

## V-Twin Mfg.

**24-0159 FORK SPRING LOWERING KIT FITS 1984-1999 FXWG W/O DAMPER TUBES**

**24-0160 FORK SPRING LOWERING KIT FITS 1987-1995 XL/FXR W/O DAMPER TUBES**

**24-0161 FORK SPRING LOWERING KIT FITS 1975-1987 FX/FXR W/O DAMPER TUBES**

**This is a custom application and rider safety depends on proper installation. This product should only be installed by a knowledgeable and trained motorcycle technician. V-Twin Mfg. accepts no responsibility for improper installation.**

24-0159	FXST/C 1984-89, FDLST/C 1986-89, FXWG 1984-86	41 mm Showa Wideglide Fork
24-0160	XLH 883/1200 Sportster 1988-89, FXRS-SP/FXLR 1987-89, FXR/FXRS/FXRT 1988-89	39mm Showa Fork
24-0161	XLH 883 1986-87, XLH/XLCH 1973-78, XLCH 1977-78 XLS/XLH/XLX-61/XR1000 1979-87, FXS/FXSB/FX/FXE (4-Speed) 1973-86, FXR/FXRS/FXRT/FXRD 1982-87	35mm Showa Fork

1. Support the motorcycle so the front wheel is off the ground and remove the front wheel. Remove the fork cap nuts and loosen the lower clamp pinch bolts. Remove the front brake caliper. Some models have a tapered end to the fork tube. To remove the tube from the crown will require extra efforts. Loosen the top fork cap 1 to 2 revolutions. Use soft wood block or similar tool (that will not mar fork cap finish) and tap down with mallet to loosen fork tube from its tapered fit in top steering crown. Make sure fork pinch bolts are loose. To completely remove fork of this style, unscrew for cap completely. (CAUTION: Fork caps are under spring pressure and could cause serious injury; use caution!)
2. Slide both fork assemblies out of the triple clamps. Unscrew the top fork tube plugs. (CAUTION: The fork tube plugs are under spring pressure and could cause serious injury; use caution!) Remove the plugs and fork springs. Turn the fork assemblies upside-down and drain the fork oil.
3. Next, bottom the fork tube into the fork leg. DO NOT extend the tube while you remove the allen bolt on the bottom of the fork leg. Turn the assembly upside-down and shake the damper rod and rebound spring out of the fork assembly. Again, DO NOT extend the tube during these operations. Extending the tube could dislodge the internal cone bottomer which fits on the end of the damping rod making it very difficult to reinstall the damper rod without complete disassembly.
4. For 1.25" REDUCTION IN FORK LENGTH: Replace the rebound spring with the longer spring (supplied in kit) and install on damper rod. Re-install the damper rod in fork.  
FOR 2" REDUCTION IN FORK LENGTH: Install the long rebound spring (supplied in kit) and the standard rebound spring on the damper rod and reinstall damper rod in fork.  
BOTH: Loctite and-torque the allen bolt at bottom to 18 foot pounds.
5. Now, slide the fork tube up and down in the fork leg. Check for smooth action and full travel.
6. Replace the fork oil with Harley-Davidson type "E" fork oil or equivalent 10wt fork oil. Heavier riders may prefer 15wt or 20wt fork oil. Add the amount of oil to your forks that is specified in your factory owners manual.
7. Install the new progressively wound fork spring into the fork tube with the tight coils to the top. Install one washer on top of the spring. At this time it is necessary to check fork spring pre-load with a fully extended fork. With PVC material supplied, cut PVC to length that will allow the fork cap to compress the fork spring 1.5" with the fork cap fully tightened.

**NOTE:** Some models will not require a spacer, other models may. Always check pre-load on installation of this kit. Heavier riders may prefer 1.75" of pre-load (stiffer), and lighter riders 1.25" (softer). Install a washer on top of PVC spacer (if applicable) and fully tighten fork cap. Models with tapered fork tube must be installed in fork crown prior to installing fork cap.

8. Re-install the forks, caliper, and front wheel on the motorcycle. Check for smooth fork action, brake operation, and recheck all nuts and bolts for correct tightness.

**WARNING:** Reducing the ride height and suspension travel on any motorcycle will create reduced cornering clearance, suspension travel, and ground clearance. This is a modification most suited for custom motorcycles that are rarely ridden. The rider must use extreme caution when riding his modified machine, particularly while familiarizing himself with its altered handling characteristics.

After lowering, your side stand may be too long and require shortening or bending. Check your machine for proper tilt angle on stand. Alter side stand if necessary.