

# Installation Instructions HHI Handlebar Kit

## **General Notes:**

- 1. We recommend DOT 5 silicone based brake fluid for both the brakes and hydraulic clutch UNLESS the bike was originally equipped with DOT4. IF SO, use DOT4.
- 2. Be sure to use blue Loctite on all bolts and set screws.
- 3. Although we have made every attempt to make the installation as easy as possible, we recommend the installation be done by a certified mechanic. Some special tools may be required depending on the model of bike.

#### **Contents:**

- 1. Hydraulic hose kit for clutch and brake based on bike model.
- 2. Inner throttle cable (supplied for cable operated models only).
- 3. Handlebar assembly with appropriate wiring harness/controls.
- 4. Hydraulic clutch kit for transmission (optional).

Note: These handlebars are assembled using the stock factory compatible harness connectors matched to your model bike.

## Step 1. Removing your stock bars.

Disconnect the positive battery lead. On touring model bikes remove the outer fairing. Road King and Heritage models will need the nacelle/headlight covers removed. Softail and Dyna models will need the gas tank removed. Disconnect the throttle cables at the carburetor/throttle body, remove the front brake line; disconnect all control wiring, remove clutch cable and dismount the handlebars. (Note: Remove and replace the risers at this time if using one of our  $1\frac{1}{2}$  diameter riser kits) Refer to your owners' manual for specific instructions.

## Step 2. Mounting your new bars.

Mount the new bars to the risers and hand tighten in the furthest most forward position. This will allow for adequate fluid to be added to the master cylinder reservoirs during the bleeding process.

# **Step 3. Hydraulic Connections.**

Brake line install-

On Softail and Dyna models not using a brake light switch, install a -3AN coupler to the front brake hydraulic line from the handlebar assembly and then attach the front brake hydraulic line. On kits supplied with a brake light switch, attach the brake tee with brake light switch directly to the brake line exiting the handlebar. Next attach the short hose to this tee and connect to the brake tee used for splitting the lines on a dual disc set up. Skip this step if running single disc and just run the brake hose directly form the brake light switch tee to the front caliper.

## Hydraulic clutch line install-

Take the hydraulic clutch line from the handlebars and screw in the other -3AN adapter coupling and then install the long braided line. Route this hydraulic line to the transmission side door.

# Step 4. Hydraulic Clutch Conversion.

It is necessary with our system to convert your existing cable clutch to a hydraulic clutch. Drain the transmission fluid and remove the transmission side cover if not already done from step 1. Note: It will be necessary on 5 speed models only to remove the clutch throw out bearing oil slinger. Replace the gasket and install the new transmission hydraulic side door using blue Loctite on the screws. Attach the hydraulic line and bleed the system.

## Step 5. Bleeding brakes and hydraulic clutch.

Bleed the front brake(s) according to your owners manual. Bleed the clutch using the same method as the brakes. Clutch adjustment is accomplished by turning in the clutch pushrod adjusting screw until no endplay is present. Pump the hand lever several times and readjust as necessary. Fill the reservoirs to within 1/8" of the top gasket surface and reinstall the covers.

#### Step 6. Adjusting handlebars.

The handlebars can now be positioned to your desired preference. Once positioned, tighten the riser clamp bolts such that the top clamp is equally positioned front to back. Be sure clamp screws have blue Loctite applied and torque to factory specification.

#### Step 7. Throttle installation.

# Cable operated models only:

The outside cable housing is already attached to your throttle housing (The cable housing should never be removed from bar for any other reason than to replace with new housing if one in the bar is damaged. Contact us first before removing.) The outer shielding is left especially long to accommodate all bikes and routings. It may be necessary to cut the outer housing to the desired length to reach Carburetor. (Note: Make sure not to collapse the inner hole during cutting). If you do have to cut the outer housing shorter we have provided another cable stop in the Ziploc bag with the cable grease and brass cable crimp.

To install the Cable you must first dismantle the internal throttle to allow you to slide the cable up through the bar. You will find the Throttle Diagram sent to you very helpful for this process.

#### Throttle Installation Cont'd

Start by removing Retainer "L" (Either with snap ring pliers or a hex wrench). Now take the Proper parts out so that all that is left in the handle bar is the Throttle Inner Sleeve "B" (Note: the last part you will remove is Slide "D" that the cable attaches to). Next slide cable into cable housing from carb up. Use provided grease to lubricate cable as you slide cable into housing. (Sometimes the cable has a hard time going through the cable housing Because of the sharp bends of the bar. Twisting the cable and pushing will allow the cable to go. Be careful not to damage the cable.)

Now with the cable hooked to the carburetor and the adjuster closed (no threads showing). Pull the cable tight through the inner sleeve. You will see the cable exposed in the window of the inner sleeve "B" (where cam bearing/s "H" ride). Now mark the cable 5/8-3/4 inch out from the base radius of inner sleeve "B" (closest to switch housing). Unhook carb end from carburetor and slide brass cable crimp "R" onto cable. Now cut the inner cable to length. Then secure brass cable crimp with cable inside to Slide "D" by set screw "N". Reassemble the inner throttle and any final adjustment can be made through the cable adjuster at Carb. If for any reason you run out of adjustment at carburetor you can always cut more cable off.

# Step 8. Attaching grips.

For cable style throttle models-

Any billet hand grip can be used but it will be necessary to purchase (2) left side grips or you can modify the throttle grip side by removing the cable attachment feature. If doing so it will be necessary to drill and tap a 10/32 hole near the end of the grip to secure it to the throttle control. Be careful not to over tighten this screw (use blue Loctite). It may also be necessary to trim the end of the bars depending on the grips purchased, most manufacturers vary on the inside dimensions.

#### For electronic throttle control models-

It will be necessary to purchase our custom grips or modify an existing set designed for electronic throttle as the throttle side requires a special feature for retaining the grip and engaging with the factory throttle sensor.

#### Step 9. Electrical installation.

The handlebar internal wiring system is designed to be a direct plug in with the stock factory connections for your specific model bike. These connections should be made now. The only additional non factory connections required will be the three ground wire connections necessary for proper system operation. These wires will be black in color with one located in the left and right side connector harness sleeving and the third wire coming from the headlight connector. Attach all three to a chassis ground.

For brake light switch equipped models there will be two leads with female spade connectors which need to be attached to the supplied pressure switch. Newer models come equipped with a clutch lock out switch which will have the same supplied female spade connectors and pressure switch.

## **NOTE:** Headlight connection

Touring model bikes will require a splice connection made with the factory headlight white and black wires. These will attach to the handlebar harness to complete the headlight circuit. All other models will use the supplied connector and attach to the factory headlight connection. Refer to supplied electrical schematics for proper circuit identification. Page 4

# Step 10. Final Assembly.

Reinstall all covers, fairings and other stock components. Apply brake and clutch and test for proper operation. Test ride and re-inspect all fittings for any hydraulic leaks.

Note: We recommend all products must be installed by a qualified motorcycle shop/certified mechanic. HHI will not be responsible for any labor costs for installation. Our warranty is limited to the repair or replacement of defective products only and does not cover damage caused by improper installation, alteration or misuse. We do not accept any returns of bars once they have been installed.

If you have any questions call: TOLL FREE 1-877-HHALTER (442-5837)

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