



845-744-4889  
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## Installation Instructions For Lloydz Motor Workz Torque Tube Intake for Victory® Motorcycles

### KIT CONTENTS:

- Torque Tube Intake
- Qty of 3 – Zip Ties
- IAV Hose w/Filter Element
- Crank Case Filter w/Adapter
- Qty of 2 – K&N Filters

To Our Valued Customer:

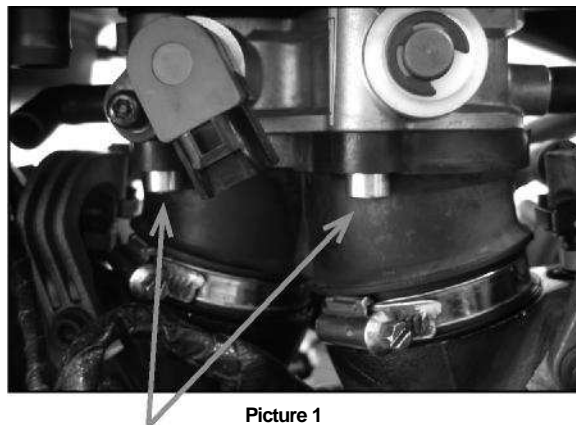
Congratulations, you're an Official Horse-Power Addict! All of us at Lloydz Motor Workz would like to thank you for choosing our product. We have spent many years developing and testing our Torque Tube Intake and feel confident they will bring you great satisfaction. They truly are a "Show-N-Go" product. We are also proud to say they are 100% hand-built right here in the good old USA.

**To install your new intake, remove the fuel tank.** Locate and remove the intake air sensor located on top of the airbox in the front. Locate and remove the map sensor from the airbox. Remove the crank case vent hose from the rear of the airbox. The airbox **MUST BE DESTROYED** to remove with the engine in the frame. Be very careful **NOT** to cut any wires, fingers, etc. **DO NOT** discard your stock throttle body bolts. You will need them.

### Throttle Body Removal

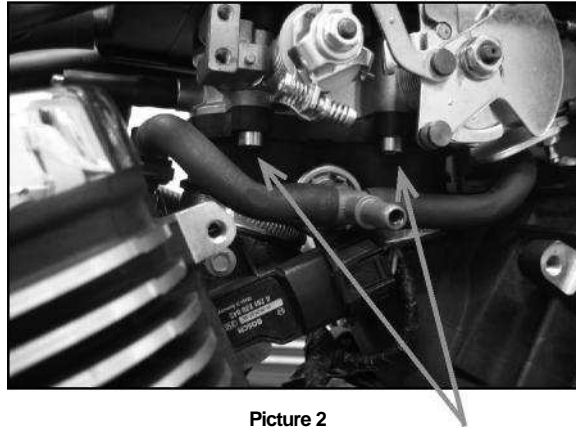
- 1 – Remove the throttle cables from the throttle body following your Victory® service manual for the specific model you're performing the work on.
- 2 – Remove the four socket head cap screws from the throttle body. **Picture 1** and **Picture 2** below point out the socket head cap screws that need to be removed.

**NOTE:** The four socket head cap screws that are removed will be used for attaching the new Air Cleaner



Picture 1

Socket Head Cap Screws



**Picture 2**

*Socket Head Cap Screws*

- 3 – Remove the throttle body from the motorcycle by sliding it out from the right side (throttle cable side).
- 4 – With the throttle body removed, slide a large piece of clean plastic between the air box and the rubber intake manifold as illustrated in **Picture 3** below. This will help keep any debris from entering into the motor.

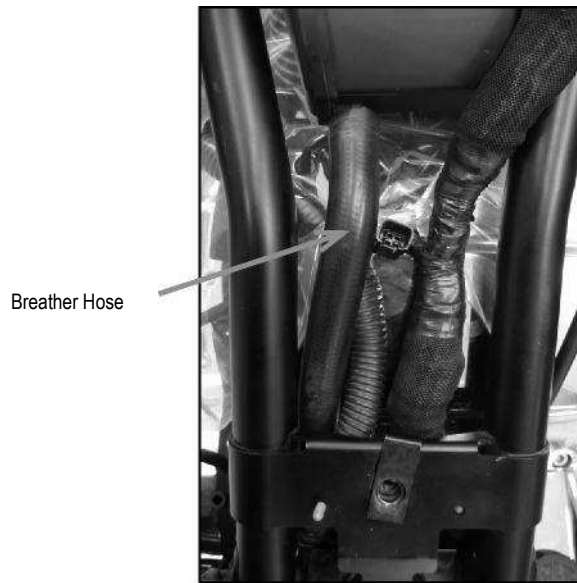
**NOTE:** *Covering the intake manifold must be done before you move on.*



**Picture 3**

**Preparation for Victory® Air Box Removal**

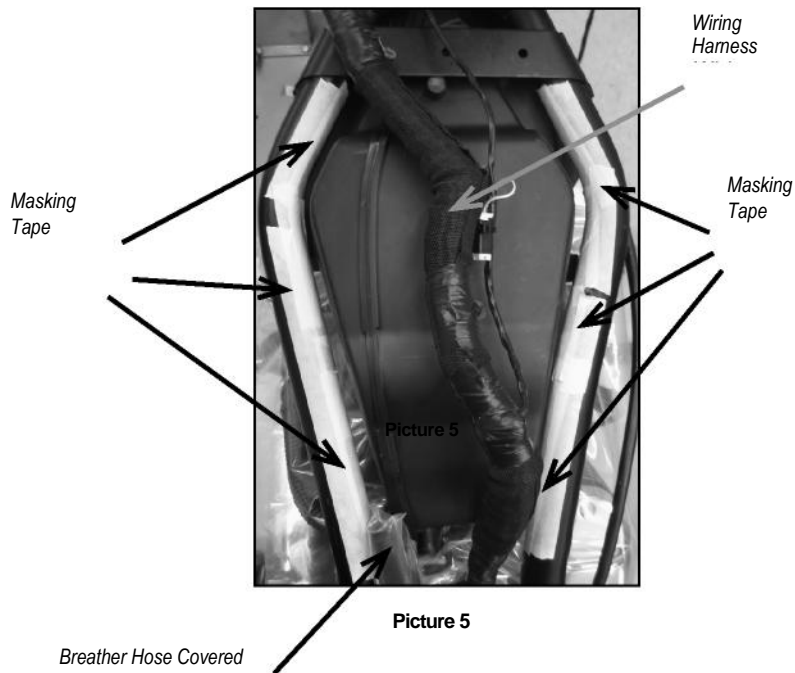
- 1 – Moving to the top side of the motorcycle, locate the breather hose and remove it from the air box. **Picture 4** below illustrates the breather hose connected to the air box.
- 2 – Cover the end of the breather hose so no debris can enter the opening.



**Picture 4**

**NOTE:** A small plastic bag with a rubber band works well for this as illustrated in **Picture 5** below.

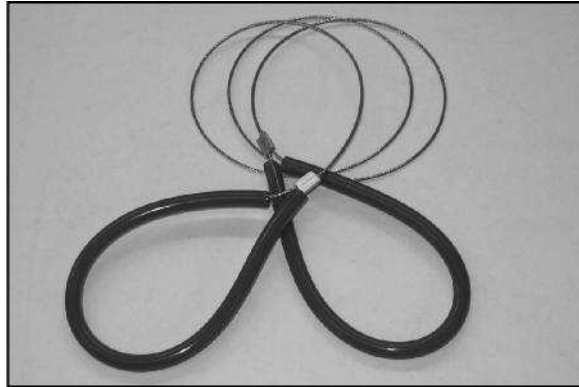
- 3 – Detach the wiring harness from the right side of the frame as pointed out in **Picture 5** below.
- 4 – Masking tape should be applied to the frame of the motorcycle as illustrated in **Picture 5** to reduce the risk of scratching the frame when removing the stock air box.



**Picture 5**

## Removing the Victory® Air Box

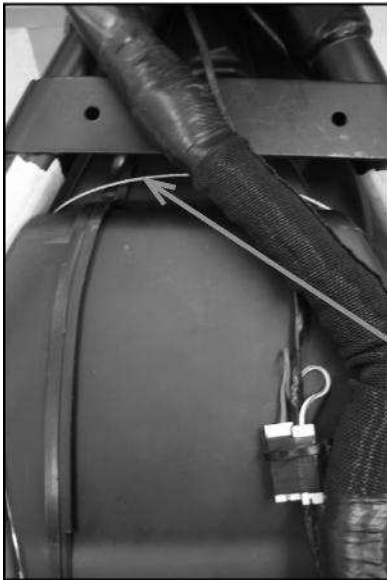
1 – The use of a PVC pipe wire saw as illustrated in **Picture 6** below works best for removal of stock Victory air box.



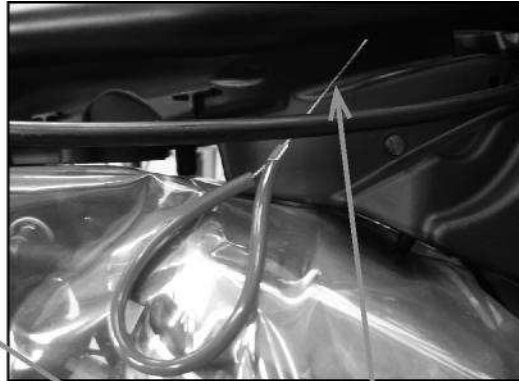
**Picture 6-PVC Wire Saw**

2 – Remove the air filter cover and the air filter element from the stock Victory air box

3 – Thread the wire saw between the frame rails as illustrated in **Picture 7, 8, and 9** below.



**Picture 7**



**Picture 8**



**Picture 9**

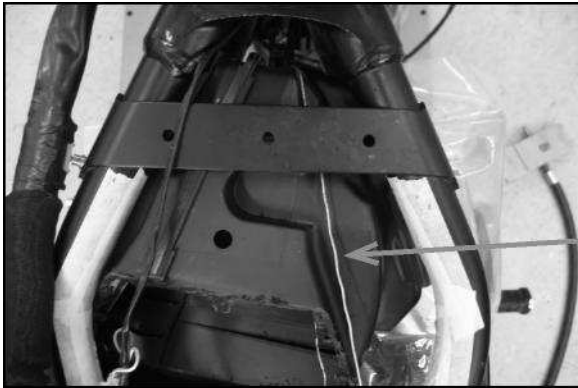
Wire Saw

**Always wear eye protection while cutting or sawing to avoid injury to the eyes.**

4 – Before making the first cut make certain you are wearing safety glasses or protective eyewear. With the wire saw in place, make sure there are no wires or cables between the wire saw and the air box; work the saw back and forth cutting the air box from the top down and at an angle toward the Idle Air Control plastic supply barb, cutting the air box into two pieces. Once the first cut is made, the rear section of the air box should be removed.

5 – Making the second cut. With the rear section of the air box removed, thread the wire saw in the rear of the air box and through the opening in the front of the air box, the air supply slot, and back out on the outside of the air box as illustrated in **Picture 10** next page. Make sure there are no wires or cables between the wire saw and the air box, now pull the wire saw back and forth cutting the right side section out of the air box.

6 – Making the third cut. Thread the wire saw in the rear of the air box and through the opening in the front of the air box, the air supply slot, and back out on the outside of the air box as illustrated in **Picture 11**. Make sure there are no wires or cables between the wire saw and the air box, now pull the wire saw back and forth cutting the left side section out of the air box. The front section of the air box can now be removed from the motorcycle.



**Picture 10**



**Picture 11**

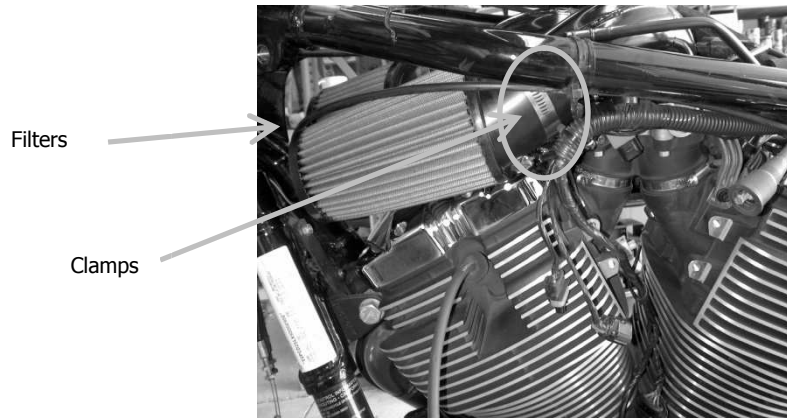
7 – Now that the air box is removed, clean up all of the plastic shavings on and around the motorcycle with the plastic sheeting in place so no debris enters the intake.

**You are now ready to install the ram tubes.**

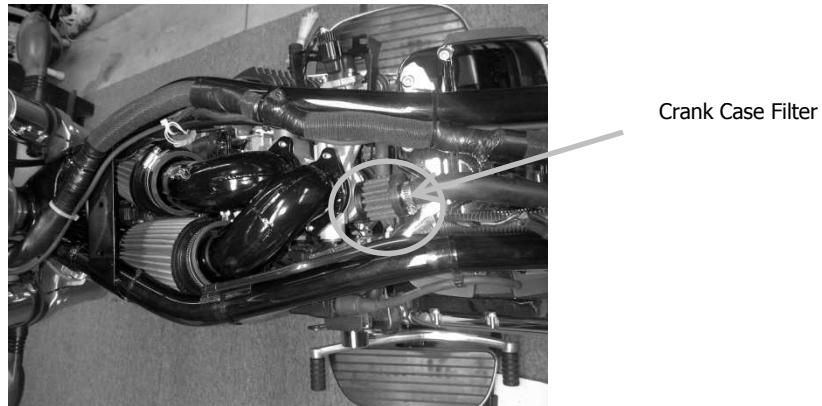
Install the tubes with a very thin bead of Permatex or Ultra Black Silicone on the throttle body. Use the 4 stock bolts to connect the tubes to the throttle body.



The long filter is placed on the left, short filter is placed on the right. DO NOT let the filters touch any part of the bike. Fasten the sensors with zip ties to any location away from the throttle linkage. The clamps on the filters should be in a position that you can remove your filters and service them with having to remove your tank.



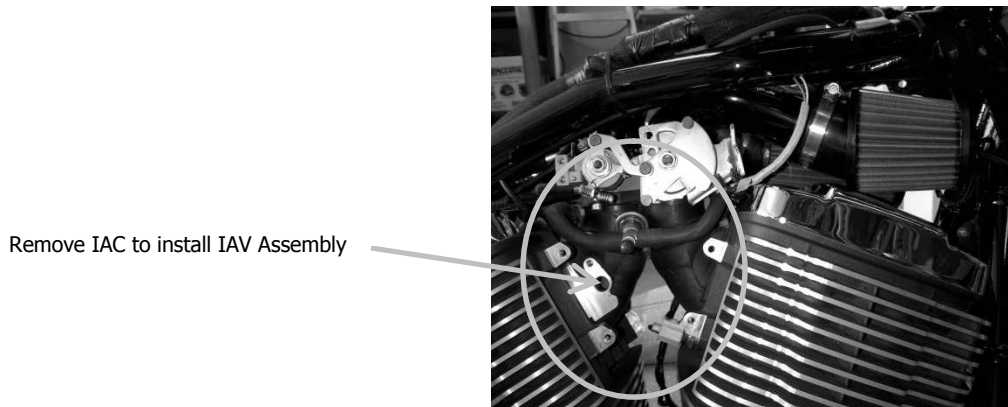
We suggest that you clamp your new crank case filter either under the fuel tank or next to the left front cover, however, you may find a more convenient place upon your bike to attach it. Keep in mind, though, you should have at least 12 inches of hose from the crank case in order to avoid oil from leaking through the filter. Do not attach the crank case filter directly to the crank case or you will most likely get heavy oil leakage.



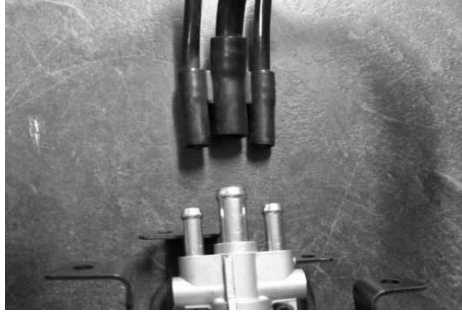
We all know that proper tuning of the fuel curve is a MUST for full-potential performance. When installing your new Torque Intake please be sure to check the filter clearance. Due to intake movement, they should not come into contact with any components of the motorcycle. Properly installed filters helps to assure easy removal and servicing when required. The factory sensors should also be zip tied out of the way of the throttle linkage. This will not harm the sensors, in fact, it will actually increase performance slightly.

**To install the IAV Assembly you will require a 5mm Allen Wrench, Med. Screwdriver, Needle Nose Pliers**

- First remove the right side cheese wedge cover.
- Disconnect the harness plug on top of the IAC. Then remove a quantity of 4- 5mm Allen bolts that hold the IAC motor and bracket to the engine.



- Using a screwdriver push the rubber hoses off the IAC. They are grouped in 3 hoses (1- 7/16" intake air hose and 2- 5/16" idle air hoses).



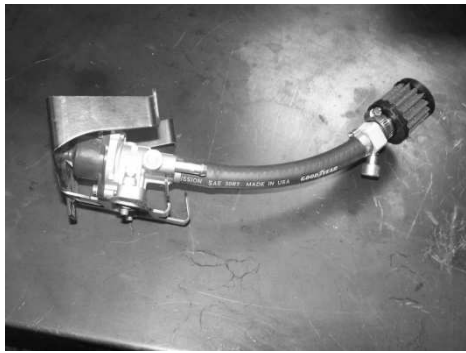
- Separate the 3 hoses by cutting the connecting rubber strips in between each hose.



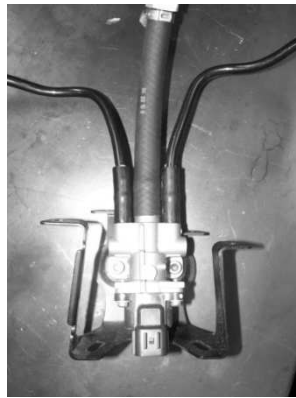
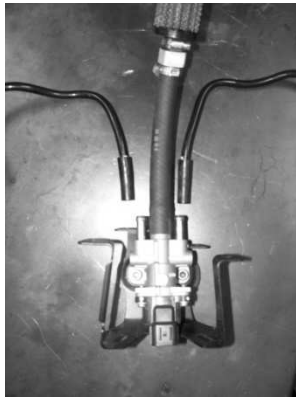
- Remove the center rubber hose and plastic intake tube line completely. Discard.
- With the IAV adjustment knob in the downward position, push the IAV Assembly Hose directly onto the large center nipple of the IAC. Lubrication may be required and once secured it will not come off easily.



- Slide the IAV Assembly through the opening between the two cylinders until the filter is safely in position snugly cradled in the ignition switch bracket.



- Using the needle nose pliers carefully grab the plastic 2- 5/16" idle air tubes and place their hoses back onto their 2- 5/16" outer steel nipples of the IAC, making sure they are fully seated and covering both IAC nipples entirely.



- Reinstall the 4 bolts, harness plug and cover.

#### **The basic adjustment of the IAV starts as follows**

- Screw the knob all the way into its seated position just snug, not too tight.
- From the seated position, screw the knob out to approximately 3½ to 4 full 360° turns.
- While the engine is still **cold**, start it up and let it idle.
- This is your starting setting. Your engine should be idling constant at this point.
- Test ride the bike to determine if you need to turn the screw in more. If so, do so in ¼ increment turns.
- Only turn the screw in as necessary to reduce or eliminate the popping yet maintain a constant idle.
- If you have a fuel controller installed also, you may need to adjust the idle/cruise range (Green Mode) as necessary.
- Adjusting both fuel and air together most often gives better results.
- If the next cold start doesn't idle properly a readjustment may be necessary as a result of the motor being too warm on the first attempt.

The primary function of the I.A.V. is to reduce the over abundance of airflow to the cylinders while the throttle is in any position except closed. When you rotate the throttle, the I.A.C. opens creating a larger "intake flow" which results in leaner conditions that cause backfiring and poor throttle response. Just the installation of this unit alone may not cure all symptoms. Repairing ALL exhaust leaks and having a proper state of tune will yield better results. Certain Exhaust systems such as Victory Shotgun and Swept will cause more than normal backfiring.

#### **NOTE ON IAC RECYCLING:**

**Whenever the IAC wire harness is disconnected or after ECM re-programming re-flash) cycle the key switch on and off so the IAC valve can "learn" its position.**

For further Technical support e-mail us at [Lloyd@lloydz.com](mailto:Lloyd@lloydz.com).

We appreciate your business and your patience. If you have any questions or concerns, please don't hesitate to contact us. As a satisfied customer we wish you to be safely riding your Victory motorcycle and enjoy every minute of it! It's been a pleasure working with you.