



# ***Transformer™***

## ***EXTERNAL BREATHER SYSTEM***

### **INSTRUCTIONS**

(Please read entire instructions before beginning install)

#### **Parts included:**

- 1 Optional Filter or Catch-Can
- 1 Six Foot Length of hose
- 4 Zip Ties
- 2 Hose Clamps
- 1 each of Straight Hose Fitting, 90 Degree Hose Fitting & Plug
- 1 Transformer™ w/ Three ¼-20x1.25" BHCS Fasteners
- 1 Gasket
- 3 1/4-20 x1.75" set screw (for Sportster and Twin Cam 606 fitment)
- 3 ¼-20x 2 ¼" set screw (for M8 606 fitment)
- 1 4" length of o-ring stock (spare)
- 1 Allen wrench

The Transformer EBS™ is made to be installed with the OUTLAW HiFlow Air Cleaners: The 425, 587, 606, 636v, 828 or Velocity Stack.

The Transformer™ also acts as a Support Bracket, so the factory support bracket, or an aftermarket support bracket, is not needed when running an Outlaw HiFlow Air Cleaner with a Transformer™ EBS.

The Transformer™ is installed between the air cleaner backplate and the mouth of the throttle body or carburetor. It is the cleanest External Breather System available.

The Transformer™ is shipped in External Breather System configuration, it can also be easily "transformed" into an emission compliant system. This means you can run any of the Performance Outlaw Air Cleaners in an emission compliant, "NON-Outlaw" configuration.

#### **Installation Steps:**

1. Remove your existing air cleaner AND any factory, or aftermarket, support bracket. You can put the bracket bolts back in to fill the holes.

2. There is 6 feet of hose, allowing you to put the filter or catch-can in any location you choose. The filter may or may not have a loop on it, either way you can use a zip through the loop, or around the hose to secure the filter/catch-can most anywhere. Once you have decided where you want the filter/catch-can to be, work the hose back toward the air cleaner. With a little creativity and thought you will be able to hide/blend in the hose.
3. At this point you can decide if you want to use the straight hose fitting, or the 90 degree hose fitting to best match your hose routing. Use 3-5 layers of teflon tape on the fitting threads and screw it into the bottom of the Transformer™. It only needs to be hand tight, or 40-60 inch lbs (not ft. lbs). Do not over tighten.
4. It is now time to install the Transformer™ onto the engine. To align the Transformer™, hold the Transformer™ up to the throttle body/carb, with the included gasket between the Transformer™ and the throttle body/carb. Use the three included bolts to align the Transformer™ to throttle body/carb. Do not tighten or use threadlocker on them, they are just there to line things up right now.
5. Use 4-6 layers of teflon tape on the threads of each of the included breather bolts. Insert one of the included breather bolts through one of the Transformer™ “ears”, then through the supplied Spacer and thread the bolt into the head. Do not tighten all the way at this time. Make sure that the o-ring on the Transformer™ “ear” is in place, as well as both o-rings on the spacers are in place. Repeat with the 2nd Breather Bolt on the other side.

Now, making sure that everything is lined up, tighten both of the Transformer™ breather bolts to 120-144 **inch lbs** (not ft. lbs). Since most garages don't have an accurate inch lb torque wrench. Put them in finger tight, as tight as you can get them with your fingers, then use an open end wrench to turn them another 1/8 of a turn. **DO NOT OVERTIGHTEN!** If they are overtightened, it is possible that they will break off when installing or riding down the road, leaving just the threads in the head.

6. It is now time to install your air cleaner against the Transformer™. Remove the 3 bolts you used for alignment in Step #4 above. These 3 bolts go through the air cleaner backplate, then through the gasket (supplied with the air cleaner), then through the Transformer™ and into the throttle body/carb. Use a drop of medium (blue) threadlocker on these threads and tighten them down per the instructions that came with your air cleaner.

**Note: For M8's**, do not use the spacer included with the air cleaner, the Transformer™ has the Spacer already built into it.

**M8 w/ the 606 Air Cleaner.** Remove the set screws from the 3 included stand-offs. They are installed with threadlocker, so you will need to use an Allen wrench & an open end wrench. Then replace those 3 set screws with the ones included in this kit, using threadlocker and leaving 1 3/4 " of the thread exposed.

**Note: For Sportster & Twin Cam Fitment w/ the 606 Air Cleaner.** Remove the set screws from the 3 included stand-offs. They are installed with threadlocker, so you will need to use an Allen wrench & an open end wrench. Then replace those 3 set screws with the ones included in this kit, using threadlocker and leaving 1  $\frac{3}{8}$ " of the thread exposed.

7. It is now time to connect the hose to the hose fitting at the bottom of the Transformer™. Use the supplied hose clamp or a zip tie.

8. Finish installing your air cleaner per the instructions that came with it, and Go For A Ride!

**To “transform” the Transformer™ EBS into an emission compliant configuration, follow the instructions below.** (Photos at bottom)

A. Remove the 6 fasteners holding the plate on the back of the Transformer™. This will expose the channels inside the Transformer™.

B. Remove the two small pieces of rubber (approximately  $\frac{1}{3}$ " long each) from the channels they are pressed into.

C. Install the included Plug fitting (using Teflon tape) into the bottom of the Transformer™.

D. Reinstall the Transformer™ plate with the 6 fasteners. Use medium (blue) threadlocker on these fasteners. Tighten to 5 inch lbs. Do not overtighten. Use a criss-cross pattern when tightening.

Since most garages don't have an accurate inch lb torque wrench. ***Always use the included allen wrench with the long end in the fastener and the short end is what you are holding onto (for LESS leverage).*** Put them in finger tight, just enough that the rubber seal is starting to compress (but NOT all the way compressed). Then use the allen wrench to turn them another  $\frac{1}{8}$ - $\frac{1}{4}$  of a turn. If they are overtightened, it is possible that they will break off, leaving just the threads in the Transformer™ body.

Now all the hot, oily, oxygen depleted crankcase air is no longer being vented externally, it is feeding back into your engine.

### **General Notes:**

- The rider's safety depends on the correct installation of this kit. Please do not attempt if you have any doubts of your ability to install.
- Use blue thread locker on all the smaller bolts.
- Use teflon tape or teflon paste on both of the Breather Bolts.
- If you overtighten your breather bolts can break during installation or while riding down the road.
- The additional o-ring stock is provided in case you misplace the small pieces when changing configurations.

- When choosing a location for the filter/catch-can, it is best to not place it in line with the tires.
- When routing the hose, make sure you do not have the hose touching the exhaust or engine. Use zip ties if necessary to prevent the hose from touching the exhaust or engine.
- If you are mounting the filter/catch-can to the swingarm, make sure you leave enough hose for the swingarm to fully articulate without stressing the hose.

