Warning**

DO NOT INSTALL MORE THAN TWO PRELOAD SPACER PER MONOTUBE CARTRIDGE. THIS COULD RESULT IN THE FORK SPRING GOING SOLID, CAUSING DAMAGE AND/OR LOSS OF CONTROL.

- Technical info: Our technical staff will assist you if you have any problems or questions. Call (714) 523-8700 from 8 am to 4 PM Pacific time.
- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.