

**V-Twin MFG.**  
**Shock Lowering Kit**  
**For use on 2002 & Up FLT**  
**VT Part No. 54-0534**

**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.**

**Warning:** This kit was designed for use with stock tire and stock length shocks **ONLY!** We do not recommend using shorter than stock shocks with this kit. Fender to tire clearance will be reduced if a larger tire or shorter shock is used. While the shocks are removed check the tire to fender clearance, brake caliper to fender clearance and belt guard to fender clearance.

Reducing the ride height on any motorcycle will create reduced cornering and ground clearance. The operator must use extreme caution when operating the motorcycle.

We highly recommend that you have this installed by a qualified motorcycle technician. If you do not have access to a motorcycle stand capable of supporting the rear of the motorcycle, allow your local dealer to assist you.

To maintain a proper balanced geometry, we recommend lowering the front and rear of the motorcycle equally.

The operator must use extreme caution when operating a modified motorcycle, particularly when familiarizing himself with it's altered handling characteristics. Check your motorcycle for proper parking lean grade. After lowering, your side stand may require modification.

**NOTE:** This kit is not designed for use on the Road king Classics with leather saddlebags due to the saddlebag design. Some modifications to the saddlebag mounting hardware and or shock boot removal may be required. In addition clearance on the OEM turn signal assembly may have to be modified.

#### **INSTALLATIONS INSTRUCTIONS**

1. Support motorcycle securely so that rear wheel is just off the ground.
2. Take measurements from the ground to the top shock mount bolts and note the measurement.
3. Remove both lower shock mount bolt.
4. Thread the four 3/8-24 allen set screws into the both lowering mounts so they are just flush with the inside of the mounts.
5. Place the lowering mount over the top of the swingarm with the machined cutout facing out on each side.
6. Using loctite, secure the mount using the provided bolts and washers . Tighten just snug at this time.

**NOTE:** The shorter (1-1/2) bolt must be used on the LEFT side with the washer to allow clearance on the belt pulley bolts.

7. Lower the bike to align the shocks with the shock mount holes.
8. Install the original shock bolts using loctite adding the supplied washer between the shock and the shock mount. Tighten just snug at this time.
9. Take measurements from the ground to the top shock mount bolts. The hight should be ½ to 5/8 inch lower then the measurement taken in step #2.
10. Adjust the rear allen set screws against the swingarm to the desired hight. **DO NOT LOWER MORE THEN 1 1/2"**.
11. Adjust the top allen set screws a against the swingarm and lock in the adjustment.
12. Using Loctite install the four, 3/8-24 nylock nuts to the four allen set screws. Torque to 20 ft lbs.
13. Torque the shock mount bolts and lowering kit mount socket head bolts to 60. ft lbs.
14. Road test and check for fender clearance.

**Special Note:** Some swingarms may require that the casting ridges be ground down or have the edges filed down to allow for proper fitment.

#### **Hardware Supplied:**

- 2 Lowering kit blocks
- 4 Allen studs 3/8X1-3/4
- 4 Nylock nuts 3/8
- 4 washers ½
- 1 Socket cap bolt 1/2X1-1/2
- 1 Socket cap bolt 1/2X1-3/4

**CAUTION:** SHOULD YOU ATTEMPT TO USE THIS KIT ON A ROAD KING CLASSIC WITH LEATHER BAGS READ THE FOLLOWING.

This kit changes the angle and position of the shocks. It places them further back and closer to the saddlebags. You may encounter clearance problems when re-installing the leather saddlebags. Check for a minimum of 5mm clearance to prevent damage to the saddlebags. Measure clearance in the recessed area in the "backside" of the saddlebags where the shock sits. Check front, back and side clearance. **THE BAGS MUST INSTALL WITHOUT ANY ADDITIONAL FORCE!** If they don't they are hitting the shock and or shock boot.

**Inspect the clearance through the full range of motion of the swing arm. If more clearance is required, three suggested options are as follows:**

1. Place washers between the mounting points where the saddlebags attach to the rails. This will move the bag slightly outward and away from the shock body.
2. Completely remove the rubber boot that covers the lower portion of the shock shaft. The boot can also be modified by cutting the top portion of the boot and securing it with a zip tie to the lower portion of the shock. (Not the body) This should give you a minimum of 3mm clearance.
3. Slot and or space the saddlebag rail mounting holes to allow the entire frame assembly to be move out slightly form the shock body. This modification should be used **ONLY** as a last resort. Recheck the mounting hardware and bag clearance after initial test ride and on a regular basis during routine maintenance.

