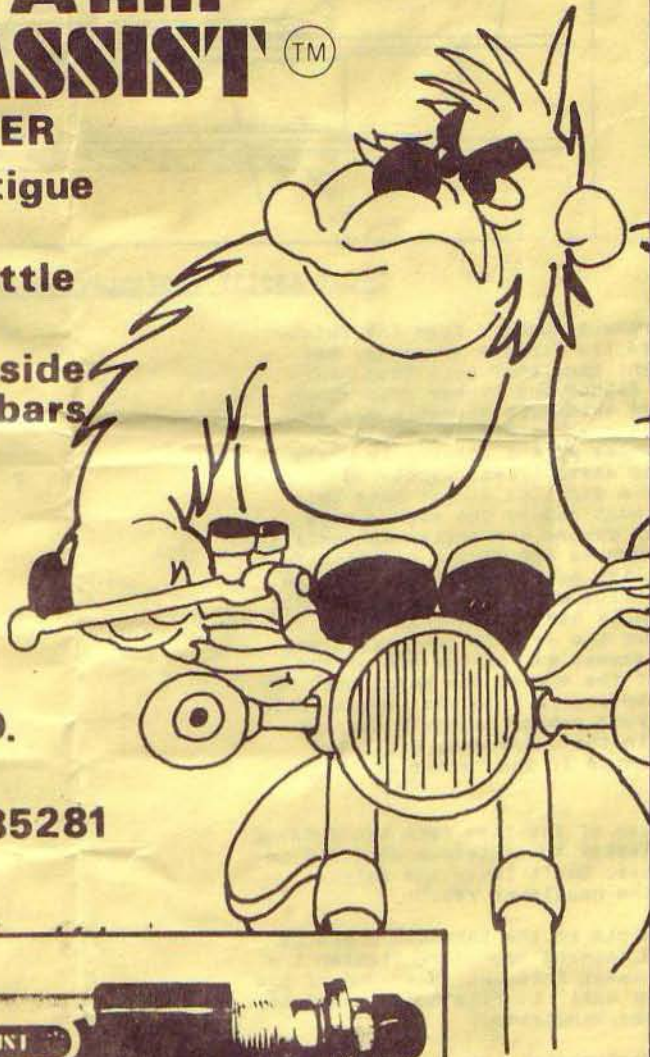


NOT EVERYBODY NEEDS A..... 'TWIST-ASSIST'™

THROTTLE HELPER

- Ends forearm fatigue safely.
- Counteracts throttle spring tension.
- Mounts easily inside most 7/8" handlebars.
- Money back guarantee.



CMB MFG.CO.
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WHAT IS A

TWIST-ASSIST ?

The TWIST-ASSIST is an arm saver. Any motorcycle rider who has spent long hours on the highway knows the forearm fatigue from holding a throttle mile after mile. The TWIST-ASSIST helps with the work by applying spring tension to the end of the twist grip. The TWIST-ASSIST action is not the same as the throttle drag screws that are standard on some motorcycles. These drag screws apply friction to the twist grip. They enable the throttle to hold a constant position, but also make the twist grip hard to turn. A TWIST-ASSIST will enable constant throttle settings with an easy turning twist grip.

The TWIST-ASSIST mounts inside the handlebar. Only two nuts and a washer are visible on the end of the grip after installation. Spring tension is easily adjustable, and in the event of a broken throttle cable the carburetors are free to shut down normally.

The TWIST-ASSIST is a simple device, easy to install, with clear, specific instructions. It does the job.

Put an end to forearm fatigue. Install a TWIST-ASSIST!

NOTE: TO OWNERS OF THE HONDA GL-1000, 750 AUTOMATIC & 750 K
Installing a Twist-Assist in any of these stock handlebars requires removing a spot-welded steel plug from the end of the handlebar. This requires removing the twist grip assembly in the same manner as when changing a throttle cable. An electric hand drill and 3/8" drill bit are also required. Detailed instructions are enclosed.

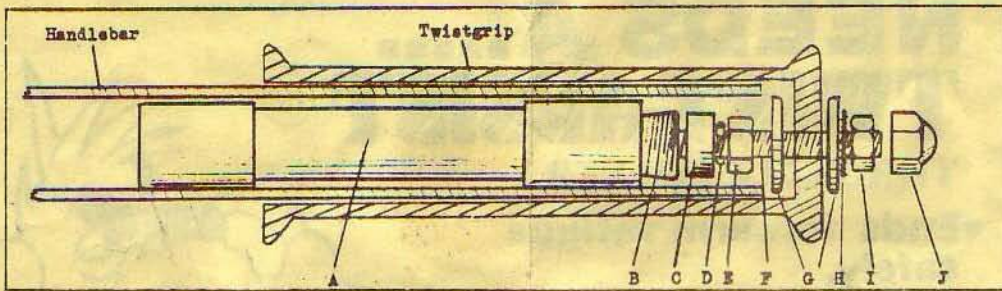
U. S. PATENT NO. 3752006

- MOUNTS INSIDE HANDLEBAR.
- APPLIES COUNTERACTING TORQUE TO THE TWIST GRIP.
- FULLY ADJUSTABLE SPRING TENSION.
- EASY INSTALLATION.



PARTS LIST

- | | | | |
|----------------------|---------------------|------------------|-------------|
| A. Tubular body. | D. Pin. | G. Flat washers. | J. Cap nut. |
| B. Tapered expander. | E. Countersunk nut. | H. Lockwasher. | |
| C. Plastic spacer. | F. Threaded shaft. | I. Nut. | |



TWIST-ASSIST INSTALLATION INSTRUCTIONS

1. Remove all nuts & washers from the Twist-Assist. Leave the tapered expander. Remove the right handlebar grip from your motorcycle. Either the rubber grip alone or the entire twistgrip assembly may be removed, whichever is easier. (Note to owners of Hondas or any motorcycle where the twistgrip assembly is positioned on the handlebar by a pin; You do not have this choice, you must remove the rubber grip alone. If you remove the entire assembly it will not return to the proper position for the pin to align once the Twist-Assist is installed). Grips which have been cemented on will probably have to be cut off & replaced. Once the grip is removed, clean any dirt or grease out of the end of the handlebar. If the end of the handlebar has a burr protruding into the inside, file it away. If your rubber handgrip doesn't have a hole in the outer end, drill or punch a 1/4" hole in the center of it's outer end.
2. Remove enough of the tape from the ends of the Twist-Assist to achieve a good fit in the handlebar. Don't leave the Twist-Assist in the handlebar yet.
3. Be sure the pin in the threaded shaft is outside the tapered expander. Tighten the tapered expander into the outer end of the tubular body until it fits snugly when inserted in the handlebar.
4. Push the Twist-Assist into the handlebar (threaded shaft pointing out) until the end of the tapered expander is 3/16" inside the handlebar.
5. Fit the enclosed allen wrench into the end of the threaded shaft,
Using the pin in the shaft, in the tapered expander & tighten it firmly. NOTE: The notches do not go as far into the expander as it is possible to insert the pin. You should insert the pin only far enough to engage the notches. When tightening the expander, use several short turns disengaging the pin between turns. This will prevent your working against the internal spring.
6. Put the plastic spacer on the threaded shaft & push it down past the pin. Put the countersunk nut on the shaft (countersunk side first) & tighten it snugly against the pin. The countersink should cover the pin.
7. Put a flat washer on the shaft. If you have positioned the Twist-Assist correctly in the handlebar, the flat washer should clear the end of the handlebar.
8. Replace the twistgrip on the handlebar, pushing the threaded shaft through the hole in the end of the twistgrip. Some grips (Honda, for example) have a protrusion into the inside of the grip which must be compressed. This will require a strong push to accomplish.
9. Put the remaining flat washer on the shaft. Put the lockwasher & nut on the shaft. Don't tighten the nut yet.
10. Holding the throttle closed, turn the threaded shaft 3 full turns clockwise with the allen wrench. Hold it in position and tighten the nut firmly locking the shaft in position. NOTE: It is not necessary to tighten the nut so much as to severely distort the end of the grip. CAUTION: If the allen wrench slips from your grip when winding the spring, it can be thrown violently. Keep your eyes clear of it's plane of rotation.
11. Put the cap nut on the shaft & tighten it.
12. Test the throttle action to see how it suits you. You can do this best by riding the motorcycle. If the action is not to your liking, remove the cap nut, loosen the outer nut & repeat steps 10 & 11. Use more turns in step 10 for lighter throttle action, use fewer turns for heavier action. CAUTION: Do not use more than 5 turns altogether or you may damage the spring.

SPECIAL INSTRUCTIONS FOR THE HONDA GOLD WING

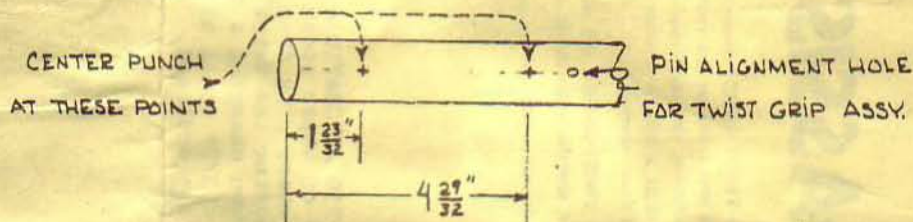
These steps must be taken to remove the steel plug from the end of the handlebar before proceeding to the regular Twist-Assist installation instructions.

A. Disconnect one of the throttle cables at the carburetor end as follows: Loosen the jam nut that secures the end of the cable sheath near the cable pulley. This will allow the cable sheath to be removed from the bracket that holds it. Disconnect the cable end from the pulley.

B. Remove the 2 phillips-head screws that secure the twist grip assembly to the handlebar. These screws are on the bottom of the twist grip assembly. Separate the 2 halves of the twist grip mounting assembly, exposing the handlebar cable pulley.

C. Remove the throttle cable ends from the cable pulley. Remove the twist grip.

D. Now comes the fun part. Examine the underside of the handlebar end. You will see 2 small areas of grinder marks. The spot welds that must be drilled out are in these areas. The following procedure will help you to find the exact location of the spot welds. Look for a dimple in each of the grinder mark areas. These will be present if the welds on your particular bars were not so thick as to be completely ground away during the grinding operation. If you find the dimple, you're in luck: centerpunch a mark in the center of each dimple. If you don't find the dimples, measure to find the welds as shown in the following illustration.



E. Drill a small pilot hole about $1/8$ " deep on each centerpunch mark. Then drill out each hole with a $3/8$ " bit to about the same depth. This should break the welds.

F. Strike the plug in the end of the bar lightly with a punch & hammer; the plug should move a little. If it doesn't move, the welds are not quite broken & the holes may have to be drilled slightly larger.

G. Once the welds are broken & the plug moves in the bar, work through the holes you have drilled with a slender punch & drive the plug out toward the end of the bar & remove it.

H. While you have the twist grip assembly off is a convenient time to remove the rubber grip from the plastic drum it is on; go ahead & do it.

I. Put the throttle assembly back together (minus the rubber grip) & reattach the throttle cables. You have already completed the removal of the rubber grip as outlined in Step 1 of the regular instruction sheet, so you may now proceed to that sheet. Be sure to complete the remainder of Step 1. Thanks for your indulgence thus far; the tough part is over!