

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.

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 2002-2005 FLHT/FLT models are equipped with a damper-rod type fork on right side and a cartridge fork on the left side. The components included in this kit have been designed to replace both the damper-rod right fork, and the cartridge left fork OE components to deliver optimum performance.

This kit is designed to lower a standard FLH/FLT fork either 1" inch or 2" inches. Some models, such as SE or CVO models, have a 1" inch shorter fork from the factory – for these models the installation of the 1" inch configuration would maintain the original height and the 2" inch configuration would only lower the fork 1" inch from it's original length.

The vehicle must be securely blocked to prevent it from dropping or tipping 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.
- Support and lift the motorcycle securely so the front wheel is off the ground. The balance point is 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 (5oz.) of 20WT or Type H-D fork oil is required in each fork 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. However the procedure on the left fork (stock cartridge) for the 02-05 FLHT/FLT varies from the damper rod type forks. If installing this kit on one of these models, note the variance in the following steps.

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. You must correct any clearance issues prior to installing this kit to avoid vehicle damage and / or vehicle control problems.

Damper Rod Forks (including 02-05 FLHT/FLT right fork)

- After removing both forks, start with one of the forks and remove the fork cap, then remove the 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 then with the fork completely compressed remove the damper rod & top-out spring by removing the bolt in the bottom of the fork. Keep the fork assembly fully compressed at this point to keep the stock bottoming cup properly located.

Caution

DO NOT INSTALL THE SUPPLIED BOTTOMING CUP IN THE DAMPER ROD FORK, AS IT IS INTENDED FOR USE IN THE STOCK LEFT CARTRIDGE FORK ONLY.

■ Lowering 1" inch or 2" inches?...

- * - If lowering the fork 1" inch, install one of the **long** top-out springs on each Progressive Suspension Monotube cartridge assembly as shown (see figure 1) AND three of the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat (see figure 2). Go to next step.
- * - If lowering the fork 2" inches, install one **long** top-out spring AND one **short** top-out spring on each Progressive Suspension Monotube cartridge assembly as shown (see figure 1) – and install NO preload spacers. Go to next step.

- After installing the proper combination of supplied top out spring(s) & spacers onto the Progressive Suspension Monotube cartridge assembly, insert it into the fork assembly as shown (see figure 3).
- Put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it, tightening it up into the Progressive Suspension Monotube cartridge. Torque the bolt to the factory recommended specification of 11-18 ft. lbs.
- Repeat the process on the other fork and proceed to "Both Forks" section of instructions - unless you're installing this kit on a 02-05 FLHT/FLT, then proceed to next step for left fork.

Cartridge Fork (02-05 FLHT/FLT left side only)

- Loosen the fork cap and slide the inner fork tube down far enough to be able to pour the fluid out of fork and drain the fork.
- Remove the bolt in the bottom of the fork and remove the stock cartridge, fork spring, and fork cap as an assembly.

- Remove the fork seal retaining clip then carefully remove the fork seal by sliding the inner fork tube out of the outer slider with a light tapping motion. Remove the stock bottoming cup from the outer slider. Inspect fork bushings and seal, replacing them if needed.

- Reinstall the supplied bottoming cup (with the cup facing up) into the outer fork slider and carefully insert the inner fork tube back into the outer slider. Maintain the orientation of the bottoming cup while doing this - the bottoming cup must seat in the outer slider as the stock cup did. Once seated, keep the assembly compressed to maintain it's position during assembly. Per you factory authorized manual reinstall the fork seal using a proper fork seal driver tool, and then reinstall the fork seal retaining clip.

■ Lowering 1" inch or 2" inches?...

- * - If lowering the fork 1" inch, install one of the **long** top-out springs on the Progressive Suspension Monotube cartridge assembly as shown (see figure 1) AND three of the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat (see figure 2). Go to next step.
- * - If lowering the fork 2" inches, install one **long** top-out spring AND one **short** top-out spring on the Progressive Suspension Monotube cartridge assembly as shown (see figure 1) – and install NO preload spacers. Go to next step.

- After installing the proper combination of supplied top out spring(s) & spacers onto the Progressive Suspension Monotube cartridge assembly, insert it into the fork assembly as shown (see figure 3). Be sure the newly installed bottoming cup receives the new cartridge assembly.

- Once you are certain the new bottoming cup is centered and seated, put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it, tightening it up into the Progressive Suspension Monotube cartridge. Torque the bolt to the factory recommended specification of 11-18 ft. lbs.

- Proceed to "Both Forks" section of instructions to complete installation.

Both Forks (stock damper-rod type & cartridge)

- Secure the fork assembly so you can fill it with fluid. This may require stroking the assembly to draw fluid from the inner fork tube in to the outer fork slider.

Warning

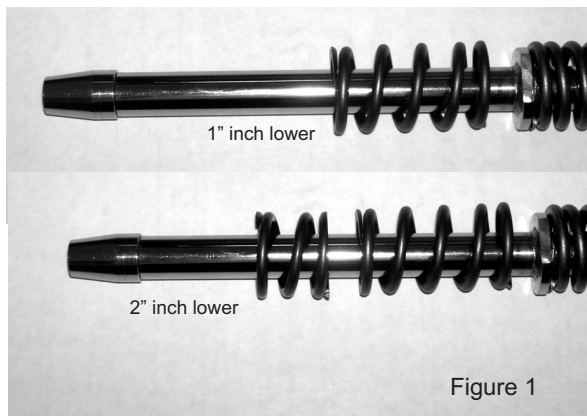
DO NOT USE MORE THAN 5 FLUID OUNCES OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 5 FLUID OUNCES OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

- Pour 5 ounces of 20WT or Type H-D fluid in each 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 (see figure 4). This fluid is just to lubricate moving parts and has no effect on the actual damping action of the sealed Monotube cartridge fork insert.
- 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 the factory recommended specification of 50-60 ft. 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.
- Pre-load fine tuning: Spacer length can be decreased to lower the ride height and soften the ride or increased to raise the ride height and

stiffen the ride. Adjust in 1/4" increments.

- To compliment your suspension, we recommend installing a pair of our 412 Series Gas Shocks, 430 shocks, 440 Series IAS Shocks or 812 Series Gas Shocks.
- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.

Illustrations



Bottoming Cup



**DO NOT INSTALL THE SUPPLIED
BOTTOMING CUP IN THE DAMPER ROD
FORK, AS IT IS INTENDED FOR USE IN THE
STOCK LEFT CARTRIDGE FORK ONLY ON
02-05 FLH/FLT MODELS.**

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.

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 or tipping when the fork springs 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.
- Support and lift the motorcycle securely so the front wheel is off the ground. The balance point is 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 (5oz.) of 10wt. fork oil is required in each fork 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.

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 one of the forks and remove the fork cap, then remove the 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 then with the fork completely compressed remove the damper rod & top-out spring by removing the bolt in the bottom of the fork. Keep the fork assembly fully compressed at this point to keep bottoming cup properly located.
- Put the stock top out spring onto the Progressive Suspension Monotube cartridge assembly as shown (see figure 1) AND one (1) of the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat (see figure 2). Then insert it into the fork assembly as shown (see figure 3).
- Put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it, tightening it up into the Progressive Suspension Monotube cartridge. Torque the bolt to the factory recommended specification of 11-18 ft. lbs.
- Secure the fork assembly so you can fill it with fluid. This may require stroking the assembly to draw fluid from the inner fork tube in to the outer fork slider.

Warning

DO NOT USE MORE THAN 5 FLUID OUNCES OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 5 FLUID OUNCES OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

- Pour 5 ounces of 10 wt. fluid in each 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 (see figure 4). This fluid is just to lubricate moving parts and has no effect on the actual damping action of the sealed Monotube cartridge fork insert.
- 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 the factory recommended specification of 50-60 ft. lbs.
- Repeat the process on other fork.
- 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.
- **Pre-load fine tuning:** Though we feel the recommendation above 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.
- To compliment your suspension, we recommend installing a pair of our 422 Series Softail Shocks, or better yet our AirTail System.
- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.

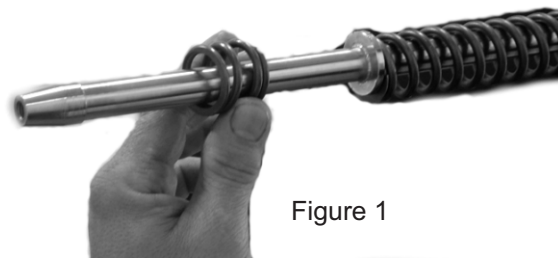


Figure 1

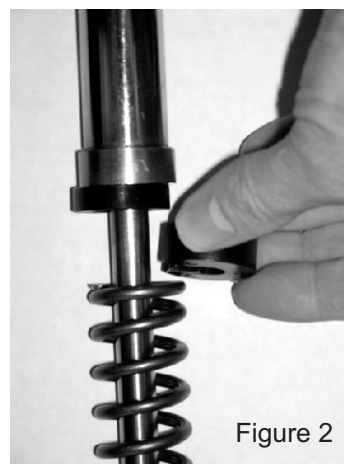


Figure 2

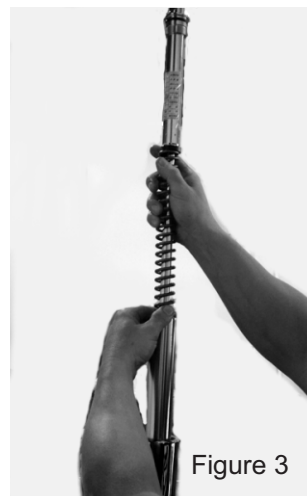


Figure 3



Figure 4

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.

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 or tipping 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.
- Support and lift the motorcycle securely so the front wheel is off the ground. The balance point is 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 (5oz.) of 10wt. fork oil is required in each fork 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 fork caps and internal fork components.

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. 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 one of the forks and remove the fork cap, then remove the 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 then with the fork completely compressed remove the damper rod & top-out spring by removing the bolt in the bottom of the fork. Keep the fork assembly fully compressed at this point to keep bottoming cup properly located.
- **Lowering 1" inch or 2" inches?...**
 - * - If lowering the fork 1" inch, install one of the **long** top-out springs on each Progressive Suspension Monotube cartridge assembly as shown (see figure 1) AND four (4) of the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat (see figure 2). Go to next step.
 - * - If lowering the fork 2" inches, install one **long** top-out spring AND one **Stock** top-out spring on each Progressive Suspension Monotube cartridge assembly as shown (see figure 1) – AND install two (2) of the supplied "C" shaped preload spacers. Go to next step.
- After installing the proper combination of supplied top out spring(s) & spacers onto the Progressive Suspension Monotube cartridge assembly, insert it into the fork assembly as shown (see figure 3).
- Put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it, tightening it up into the Progressive Suspension Monotube cartridge. Torque the bolt to the factory recommended specification of 11-18 ft. lbs.
- Repeat the process on the other fork and proceed to next step.
- Secure the fork assembly so you can fill it with fluid. This may require stroking the assembly to draw fluid from the inner fork tube in to the outer fork slider.

Warning

DO NOT USE MORE THAN 5 FLUID OUNCES OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 5 FLUID OUNCES OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

- Pour 5 ounces of 10 wt. fluid in each 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 (see figure 4). This fluid is just to lubricate moving parts and has no effect on the actual damping action of the sealed Monotube cartridge fork insert.
- 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 the factory recommended specification of 50-60 ft. 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.
- **Pre-load fine tuning:** Though we feel the recommendation above 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.

- To compliment your suspension, we recommend installing a pair of our 422 Series Softail Shocks, or better yet our AirTail System.
- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.

Illustrations

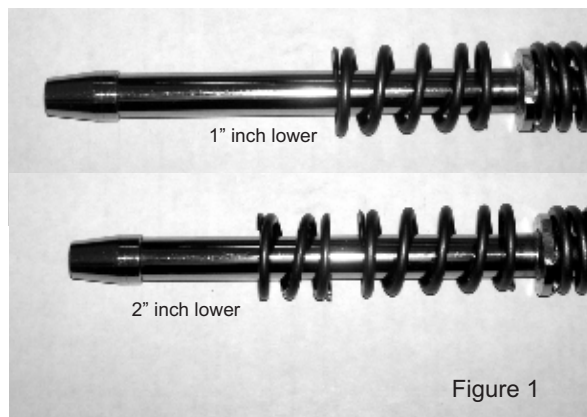


Figure 1

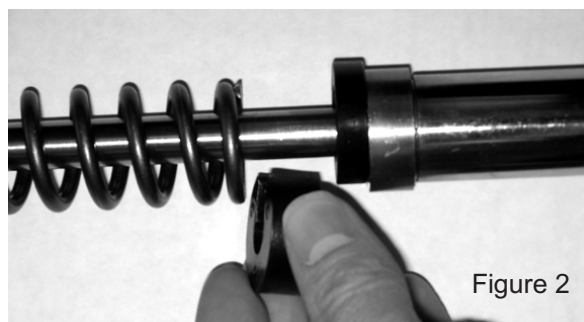


Figure 2

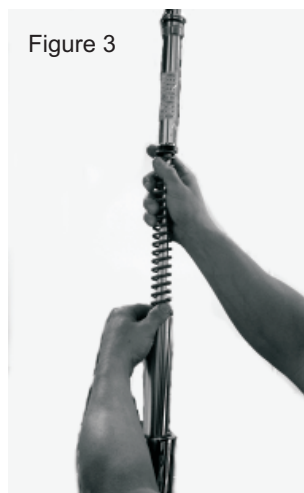


Figure 3



Figure 4

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.

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 or tipping when the fork springs 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.
- Support and lift the motorcycle securely so the front wheel is off the ground. The balance point is toward the front of the engine.
- Remove forks according to instructions contained in your factory authorized shop manual.
- Remove and discard air fork system.

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 (5oz.) of 10wt. fork oil is required in each fork 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 fork caps and internal fork components.

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 one of the forks and remove the fork cap, then remove the 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 then with the fork completely compressed remove the damper rod & top-out spring by removing the bolt in the bottom of the fork. Keep the fork assembly fully compressed at this point to keep bottoming cup properly located.
- Put the stock top-out spring onto the Progressive Suspension Monotube cartridge assembly as shown (see figure 1) AND one of the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat (see figure 2). Then insert it into the fork assembly as shown (see figure 3).
- Put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it, tightening it up into the Progressive Suspension Monotube cartridge. Torque the bolt to the factory recommended specification of 11-18 ft. lbs.
- Repeat the process on the other fork and proceed to next step.
- Secure the fork assembly so you can fill it with fluid. This may require stroking the assembly to draw fluid from the inner fork tube in to the outer fork slider.

Warning

DO NOT USE MORE THAN 5 FLUID OUNCES OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 5 FLUID OUNCES OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

- Pour 5 ounces of 10 wt. fluid in each 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 (see figure 4). This fluid is just to lubricate moving parts and has no effect on the actual damping action of the sealed Monotube cartridge fork insert.
- 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 the factory recommended specification of 50-60 ft. 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.
- **Pre-load fine tuning:** Though we feel the recommendation above 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.
- To compliment your suspension, we recommend installing a pair of our 412 Series Gas Shocks, 430 shocks, 440 Series IAS Shocks or 812 Series Gas Shocks.
- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.

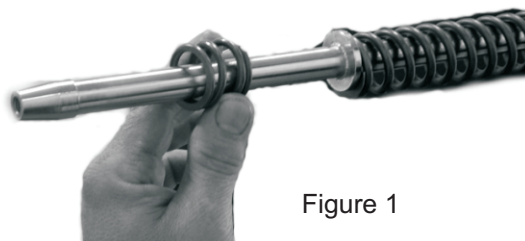


Figure 1

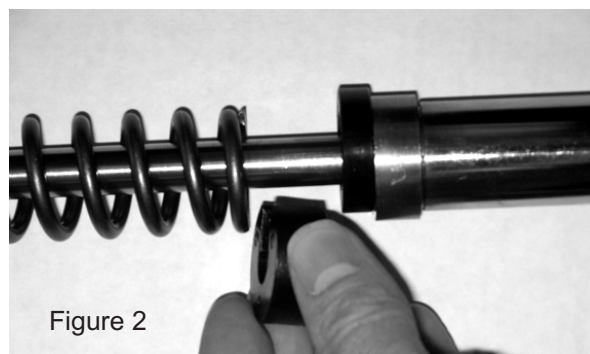


Figure 2

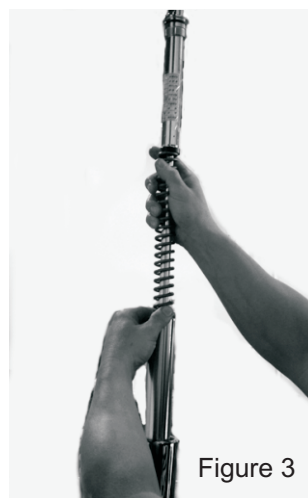


Figure 3



Figure 4



Installation Instructions Lowered Monotube Cartridge Fork Kit 84-96 Harley Davidson FLH/FLT

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.

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 or tipping 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.
- Support and lift the motorcycle securely so the front wheel is off the ground. The balance point is toward the front of the engine.
- Remove forks according to instructions contained in your factory authorized shop manual.
- Remove and discard air fork system.

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 (5oz.) of 10wt. fork oil is required in each fork 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 fork caps and internal fork components.

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. 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 one of the forks and remove the fork cap, then remove the 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 then with the fork completely compressed remove the damper rod & top-out spring by removing the bolt in the bottom of the fork. Keep the fork assembly fully compressed at this point to keep bottoming cup properly located.
- **Lowering 1" inch or 2" inches?...**
 - * - If lowering the fork 1" inch, install one of the **long** top-out springs on each Progressive Suspension Monotube cartridge assembly as shown (see figure 1) AND two of the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat (see figure 2). Go to next step.
 - * - If lowering the fork 2" inches, install one **long** top-out spring AND one **Stock** top-out spring on each Progressive Suspension Monotube cartridge assembly as shown (see figure 1) – and install NO preload spacers. Go to next step.
- After installing the proper combination of supplied top out spring(s) & spacers onto the Progressive Suspension Monotube cartridge assembly, insert it into the fork assembly as shown (see figure 3).
- Put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it, tightening it up into the Progressive Suspension Monotube cartridge. Torque the bolt to the factory recommended specification of 11-18 ft. lbs.
- Repeat the process on the other fork and proceed to next step.
- Secure the fork assembly so you can fill it with fluid. This may require stroking the assembly to draw fluid from the inner fork tube in to the outer fork slider.

Warning

DO NOT USE MORE THAN 5 FLUID OUNCES OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 5 FLUID OUNCES OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

- Pour 5 ounces of 10 wt. fluid in each 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 (see figure 4). This fluid is just to lubricate moving parts and has no effect on the actual damping action of the sealed Monotube cartridge fork insert.
- 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 the factory recommended specification of 50-60 ft. 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.

■ **Pre-load fine tuning:** Though we feel the recommendation above 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.

- To compliment your suspension, we recommend installing a pair of our 412 Series Gas Shocks, 430 shocks, 440 Series IAS Shocks or 812 Series Gas Shocks.
- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.

Illustrations

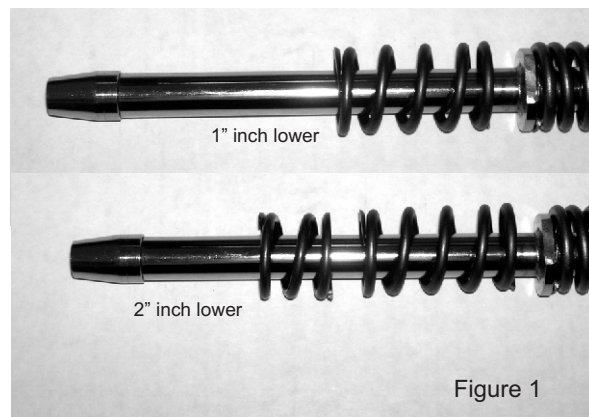


Figure 1

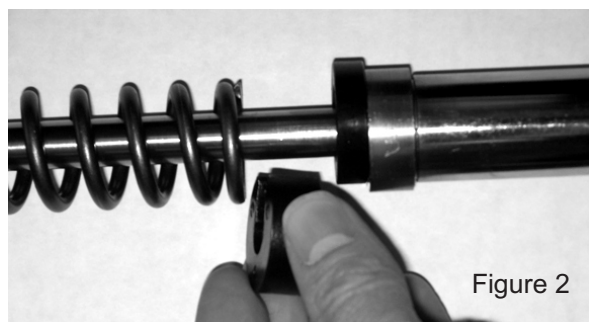


Figure 2



Figure 3



Figure 4

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.

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 & 200cc right, of Honda SS8 fork oil is required in the forks - **DO NOT USE MORE THAN 330cc IN THE LEFT FORK & 200cc IN THE RIGHT!** - 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.

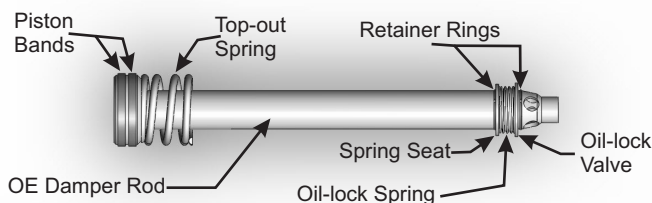
- After removing both forks, start with the left non-cartridge fork and remove the fork cap, then remove the spacer, washer, & fork spring.

Warning

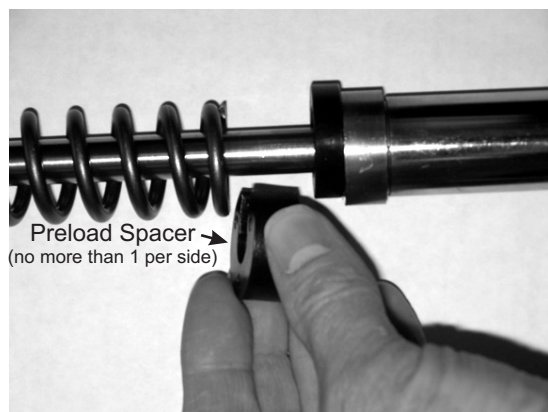
CAUTION The fork cap is under spring pressure and care must be taken as it is removed to avoid injury! Keep downward pressure on the cap as you unscrew the final threads, this will minimize the spring "jump" that will occur as soon as the cap is fully un-threaded

BE CAREFUL!

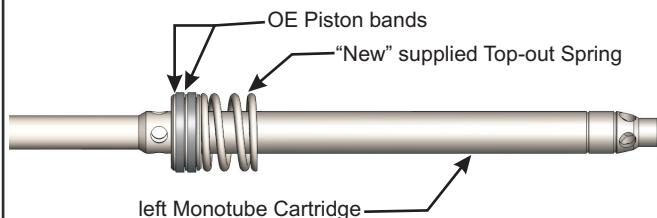
- Drain the fork oil, and completely disassemble the left fork per a factory authorized shop manual. Remove the bottom fork center bolt and sealing washer. If the damper rod spins, temporarily re-install the spring, spacer, & cap and then try again.
- Then remove the dust-seal, and fork stopper snap-ring. 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.



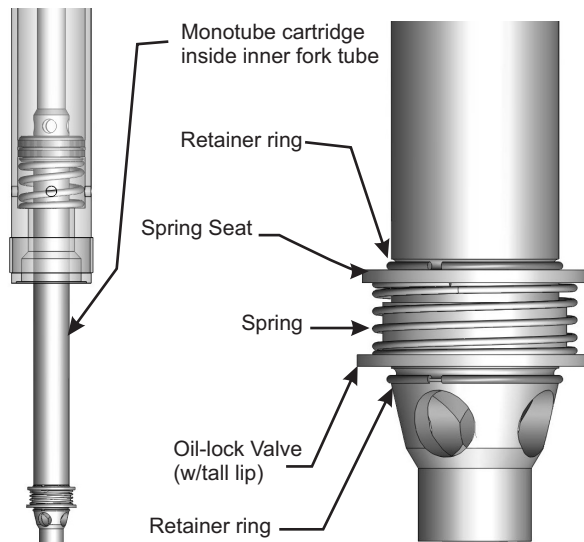
- Though we feel no extra preload spacers on each cartridge assembly is optimum in most cases, you may feel you need more preload. If so, **do not add more than one** of the supplied preload spacers to each fork.



- 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.



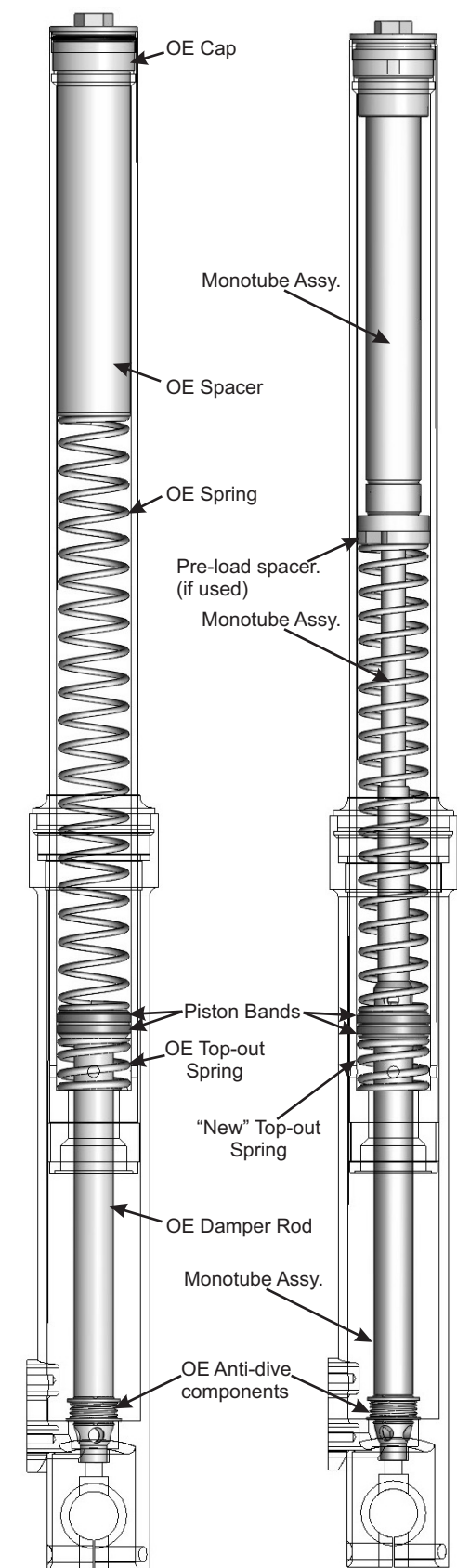
- Slide the left inner fork assembly back into the left outer slider until the Monotube assembly is seated in the bottom of it, then put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it (along with the sealing washer), tightening it up into the Progressive Suspension Monotube cartridge. Torque the bolt to the factory recommended specification of 20 N-m (14ft. lbs.).
- Using a 45mm Fork Seal driving tool reinstall the guide bushing, back-up rings, oil & dust seals, and snap-ring back into the slider in the same order they came out per your factory authorized manual.
- 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.)

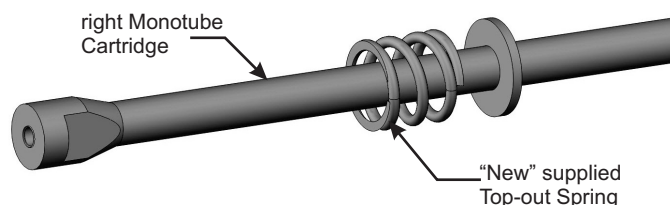
- Below is an illustration of "before" and "after" basic assembly of the left fork.



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 sliding one of the supplied top-out springs over the bottom to the Monotube cartridge assembly as illustrated below. If you feel you will need extra preload install **NO MORE THAN ONE** of the supplied as illustrated on page 2 (if you haven't already).



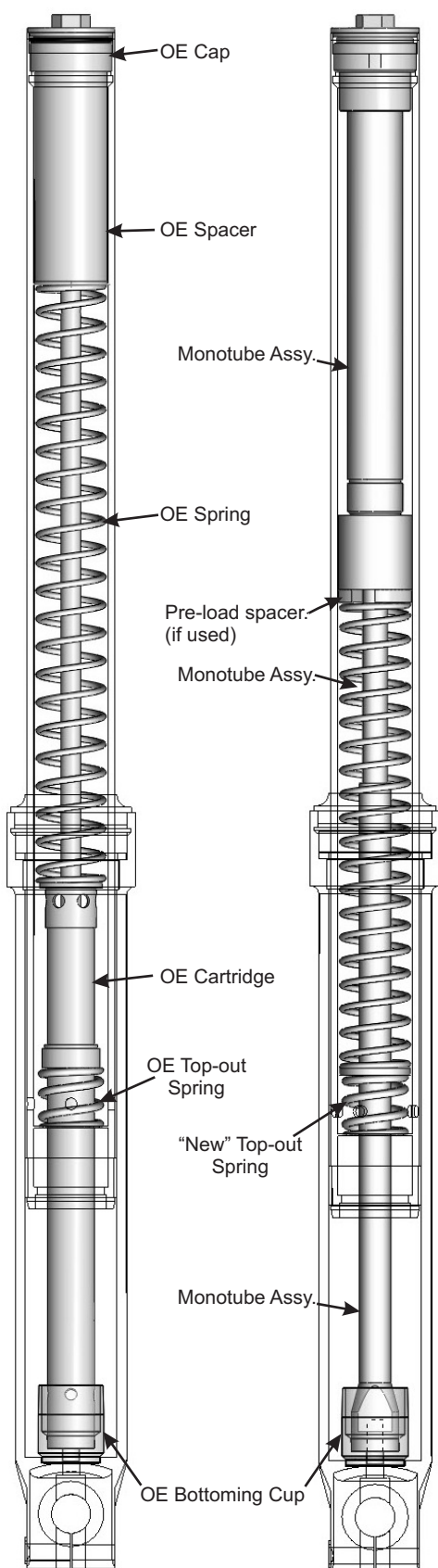
- Then Guide the right Monotube cartridge assembly into the still compressed stock right fork assembly, seating the bottom of the Monotube cartridge assembly in the bottoming cup in the stock fork assembly. Put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and 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 200cc OF FORK OIL IN THE RIGHT FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING THE RIGHT FORK WITH MORE THAN 200cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

- Pour 200cc 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 no extra preload spacers on each cartridge assembly is optimum in most cases, preload can be increased to raise the ride height and stiffen the ride by adding ONE of the supplied preload spacers to each of the cartridge assemblies.

Warning

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

- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.

Installation Instructions Monotube Cartridge Fork Kit Harley Davidson Tri-Glide

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.

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.

Note: This kit is designed to lower the front ride height approximately .80" (20mm) from stock to achieve optimum ride sag and front end cornering grip.

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.
- 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 (6oz.) of 10wt. fork oil is required in each fork 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 top-out springs and the stock bottoming-cones.

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.

Caution

- After removing both forks, start with one of the forks and remove the fork cap, then remove the 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 then with the fork completely compressed remove the damper rod & top-out spring by removing the bolt in the bottom of the fork. Keep the fork assembly fully compressed at this point to keep bottoming cup properly located.
- Put the stock top out spring onto the Progressive Suspension Monotube cartridge assembly as shown (see figure 1) AND one of the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat (see figure 2). Then insert it into the fork assembly as shown (see figure 3).
- Put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it, tightening it up into the Progressive Suspension Monotube cartridge. Torque the bolt to the factory recommended specification of 11-18 ft. lbs.
- Repeat the process on the other fork and proceed to next step.
- Secure the fork assembly so you can fill it with fluid. This may require stroking the assembly to draw fluid from the inner fork tube in to the outer fork slider.

Warning

DO NOT USE MORE THAN 6 FLUID OUNCES OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 6 FLUID OUNCES OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

- Pour 6 ounces of 10 wt. fluid in each 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 (see figure 4). This fluid is just to lubricate moving parts and has no effect on the actual damping action of the sealed Monotube cartridge fork insert.
- 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 50-60 ft. 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.

- Pre-load fine tuning: Spacer length can be decreased to lower the ride height and soften the ride or increased to raise the ride height and stiffen the ride. Adjust in 1/4" increments. Note, this kit is designed to lower the front ride height approximately .80" (20mm) to achieve optimum ride sag (1.2"-1.6" inches) and front end cornering grip.

- To compliment your suspension, we recommend installing a pair of our 416 Series Air Shocks.
- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.

Stock Top-Out Spring

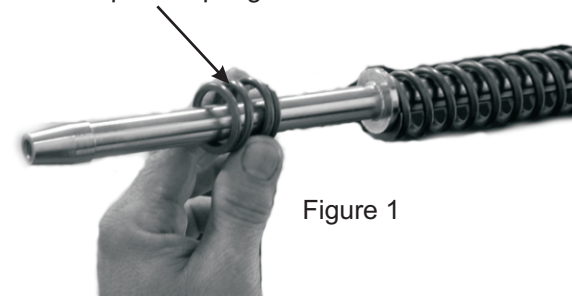


Figure 1

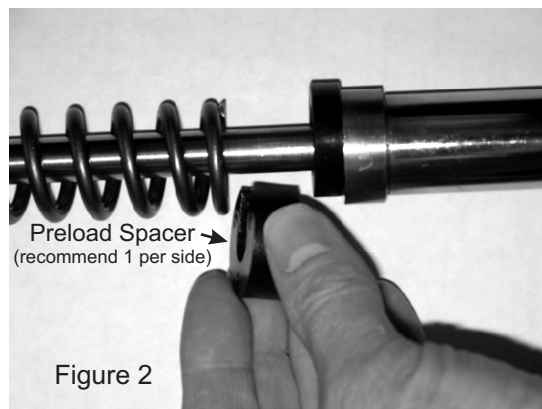


Figure 2



Figure 3



Figure 4



Installation Instructions Monotube Fork Kit

Harley Davidson Sportsters:

04-10 XL1200C, 04-09 XL1200R, 04-09 XL883,
04-10 XL883C, 06-Later* XL883R, 2007 "XL50", 12-Later* XL1200V

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.

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 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 shop manual as a reference while installing this kit.
- 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 Fork kit, only 123cc of 10wt fork oil is required in each of the forks for lubricating the internal moving parts - the Monotube 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 Fork kit is a direct replacement of your stock internal fork components and fork caps. You will however be re-using the stock bottoming-cones.

Caution

While the installation of this Monotube 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, lower triple-clamp 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, lower triple-clamp, 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.

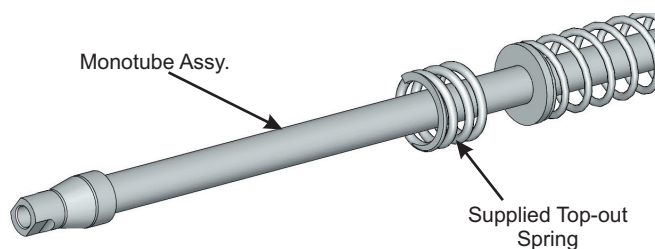
- After removing both forks, start with one of the forks and remove the fork cap, then remove the fork spring per your factory authorized shop manual.

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!

- **Replacing internals:** Drain the fork oil, and 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.
- While keeping the fork compressed (to hold the bottoming cup in place) remove the damper rod & top-out spring from the fork.
- Though there are preload spacers included with this kit, we recommend installing none. If you feel you may need more preload, see **Preload fine tuning** on page 3 before going to the next step.
- Now put one of the supplied top-out springs (which is shorter than the OE one) onto the Monotube assembly as illustrated.



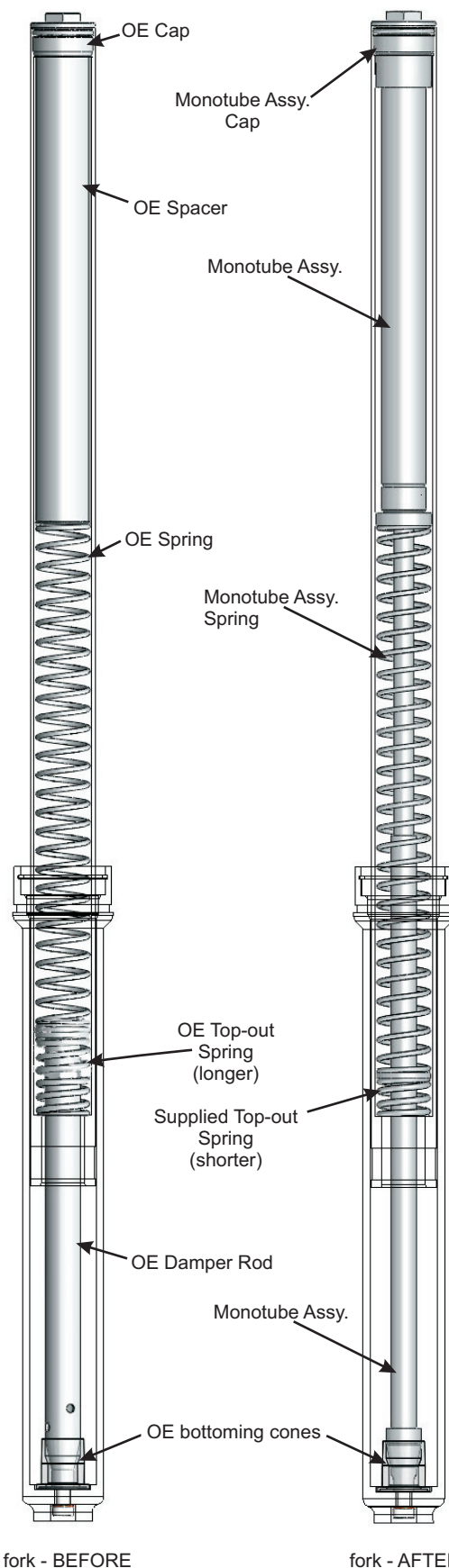
- Slide the Monotube assembly into the fork tube assembly, until the Monotube assembly is seated in the bottom of it, then put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it (along with the sealing washer), tightening it up into the Progressive Suspension Monotube assembly. Torque the bolt to the factory recommended specification of 30 N-m (22ft. lbs.).
- Filling the forks with fluid requires stroking the assembly to draw the fluid from the inner fork tube into the outer fork slider, so first secure the fork assembly so you can do this while filling it.

Warning

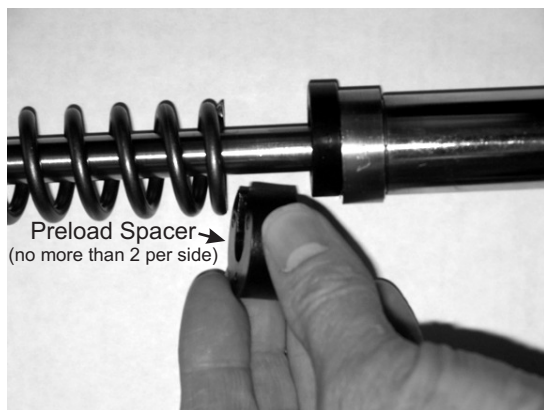
DO NOT USE MORE THAN 123cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING THE FORK LEG WITH MORE THAN 123cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

- Pour 123cc of 10wt fork fluid into each 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.
- 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 54N-m (40ft. lbs.).
- Repeat the last 9 steps on the other fork and then proceed to the next step.

- Below is an illustration of the "before" and "after" basic assembly of the forks.



- Reinstall the forks and all other components on the motorcycle per your factory authorized shop manual being sure to double check all fasteners for proper torque per said manual.
- Pre-load fine tuning: Though we feel recommending no preload spacers on each cartridge assembly should be optimum in most cases, preload can be increased to raise the ride height and stiffen the ride by adding up to 2 of the supplied preload spacers on each cartridge assembly. To increase preload simply put up to 2 of the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat on each Monotube Assembly as illustrated below.



Warning

DO NOT INSTALL MORE THAN TWO PRELOAD SPACERS PER MONOTUBE ASSEMBLY (EACH SIDE). DOING SO COULD RESULT IN THE FORK SPRING GOING SOLID, CAUSING DAMAGE AND/OR LOSS OF CONTROL.

- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.
- Compliment your Monotube Fork kit with a pair of 412, 430, 444, or 970 Series shocks.



PROGRESSIVE[®]
S U S P E N S I O N

Installation Instructions Monotube Fork Kit

Harley Davidson Sportsters:

05-06 XL883L, 11-Later* XL883L,
06-11 XL1200L, 12-Later* XL1200C

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.

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 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 shop manual as a reference while installing this kit.
- 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 Fork kit, only 123cc of 10wt fork oil is required in each of the forks for lubricating the internal moving parts - the Monotube 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 Fork kit is a direct replacement of your stock internal fork components and fork caps. You will however be re-using the stock bottoming-cones.

Caution

While the installation of this Monotube 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, lower triple-clamp 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, lower triple-clamp, 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.

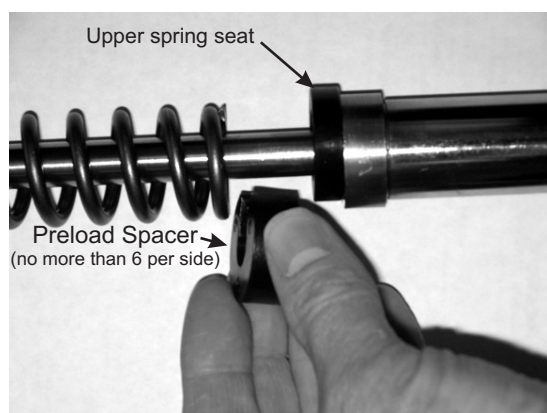
- After removing both forks, start with one of the forks and remove the fork cap, then remove the fork spring per your factory authorized shop manual.

Warning

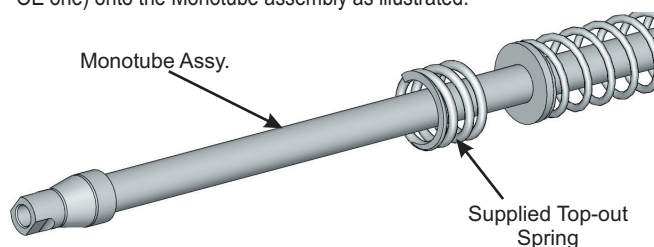
CAUTION The fork cap is under spring pressure and care must be taken as it is removed to avoid injury! Keep downward pressure on the cap as you unscrew the final threads, this will minimize the spring "jump" that will occur as soon as the cap is fully un-threaded

BE CAREFUL!

- **Replacing internals:** Drain the fork oil, and 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.
- While keeping the fork compressed (to hold the bottoming cup in place) remove the damper rod & top-out spring from the fork.
- Though there are 12 preload spacers included with this kit, we recommend installing 4 on each Monotube assembly. Put 4 of the supplied "C" shaped preload spacers between the top of the fork-spring and the upper spring seat on each Monotube Assembly as illustrated below. If you feel you may need more or less preload, see **Preload fine tuning** (to the right) before going to the next step.



- Now put one of the supplied top-out springs (which is shorter than the OE one) onto the Monotube assembly as illustrated.



- Slide the Monotube assembly into the fork tube assembly, 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 assembly. Torque the bolt to the factory recommended specification of 30 N-m (22ft. lbs.).
- Filling the forks with fluid requires stroking the assembly to draw the fluid from the inner fork tube into the outer fork slider, so first secure the fork assembly so you can do this while filling it.

Warning

DO NOT USE MORE THAN 123cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING THE FORK LEG WITH MORE THAN 123cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

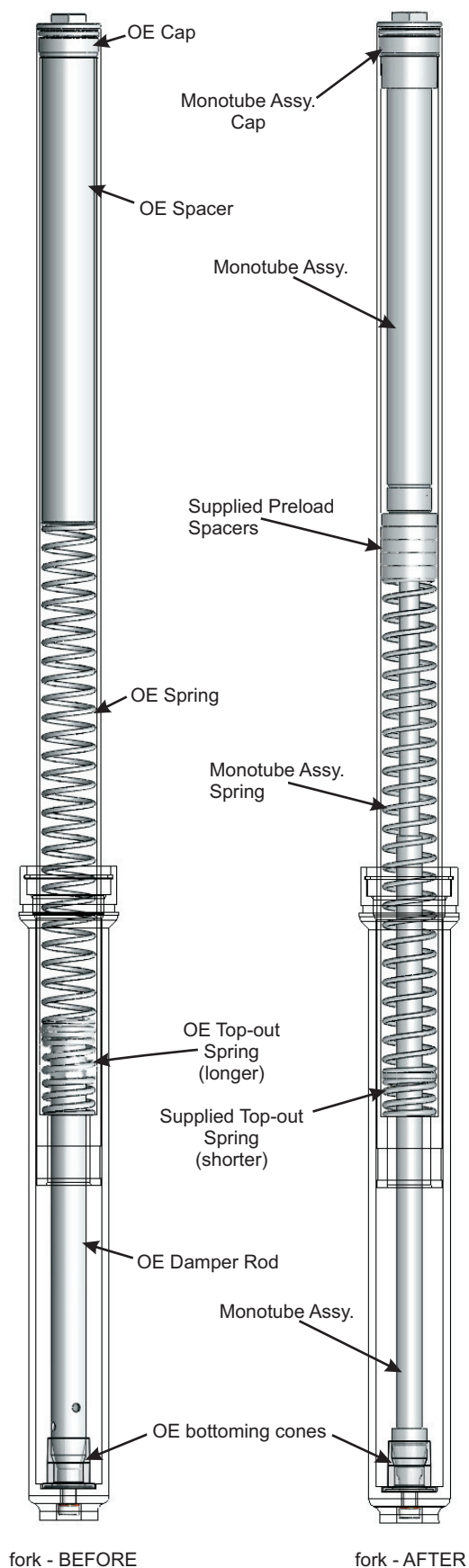
- Pour 123cc of 10wt fork fluid into each fork, pausing to stroke the assembly to get the fluid into the outer fork slider. Failure to do this will cause the required amount of fluid to overflow. This fluid is to lubricate moving parts and to assure proper function.
- Once the proper amount of fluid 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 54N-m (40ft. lbs.).
- Repeat the last 9 steps on the other fork and then proceed to the next step.
- Reinstall the forks and all other components on the motorcycle per your factory authorized shop manual being sure to double check all fasteners for proper torque per said manual.
- **Pre-load fine tuning:** Though we feel recommending 4 preload spacers on each cartridge assembly should be optimum in most cases, preload can be increased to raise the ride height and stiffen the ride by adding up to 2 more of the supplied preload spacers on each cartridge assembly. Conversely, preload can also be reduced to lower the ride height and soften the ride by removing up to 2 of the supplied preload spacers on each cartridge assembly - the recommend range thus being 2 to 6 spacers per side. To increase or reduce preload simply add or remove the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat on each Monotube Assembly as illustrated to the left.

Warning

DO NOT INSTALL MORE THAN SIX PRELOAD SPACERS PER MONOTUBE ASSEMBLY (EACH SIDE). DOING SO COULD RESULT IN THE FORK SPRING GOING SOLID, CAUSING DAMAGE AND/OR LOSS OF CONTROL.

- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.
- Compliment your Monotube Fork kit with a pair of 412, 430, 444, or 970 Series shocks.

■ To the right is an illustration of the “before” and “after” basic assembly of the forks.



(not to scale)

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.

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 installation of this kit will require a press or some other fork spring compression tool. If you do not possess such resources, take your bike and this kit to a competent mechanic to have it installed.

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 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 shop manual as a reference while installing this kit.
- 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.
- When removing or installing forks, do so 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 Fork kit, only 123cc of 10wt fork oil is required in each of the forks for lubricating the internal moving parts - the Monotube 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 Fork kit is a direct replacement of your stock internal fork components and fork caps. You will however be re-using the stock bottoming-cones.

Caution

While the installation of this Monotube 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, lower triple-clamp 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, lower triple-clamp, 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.

- Start by removing the front wheel, fender, brake caliper(s), and forks per your factory authorized shop manual.

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!

- **Removing and installing Fork Springs with high-preload:** As noted in the beginning of the instructions, the force required to compress the fork-spring and remove & reinstall the fork-cap in this kit requires a press as illustrated below, or other fork-spring compression tool. Even while using either a press or such tooling great care must be taken to avoid personal injury or damage to the fork, and if you are in any way uncertain about this portion of the procedure - stop here and take your forks to a competent mechanic to have the remainder of the kit installed.

To use a press, we recommend this procedure:

1. Loosen the fork-cap one full turn.
2. Position and secure fork assembly in press so as it can be compressed slightly and the inner fork-tube can be freely rotated – also be sure that the ram can move upward from that position 3.00" to 4.00" inches to allow the spring to extend once the cap is removed.

Warning

THE FORK ASSEMBLY MUST BE HELD IN ALIGNMENT WITH THE PRESS RAM AT ALL TIMES TO ENSURE SAFE SPRING EXPANSION/COMPRESSION WHEN THE FORK-CAP IS UN-THREADED FROM THE FORK-TUBE.

3. Compress the fork about .50" to 1.00" inch (figure 1).
4. Now, with the press holding the spring tension, you should be able to unscrew the fork-tube from the cap by hand (figure 2).
5. Once the fork-tube is completely un-threaded from the cap (figure3), carefully release pressure in the press allowing the fork-spring to safely extend fully (figure 4).

To install the Monotube assembly, simply reverse the preceding steps.

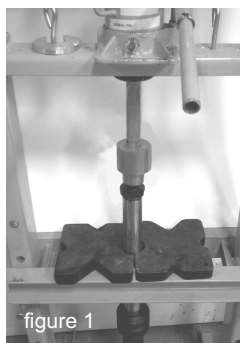


figure 1



figure 2

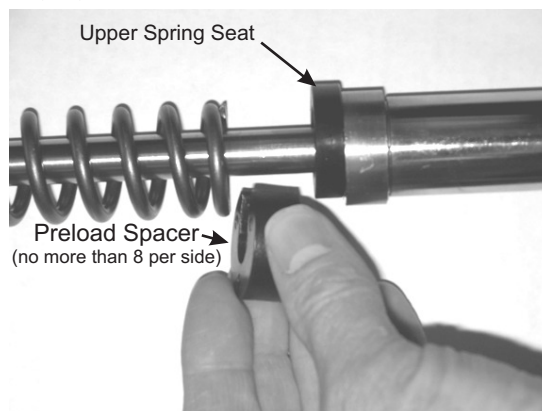


figure 3



figure 4

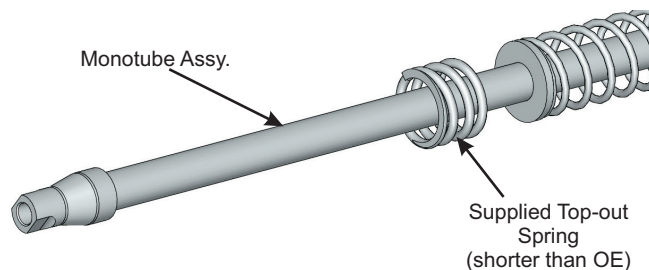
- **Replacing internals:** Drain the fork oil, and remove the bottom fork center bolt and sealing washer. If the damper rod spins, temporarily re-install the spring, spacer, & cap and then try again.
- While keeping the fork compressed (to hold the bottoming cup in place) remove the damper rod & top-out spring from the fork.
- Though there are 16 preload spacers included with this kit, we recommend installing 6 on each side. Put 6 of the supplied "C" shaped preload spacers between the top of the fork-spring and the upper spring seat on each Monotube Assembly as illustrated below. If you feel you may need more or less preload, see **Preload fine tuning** (on page 3) before going to the next step.



Warning

DO NOT INSTALL MORE THAN EIGHT PRELOAD SPACERS PER MONOTUBE ASSEMBLY (EACH SIDE). DOING SO COULD RESULT IN THE FORK SPRING GOING SOLID, CAUSING DAMAGE AND/OR LOSS OF CONTROL.

- Now put one of the supplied (shorter than stock) top-out springs onto the Monotube assembly as illustrated.



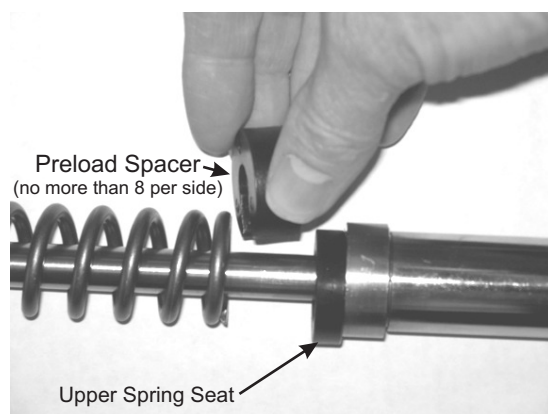
- Slide the Monotube assembly into the fork tube assembly, until the Monotube assembly is seated in the bottom of it, then put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it (along with the sealing washer), tightening it up into the Progressive Suspension Monotube assembly. Torque the bolt to the factory recommended specification of 30 N-m (22ft. lbs.).
- Filling the forks with fluid requires stroking the assembly to draw the fluid from the inner fork-tube into the outer fork slider, so first secure the fork assembly so you can do this while filling it.

Warning

DO NOT USE MORE THAN 123cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING THE A FORK LEG WITH MORE THAN 123cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

- Pour 123cc of 10wt fork fluid into each 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.

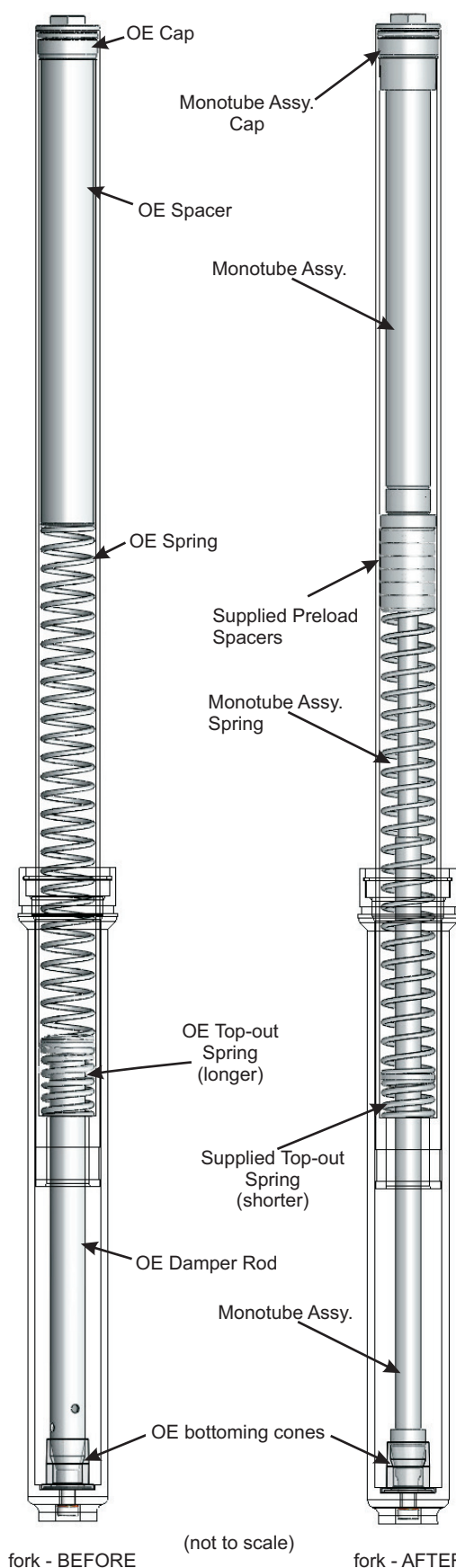
- Once the proper amount of fluid is in the fork assembly, slide the inner fork-tube up and install the supplied fork-cap (refer back to **"Removing and installing Fork Springs with high-preload"** section). Torque the cap to the factory recommended specification of 54N-m (40ft. lbs.).
- Repeat the last 9 steps on the other fork and then proceed to the next step.
- To the right is an illustration of "before" and "after" basic assembly of the forks.
- Reinstall the forks and all other components on the motorcycle per your factory authorized shop manual being sure to double check all fasteners for proper torque per said manual.
- **Pre-load fine tuning:** Though we feel recommending 6 preload spacers on each cartridge assembly should be optimum in most cases, preload can be increased to raise the ride height and stiffen the ride by adding up to 2 more of the supplied preload spacers on each cartridge assembly. Conversely, preload can also be reduced to lower the ride height and soften the ride by removing up to 2 of the supplied preload spacers on each cartridge assembly - the recommend range thus being 4 to 8 spacers per side. To increase or reduce preload simply add or remove the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat on each Monotube Assembly as illustrated to the below.



Warning

DO NOT INSTALL MORE THAN EIGHT (8) PRELOAD SPACERS PER MONOTUBE ASSEMBLY (EACH SIDE). DOING SO COULD RESULT IN THE FORK SPRING GOING SOLID, CAUSING DAMAGE AND/OR LOSS OF CONTROL.

- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.
- Compliment your Monotube Fork kit with a pair of 412, 430, 444, or 970 Series shocks.





PROGRESSIVE
S U S P E N S I O N

Installation Instructions 1" or 2" LOW Monotube Fork Kit

Harley Davidson Sportsters:

04-10 XL1200C, 04-09 XL1200R, 04-09 XL883,
04-10 XL883C, 06-Later* XL883R, 2007 "XL50", 12-Later* XL1200V

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.

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.

If lowering 2" inches, the installation of this kit will require a press or some other fork spring compression tool. If you do not possess such resources, take your bike and this kit to a competent mechanic to have it installed.

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 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 shop manual as a reference while installing this kit.
- 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.
- When removing or installing forks, do so 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 Fork kit, only a minimal amount (123cc for 1" low, 100cc for 2" low) of 10wt fork oil is required in each of the forks for lubricating the internal moving parts - the Monotube 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 Fork kit is a direct replacement of your stock internal fork components and fork caps. You will however be re-using the stock bottoming-cones & top-out springs.

Caution

While the installation of this Monotube 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, lower triple-clamp 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, lower triple-clamp, 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.

- Start by removing the front wheel, fender, brake caliper(s), forks, and ultimately the fork-caps and springs per your factory authorized shop manual.

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!

- **Removing and installing Fork Springs with high-preload:** As noted in the beginning of the instructions, when lowering 2" inches the force required to compress the fork-spring and reinstall the fork-cap in this kit requires a press as illustrated below, or other fork-spring compression tool. Even while using either a press or such tooling great care must be taken to avoid personal injury or damage to the fork, and if you are in any way uncertain about this portion of the procedure - stop here and take your forks to a competent mechanic to have the remainder of the kit installed.

To use a press, we recommend this procedure:

1. Loosen the fork-cap one full turn.
2. Position and secure fork assembly in press so as it can be compressed slightly and the inner fork-tube can be freely rotated – also be sure that the ram can move upward from that position 3.00" to 4.00" inches to allow the spring to extend once the cap is removed.

Warning

THE FORK ASSEMBLY MUST BE HELD IN ALIGNMENT WITH THE PRESS RAM AT ALL TIMES TO ENSURE SAFE SPRING EXPANSION/COMPRESSION WHEN THE FORK-CAP IS UN-THREADED FROM THE FORK-TUBE.

3. Compress the fork about .50" to 1.00" inch (figure 1).
4. Now, with the press holding the spring tension, you should be able to unscrew the fork-tube from the cap by hand (figure 2).
5. Once the fork-tube is completely un-threaded from the cap (figure 3), carefully release pressure in the press allowing the fork-spring to safely extend fully (figure 4).

To install the Monotube assembly, simply reverse the preceding steps.

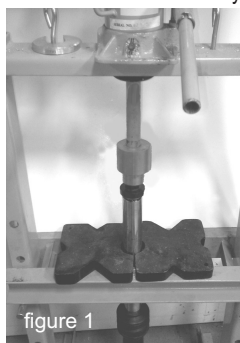


figure 1



figure 2

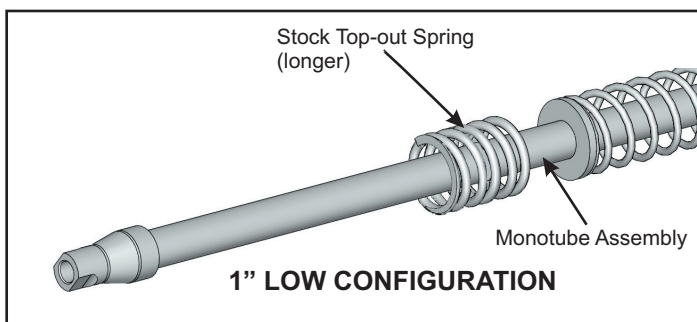


figure 3

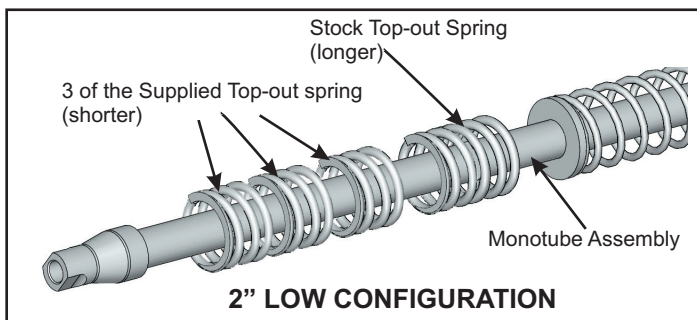


figure 4

- **Replacing internals:** Drain the fork oil, and 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.
- While keeping the fork compressed (to hold the bottoming cup in place) remove the damper rod & top-out spring from the fork.
- Though there are 4 preload spacers included with this kit, we recommend installing none on either side. If you feel you may need more preload, see **Preload fine tuning** (on page 3) before going to the next step.
- At this point you must decide whether to lower your forks approximately 1" or 2" inches. If you are lowering your forks 1" inch, then put **one of the stock** (longer) top-out spring onto each Monotube assembly as illustrated below.



- If you are lowering your forks approximately 2" inches then put **one of the stock** (longer) top-out springs **along with three (3) of the supplied** (shorter) top-out springs on each Monotube assembly as illustrated below.



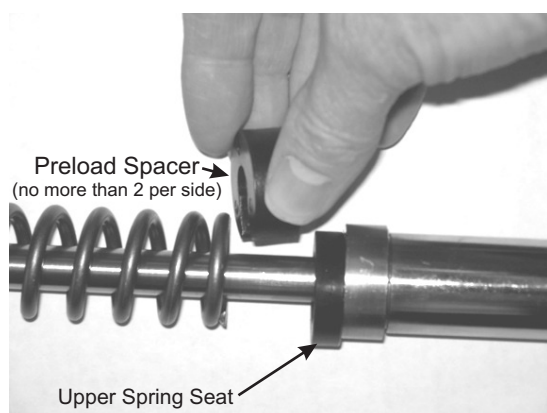
- Slide the Monotube assembly into the fork tube assembly, until the Monotube assembly is seated in the bottom of it, then put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it (along with the sealing washer), tightening it up into the Progressive Suspension Monotube assembly. Torque the bolt to the factory recommended specification of 30 N-m (22ft. lbs.).
- Filling the forks with fluid requires stroking the assembly to draw the fluid from the inner fork-tube into the outer fork slider, so first secure the fork assembly so you can do this while filling it.

Warning

DO NOT USE MORE THAN THE RECOMMENDED AMOUNT OF FORK OIL IN EACH FORK LEG (123cc FOR 1" LOW OR 100cc FOR 2" LOW) WITH THE INSTALLATION OF THIS KIT. FILLING THE A FORK LEG WITH MORE THAN THE RECOMMENDED AMOUNT OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

- Pour either 123cc for the 1" LOW configuration - or 100cc for the 2" LOW configuration - of 10wt fork fluid into each 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.

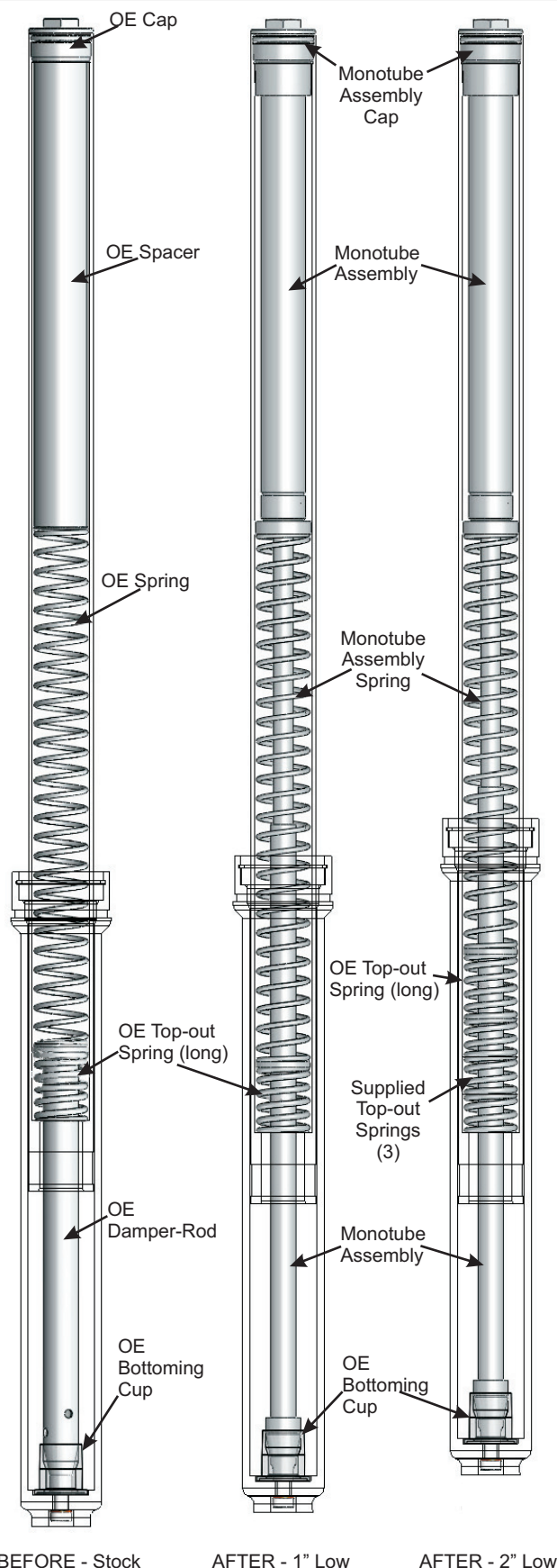
- Once the proper amount of fluid is in the fork assembly, slide the inner fork-tube up and install the supplied fork-cap (if installing 2" LOW configuration, refer back to **"Removing and installing Fork Springs with high-preload"** section). Torque the cap to the factory recommended specification of 54N-m (40ft. lbs.)
- To the right is an illustration of Stock, 1" Low, and 2" Low basic assembly configurations of the forks.
- Repeat the last 9 steps on the other fork (if you haven't already) and then proceed to the next step.
- Reinstall the forks and all other components on the motorcycle per your factory authorized shop manual being sure to double check all fasteners for proper torque per said manual.
- **Pre-load fine tuning:** Though we feel recommending no preload spacers on each cartridge assembly should be optimum in most cases, preload can be increased to raise the ride height and stiffen the ride by adding up to 2 of the supplied preload spacers on each cartridge assembly. To increase preload simply add the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat on each Monotube Assembly as illustrated below.



Warning

DO NOT INSTALL MORE THAN TWO (2) PRELOAD SPACERS PER MONOTUBE ASSEMBLY (EACH SIDE). DOING SO COULD RESULT IN THE FORK SPRING GOING SOLID, CAUSING DAMAGE AND/OR LOSS OF CONTROL.

- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.
- Compliment your Monotube Fork kit with a pair of 412, 430, 444, or 970 Series shocks.



(not to scale)



Installation Instructions 1" or 2" LOW Monotube Fork Kit Harley Davidson Sportsters: 05-06 XL883L, 11-Later* XL883L, 07-11 XL1200L, 12-Later* XL1200C

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.

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.

If lowering 2" inches, the installation of this kit will require a press or some other fork spring compression tool. If you do not possess such resources, take your bike and this kit to a competent mechanic to have it installed.

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 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 shop manual as a reference while installing this kit.
- 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.
- When removing or installing forks, do so 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 Fork kit, only a minimal amount (123cc for 1" low, 100cc for 2" low) of 10wt fork oil is required in each of the forks for lubricating the internal moving parts - the Monotube 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 Fork kit is a direct replacement of your stock internal fork components and fork caps. You will however be re-using the stock bottoming-cones & top-out springs.

Caution

While the installation of this Monotube 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, lower triple-clamp 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, lower triple-clamp, 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.

- Start by removing the front wheel, fender, brake caliper(s), forks, and ultimately the fork-caps and springs per your factory authorized shop manual.

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!

- **Removing and installing Fork Springs with high-preload:** As noted in the beginning of the instructions, when lowering 2" inches the force required to compress the fork-spring and reinstall the fork-cap in this kit requires a press as illustrated below, or other fork-spring compression tool. Even while using either a press or such tooling great care must be taken to avoid personal injury or damage to the fork, and if you are in any way uncertain about this portion of the procedure - stop here and take your forks to a competent mechanic to have the remainder of the kit installed.

To use a press, we recommend this procedure:

1. Loosen the fork-cap one full turn.
2. Position and secure fork assembly in press so as it can be compressed slightly and the inner fork-tube can be freely rotated – also be sure that the ram can move upward from that position 3.00" to 4.00" inches to allow the spring to extend once the cap is removed.

Warning

THE FORK ASSEMBLY MUST BE HELD IN ALIGNMENT WITH THE PRESS RAM AT ALL TIMES TO ENSURE SAFE SPRING EXPANSION/COMPRESSION WHEN THE FORK-CAP IS UN-THREADED FROM THE FORK-TUBE.

3. Compress the fork about .50" to 1.00" inch (figure 1).
4. Now, with the press holding the spring tension, you should be able to unscrew the fork-tube from the cap by hand (figure 2).
5. Once the fork-tube is completely un-threaded from the cap (figure 3), carefully release pressure in the press allowing the fork-spring to safely extend fully (figure 4).

To install the Monotube assembly, simply reverse the preceding steps.

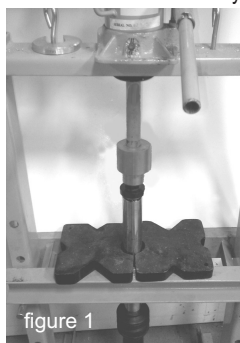


figure 1



figure 2



figure 3

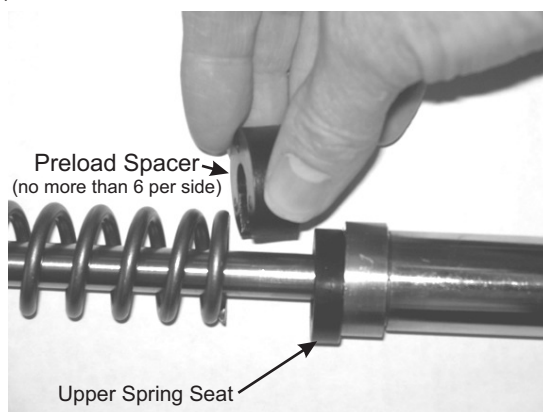


figure 4

- **Replacing internals:** Drain the fork oil, and 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.

- While keeping the fork compressed (to hold the bottoming cup in place) remove the damper rod & top-out spring from the fork.

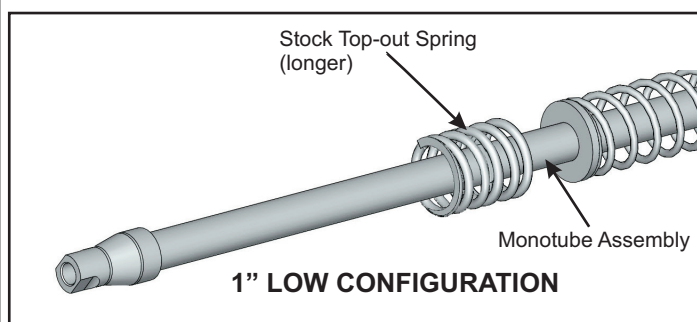
- At this point you must decide whether you're lowering your forks approximately 1" inch or 2" inches. Though there are a total of 12 preload spacers included with this kit, we recommend installing 3 on each side if you're lowering your forks 1" inch, and 4 spacers if you're lowering them 2" inches. Simply add the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat on each Monotube Assembly as illustrated below. If you feel you may need more or less preload, see **Preload fine tuning** (on page 3) before going to the next step.



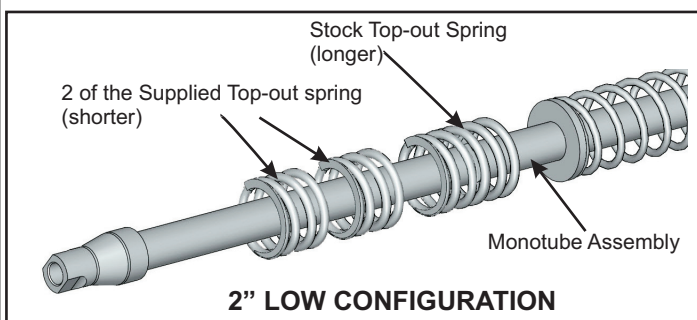
Warning

DO NOT INSTALL MORE THAN SIX (6) PRELOAD SPACERS PER MONOTUBE ASSEMBLY (EACH SIDE). DOING SO COULD RESULT IN THE FORK SPRING GOING SOLID, CAUSING DAMAGE AND/OR LOSS OF CONTROL.

- If you are lowering your forks **1" inch**, then put **one of the stock** (longer) top-out spring onto each Monotube assembly as illustrated below.



- If you are lowering your forks approximately **2" inches** then put **one of the stock** (longer) top-out springs **along with two (2) of the supplied** (shorter) top-out springs on each Monotube assembly as illustrated below.



- Slide the Monotube assembly into the fork tube assembly, 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 assembly. Torque the bolt to the factory recommended specification of 30 N-m (22ft. lbs.).

- Filling the forks with fluid requires stroking the assembly to draw the fluid from the inner fork-tube into the outer fork slider, so first secure the fork assembly so you can do this while filling it.

Warning

DO NOT USE MORE THAN THE RECOMMENDED AMOUNT OF FORK OIL IN EACH FORK LEG (123cc FOR 1" LOW OR 100cc FOR 2" LOW) WITH THE INSTALLATION OF THIS KIT. FILLING THE A FORK LEG WITH MORE THAN THE RECOMMENDED AMOUNT OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

- Pour either 123cc for the 1" LOW configuration - or 100cc for the 2" LOW configuration - of 10wt fork fluid into each 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.

- Once the proper amount of fluid is in the fork assembly, slide the inner fork-tube up and install the supplied fork-cap (if installing 2" LOW configuration, refer back to **"Removing and installing Fork Springs with high-preload"** section). Torque the cap to the factory recommended specification of 54N-m (40ft. lbs.).

- To the right is an illustration of Stock, 1" Low, and 2" Low basic assembly configurations of the forks.

- Repeat the last 9 steps on the other fork (if you haven't already) and then proceed to the next step.

- Reinstall the forks and all other components on the motorcycle per your factory authorized shop manual being sure to double check all fasteners for proper torque per said manual.

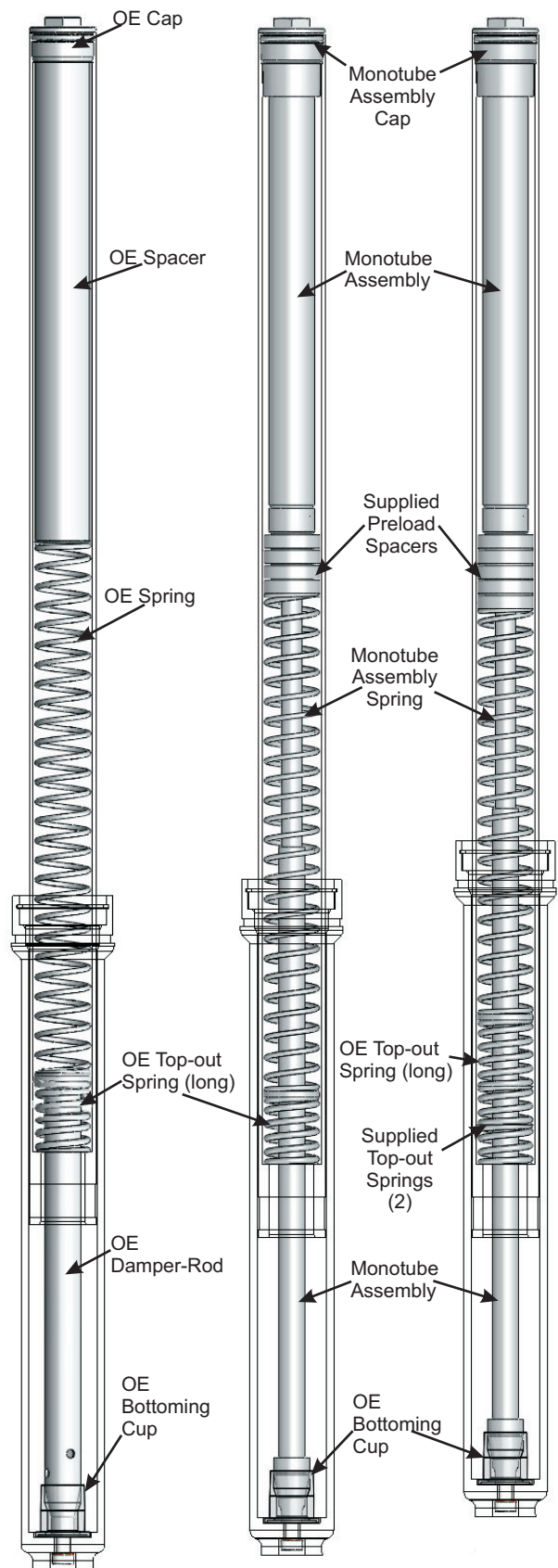
- Pre-load fine tuning:** Though we feel recommending 3 preload spacers for 1" low - and 4 spacers for 2" low - on each cartridge assembly should be optimum in most cases, preload can be increased to raise the ride height and stiffen the ride by adding up to 2 more of the supplied preload spacers on each cartridge assembly. Conversely, preload can also be reduced to lower the ride height and soften the ride by removing up to 2 of the supplied preload spacers on each cartridge assembly - the recommend range thus being 1 to 5 spacers for 1" inch low, and 2 to 6 spacers per side for 2" inches low. To increase or reduce preload simply add or remove the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat on each Monotube Assembly as illustrated earlier (on page two).

Warning

DO NOT INSTALL MORE THAN SIX (6) PRELOAD SPACERS PER MONOTUBE ASSEMBLY (EACH SIDE). DOING SO COULD RESULT IN THE FORK SPRING GOING SOLID, CAUSING DAMAGE AND/OR LOSS OF CONTROL.

- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.

- Compliment your Monotube Fork kit with a pair of 412, 430, 444, or 970 Series shocks.



BEFORE - Stock

AFTER - 1" Low

AFTER - 2" Low

(not to scale)

PROGRESSIVE
S U S P E N S I O N



PROGRESSIVE[®]
S U S P E N S I O N

Installation Instructions
1" Lowered Monotube Fork Kit
Harley Davidson Sportsters:
07-12 XL1200N, 10-Later* XL1200X,
07-10 XL883L, 10-Later* XL883N

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.

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 installation of this kit will require a press or some other fork spring compression tool. If you do not possess such resources, take your bike and this kit to a competent mechanic to have it installed.

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 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 shop manual as a reference while installing this kit.
- 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.
- When removing or installing forks, do so 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 Fork kit, only 123cc of 10wt fork oil is required in each of the forks for lubricating the internal moving parts - the Monotube 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 Fork kit is a direct replacement of your stock internal fork components and fork caps. You will however be re-using the stock bottoming-cones and top-out springs.

Caution

While the installation of this Monotube 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, lower triple-clamp 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, lower triple-clamp, 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.

- Start by removing the front wheel, fender, brake caliper(s), and forks per your factory authorized shop manual.

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!

- **Removing and installing Fork Springs with high-preload:** As noted in the beginning of the instructions, the force required to compress the fork-spring and remove & reinstall the fork-cap in this kit requires a press as illustrated below, or other fork-spring compression tool. Even while using either a press or such tooling great care must be taken to avoid personal injury or damage to the fork, and if you are in any way uncertain about this portion of the procedure - stop here and take your forks to a competent mechanic to have the remainder of the kit installed.

To use a press, we recommend this procedure:

1. Loosen the fork-cap one full turn.
2. Position and secure fork assembly in press so as it can be compressed slightly and the inner fork-tube can be freely rotated – also be sure that the ram can move upward from that position 3.00" to 4.00" inches to allow the spring to extend once the cap is removed.

Warning

THE FORK ASSEMBLY MUST BE HELD IN ALIGNMENT WITH THE PRESS RAM AT ALL TIMES TO ENSURE SAFE SPRING EXPANSION/COMPRESSION WHEN THE FORK-CAP IS UN-THREADED FROM THE FORK-TUBE.

3. Compress the fork about .50" to 1.00" inch (figure 1).
4. Now, with the press holding the spring tension, you should be able to unscrew the fork-tube from the cap by hand (figure 2).
5. Once the fork-tube is completely un-threaded from the cap (figure 3), carefully release pressure in the press allowing the fork-spring to safely extend fully (figure 4).

To install the Monotube assembly, simply reverse the preceding steps.

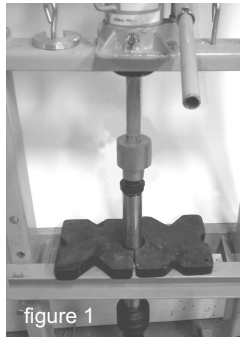


figure 1



figure 2

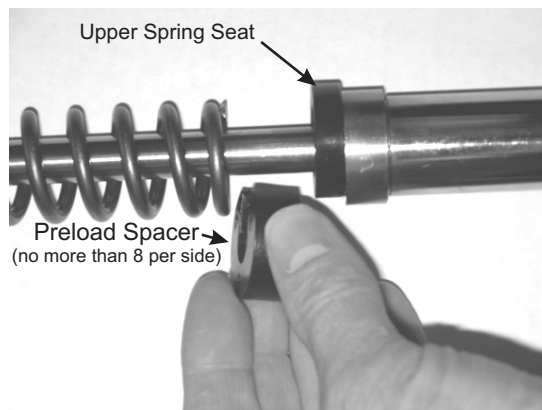


figure 3



figure 4

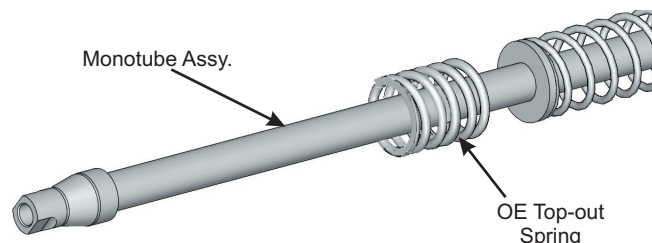
- **Replacing internals:** Drain the fork oil, and remove the bottom fork center bolt and sealing washer. If the damper rod spins, temporarily re-install the spring, spacer, & cap and then try again.
- While keeping the fork compressed (to hold the bottoming cup in place) remove the damper rod & top-out spring from the fork. You will be re-using the stock top-out spring.
- Though there are 16 preload spacers included with this kit, we recommend installing 6 on each side. Put 6 of the supplied "C" shaped preload spacers between the top of the fork-spring and the upper spring seat on each Monotube Assembly as illustrated below. If you feel you may need more or less preload, see **Preload fine tuning** (on page 3) before going to the next step.



Warning

DO NOT INSTALL MORE THAN EIGHT (8) PRELOAD SPACERS PER MONOTUBE ASSEMBLY (EACH SIDE). DOING SO COULD RESULT IN THE FORK SPRING GOING SOLID, CAUSING DAMAGE AND/OR LOSS OF CONTROL.

- Now put one of the stock top-out springs (removed earlier) onto the Monotube assembly as illustrated.



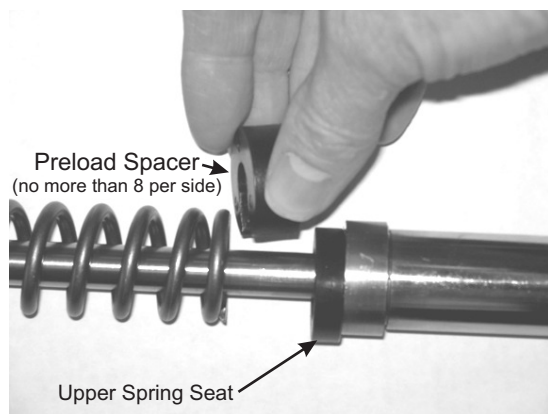
- Slide the Monotube assembly into the fork tube assembly, until the Monotube assembly is seated in the bottom of it, then put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it (along with the sealing washer), tightening it up into the Progressive Suspension Monotube assembly. Torque the bolt to the factory recommended specification of 30 N-m (22ft. lbs.).
- Filling the forks with fluid requires stroking the assembly to draw the fluid from the inner fork-tube into the outer fork slider, so first secure the fork assembly so you can do this while filling it.

Warning

DO NOT USE MORE THAN 123cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING THE A FORK LEG WITH MORE THAN 123cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

- Pour 123cc of 10wt fork fluid into each 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.

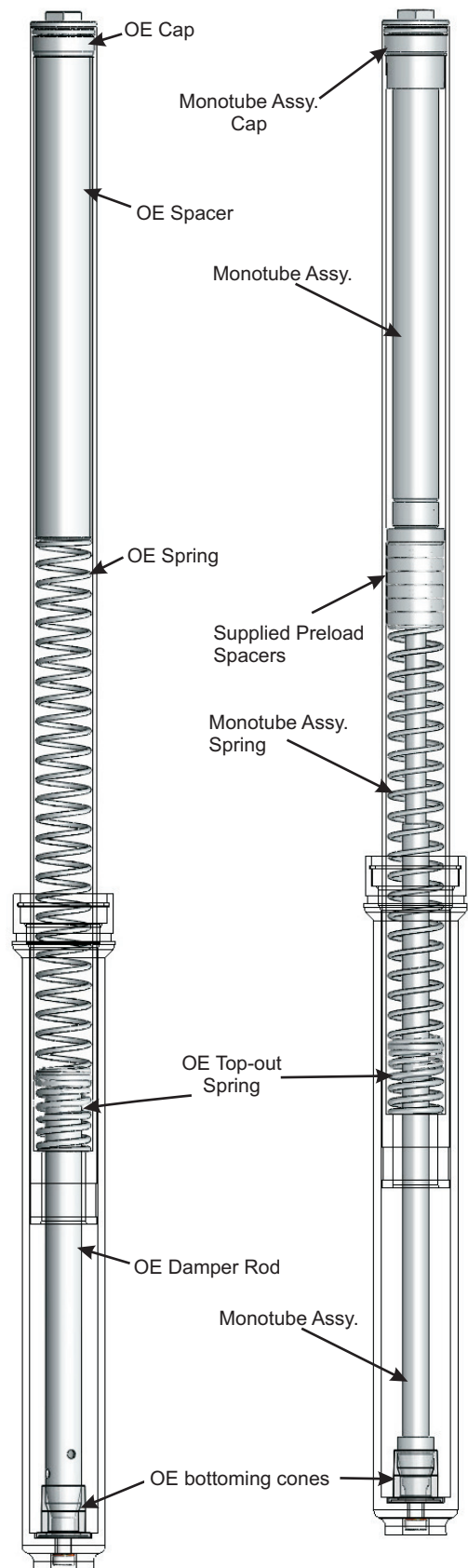
- Once the proper amount of fluid is in the fork assembly, slide the inner fork-tube up and install the supplied fork-cap (refer back to **"Removing and installing Fork Springs with high-preload"** section). Torque the cap to the factory recommended specification of 54N-m (40ft. lbs.).
- Repeat the last 9 steps on the other fork and then proceed to the next step.
- To the right is an illustration of "before" and "after" basic assembly of the forks.
- Reinstall the forks and all other components on the motorcycle per your factory authorized shop manual being sure to double check all fasteners for proper torque per said manual.
- **Pre-load fine tuning:** Though we feel recommending 6 preload spacers on each cartridge assembly should be optimum in most cases, preload can be increased to raise the ride height and stiffen the ride by adding up to 2 more of the supplied preload spacers on each cartridge assembly. Conversely, preload can also be reduced to lower the ride height and soften the ride by removing up to 2 of the supplied preload spacers on each cartridge assembly - the recommend range thus being 4 to 8 spacers per side. To increase or reduce preload simply add or remove the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat on each Monotube Assembly as illustrated to the below.



Warning

DO NOT INSTALL MORE THAN EIGHT (8) PRELOAD SPACERS PER MONOTUBE ASSEMBLY (EACH SIDE). DOING SO COULD RESULT IN THE FORK SPRING GOING SOLID, CAUSING DAMAGE AND/OR LOSS OF CONTROL.

- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.
- Compliment your Monotube Fork kit with a pair of 412, 430, 444, or 970 Series shocks.



BEFORE - Stock (not to scale) AFTER - 1" Low

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.

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 internal components must be performed by a qualified mechanic or according to steps outlined in a factory authorized professional service manual that relates to your particular make, model and year motorcycle. Special tools may be needed. Please read all instructions before beginning this procedure. If you lack any of the tools or resources or are uncertain about any part of the procedure, then have the work done by a qualified mechanic.

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

Progressive Suspension Monotube kits with Preload Adjuster 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 service manual as a reference while installing this kit.
- 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 (300cc standard, 200cc lowered) of type "E" or 10wt. fork oil is required in each fork for lubricating the internal moving parts - the cartridge damper is sealed. Changing the volume or viscosity of the oil is not recommended and could cause damage and/or loss of control.

- This kit replaces your stock fork caps, preload-spacers (if present), fork springs, and damper-rods. Remove these components and drain the oil out of your forks per the procedure outlined in your factory authorized service manual.
- Also note that this kit contains components for two different fork configurations - standard length and approximately 1" inch lowered. Decide which configuration you prefer before installing, and follow the instructions carefully for that configuration.

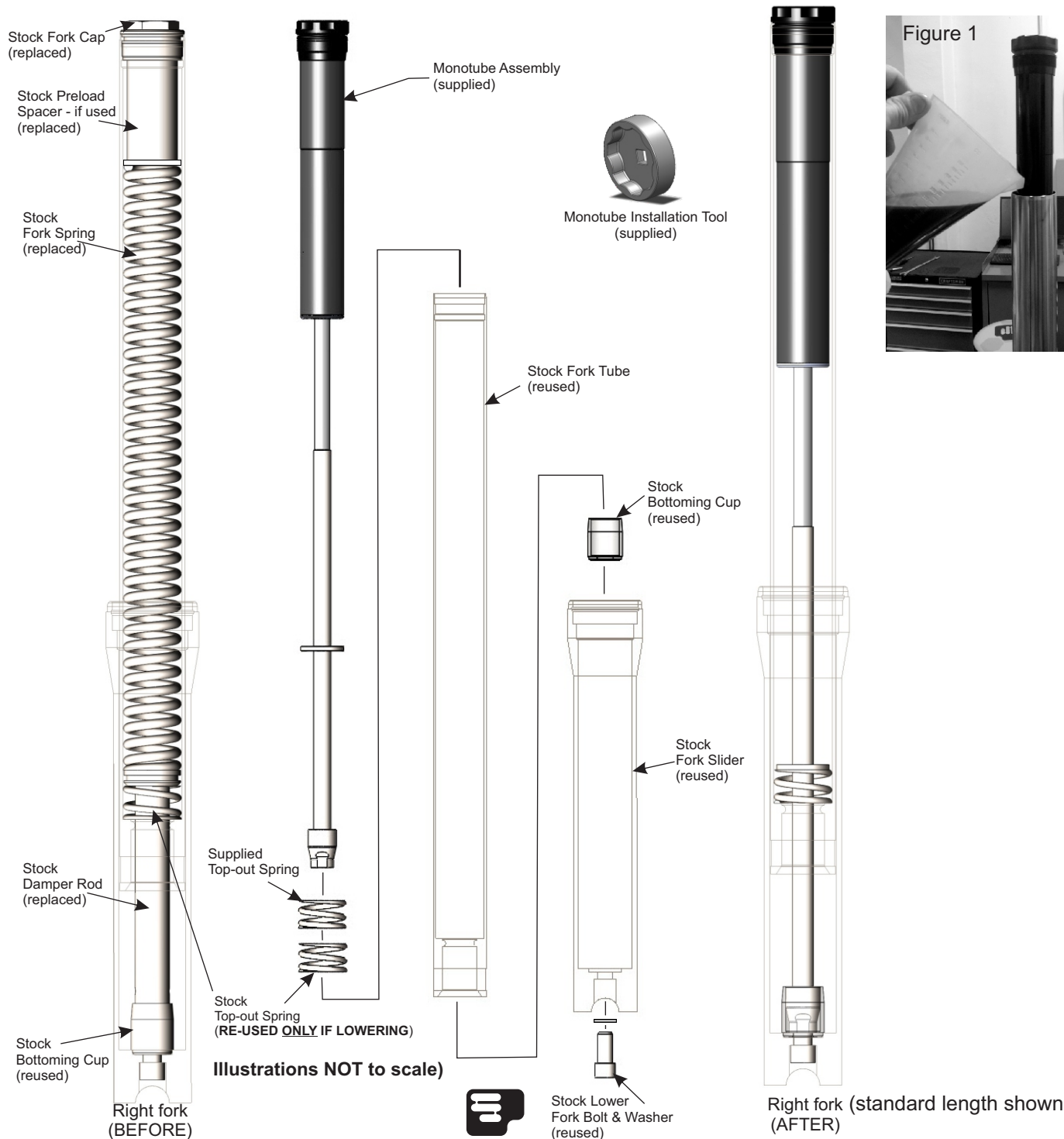
Caution

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.

- Starting with the right fork (referencing the illustrations below), first drop one of the supplied top-out springs - **and one of the stock top-out springs if you are installing in the lowered configuration** - into the fork, then insert the Monotube cartridge assembly. Make certain the bottoming-cup is properly seated in the bottom of the fork - in the slider - and the bottom of the Monotube cartridge assembly is seated within said bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Monotube assembly. Torque the bolt to the factory recommended 106-159 in.-lbs. If the Monotube assembly tries to rotate, temporarily thread the Monotube assembly into the fork-tube and try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while torquing the bottom fork bolt.
- **No fork spring is installed in this (the right) fork assembly.** Pour a small amount - 300cc for standard kit or 200cc for lowered configuration - to be specific - of type “E” or 10wt. fork oil into the fork for lubricating purposes as seen in figure 1. Then using the supplied Monotube Installation Tool (p/n 5503-200) thread the Monotube assembly into your fork-tube and torque it to the recommended 16-43 ft.-lbs. This completes the right fork assembly.

Warning

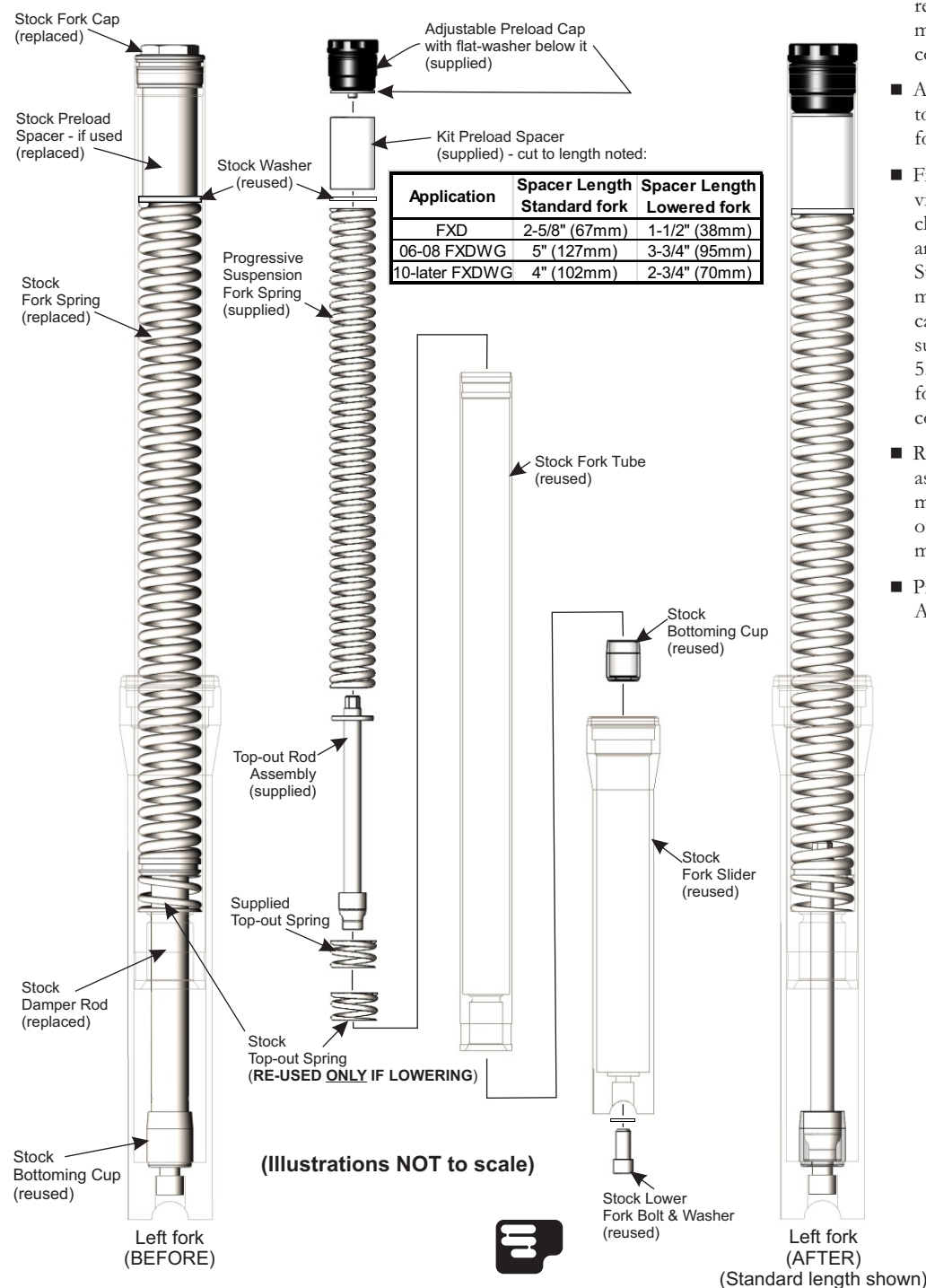
DO NOT USE MORE THAN 300cc (200cc for lowered configuration) OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 300cc (200cc for lowered configuration) OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



- For the left fork (referencing the illustrations below), drop the other supplied top-out spring into the fork-tube - **and one of the stock top-out springs if you are installing in the lowered configuration** - followed by the supplied Top-out Rod assembly. Make certain the bottoming-cup is properly seated in the bottom of the fork – in the slider – and the bottom of the Top-out Rod assembly is seated in the bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Top-out Rod assembly. Torque the bolt to the factory recommended 106-159 in.-lbs. If the Top-out Rod assembly tries to rotate, try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while applying torque to the bottom fork bolt (same as you might on while installing a stock damper-rod) or by using a long extension and 12mm socket on the hex atop the Top-out Rod assembly.
- Next pour a small amount – 300cc for standard, or 200cc for lowered configuration to be specific – of type “E” or 10wt. fork oil into the fork for lubricating purposes. Then drop the supplied Progressive Suspension fork spring in the fork and stock washer.

Warning

DO NOT USE MORE THAN 300cc (200cc for lowered configuration) OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 300cc (200cc for lowered configuration) OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



- Referring to the preload spacer chart (at left), cut the supplied preload spacer to the recommended length appropriate for your make/model/year and intended configuration - standard or lowered kit.
- After cutting the supplied preload spacer to the proper length, put it into the left fork assembly.
- Finally, with the fork either secured in a vice (or clamped back into the triple-clamps), install the supplied flat washer and, making sure the Progressive Suspension preload cap is adjusted to its minimum (shortest) position, install the cap and torque to 16-43 ft-lbs using the supplied Monotube Installation Tool (p/n 5503-200). Store this tool in a safe place for future fork maintenance. This completes the left fork assembly.
- Reinstall your left and right fork assemblies and all other components you may have removed per the procedure outlined in your authorized factory service manual.
- Proceed to RIDE SAG & PRELOAD ADJUSTMENT section.

RIDE SAG & PRELOAD ADJUSTMENT

Optimum ride sag is approximately one-third or 33% of your total suspension travel. Depending upon the chosen installation configuration, 33% of your travel would equal 1.67" for standard the ride height configuration (no additional top-out springs installed) OR 1.33" for the lowered configuration (additional top-out springs installed). One of these two numbers is your target ride sag number, and again it depends upon your installation configuration.

STANDARD CONFIGURATION = 1.67" TARGET RIDE SAG

LOWERED CONFIGURATION = 1.33" TARGET RIDE SAG

Measuring your forks ride sag involves two steps, and will require a helper. First with the front wheel lifted slightly off the ground with the forks fully extended, measure from the axle to a fixed point on the sprung part of the chassis – the lower triple-clamp for example. Then while sitting on the bike ready to ride have your helper take the same measurement. Subtract the second measurement from the first – that is your current front ride sag.

Compare the appropriate target ride sag (1.67" if NO additional top-out springs were installed, or 1.33" if additional top-out springs WERE installed) to your current ride sag. If the current ride sag is less than the target, reduce the preload until you hit the target ride sag. Conversely if the current ride sag is more than the target, increase the preload until the target ride sag is achieved.

To adjust your preload, simply rotate the center of your left fork cap – your adjustable preload cap – with the supplied 1/2" inch Allen-wrench. Rotating it clockwise will increase your preload, counterclockwise will reduce it. NOTE: the adjusting portion of the cap does not extend or recede as an indication of how much preload is applied, it simply stops rotating at either end of the adjustment range – when the end of the range is felt STOP ROTATING THE ADJUSTER.

TECHNICAL ASSISTANCE

The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics and ground clearance.

Compliment your Progressive Suspension Fork Monotube kit with Preload Adjuster with a set of Progressive Suspension high performance shocks.

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.

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 internal components must be performed by a qualified mechanic or according to steps outlined in a factory authorized professional service manual that relates to your particular make, model and year motorcycle. Special tools may be needed. Please read all instructions before beginning this procedure. If you lack any of the tools or resources or are uncertain about any part of the procedure, then have the work done by a qualified mechanic.

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

Progressive Suspension Monotube 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 service manual as a reference while installing this kit.
- 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 - 300cc - of type "E" or 10wt. fork oil is required in each fork for lubricating the internal moving parts - the cartridge damper is sealed. Changing the volume or viscosity of the oil is not recommended and could cause damage and/or loss of control.

- This kit replaces your stock fork caps, preload-spacers (if present), fork springs, top-out springs and damper-rods. Remove these components and drain the oil out of your forks per the procedure outlined in your factory authorized service manual.

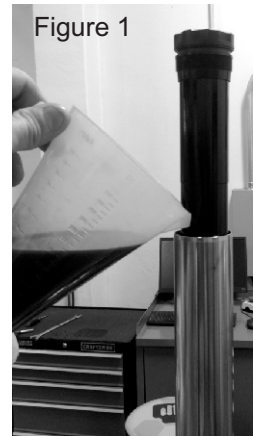
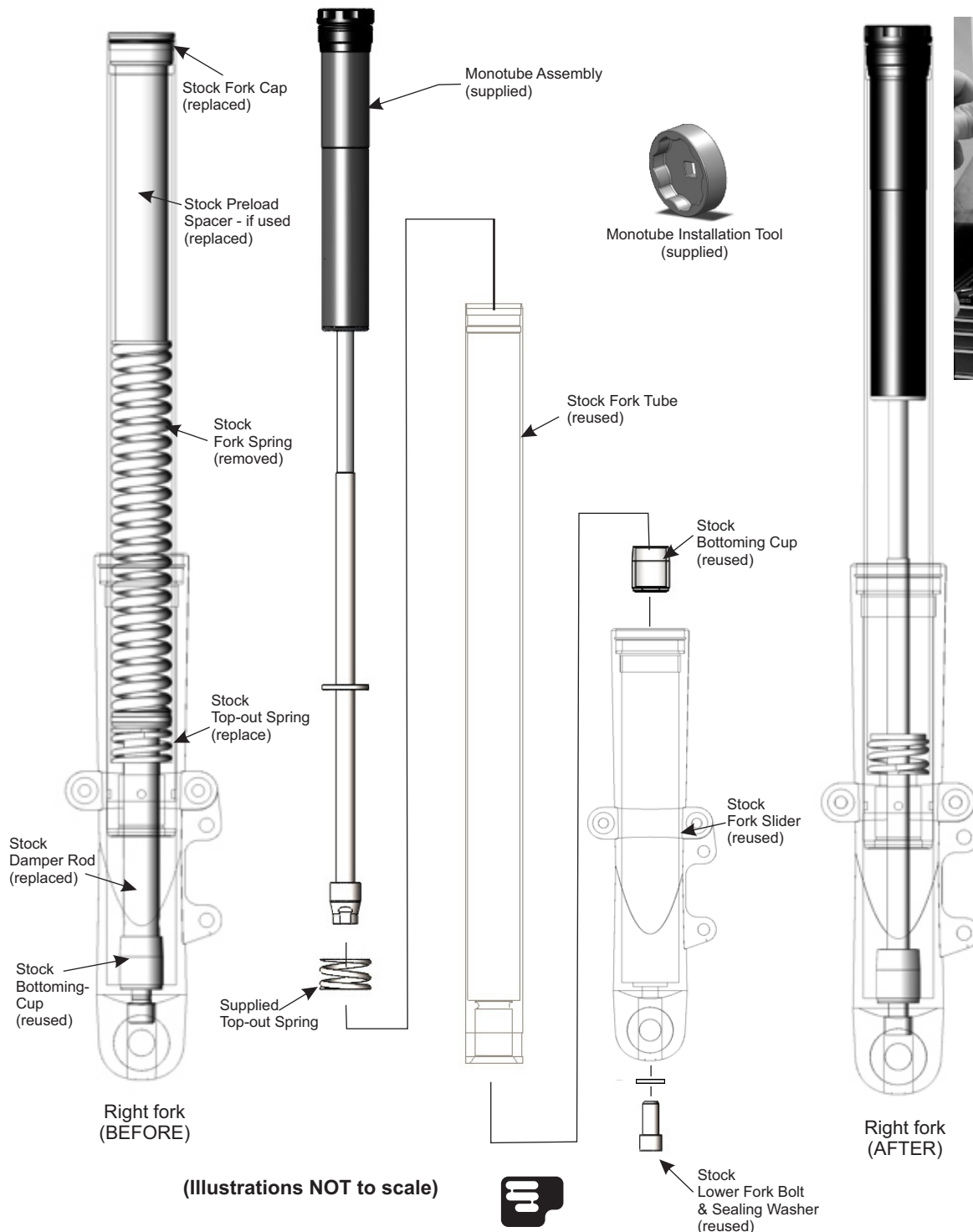
Caution

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.

- Starting with the right fork (referencing the illustrations below), first drop one of the supplied top-out springs into the fork, then insert the Monotube cartridge assembly. Make certain the bottoming-cup is properly seated in the bottom of the fork – in the slider – and the bottom of the Monotube cartridge assembly is seated within said bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Monotube assembly. Torque the bolt to the factory recommended 30-37 ft-lbs. If the Monotube assembly tries to rotate, temporarily thread the Monotube assembly into the fork-tube and try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while torquing the bottom fork bolt.
- **No fork spring is installed in this (the right) fork assembly.** Pour a small amount - 300cc - of type “E” or 10wt. fork oil into the fork for lubricating purposes as seen in figure 1. Then using the supplied Monotube Installation Tool (p/n 5503-200) thread the Monotube assembly into your fork-tube and torque it to the recommended 16-43 ft-lbs. This completes the right fork assembly.

Warning

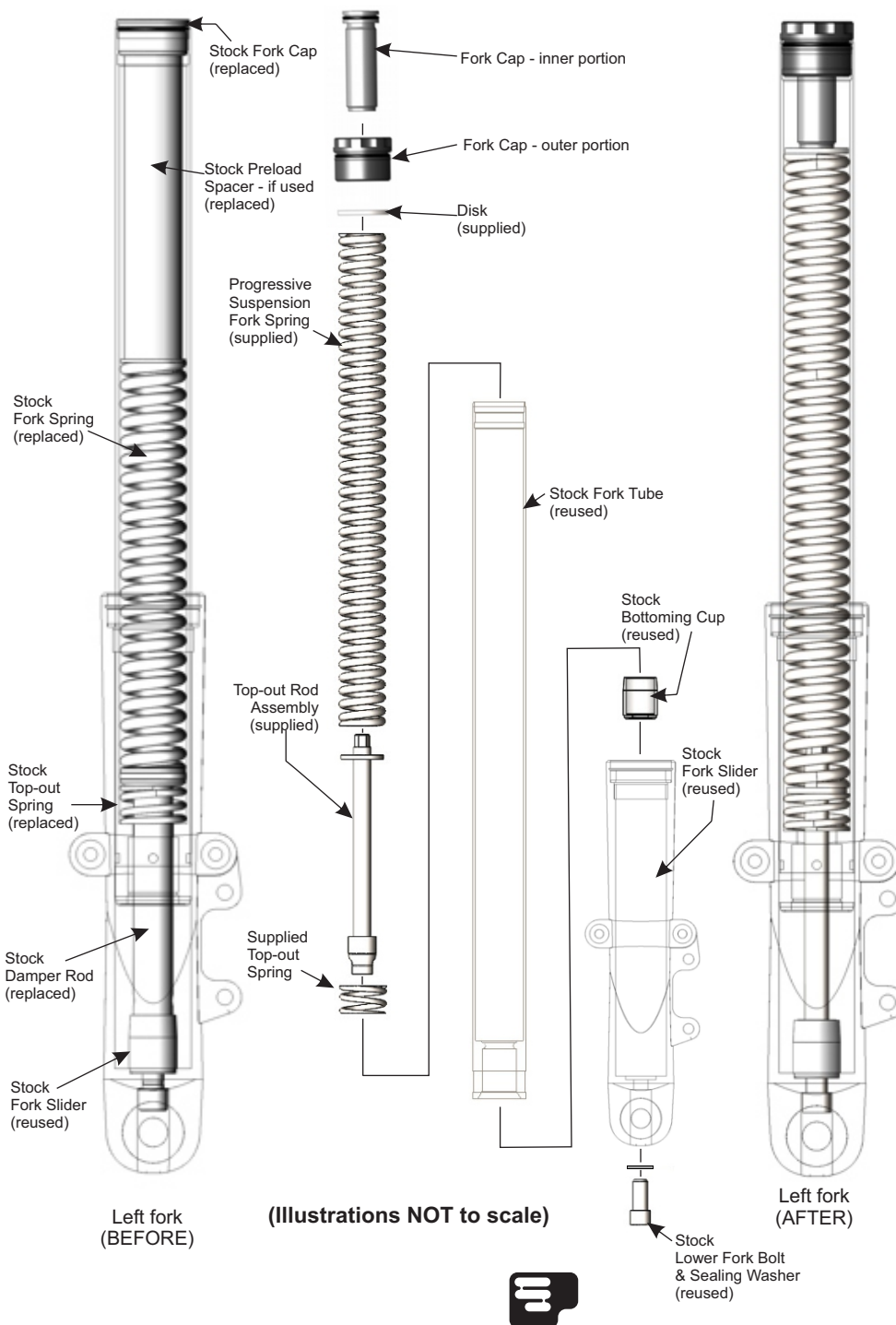
DO NOT USE MORE THAN 300cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 300cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



- For the left fork (referencing the illustrations below), drop the other supplied top-out spring into the fork-tube followed by the supplied Top-out Rod assembly. Make certain the bottoming-cup is properly seated in the bottom of the fork – in the slider – and the bottom of the Top-out Rod assembly is seated in the bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Top-out Rod assembly. Torque the bolt to the factory recommended 30-37 ft-lbs. If the Top-out Rod assembly tries to rotate, try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while applying torque to the bottom fork bolt (same as you might on while installing a stock damper-rod) or by using a long extension and 12mm socket on the hex atop the Top-out Rod assembly.
- Next pour a small amount - 300cc - of type “E” or 10wt. fork oil into the fork for lubricating purposes. Then drop the supplied Progressive Suspension fork spring in the fork - with the tighter coils down.

Warning

DO NOT USE MORE THAN 300cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 300cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



- Then, with the fork either secured in a vice (or clamped back into the triple-clamps), install the supplied flat Disk on top of the spring, followed by the Progressive Suspension fork cap - **with the inner portion of the cap temporarily removed from the center of the cap** - install the outer portion of the fork cap into the fork tube and torque to 16-43 ft-lbs using the supplied Monotube Installation Tool (p/n 5503-200). Store this tool in a safe place for future fork maintenance.
- Finally, to avoid damage make sure the O-ring on the inner portion of the fork cap is greased and use the supplied aluminum hex-key to thread the drive-rod into the center of the previously installed outer portion of the fork cap, threading it all the way down until it is seated in the outer portion of the fork cap - **it will hit a hard stop and the tops of the inner and outer portions of the fork cap will be flush when the inner portion is properly seated**. Torque the inner portion of the fork-cap to 15-20 ft-lbs.
- This completes the left fork assembly.
- Finish reinstalling your left and right fork assemblies and all other components you may have removed per the procedure outlined in your authorized factory service manual.

NOTE: During the reinstallation of your forks, it is normal for the fork with the supplied Progressive Suspension spring in it to appear slightly longer due to the pre-load force.

TECHNICAL ASSISTANCE

The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics and ground clearance.

Compliment your Progressive Suspension Fork Monotube kit with a set of Progressive Suspension high performance shocks.

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.

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 & 200cc right, of Honda SS8 fork oil is required in the forks - **DO NOT USE MORE THAN 330cc IN THE LEFT FORK & 200cc IN THE RIGHT!** - 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.

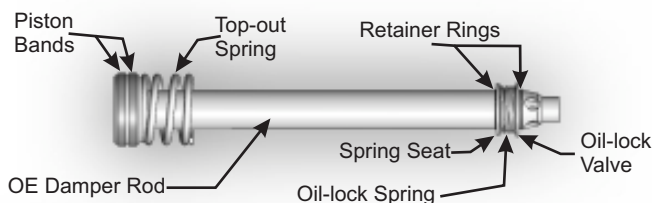
- After removing both forks, start with the left non-cartridge fork and remove the fork cap, then remove the spacer, washer, & fork spring.

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.



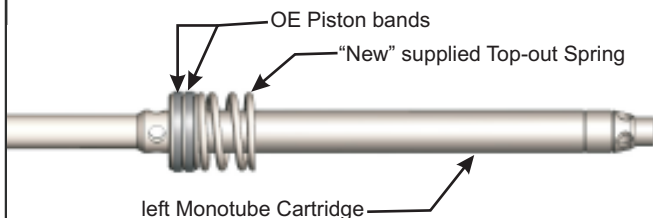
- The Monotube Assemblies come fully assembled with the proper amount of spring pre-load per fork. No addition pre-load spacers may be added to these assemblies.

Warning

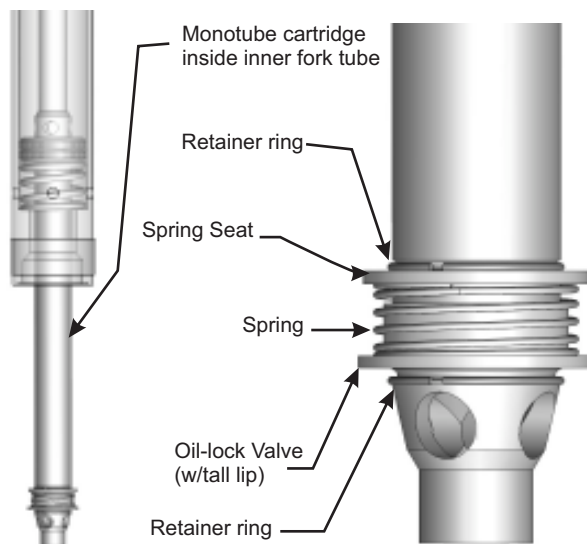
DO NOT ADD ANY ADDITIONAL PRE-LOAD SPACERS OF ANY TYPE TO THE MONOTUBE ASSEMBLIES. DOING SO, MAY CAUSE THE SPRINGS TO COIL BIND WHICH COULD DAMAGE THE FORK INTERNALS AND LEAD TO LOSS OF CONTROL



- 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.



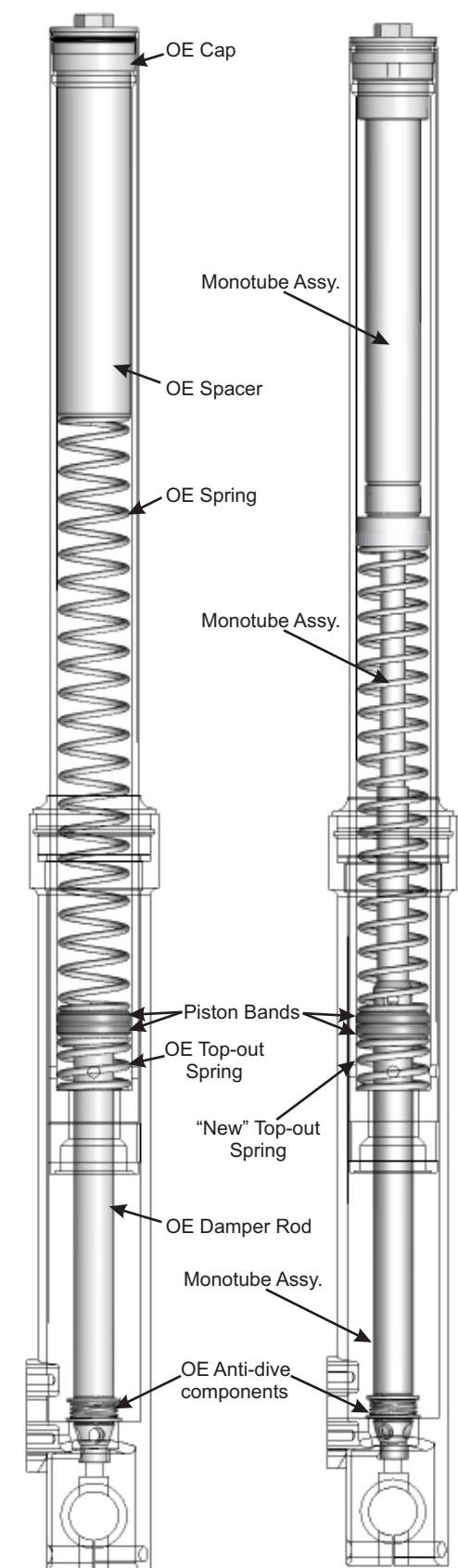
- Slide the left inner fork assembly back into the left outer slider until the Monotube assembly is seated in the bottom of it, then put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it (along with the sealing washer), tightening it up into the Progressive Suspension Monotube cartridge. Torque the bolt to the factory recommended specification of 20 N-m (14ft. lbs.).
- Using a 45mm Fork Seal driving tool reinstall the guide bushing, back-up rings, oil & dust seals, and snap-ring back into the slider in the same order they came out per your factory authorized manual.
- 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.)

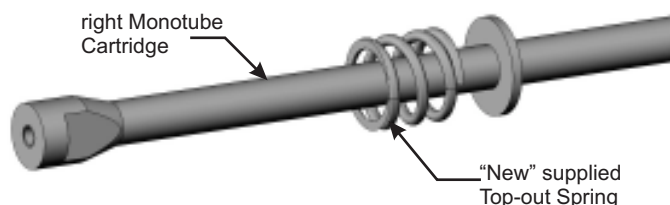
- Below is an illustration of "before" and "after" basic assembly of the left fork.



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 sliding one of the supplied top-out springs over the bottom to the Monotube cartridge assembly as illustrated below.



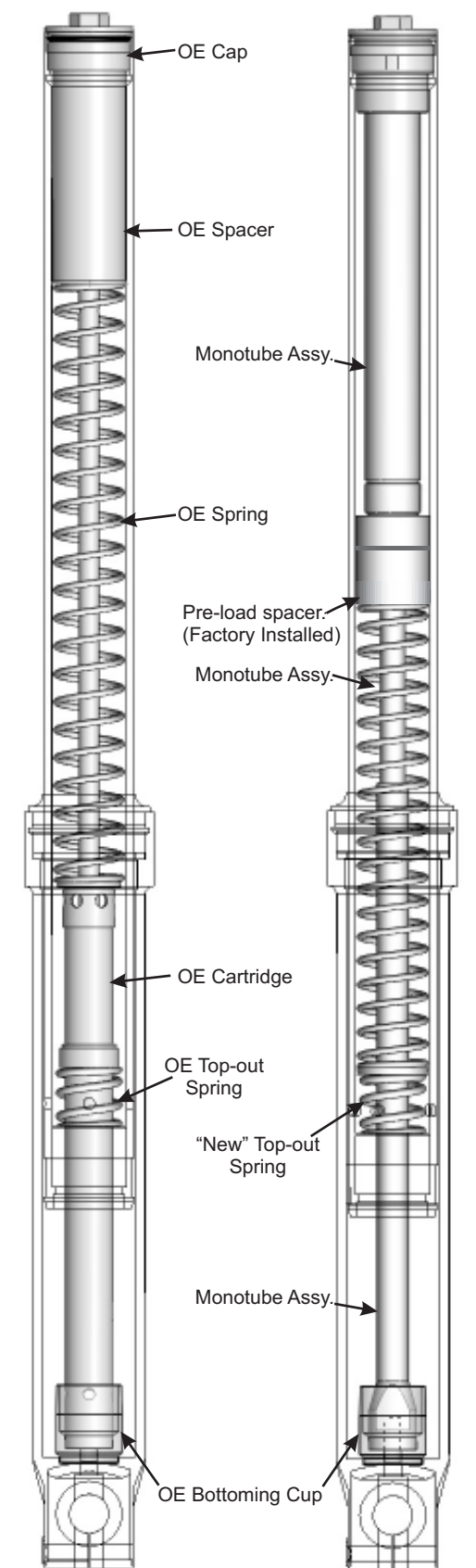
- Then Guide the right Monotube cartridge assembly into the still compressed stock right fork assembly, seating the bottom of the Monotube cartridge assembly in the bottoming cup in the stock fork assembly. Put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and 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 200cc OF FORK OIL IN THE RIGHT FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING THE RIGHT FORK WITH MORE THAN 200cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

- Pour 200cc 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

Warning

DO NOT ADD ANY ADDITIONAL PRE-LOAD SPACERS OF ANY TYPE TO THE MONOTUBE ASSEMBLIES. DOING SO, MAY CAUSE THE SPRINGS TO COIL BIND WHICH COULD DAMAGE THE FORK INTERNALS AND LEAD TO LOSS OF CONTROL

- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.

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.

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 internal components must be performed by a qualified mechanic or according to steps outlined in a factory authorized professional service manual that relates to your particular make, model and year motorcycle. Special tools may be needed. Please read all instructions before beginning this procedure. If you lack any of the tools or resources or are uncertain about any part of the procedure, then have the work done by a qualified mechanic.

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

Progressive Suspension Monotube 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 service manual as a reference while installing this kit.
- 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 Lowered Monotube Cartridge fork kit, only a small amount - 200cc - of type "E" or 10wt. fork oil is required in each fork for lubricating the internal moving parts - the cartridge damper is sealed. Changing the volume or viscosity of the oil is not recommended and could cause damage and/or loss of control.

- This kit replaces your stock fork caps, preload-spacers (if present), fork springs, top-out springs and damper-rods. Remove these components and drain the oil out of your forks per the procedure outlined in your factory authorized service manual.
- Also note that this kit contains components for two different fork configurations - approximately 1" or 2" inch lowered. Decide which configuration you prefer before installing, and follow the instructions carefully for that configuration.

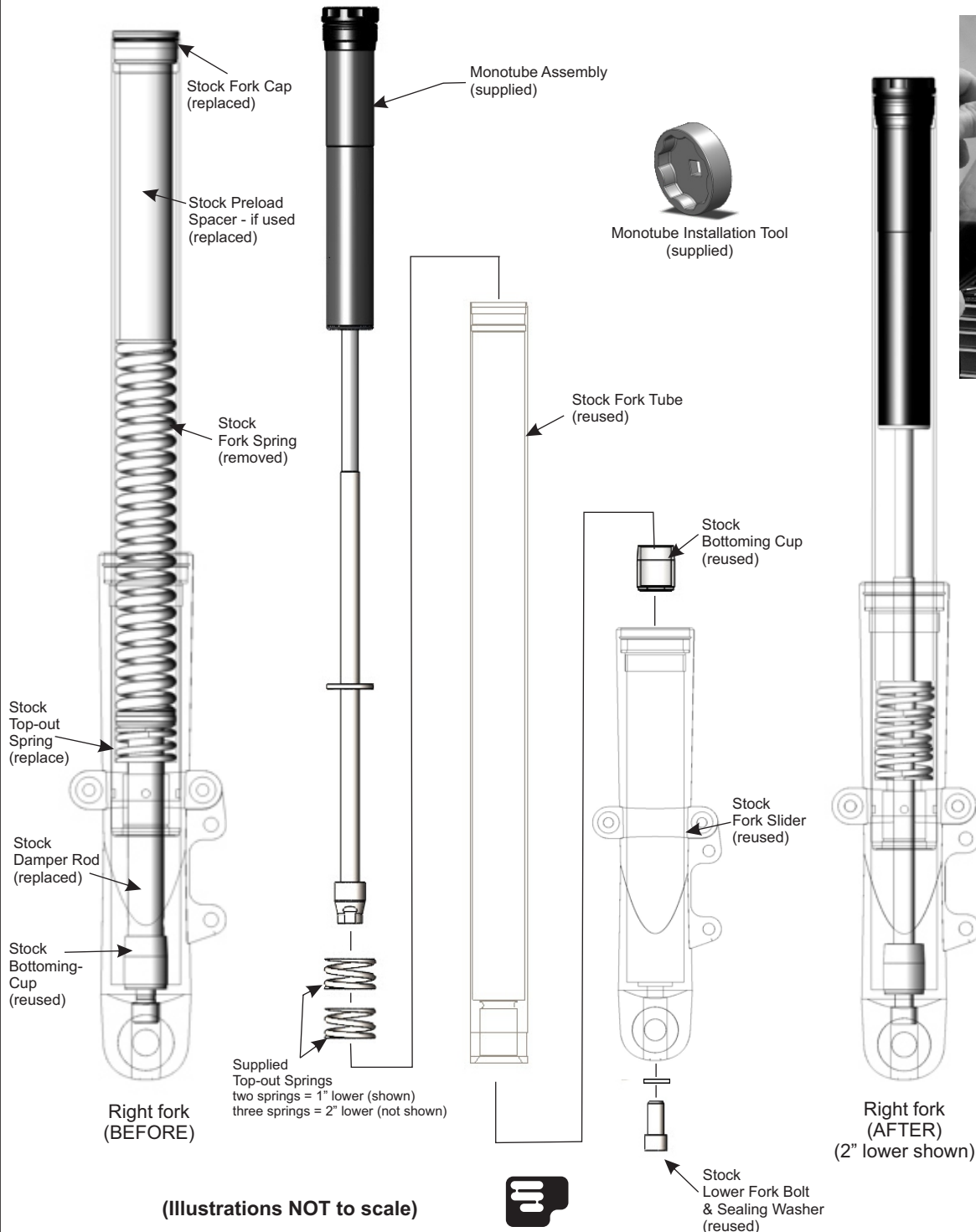
Caution

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.

- Starting with the right fork (referencing the illustrations below), first drop **either TWO of the supplied top-out springs into the fork for 1" lower - OR - THREE of the supplied top-out springs for 2" lower.** Then insert the Monotube cartridge assembly. Make certain the bottoming-cup is properly seated in the bottom of the fork – in the slider – and the bottom of the Monotube cartridge assembly is seated within said bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Monotube assembly. Torque the bolt to the factory recommended 30-37 ft-lbs. If the Monotube assembly tries to rotate, temporarily thread the Monotube assembly into the fork-tube and try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while torquing the bottom fork bolt.
- **No fork spring is installed in this (the right) fork assembly.** Pour a small amount - 200cc - of type “E” or 10wt. fork oil into the fork for lubricating purposes as seen in figure 1. Then using the supplied Monotube Installation Tool (p/n 5503-200) thread the Monotube assembly into your fork-tube and torque it to the recommended 16-43 ft-lbs. This completes the right fork assembly.

Warning

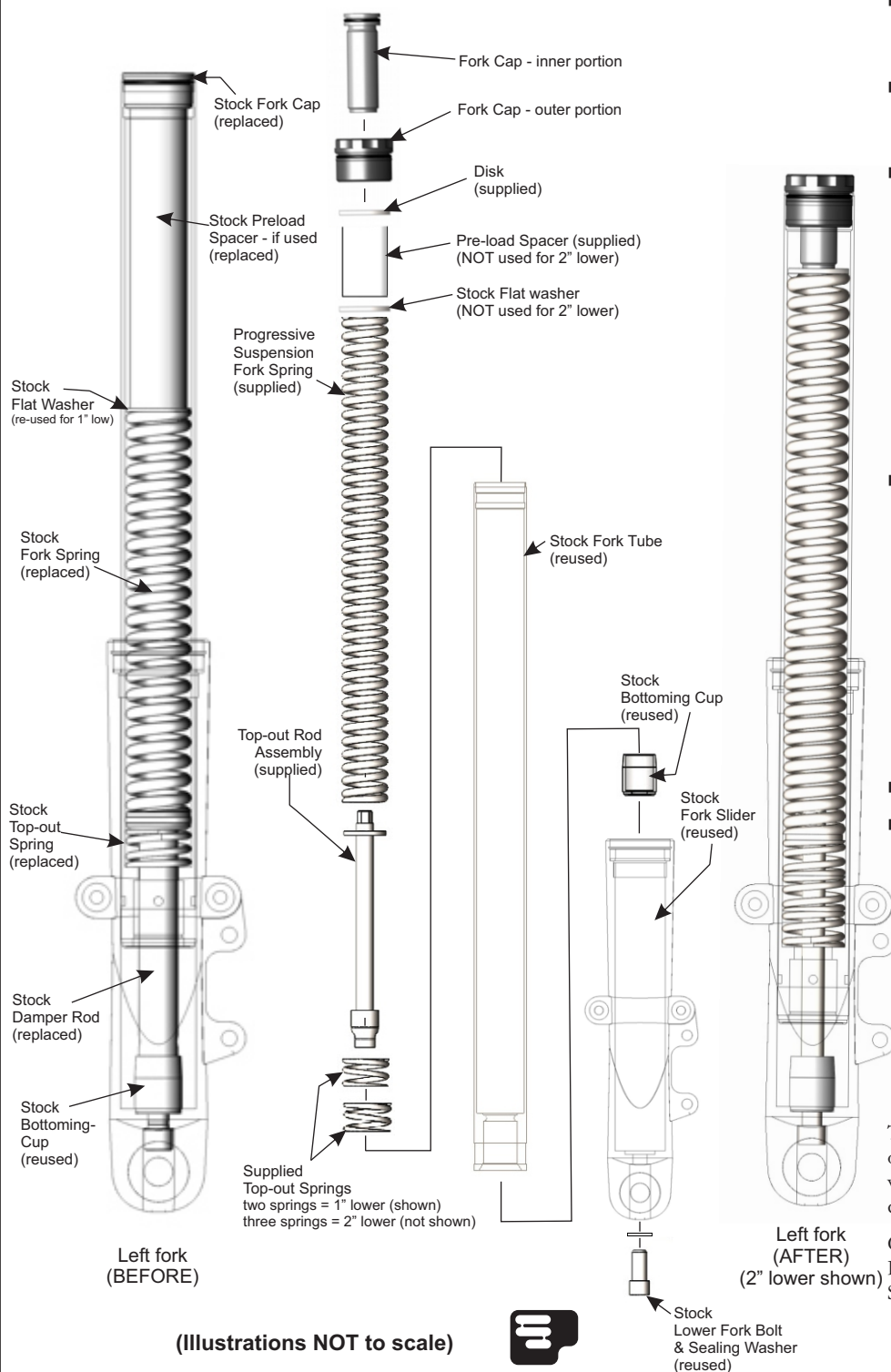
DO NOT USE MORE THAN 200cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 200cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



- For the left fork (referencing the illustrations below), drop **either TWO of the remaining supplied top-out springs into the fork for 1" lower - OR - THREE of the remaining supplied top-out springs for 2" lower (same number as in other fork)**. Next insert the supplied Top-out Rod assembly. Make certain the bottoming-cup is properly seated in the bottom of the fork – in the slider – and the bottom of the Top-out Rod assembly is seated in the bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Top-out Rod assembly. Torque the bolt to the factory recommended 30-37 ft-lbs. If the Top-out Rod assembly tries to rotate, try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while applying torque to the bottom fork bolt (same as you might on while installing a stock damper-rod) or by using a long extension and 12mm socket on the hex atop the Top-out Rod assembly.
- Next pour a small amount - 200cc - of type “E” or 10wt. fork oil into the fork for lubricating purposes. Then drop the supplied Progressive Suspension fork spring in the fork - tighter coils down.

Warning

DO NOT USE MORE THAN 200cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 200cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



(Illustrations NOT to scale)

- **For 1" lower** - re-install the stock spring flat washer, followed by the included pre-load spacer.
- **For 2" lower** - **DO NOT** re-install the stock spring flat washer or the included pre-load spacer.
- Then, with the fork either secured in a vice (or clamped back into the triple-clamps), install the supplied flat Disk on top of the spring, followed by the Progressive Suspension fork cap - **with the inner portion of the cap temporarily removed from the center of the cap** - install the outer portion of the fork cap into the fork tube and torque to 16-43 ft-lbs using the supplied Monotube Installation Tool (p/n 5503-200). Store this tool in a safe place for future fork maintenance.
- Finally, to avoid damage make sure the O-ring on the inner portion of the fork cap is greased and use the supplied aluminum hex-key to thread the drive-rod into the center of the previously installed outer portion of the fork cap, threading it all the way down until it is seated in the outer portion of the fork cap - **it will hit a hard stop and the tops of the inner and outer portions of the fork cap will be flush when the inner portion is properly seated**. Torque the inner portion of the fork-cap to 15-20 ft-lbs.
- This completes the left fork assembly.
- Finish reinstalling your left and right fork assemblies and all other components you may have removed per the procedure outlined in your authorized factory service manual.

NOTE: During the reinstallation of your forks, it is normal for the fork with the supplied Progressive Suspension spring in it to appear slightly longer due to the pre-load force.

TECHNICAL ASSISTANCE

The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics and ground clearance.

Compliment your Progressive Suspension Fork Monotube kit with a set of Progressive Suspension high performance shocks.

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.

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 internal components must be performed by a qualified mechanic or according to steps outlined in a factory authorized professional service manual that relates to your particular make, model and year motorcycle. Special tools may be needed. Please read all instructions before beginning this procedure. If you lack any of the tools or resources or are uncertain about any part of the procedure, then have the work done by a qualified mechanic.

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

Progressive Suspension Monotube 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 service manual as a reference while installing this kit.
- 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 - 300cc - of type "E" or 10wt. fork oil is required in each fork for lubricating the internal moving parts - the cartridge damper is sealed. Changing the volume or viscosity of the oil is not recommended and could cause damage and/or loss of control.

- This kit replaces your stock fork caps, preload-spacers (if present), fork springs, rebound or "top-out" springs, and damper-rods. Remove these components and drain the oil out of your forks per the procedure outlined in your factory authorized service manual.

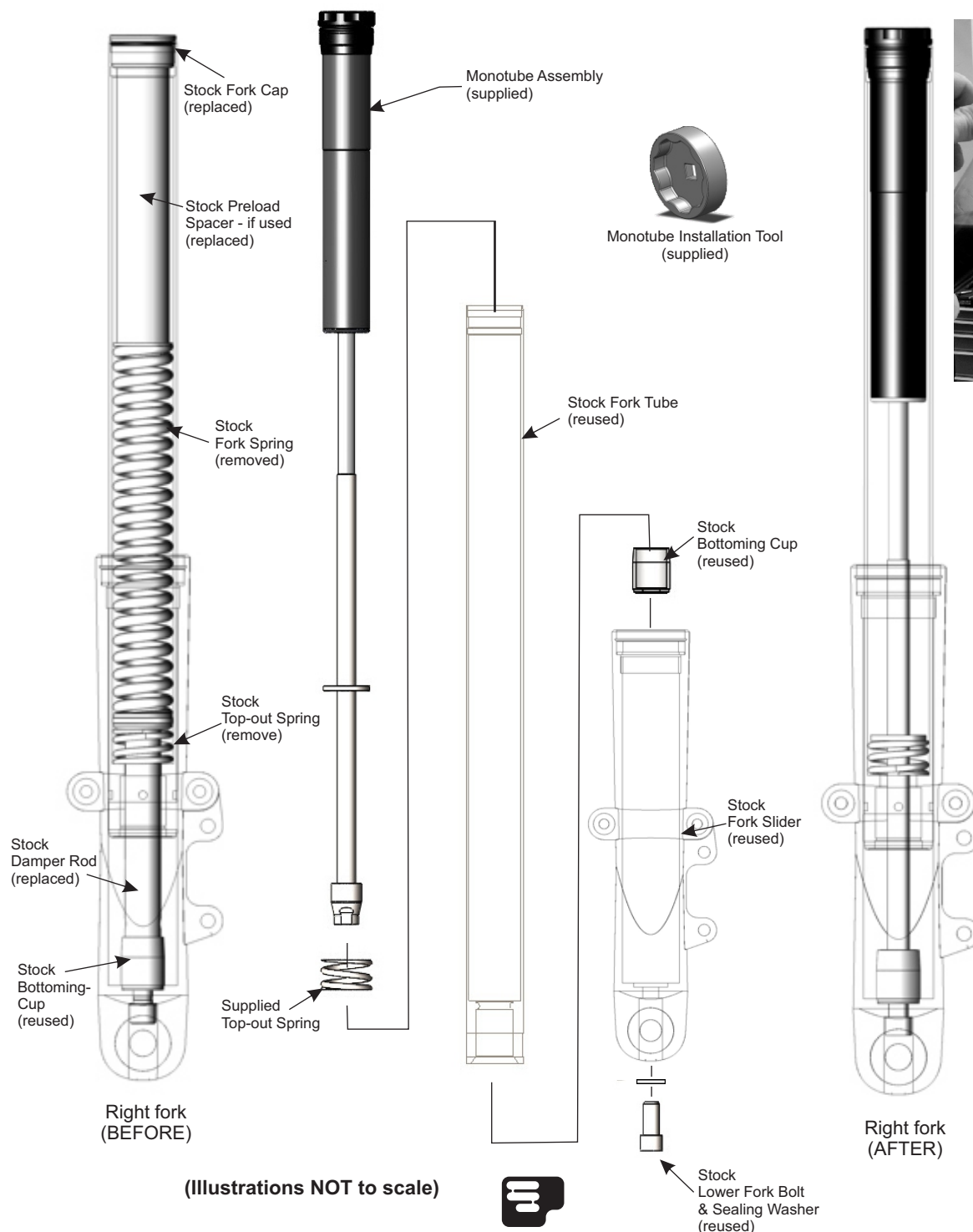
Caution

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.

- Starting with the right fork (referencing the illustrations below), first drop one of the supplied top-out springs into the fork, then insert the Monotube cartridge assembly. Make certain the bottoming-cup is properly seated in the bottom of the fork – in the slider – and the bottom of the Monotube cartridge assembly is seated within said bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Monotube assembly. Torque the bolt to the factory recommended 30-37 ft-lbs. If the Monotube assembly tries to rotate, temporarily thread the Monotube assembly into the fork-tube and try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while torquing the bottom fork bolt.
- **No fork spring is installed in this (the right) fork assembly.** Pour only 300cc of type “E” or 10wt. fork oil into the fork for lubricating purposes as seen in figure 1. Then using the supplied Monotube Installation Tool (p/n 5503-200) thread the Monotube assembly into your fork-tube and torque it to the recommended 16-43 ft-lbs. This completes the right fork assembly.

Warning

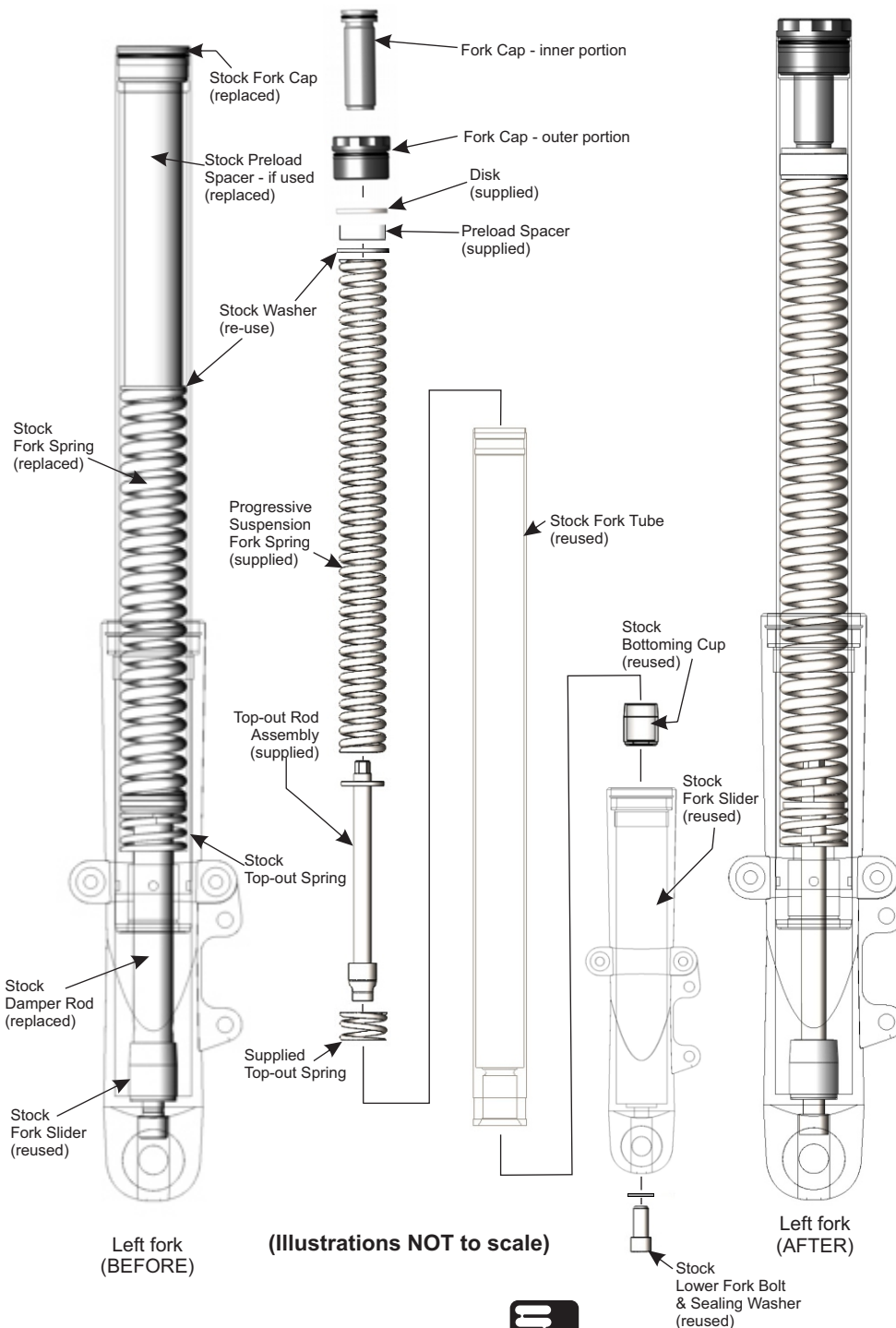
DO NOT USE MORE THAN 300cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 300cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



- For the left fork (referencing the illustrations below), drop the other supplied top-out spring into the fork-tube followed by the supplied Top-out Rod assembly. Make certain the bottoming-cup is properly seated in the bottom of the fork – in the slider – and the bottom of the Top-out Rod assembly is seated in the bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Top-out Rod assembly. Torque the bolt to the factory recommended 30-37 ft-lbs. If the Top-out Rod assembly tries to rotate, try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while applying torque to the bottom fork bolt (same as you might on while installing a stock damper-rod) or by using a long extension and 12mm socket on the hex atop the Top-out Rod assembly.
- Next pour only 300cc of type “E” or 10wt. fork oil into the fork for lubricating purposes. Then drop the supplied Progressive Suspension fork spring in the fork - with the tighter coils down.

Warning

DO NOT USE MORE THAN 300cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 300cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



- Then, with the fork either secured in a vice (or clamped back into the triple-clamps), reinstall one of the stock spring washers on top of the spring, followed by the supplied preload spacer, then the supplied flat Disk.

- **With the inner portion of the cap temporarily removed from the center of the cap** - install the outer portion of the Progressive Suspension fork cap into the fork tube and torque to 16-43 ft-lbs using the supplied Monotube Installation Tool (p/n 5503-200). Store this tool in a safe place for future fork maintenance.

- Finally, to avoid damage make sure the O-ring on the inner portion of the fork cap is greased and use the supplied aluminum hex-key to thread the drive-rod into the center of the previously installed outer portion of the fork cap, threading it all the way down until it is seated in the outer portion of the fork cap - **it will hit a hard stop and the tops of the inner and outer portions of the fork cap will be flush when the inner portion is properly seated**. Torque the inner portion of the fork-cap to 15-20 ft-lbs.

- This completes the left fork assembly.
- Finish reinstalling your left and right fork assemblies and all other components you may have removed per the procedure outlined in your authorized factory service manual.

NOTE: During the reinstallation of your forks, it is normal for the fork with the supplied Progressive Suspension spring in it to appear slightly longer due to the pre-load force.

TECHNICAL ASSISTANCE

The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics and ground clearance.

Compliment your Progressive Suspension Fork Monotube kit with a set of Progressive Suspension high performance shocks.

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.

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 internal components must be performed by a qualified mechanic or according to steps outlined in a factory authorized professional service manual that relates to your particular make, model and year motorcycle. Special tools may be needed. Please read all instructions before beginning this procedure. If you lack any of the tools or resources or are uncertain about any part of the procedure, then have the work done by a qualified mechanic.

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

Progressive Suspension Monotube kits with Preload Adjuster 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 service manual as a reference while installing this kit.
- 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 (300cc standard, 200cc lowered) of type "E" or 10wt. fork oil is required in each fork for lubricating the internal moving parts - the cartridge damper is sealed. Changing the volume or viscosity of the oil is not recommended and could cause damage and/or loss of control.

- This kit replaces your stock fork caps, preload-spacers (if present), fork springs, and damper-rods. Remove these components and drain the oil out of your forks per the procedure outlined in your factory authorized service manual.
- Also note that this kit contains components for two different fork configurations - standard length and approximately 1" inch lowered. Decide which configuration you prefer before installing, and follow the instructions carefully for that configuration.

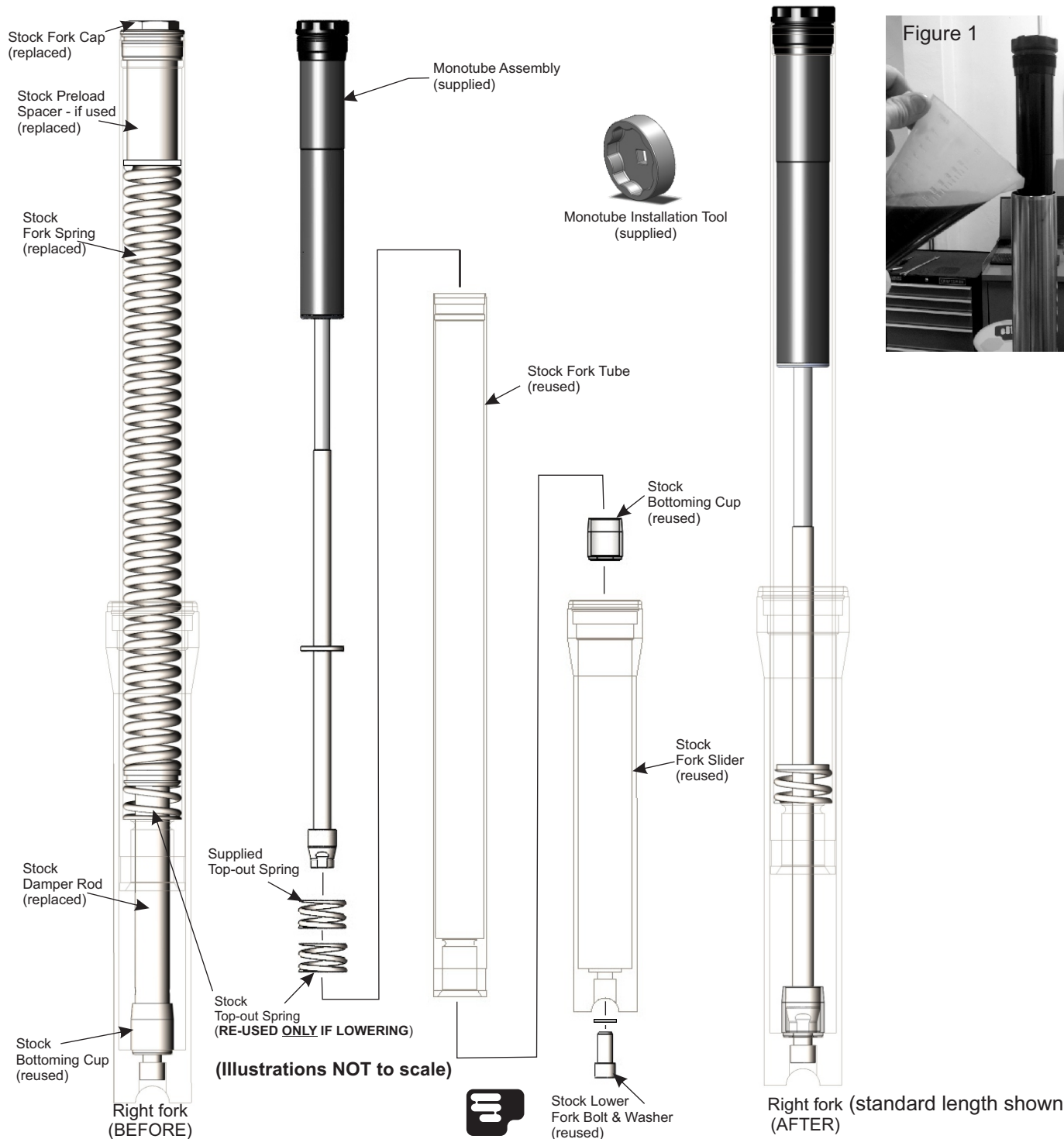
Caution

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.

- Starting with the right fork (referencing the illustrations below), first drop one of the supplied top-out springs - **and one of the stock top-out springs if you are installing in the lowered configuration** - into the fork, then insert the Monotube cartridge assembly. Make certain the bottoming-cup is properly seated in the bottom of the fork - in the slider - and the bottom of the Monotube cartridge assembly is seated within said bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Monotube assembly. Torque the bolt to the factory recommended 106-159 in.-lbs. If the Monotube assembly tries to rotate, temporarily thread the Monotube assembly into the fork-tube and try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while torquing the bottom fork bolt.
- **No fork spring is installed in this (the right) fork assembly.** Pour a small amount - 300cc for standard kit or 200cc for lowered configuration - to be specific - of type “E” or 10wt. fork oil into the fork for lubricating purposes as seen in figure 1. Then using the supplied Monotube Installation Tool (p/n 5503-200) thread the Monotube assembly into your fork-tube and torque it to the recommended 16-43 ft.-lbs. This completes the right fork assembly.

Warning

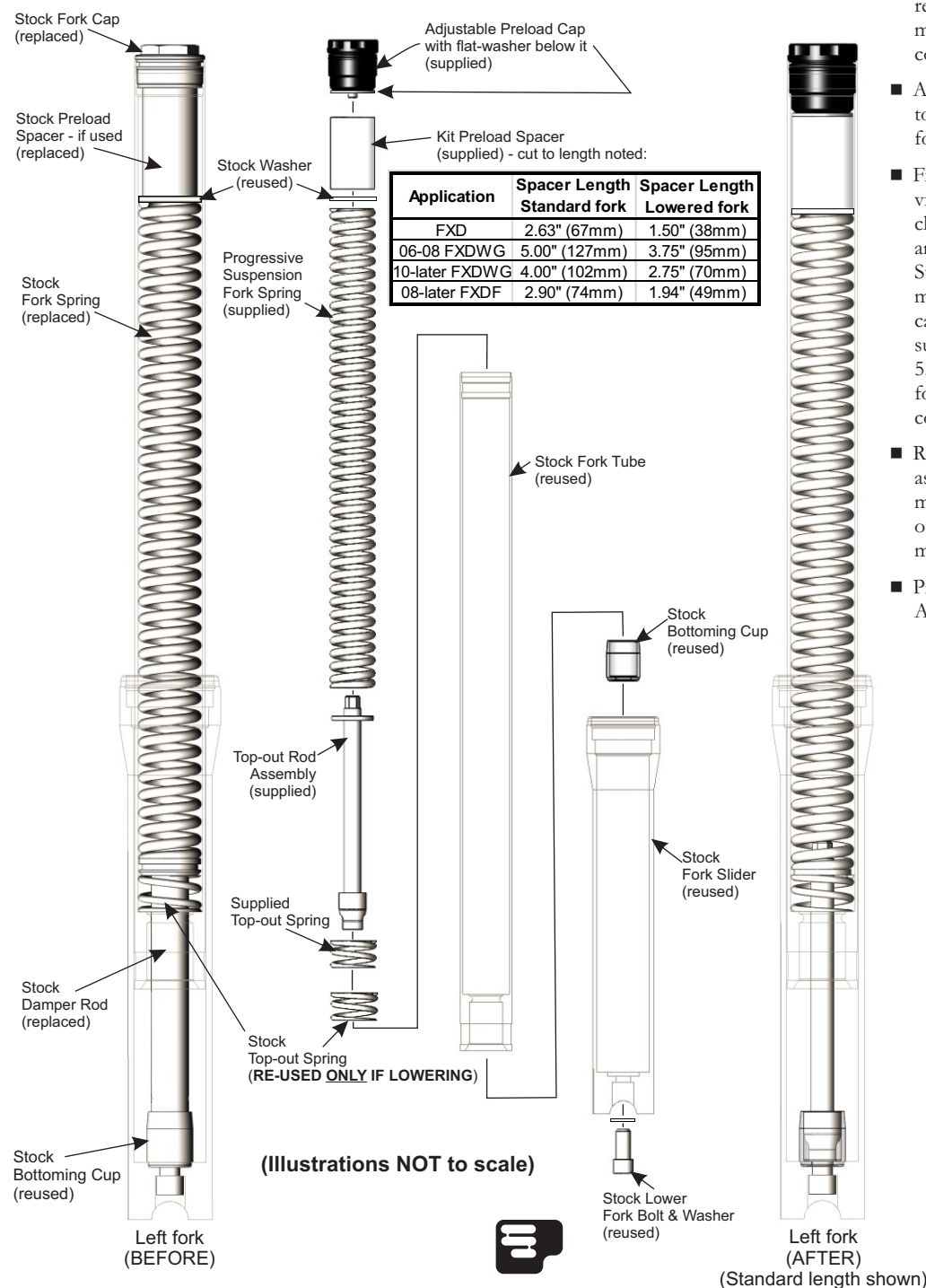
DO NOT USE MORE THAN 300cc (200cc for lowered configuration) OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 300cc (200cc for lowered configuration) OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



- For the left fork (referencing the illustrations below), drop the other supplied top-out spring into the fork-tube - **and one of the stock top-out springs if you are installing in the lowered configuration** - followed by the supplied Top-out Rod assembly. Make certain the bottoming-cup is properly seated in the bottom of the fork – in the slider – and the bottom of the Top-out Rod assembly is seated in the bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Top-out Rod assembly. Torque the bolt to the factory recommended 106-159 in.-lbs. If the Top-out Rod assembly tries to rotate, try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while applying torque to the bottom fork bolt (same as you might on while installing a stock damper-rod) or by using a long extension and 12mm socket on the hex atop the Top-out Rod assembly.
- Next pour a small amount – 300cc for standard, or 200cc for lowered configuration to be specific – of type “E” or 10wt. fork oil into the fork for lubricating purposes. Then drop the supplied Progressive Suspension fork spring in the fork and stock washer.

Warning

DO NOT USE MORE THAN 300cc (200cc for lowered configuration) OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 300cc (200cc for lowered configuration) OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



- Referring to the preload spacer chart (at left), cut the supplied preload spacer to the recommended length appropriate for your make/model/year and intended configuration - standard or lowered kit.
- After cutting the supplied preload spacer to the proper length, put it into the left fork assembly.
- Finally, with the fork either secured in a vice (or clamped back into the triple-clamps), install the supplied flat washer and, making sure the Progressive Suspension preload cap is adjusted to its minimum (shortest) position, install the cap and torque to 16-43 ft.-lbs using the supplied Monotube Installation Tool (p/n 5503-200). Store this tool in a safe place for future fork maintenance. This completes the left fork assembly.
- Reinstall your left and right fork assemblies and all other components you may have removed per the procedure outlined in your authorized factory service manual.
- Proceed to RIDE SAG & PRELOAD ADJUSTMENT section.

RIDE SAG & PRELOAD ADJUSTMENT

Optimum ride sag is approximately one-third or 33% of your total suspension travel. Depending upon the chosen installation configuration, 33% of your travel would equal 1.67" for standard the ride height configuration (no additional top-out springs installed) OR 1.33" for the lowered configuration (additional top-out springs installed). One of these two numbers is your target ride sag number, and again it depends upon your installation configuration.

STANDARD CONFIGURATION = 1.67" TARGET RIDE SAG

LOWERED CONFIGURATION = 1.33" TARGET RIDE SAG

Measuring your forks ride sag involves two steps, and will require a helper. First with the front wheel lifted slightly off the ground with the forks fully extended, measure from the axle to a fixed point on the sprung part of the chassis – the lower triple-clamp for example. Then while sitting on the bike ready to ride have your helper take the same measurement. Subtract the second measurement from the first – that is your current front ride sag.

Compare the appropriate target ride sag (1.67" if NO additional top-out springs were installed, or 1.33" if additional top-out springs WERE installed) to your current ride sag. If the current ride sag is less than the target, reduce the preload until you hit the target ride sag. Conversely if the current ride sag is more than the target, increase the preload until the target ride sag is achieved.

To adjust your preload, simply rotate the center of your left fork cap – your adjustable preload cap – with the supplied 1/2" inch Allen-wrench. Rotating it clockwise will increase your preload, counterclockwise will reduce it. NOTE: the adjusting portion of the cap does not extend or recede as an indication of how much preload is applied, it simply stops rotating at either end of the adjustment range – when the end of the range is felt STOP ROTATING THE ADJUSTER.

TECHNICAL ASSISTANCE

The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics and ground clearance.

Compliment your Progressive Suspension Fork Monotube kit with Preload Adjuster with a set of Progressive Suspension high performance shocks.



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.

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 internal components must be performed by a qualified mechanic or according to steps outlined in a factory authorized professional service manual that relates to your particular make, model and year motorcycle. Special tools may be needed. Please read all instructions before beginning this procedure. If you lack any of the tools or resources or are uncertain about any part of the procedure, then have the work done by a qualified mechanic.

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

Progressive Suspension Monotube 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 service manual as a reference while installing this kit.
- 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, inspected and reassembled with Progressive Suspension Fork Oil (Standard - Type E). When installing Progressive Suspension Monotube Cartridge fork kit, ONLY - 300cc - of type "E" or 10wt. fork oil is required in each fork for lubricating the internal moving parts - the cartridge damper is sealed. Changing the volume or viscosity of the oil is not recommended and could cause damage and/or loss of control.

- This kit replaces your stock fork caps, preload-spacers (if present), fork springs, top-out springs and damper-rods. Remove these components and drain the oil out of your forks per the procedure outlined in your factory authorized service manual.

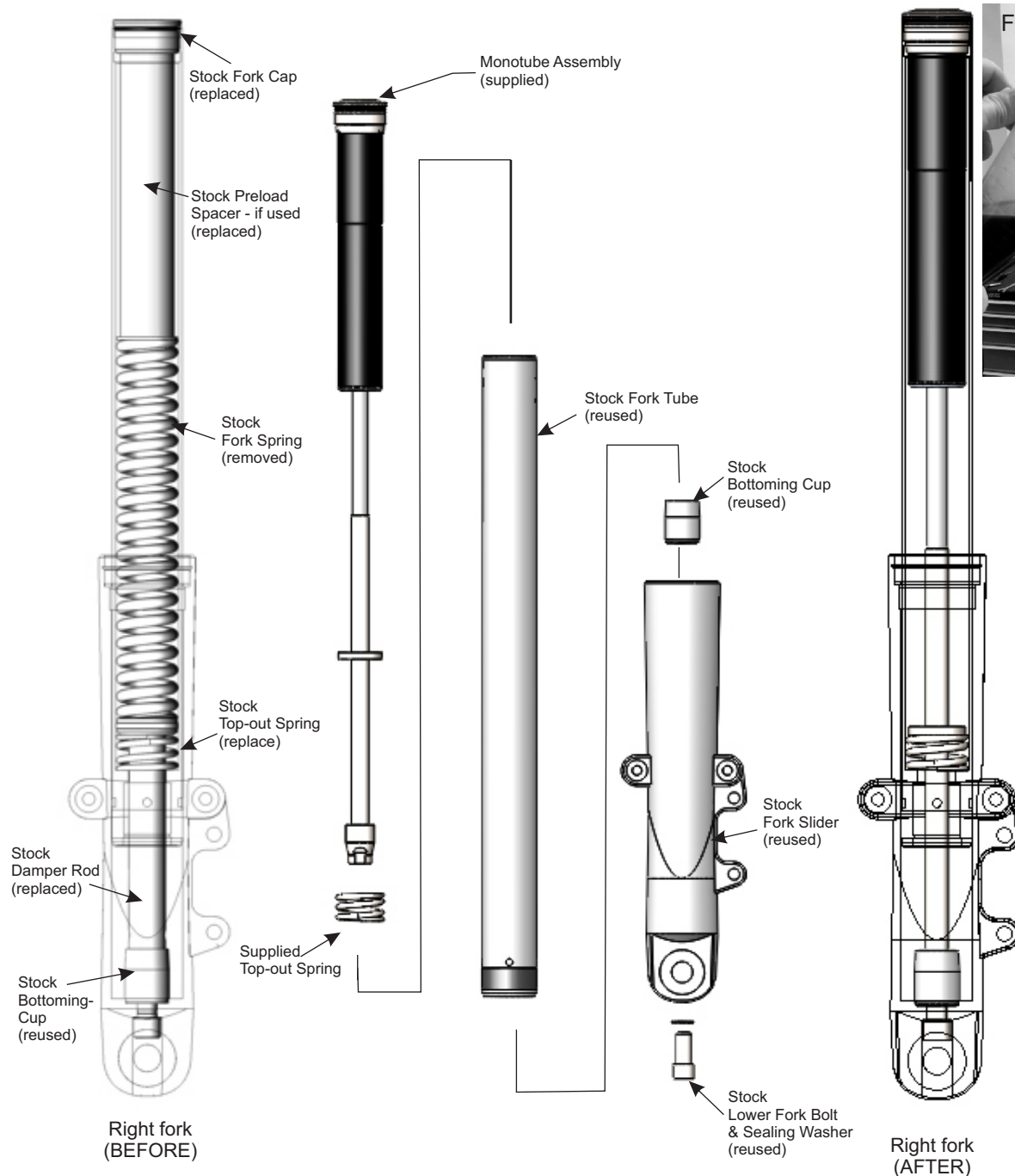
Caution

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.

- Starting with the right fork (referencing the illustrations below), first drop one of the supplied top-out springs into the fork, then insert the Monotube cartridge assembly. Make certain the bottoming-cup is properly seated in the bottom of the fork – in the slider – and the bottom of the Monotube cartridge assembly is seated within said bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Monotube assembly. Torque the bolt to the factory recommended 30-37 ft-lbs. If the Monotube assembly tries to rotate, temporarily thread the Monotube assembly into the fork-tube and try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while torquing the bottom fork bolt.
- **No fork spring is installed in this (the right) fork assembly.** Pour ONLY - 300cc - of Progressive Suspension Fork Oil (Standard type E) or 10wt. fork oil into the fork for lubricating purposes as seen in figure 1. Then, using a 19mm Hex Driver, thread the Monotube assembly into your fork-tube and torque it to the recommended 16-43 ft-lbs. This completes the right fork assembly.

Warning

DO NOT USE MORE THAN 300cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 300cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



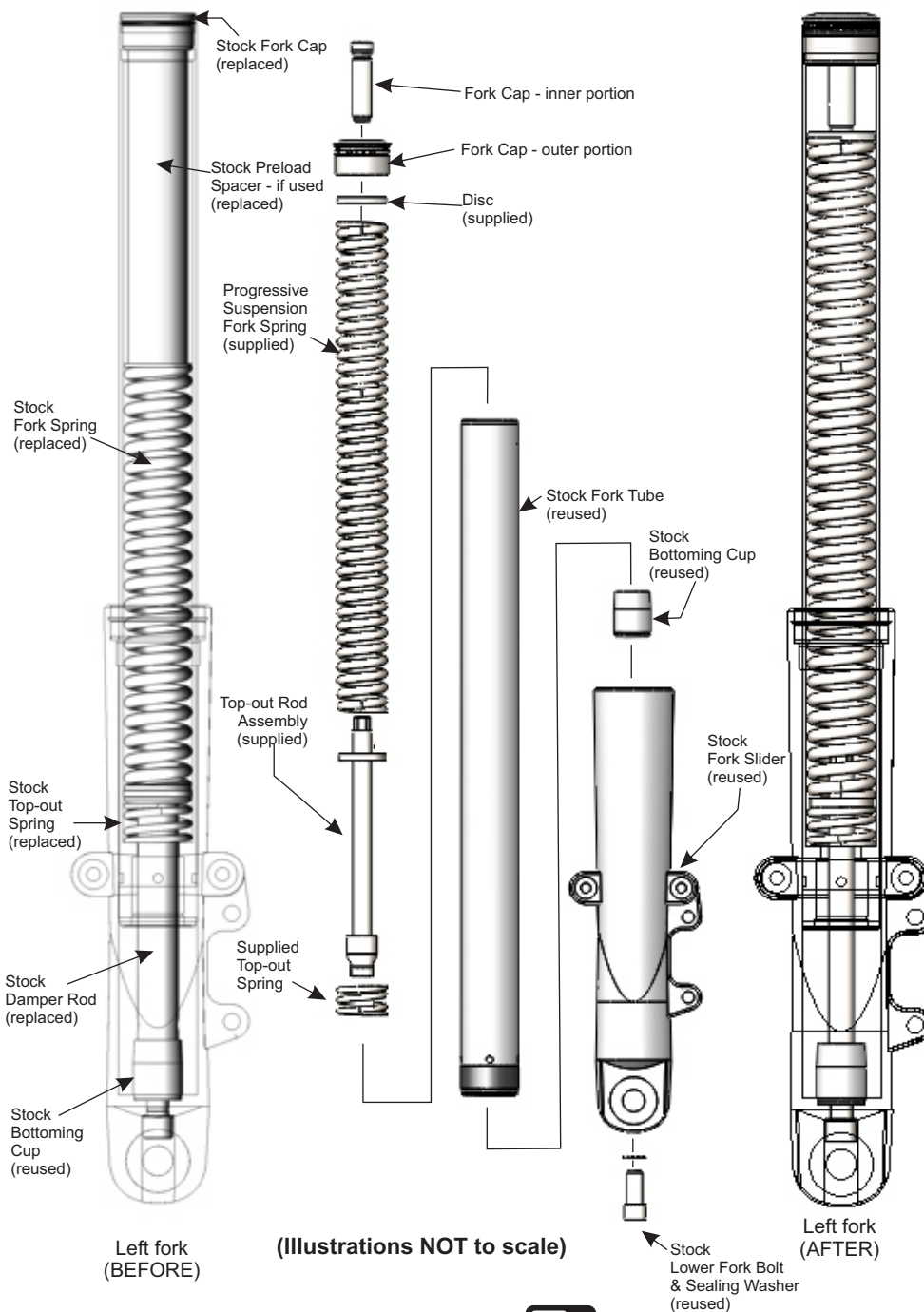
(Illustrations NOT to scale)



- For the left fork (referencing the illustrations below), drop the other supplied top-out spring into the fork-tube followed by the supplied Top-out Rod assembly. Make certain the bottoming-cup is properly seated in the bottom of the fork – in the slider – and the bottom of the Top-out Rod assembly is seated in the bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Top-out Rod assembly. Torque the bolt to the factory recommended 30-37 ft-lbs. If the Top-out Rod assembly tries to rotate, try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while applying torque to the bottom fork bolt (same as you might on while installing a stock damper-rod) or by using a long extension and 12mm socket on the hex atop the Top-out Rod assembly.
- Next pour **ONLY** - 300cc - of Progressive Suspension Fork Oil (Standard type E) or 10wt. fork oil into the fork for lubricating purposes. Then drop the supplied Progressive Suspension fork spring in the fork - with the tighter coils down.

Warning

DO NOT USE MORE THAN 300cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 300cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



(Illustrations NOT to scale)

- Then, with the fork either secured in a vice (or clamped back into the triple-clamps), install the supplied flat Disc on top of the spring, followed by the Progressive Suspension fork cap - **with the inner portion of the cap temporarily removed from the center of the cap** - install the outer portion of the fork cap into the fork tube and torque to 16-43 ft-lbs using a 19mm Hex Driver.
- Finally, to avoid damage make sure the O-ring inside the outer portion of the fork cap is greased and use a 12mm hex driver to thread the inner portion into the center of the previously installed outer portion of the fork cap, threading it all the way down until it is seated in the outer portion of the fork cap - **it will hit a hard stop and the top of the inner portion will be flush with the bottom of the 19mm hex feature of the outer portion when the inner portion is properly seated.** Torque the inner portion of the fork-cap to 15-20 ft-lbs.
- This completes the left fork assembly.
- Finish reinstalling your left and right fork assemblies and all other components you may have removed per the procedure outlined in your authorized factory service manual.

NOTE: During the reinstallation of your forks, it is normal for the fork with the supplied Progressive Suspension spring in it to appear slightly longer due to the pre-load force.

TECHNICAL ASSISTANCE

The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics and ground clearance.

Compliment your Progressive Suspension Fork Monotube kit with a set of Progressive Suspension high performance shocks.



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.

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 internal components must be performed by a qualified mechanic or according to steps outlined in a factory authorized professional service manual that relates to your particular make, model and year motorcycle. Special tools may be needed. Please read all instructions before beginning this procedure. If you lack any of the tools or resources or are uncertain about any part of the procedure, then have the work done by a qualified mechanic.

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

Progressive Suspension Monotube 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 service manual as a reference while installing this kit.
- 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, inspected and reassembled with Progressive Suspension Fork Oil (Standard - Type E). When installing Progressive Suspension Lowered Monotube Cartridge fork kit, ONLY- 200cc - of type "E" or 10wt. fork oil is required in each fork for lubricating the internal moving parts - the cartridge damper is sealed. Changing the volume or viscosity of the oil is not recommended and could cause damage and/or loss of control.

- This kit replaces your stock fork caps, preload-spacers (if present), fork springs, top-out springs and damper-rods. Remove these components and drain the oil out of your forks per the procedure outlined in your factory authorized service manual.
- Also note that this kit contains components for two different fork configurations - approximately 1" or 2" inch lowered. Decide which configuration you prefer before installing, and follow the instructions carefully for that configuration.

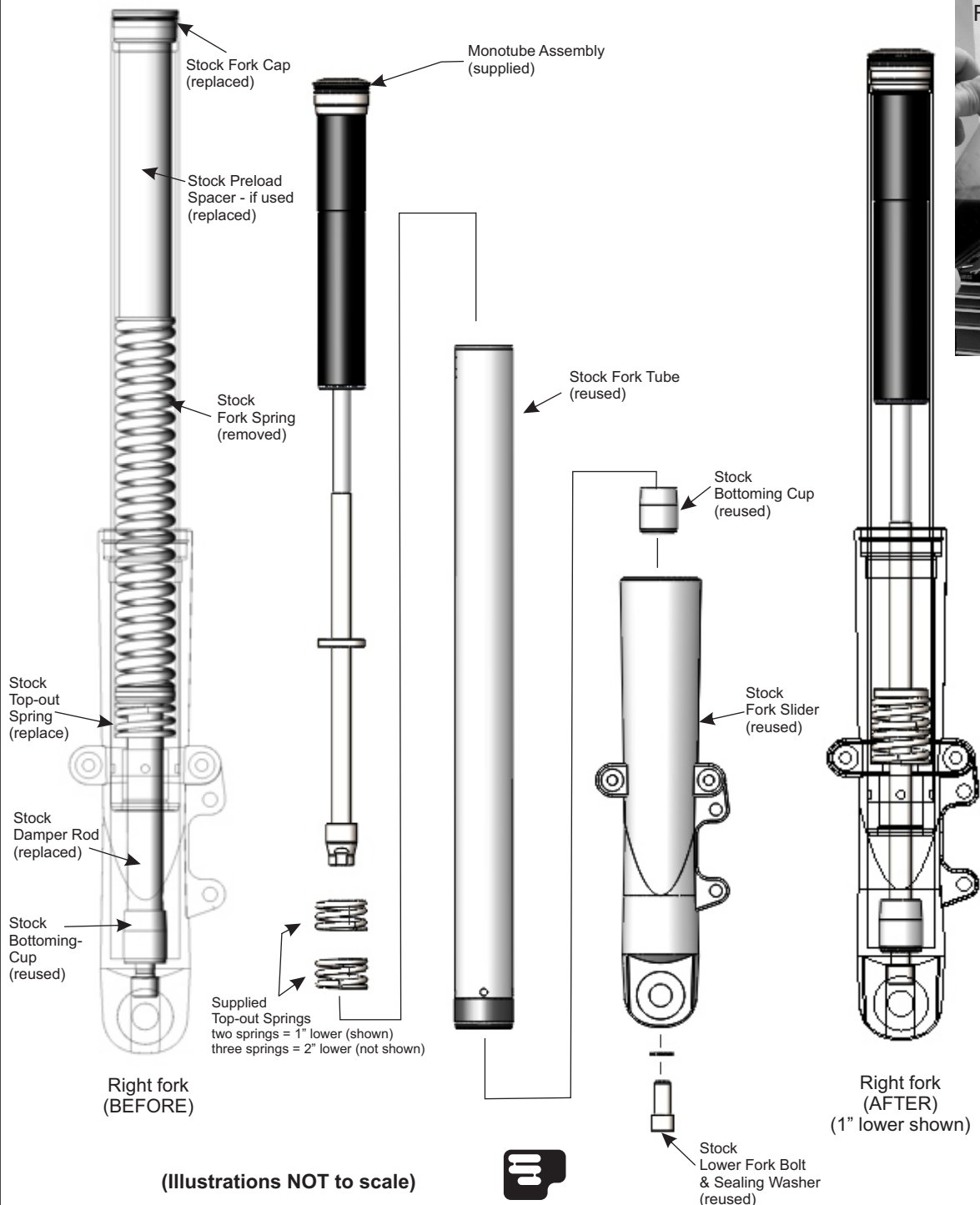
Caution

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.

- Starting with the right fork (referencing the illustrations below), first drop **either TWO of the supplied top-out springs into the fork for 1" lower - OR - THREE of the supplied top-out springs for 2" lower.** Then insert the Monotube cartridge assembly. Make certain the bottoming-cup is properly seated in the bottom of the fork – in the slider – and the bottom of the Monotube cartridge assembly is seated within said bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Monotube assembly. Torque the bolt to the factory recommended 30-37 ft-lbs. If the Monotube assembly tries to rotate, temporarily thread the Monotube assembly into the fork-tube and try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while torquing the bottom fork bolt.
- **No fork spring is installed in this (the right) fork assembly.** Pour ONLY - 200cc - of Progressive Suspension Fork Oil (Standard type E) or 10wt. fork oil into the fork for lubricating purposes as seen in figure 1. Then, using a 19mm Hex Driver, thread the Monotube assembly into your fork-tube and torque it to the recommended 16-43 ft-lbs. This completes the right fork assembly.

Warning

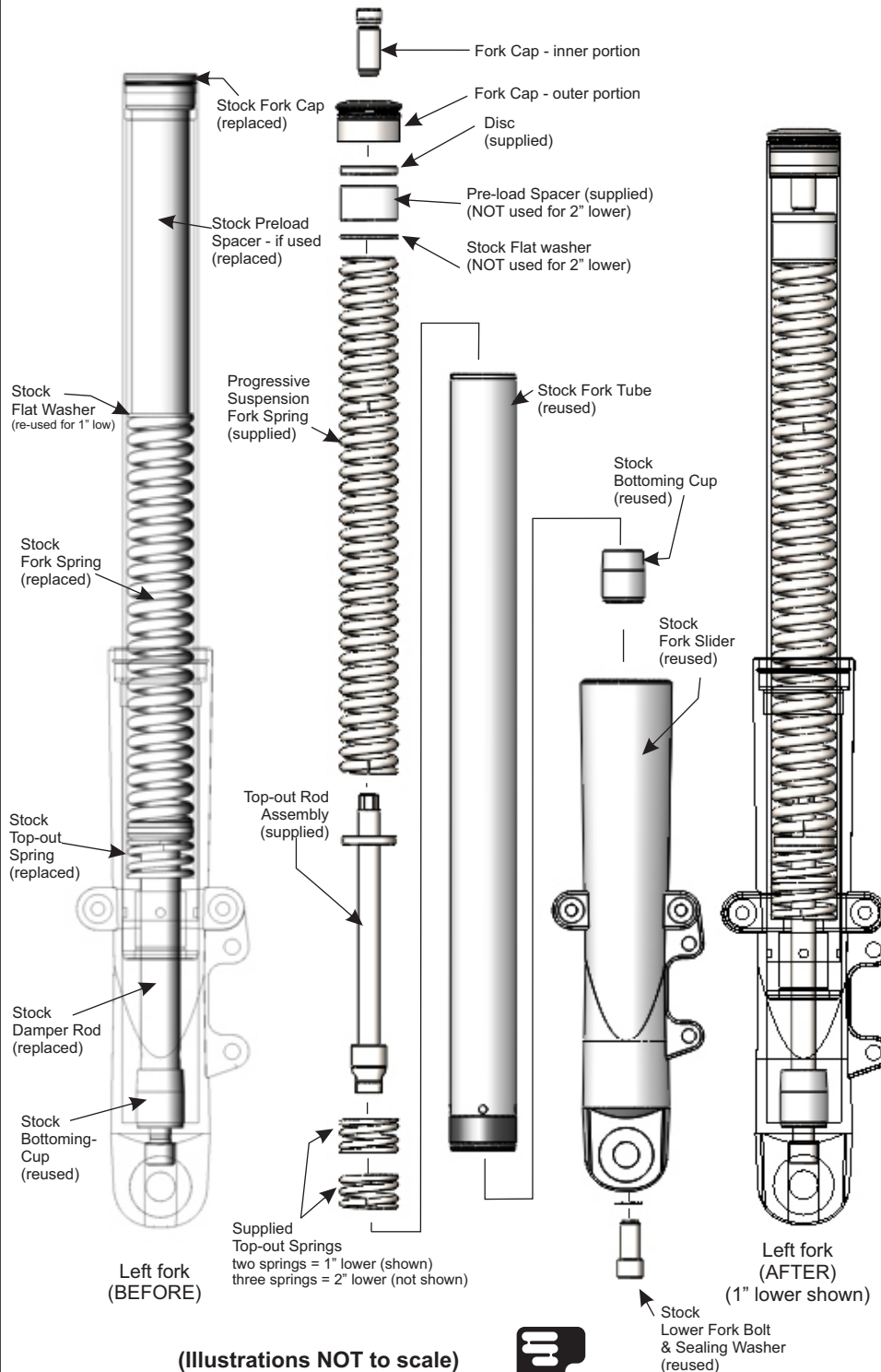
DO NOT USE MORE THAN 200cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 200cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



- For the left fork (referencing the illustrations below), drop **either TWO of the remaining supplied top-out springs into the fork for 1" lower - OR - THREE of the remaining supplied top-out springs for 2" lower (same number as in other fork).** Next insert the supplied Top-out Rod assembly. Make certain the bottoming-cup is properly seated in the bottom of the fork – in the slider – and the bottom of the Top-out Rod assembly is seated in the bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Top-out Rod assembly. Torque the bolt to the factory recommended 30-37 ft-lbs. If the Top-out Rod assembly tries to rotate, try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while applying torque to the bottom fork bolt (same as you might on while installing a stock damper-rod) or by using a long extension and 12mm socket on the hex atop the Top-out Rod assembly.
- Next pour **ONLY - 200cc -** of Progressive Suspension Fork Oil (Standard type E) or 10wt. fork oil into the fork for lubricating purposes. Then drop the supplied Progressive Suspension fork spring in the fork - tighter coils down.

Warning

DO NOT USE MORE THAN 200cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 200cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



(Illustrations NOT to scale)

- **For 1" lower** - re-install the stock spring flat washer, followed by the included pre-load spacer.
- **For 2" lower** - **DO NOT** re-install the stock spring flat washer or the included pre-load spacer.
- Then, with the fork either secured in a vice (or clamped back into the triple-clamps), install the supplied flat Disc, followed by the Progressive Suspension fork cap - **with the inner portion of the cap temporarily removed from the center of the cap** - install the outer portion of the fork cap into the fork tube and torque to 16-43 ft-lbs using a 19mm hex driver.
- Finally, to avoid damage make sure the O-ring inside the outer portion of the fork cap is greased and use a 12mm hex driver to thread the inner portion into the center of the previously installed outer portion of the fork cap, threading it all the way down until it is seated in the outer portion of the fork cap - **it will hit a hard stop and the top of the inner portion will be flush with the bottom of the 19mm hex feature of the outer portion when the inner portion is properly seated.** Torque the inner portion of the fork-cap to 15-20 ft-lbs.
- This completes the left fork assembly.
- Finish reinstalling your left and right fork assemblies and all other components you may have removed per the procedure outlined in your authorized factory service manual.

NOTE: During the reinstallation of your forks, it is normal for the fork with the supplied Progressive Suspension spring in it to appear slightly longer due to the pre-load force.

TECHNICAL ASSISTANCE

The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics and ground clearance.

Compliment your Progressive Suspension Fork Monotube kit with a set of Progressive Suspension high performance shocks.

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.

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 internal components must be performed by a qualified mechanic or according to steps outlined in a factory authorized professional service manual that relates to your particular make, model and year motorcycle. Special tools may be needed. Please read all instructions before beginning this procedure. If you lack any of the tools or resources or are uncertain about any part of the procedure, then have the work done by a qualified mechanic.

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

Progressive Suspension Monotube 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 service manual as a reference while installing this kit.
- 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 - 200cc - of type "E" or 10wt. fork oil is required in each fork for lubricating the internal moving parts - the cartridge damper is sealed. Changing the volume or viscosity of the oil is not recommended and could cause damage and/or loss of control.

- This kit replaces your stock fork caps, preload-spacer, fork springs, top-out springs, left fork cartridge and right fork damper-rod. Remove these components and drain the oil out of your forks per the procedure outlined in your factory authorized service manual.
- Also note that this kit contains components for two different fork configurations - Standard ride height & 1" inch lowered. Decide which configuration you prefer before installing, and follow the instructions carefully for that configuration.

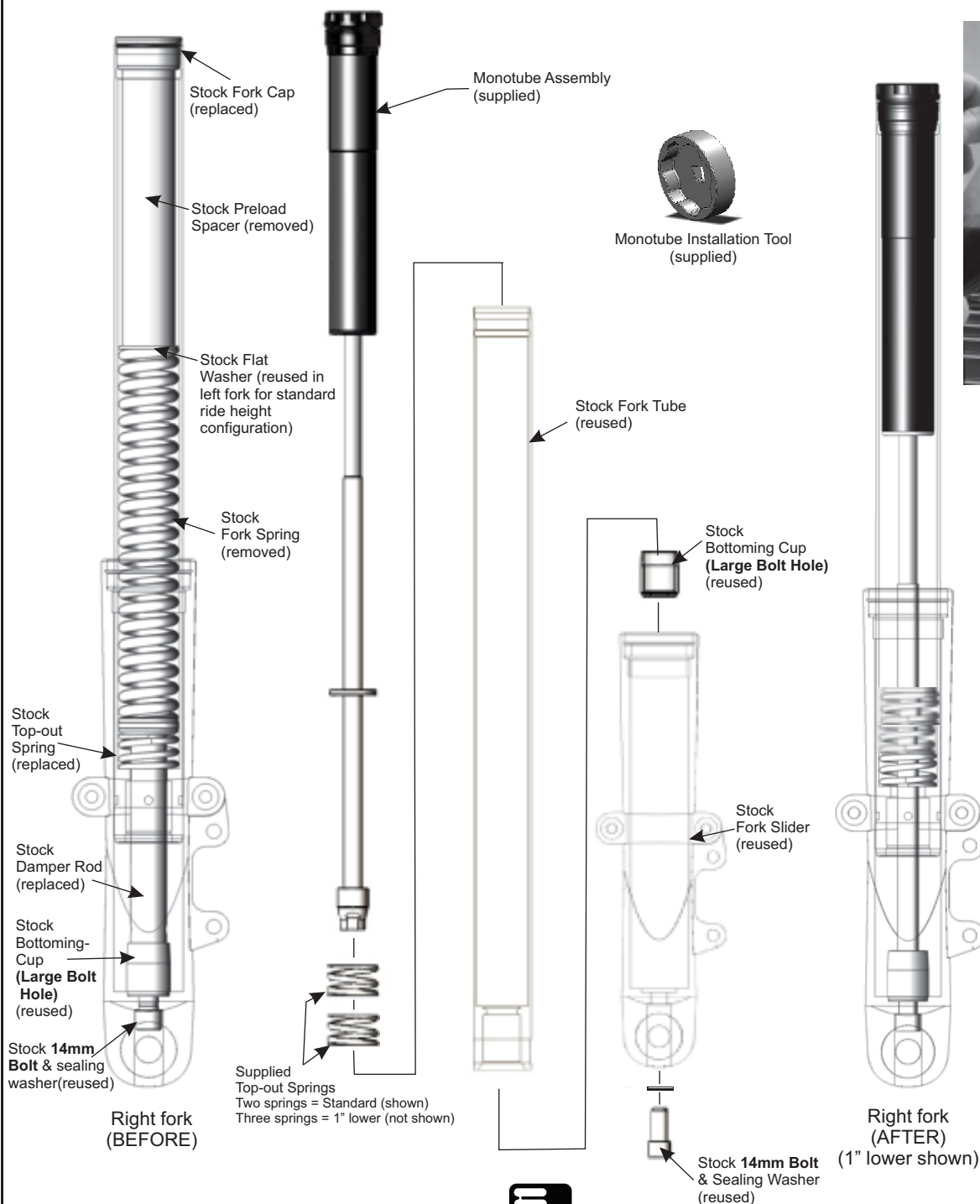
Caution

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.

- Starting with the right fork (referencing the illustrations below), first drop **either TWO of the supplied top-out springs into the fork for Standard Ride Height - OR - THREE of the supplied top-out springs for 1" lower.** Then insert the Monotube cartridge assembly. Make certain the **OEM bottoming-cup (large bolt hole for 14mm bottom bolt)** is properly seated in the bottom of the fork – in the slider – and the bottom of the Monotube cartridge assembly is seated within said bottoming-cup. Put a drop of thread locking agent on the bottom **14mm bolt** and thread it (along with the copper sealing washer) into the bottom of the Monotube assembly. **Torque the 14mm bolt to the factory recommended 30 - 37 ft-lbs.** If the Monotube assembly tries to rotate, temporarily thread the Monotube assembly into the fork-tube and try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while applying torque to the bottom fork bolt.
- **No fork spring is installed in this (the right) fork assembly.** Pour a small amount - 200cc - of type “E” or 10wt. fork oil into the fork for lubricating purposes as seen in figure 1. Then using the supplied Monotube Installation Tool (p/n 5503-200) thread the Monotube assembly into your fork-tube and torque it to the recommended 16-43 ft-lbs. This completes the right fork assembly.

Warning

DO NOT USE MORE THAN 200cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 200cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



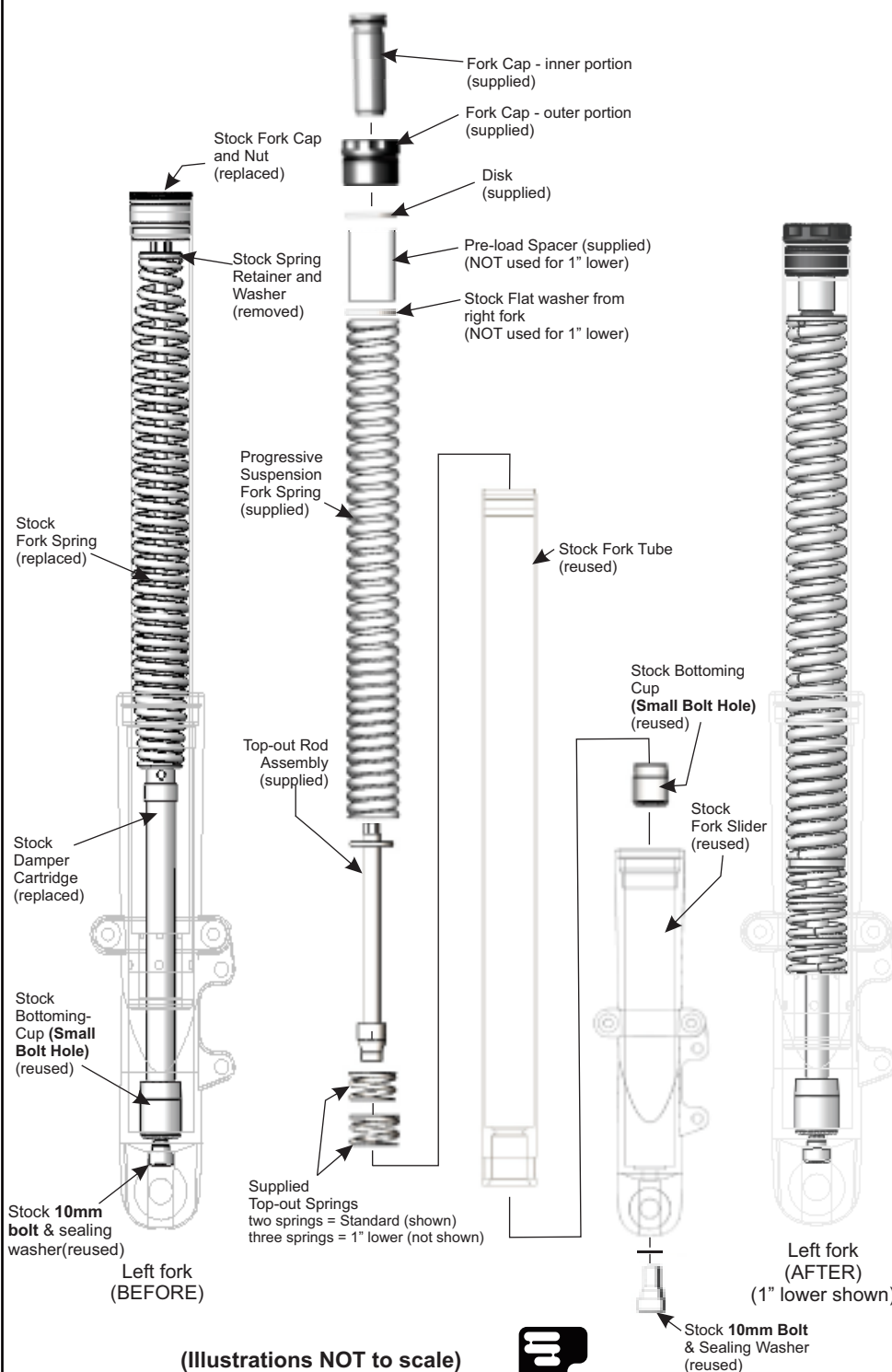
(Illustrations NOT to scale)



- For the left fork (referencing the illustrations below), drop **either TWO of the remaining supplied top-out springs into the fork for Standard Ride Height - OR - THREE of the remaining supplied top-out springs for 1" lower (same number as in the other fork)**. Next insert the supplied Top-out Rod assembly. Make certain the **OEM bottoming-cup (small bolt hole for 10mm bottom bolt)** is properly seated in the bottom of the fork – in the slider – and the bottom of the Top-out Rod assembly is seated in the bottoming-cup. Put a drop of thread locking agent on the bottom **10mm bolt** and thread it (along with the copper sealing washer) into the bottom of the Top-out Rod assembly. **Torque the 10mm bolt to the factory recommended 22 - 30 ft-lbs.** If the Top-out Rod assembly tries to rotate, try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while applying torque to the bottom fork bolt or by using a long extension and 12mm socket on the hex atop the Top-out Rod assembly.
- Next pour a small amount - 200cc - of type “E” or 10wt. fork oil into the fork for lubricating purposes. Then drop the supplied Progressive Suspension fork spring in the fork - tighter wound coils down.

Warning

DO NOT USE MORE THAN 200cc OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 200cc OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



(Illustrations NOT to scale)

- **For Standard** - re-install the stock spring flat washer, followed by the included pre-load spacer.
- **For 1" lower** - DO NOT re-install the stock spring flat washer or the included pre-load spacer.
- Then, with the fork either secured in a vice (or clamped back into the triple-clamps), install the supplied flat Disk on top of the spring, followed by the Progressive Suspension fork cap - **with the inner portion of the cap temporarily removed from the center of the cap** - install the outer portion of the fork cap into the fork tube and torque to 16-43 ft-lbs using the supplied Monotube Installation Tool (p/n 5503-200). Store this tool in a safe place for future fork maintenance.
- Finally, to avoid damage make sure the O-ring and threads on the inner portion of the fork cap is greased and use the supplied aluminum hex-key to thread the drive-rod into the center of the previously installed outer portion of the fork cap, threading it all the way down until it is seated in the outer portion of the fork cap - **it will hit a hard stop and the tops of the inner and outer portions of the fork cap will be flush when the inner portion is properly seated.** Torque the inner portion of the fork-cap to 15-20 ft-lbs.
- This completes the left fork assembly.
- Finish reinstalling your left and right fork assemblies and all other components you may have removed per the procedure outlined in your authorized factory service manual.

NOTE: During the reinstallation of your forks, it is normal for the fork with the supplied Progressive Suspension spring in it to appear slightly longer due to the pre-load force.

TECHNICAL ASSISTANCE

The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics and ground clearance.

Compliment your Progressive Suspension Fork Monotube kit with a set of Progressive Suspension high performance shocks.

Installation Instructions Monotube Cartridge Fork Kit 97-Later* Harley Davidson FLH/FLT

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.

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 2002-2005 FLHT/FLT models are equipped with a damper-rod type fork on right side and a cartridge fork on the left side. The components included in this kit have been designed to replace both the damper-rod right fork, and the cartridge left fork OE components to deliver optimum performance.

The vehicle must be securely blocked to prevent it from dropping or tipping when the fork springs 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.
- Support and lift the motorcycle securely so the front wheel is off the ground. The balance point is 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 (5oz.) of 10wt. fork oil is required in each fork 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. However the procedure on the left fork (stock cartridge) for the 02-05 FLHT/FLT varies from the damper rod type forks. If installing this kit on one of these models, note the variance in the following steps.

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

Caution

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.

Damper Rod Forks (including 02-05 FLHT/FLT right fork)

- After removing both forks, start with one of the forks and remove the fork cap, then remove the 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 then with the fork completely compressed remove the damper rod & top-out spring by removing the bolt in the bottom of the fork. Keep the fork assembly fully compressed at this point to keep the stock bottoming cup properly located.

Caution

DO NOT INSTALL THE SUPPLIED BOTTOMING CUP IN THE DAMPER ROD FORK, AS IT IS INTENDED FOR USE IN THE STOCK LEFT CARTRIDGE FORK ONLY.

- Put the supplied top out spring onto the Progressive Suspension Monotube cartridge assembly as shown (see figure 1) AND two of the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat (see figure 2). Then insert it into the fork assembly as shown (see figure 3).
- Put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it, tightening it up into the Progressive Suspension Monotube cartridge. Torque the bolt to the factory recommended specification of 11-18 ft. lbs.
- Repeat the process on the other fork and proceed to "Both Forks" section of instructions - unless you're installing this kit on a 02-05 FLHT/FLT, then proceed to next step for left fork.

Cartridge Fork (02-05 FLHT/FLT left side only)

- Loosen the fork cap and slide the inner fork tube down far enough to be able to pour the fluid out of fork and drain the fork.
- Remove the bolt in the bottom of the fork and remove the stock cartridge, fork spring, and fork cap as an assembly.
- Remove the fork seal retaining clip then carefully remove the fork seal by sliding the inner fork tube out of the outer slider with a light tapping motion. Remove the stock bottoming cup from the outer slider. Inspect fork bushings and seal, replacing them if needed.
- Reinstall the supplied bottoming cup (with the cup facing up) into the outer fork slider and carefully insert the inner fork tube back into the outer slider. Maintain the orientation of the bottoming cup while doing this - the bottoming cup must seat in the outer slider as the stock cup did. Once seated, keep the assembly compressed to maintain it's position during assembly. Per your factory authorized manual reinstall the fork seal using a proper fork seal driver tool, and then reinstall the fork seal retaining clip.

- Install the supplied top-out spring as shown (see figure 1) onto the Progressive Suspension Monotube assembly AND two of the supplied "C" shaped preload spacers between the top of the fork spring and the upper spring seat (see figure 2). Then insert it into the fork assembly as shown (see figure 3). Be sure the newly installed bottoming cup receives the new cartridge assembly.

- Once you are certain the new bottoming cup is centered and seated, put a drop of red thread-locking agent on the bolt that came out of the bottom of the fork and reinstall it, tightening it up into the Progressive Suspension Monotube cartridge. Torque the bolt to the factory recommended specification of 11-18 ft. lbs.

- Proceed to "Both Forks" section of instructions to complete installation.

Both Forks (stock damper-rod type & cartridge)

- Secure the fork assembly so you can fill it with fluid. This may require stroking the assembly to draw fluid from the inner fork tube in to the outer fork slider.

Warning

DO NOT USE MORE THAN 5 FLUID OUNCES OF FORK OIL IN EACH FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING EACH FORK WITH MORE THAN 5 FLUID OUNCES OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

- Pour 5 ounces of 10 wt. fluid in each 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 (see figure 4). This fluid is just to lubricate moving parts and has no effect on the actual damping action of the sealed Monotube cartridge fork insert.
- 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 the factory recommended specification of 60-70 ft. 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.
- Pre-load fine tuning: Spacer length can be decreased to lower the ride height and soften the ride or increased to raise the ride height and stiffen the ride. Adjust in 1/4" increments.
- To compliment your suspension, we recommend installing a pair of our 412 Series Gas Shocks, 430 shocks, 444 Series Shocks or 970 Series Remote Reservoir Shocks.
- The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics.

Illustrations

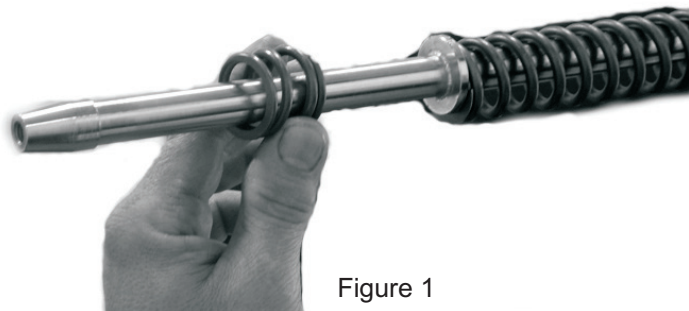


Figure 1



Figure 2



DO NOT INSTALL THE SUPPLIED BOTTOMING CUP IN THE DAMPER ROD FORK, AS IT IS INTENDED FOR USE IN THE STOCK LEFT CARTRIDGE FORK ONLY ON 02-05 FLH/FLT MODELS.



Figure 3



Figure 4

Feel the difference with Progressive Suspension.

Learn more about motorcycle suspension parts and trim we have.