



### BLOOD GROOVE HYPERCHARGER

9873

#### Thank You For Choosing Kuryakyn!

Protect yourself and others from potential injury and property damage or loss. Pay close attention to all instructions, warnings, cautions, and notices regarding the installation, use, and care of this product.

#### **WARNING**

THIS INDICATION ALERTS YOU TO THE FACT THAT IGNORING THE CONTENTS DESCRIBED HEREIN CAN RESULT IN POTENTIAL DEATH OR SERIOUS INJURY.

#### **NOTICE**

This indication alerts you to the fact that ignoring the contents described herein may negatively affect product performance and functionality or damage the product itself or the product to which it is being attached.

### **THIS PRODUCT IS NOT LEGAL FOR SALE OR USE ON POLLUTION CONTROLLED VEHICLES.**

#### ENSURE THAT THE FOLLOWING PARTS HAVE BEEN INCLUDED IN THE KIT:

- 1 Hypercharger Assembly with Hardware Bag Containing:  
(3) 1/4"-20 X 1-5/8" (2) #6-32 X 3/8" (2) #6 Washers—NOT USED
- 1 Dual Velocity Ring in Bag Inside Hypercharger Assembly
- 1 K&N Air Filter
- 1 Vacuum Adapter Kit for H-D '07-Up XL:
  - 1 Delphi Fuel Injection Adapter
  - 2 Breather Bolt Spacers
  - 1 Throttle Body Gasket
  - 2 M4 x .7 x 30mm Socket Head Cap Screws
- 1 Crankcase Breather Kit for Sportster
  - 1 Breather Adapter
  - 1 90-Degree Elbow
  - 2 Hose Fittings
  - 1 Vacuum Hose
  - 1 Barbed T Fitting — NOT USED
  - 3 1/4"-20 x 1-3/8" Socket Head Cap Screws
  - 1 Late Style Throttle Body Gasket with Adhesive
  - 2 Throttle Body Gaskets
  - 4 4" Black Cable Ties
- 2 Breather Hoses
- 2 Breather Bolts
- 1 Installation Instructions

#### YOU WILL ALSO NEED:

Set of Hex Wrenches, Set of Combination Wrenches, Set of Torx Wrenches, Side Cutter, Model/Year-Specific Service Manual, glass cleaner, grease

#### **NOTICE**

These installation instructions contain important information. Ensure that the end user receives this copy and is aware of its importance for future use.

#### **WARNING**

THE END USER'S SAFETY DEPENDS UPON PROPER INSTALLATION OF THIS PRODUCT. IF A STEP IN THESE INSTRUCTIONS IS NOT WITHIN YOUR CAPABILITIES OR YOU DO NOT HAVE THE CORRECT TOOLS, HAVE YOUR DEALER PERFORM THE PROCEDURE. IMPROPER INSTALLATION OF THIS PRODUCT COULD RESULT IN DEATH OR SERIOUS INJURY.

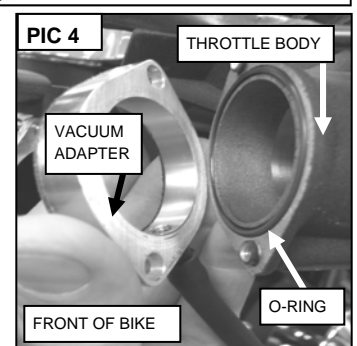
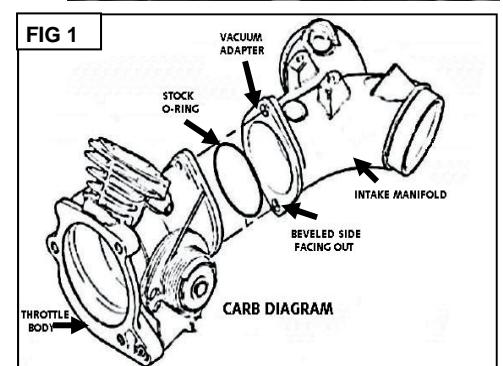
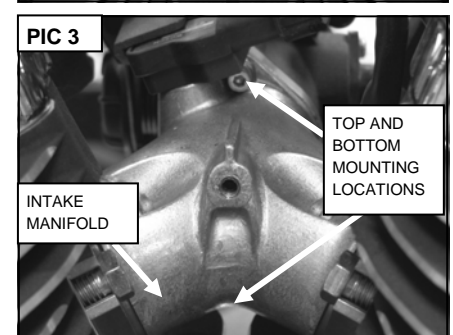
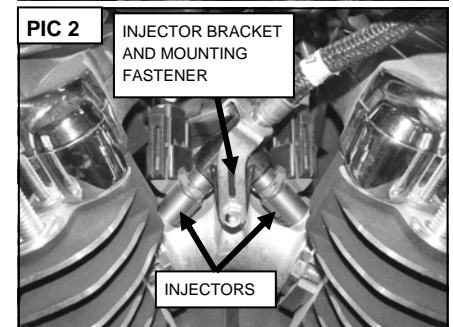
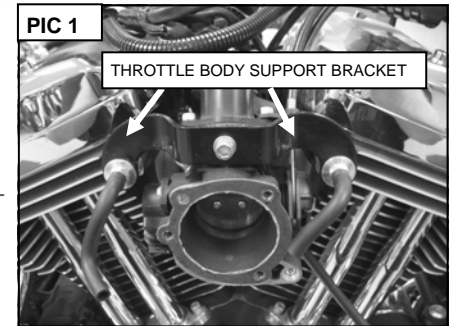
ACCIDENTAL VEHICLE START-UP COULD CAUSE DEATH OR SERIOUS INJURY, REMOVE THE MAIN FUSE BEFORE PROCEEDING.

INSTALLATION MAY REQUIRE CONTACT WITH THE ENGINE AND EXHAUST SYSTEM; ENSURE THAT IT HAS FULLY COOLED BEFORE BEGINNING TO PREVENT INJURY.

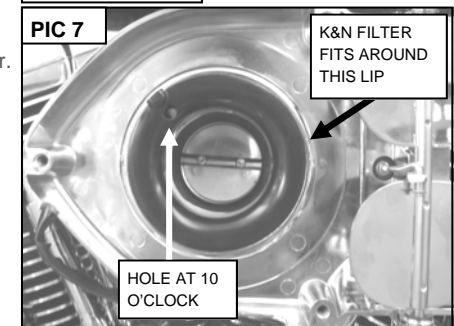
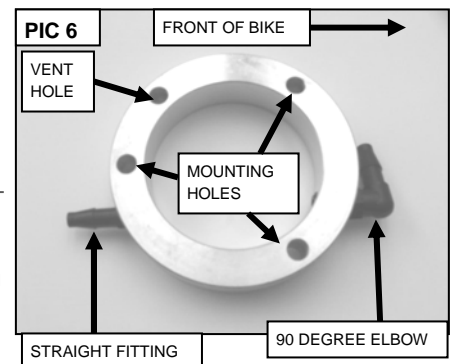
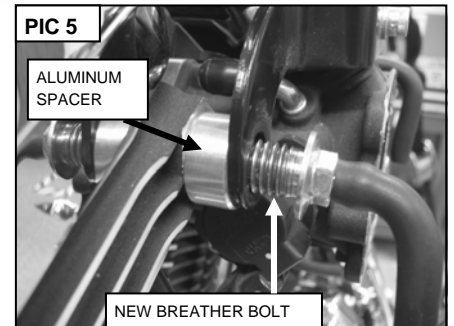
**FUEL VAPORS ARE VERY FLAMMABLE!** PERFORM THIS INSTALLATION IN A WELL VENTILATED AREA AWAY FROM SPARKS AND OPEN FLAMES. FUEL VAPORS MAY IGNITE CAUSING AN EXPLOSION THAT CAN LEAD TO SERIOUS INJURY OR DEATH.

Avoid damage to the motorcycle. Protect painted surfaces with a soft cloth or blanket.

- STEP 1** Read and understand all steps in the instructions before starting the installation. Park the motorcycle on a hard, level surface and turn **IGN OFF**. Allow the engine and exhaust system to cool. Remove the main fuse.
- STEP 2** Refer to **PIC 1**. Remove the existing air cleaner assembly and the throttle-body support bracket.
- STEP 3** Remove the fuel tank. Refer to the model/year-specific service manual for procedure.
- Remove the fuel tank vent and electronic fuel pump wiring harness.
- Disconnect the fuel line and fuel tank vent located on the left hand side, above the horn.
- Disconnect fuel pump plug located on the frame, directly above the inner primary case.
- STEP 4** Remove the horn and horn bracket; refer to the model/year-specific service manual for procedure.
- STEP 5** Remove the screw and bracket securing the injectors to the backside of the intake, as shown in **PIC 2**. Carefully loosen and remove the injectors; lay them aside, noting the correct locations for proper reinstallation.
- STEP 6** Loosen and remove the screws on the top and bottom of the intake, as shown in **PIC 3**. Secure the throttle body to prevent it from falling as the screws are removed.
- STEP 7** Separate the throttle body from the intake, noting the position of the OEM O-ring. The O-ring will need to be reinstalled in the same position. Refer to **FIG 1** for proper O-ring positioning.
- STEP 8** Thread the one of the hose fittings into the adapter; ensure the fitment is snug. Do not over-tighten.
- STEP 9** Test fit the vacuum adapter with the fitting pointing down toward the front cylinder.
- Lubricate the vacuum fitting with glass cleaner; slide the vacuum hose onto the fitting.
- STEP 10** Place the new vacuum-adaptor gasket between the adapter and intake manifold.
- Insert one of the included M4 X 30MM screws through the intake manifold; install the adapter over the screw (gasket-side facing the intake manifold); allow it to "hang" for now.
- Ensure the O-ring is in place between the throttle body and the vacuum adapter as shown in **PIC 4**.
- Using the included M4 x 30mm Screws, reattach the throttle body to the intake manifold. Do not over-tighten the screws.
- STEP 11** Place a small amount of grease on the injector O-rings. Reinstall the injectors. Reinstall the injector bracket.



- STEP 12** Reinstall the horn and horn bracket, reattach the wires on the back of the horn.
- STEP 13** Remove the backing from the throttle body gasket; align the gasket holes with the throttle body; press it into place the throttle body flange.
- STEP 14** Refer to **PIC 5**. Align the throttle-body support-bracket with the throttle body; slide the aluminum breather bolt spacers behind the support bracket. Insert the provided breather bolts through the support bracket and aluminum spacers and into the heads. Tighten all fasteners.
- STEP 15** Refer to **PIC 6**. Thread the breather fittings into the crankcase breather as shown.
- STEP 16** Refer to **PIC 6**. Locate the Hypercharger Back Plate. Insert the three 1/4"-20 X 1-3/8" socket head cap screws through the back-plate mounting-holes from the inside.
- Place one of the included non-adhesive gaskets over the three mounting screws protruding from the back of the Hypercharger back plate. **DO NOT** place a bolt through the float bowl vent hole - this hole is the one in the 10-o'clock position.
- STEP 17** Slide the crankcase breather onto the protruding bolts on the back side of the Hypercharger.
- STEP 18** Secure the Hypercharger backing plate, gasket and crankcase breather to the throttle body with the included 1/4"-20" x 1-3/8" socket head cap screws. Tighten the bolts evenly; **DO NOT over-tighten**.
- STEP 19** Attach the vacuum hose (from **STEP 9**) to the vacuum pod fitting on the backside of the Hypercharger; it is pointing downward.
- STEP 20** Refer to **PIC 7**. Align the black plastic Dual Velocity ring with the vent hole in the Hypercharger back plate. Press it all the way into place. The ring will "snap" into place.
- STEP 21** Refer to **PIC 7**. Align the K&N air filter with the raised lip on the back plate.
- STEP 22** Refer to **PIC 7**. Locate the hardware bag that was with the Back Plate. Align the Front Cover over the back plate/filter; ensure that the front cover cut-out fits over the filter; loosely secure it to the back plate with the three 1/4"-20 X 1-5/8" fasteners. Thread one of the #6 -32 X 3/8" fasteners through the top and bottom butterfly caps and into the front cover. Tighten the #6-32 X 3/8" securely. Tighten the 1/4"-20 X 1-5/8" fasteners securely.
- STEP 23** Attach the breather hoses from the breather bolts to the crankcase breather fittings. Modifying or cutting the hoses may be necessary in order to ensure that kinks or tight bends do not limit/obstruct the air flow. On the right or front side, ensure there is no obstruction to the pull or return of the throttle wheel.
- STEP 24** Remount the fuel tank. Reattach the fuel pump plug, fuel vent, and fuel line from the throttle body to the fuel tank. Application of a small amount grease to the fuel line will assist in attaching to the fuel tank (ensure that the O-ring located in the female coupler on the fuel tank remains in place).





**STEP 25** Double check the tightness of all related fasteners, check for hose clearance and check throttle for correct operation, making sure it returns properly, reinstall the main fuse before starting bike.

**⚠ WARNING**

FAILURE OF THE THROTTLE TO RETURN COULD RESULT IN LOSS OF CONTROL CAUSING SERIOUS INJURY OR DEATH.

**NOTICE**

Follow K&N recommendations for proper use and cleaning of the air filter element.  
K&N Filter Care Kit.

**NOTICE**

Proper tuning is important. Carbureted bikes should be re-jetted and fuel injected bikes should be tuned with a TTS MasterTune tuning system or Vance & Hines FP3 by an experienced tuner, on a dyno, with an exhaust gas analyzer.  
It is the end user's responsibility to ensure that all fasteners (including pre-assembled) are tightened before operation of the motorcycle. Kuryakyn will not provide warranty coverage on products or components lost or damaged due to improper installation or lack of maintenance. Periodic inspection and maintenance are required on all fasteners.