

MOTION PRO, INC. 3171 Swetzer Road Loomis, CA 95650 Tel 650.594.9600 Fax 650.594.9610 www.motionpro.com

# INSTRUCTIONS

#### **IMPORTANT - READ BEFORE INSTALLING**

#### THIS KIT IS TO BE INSTALLED BY A TRAINED TECHNICIAN IN A PROPERLY EQUIPPED SHOP

### FOR THROTTLE KIT P/N 01-2823, P/N 01-2858, P/N 01-01-2869

NOTE: When this kit is used with stock carburetors it will be necessary to install an idle kit P/N 08-0045.

## THESE INSTRUCTIONS ARE FOR USE WITH TWIST GRIP TYPE THROTTLE KITS. THESE KITS ARE DESIGNED TO REPLACE THE ORIGINAL THUMB THROTTLE WITH A TWIST GRIP TYPE THROTTLE.

1. Remove the seat and fuel tank. Carefully observe how the stock throttle cable is routed from the thumb throttle to the carburetor. This is how you will want to route the new cable.

2. Temporarily remove any clamps or guides used to retain the throttle cable. Remove the stock thumb throttle assembly.

3. Before removing the carburetor top/switch assembly, clean the outside of the carburetor and switch assembly thoroughly. On the outside of the carburetor you will find a gold colored carburetor top locking plate (original equipment carburetor). Remove this plate and unscrew the carburetor top. Remove the carburetor top/switch assembly. Do not allow any dirt or foreign material to enter the opening left in carburetor. Placing a clean rag in the opening of the carburetor will help avoid this problem. ANY DIRT OR FOREIGN MATERIAL THAT ENTERS THE CARBURETOR CAN CAUSE THE THROTTLE SLIDE TO STICK.

4. Pull the spring away from the slide and remove the retaining plate. Remove the slide and spring from the carburetor top/switch assembly (original equipment carburetor). Install the adjuster, carburetor cap, spring and slide onto the new cable. Make sure the needle is in the correct position and reinstall the retaining plate.

5. Remove the rag in the carburetor opening. Again, be careful that dirt or foreign material does not enter the carburetor. Install the throttle slide into the carburetor. Make sure the guide pin slides into the groove on the slide (slide cutaway to rear). Tighten the carburetor cap. Pull on the top cable end to make sure the full travel (up and down) of the slide is smooth, without binding.

6. Remove the right-hand grip from the handlebar. With an Allen wrench, disassemble the new throttle assembly. Using the throttle sleeve as a guide, mark the handlebar showing where the sleeve will fit. With fine sandpaper remove any paint on the handlebar where the throttle sleeve will fit. IT IS VERY IMPORTANT THAT THE HANDLEBAR BE CLEAN AND SMOOTH. IF THE HANDLEBAR IS NOT CLEAN AND SMOOTH IT IS POSSIBLE FOR THE THROTTLE TO STICK.

7. Slide the throttle sleeve onto the handlebar. Next, install the cable through the top half of the throttle housing and connect the cable end to the slot in the throttle sleeve. Install the plastic cable guide or wheel into the throttle housing. Make sure the cable fits into the groove of the guide or wheel. Refer to individual throttle instruction sheets. Assemble the

upper and lower throttle housings while positioning the throttle sleeve stop above the housing stop. Allow an 1/8 inch clearance between the grip and handlebar end. This will prevent the grip from binding on the end of the handlebar. Position the throttle so that the throttle cable will exit above the front brake lever assembly. Insert the throttle housing screws and tighten.

8. Throttle cable adjustment: **ALL THROTTLE CABLE ADJUSTMENTS ARE DONE WITH THE ENGINE OFF**. Adjust the throttle cable so there is a slight amount of free play (1/16 to 1/8 inch). Tighten all adjuster nuts. Reinstall all cable clamps and guides. Check that the throttle will snap back from the full open position in all handlebar steering positions. Also, check that the cable has free play when the handlebars are turned side to side. Note: Cable routing and throttle position affect the smoothness of throttle operation. Route the cable to avoid sharp bends or kinks. Position the throttle so that it does not create sharp bends or kinks in the cable.

9. Electrical Connections: This machine is equipped with a **THROTTLE OVERRIDE SYSTEM**. The purpose of this system is to turn off the ignition if the carburetor slide sticks open in the throttle body. When the stock thumb throttle and carburetor top/switch assembly are removed, this system is disabled. When working on 1988-2001 models, the ignition system will also be disabled. The control box, located inside the front left fender, must be removed for the ignition system to work. When working on 2002 and later models it is not necessary to remove the control box, just unplug the lower electrical connector from the stock thumb throttle and loop together the two pin connecter where the stock thumb throttle attaches on the main wire harness or where the thumb throttle plugs into the CDI box. Either way, you are connecting the plug back in where it was disconnected from (One way to loop the connections is to use the last three inches of the thumb throttle lower connector's with electrical tape. Or, use Motion Pro Switch Elimination Coupler Assembly part number 11-0040 and snap coupler directly into existing 2 pin connector where the thumb throttle was plugged into the main harness. **THE THROTTLE OVERRIDE SYSTEM IS NOW DISABLED**.

10. Install the fuel tank and seat. Start the engine to check throttle operation. Using throttle, raise engine speed momentarily to 4000 RPM and release throttle. Engine speed should drop quickly to idle speed without hesitation. Next, while turning the handlebars side to side, there should be no change in engine speed. Repeat, Step 8 if throttle is not operating as described above.

11. It is suggested that you familiarize yourself with the operation of the twist grip throttle. Run the machine at different speeds until you are completely familiar with how the throttle operates. If you have experience riding motorcycles the twist throttle will be quite natural. If you have only used the thumb type throttle you should practice until operation of throttle is done without second thought.