



UPDATE 5/02/06

HYDRAULIC CLUTCH ACTUATOR #202240, 202250, 202270

THE INSTALLATION OF THIS HYDRAULIC CLUTCH ACTUATOR MAY VOID YOUR FACTORY WARRANTY.

ITEM	PART NAME	QTY
1	Hydraulic Clutch Actuator	1
2	1/4-20 x 1-1/8" Socket Head Cap Screw, Chrome	4
3	1/4-20 x 2" Socket Head Cap Screw, Chrome	2

A qualified mechanic who has experience with clutch adjustment procedures and experience with bleeding hydraulic systems should complete the installation of this hydraulic clutch actuator.

This Pro-One hydraulic clutch actuator requires a master cylinder with a bore of either 5/8" or 11/16"

The hydraulic line from master cylinder to hydraulic clutch actuator is not included in this kit.

Use only DOT 5 brake fluid. (we do not recommend Bel Ray brake fluid) Always start with a new container of brake fluid to avoid the possibility of contamination.

These instructions are based on having your 5/8" or 11/16" handlebar master cylinder in place.

Read and understand these instructions completely before beginning installation.

REMOVE THE STOCK CLUTCH HOUSING

- (1) Remove the exhaust system or any other accessory that may interfere with the installation. Drain the transmission oil. Remove the bolts holding the stock clutch cover in place. Depress the clutch lever, which will help separate the housing from the transmission. Discard the old gasket.
- (2) Remove the push rod and oil slinger actuation assembly. The clutch push rod should stay in place.
- (3) Remove the retaining ring, thrust washers, and throw-out bearing from the push rod. Pry the oil slinger off the push rod and discard. Re-install thrust washers, throw-out bearing, and retaining ring. Check for worn parts and replace if necessary. Re-install push rod actuation assembly.

- (4) Remove clutch cover / derby cover to gain access to clutch. Loosen the clutch jam nut and back out the adjuster screw several turns. This will prevent the clutch from binding as the new housing is installed.

INSTALLING THE HYDRAULIC CLUTCH ACTUATOR

- (1) Using a new gasket, install the hydraulic clutch actuator. Use blue loctite #242 on the ¼"-20 bolts supplied with this kit. Using a standard criss-cross pattern, torque the bolts to 10ft. lbs. Fill the transmission with the proper gear oil to the recommended level.
- (2) Install hydraulic line. Use care while routing it to the handlebar-mounted master cylinder. Loosen the bleeder screw on the hydraulic clutch actuator to allow all air to escape. On the primary side, screw in the pushrod adjuster until it bottoms out the piston.

BLEEDING THE HYDRAULIC SYSTEM

- (1) Tighten the bleeder screw on the hydraulic actuator. Fill the master cylinder with DOT 5-brake fluid. Using common hydraulic bleeding procedures, begin bleeding the system.
- (2) Attach a short length of hose to the bleeder screw on the hydraulic clutch housing. Put the open end of the hose into a small container that contains a small amount of brake fluid. Now compress the clutch lever several times and hold it compressed as you open the bleeder screw to expel air that is in the line. Bubbles coming from the hose end indicate air remaining in the system. This process will have to be repeated several times to insure that the system is free of any air bubbles. You may have to add additional DOT 5 brake fluid to the master cylinder during this process. Once the system is bled properly, the clutch lever will have a smooth firm action.

ADJUSTING THE CLUTCH

- (1) On the primary side, back the clutch adjuster screw out several turns to release any tension on the push rod.
- (2) Turn the adjuster screw back in until you feel slight resistance. It is now bottomed out. (Do not tighten against the resistance, as you will be depressing the clutch)
- (3) Now back out the adjuster screw ½ to 1 turn and tighten the locknut.
- (4) Re-install the clutch cover and test ride the motorcycle. Any additional adjustments you feel is necessary is accomplished by repeating the above process.