



## *Thunder Torque Inserts™*

### **INSTRUCTIONS**

(Please read all instructions before beginning install)

#### **Parts included:**

- 1 Set of Thunder Torque Inserts™ (Unless you ordered a single.)
- 1 Set of mounting hardware

#### **Installation Steps:**

1. Locate the hole toward the end of your muffler/slip-on. Verify it is  $\frac{3}{8}$ " in diameter or larger. If it is smaller you may need to enlarge it to  $\frac{3}{8}$ ". (if you don't have a hole, see notes below)
2. Most of the time there is a bolt in there securing your baffle. Remove it, the Thunder Torque Insert™ will replace the bolt securing your baffle.
3. Thread a jam nut on the Thunder Torque as far as it will go. Follow it with a washer. Insert the Thunder Torque into the hole. (putting it in at an angle will make it easier to get the threads through the hole.)
4. Install a washer, then a lock washer then a nut on the threads protruding on the outside of the pipe.
5. When tightening the nut you will need to hold the Thunder Torque in the position you have chosen (see notes below). This can be done with a piece of wood, rubber tool handle, etc. (you do not need to keep the TTI at your desired angle until right before the nut is completely tightened down. This allows you to more easily use the rubber tool handle to hold the TTI from turning as you tighten the nut.)
6. After getting the first nut tightened down, put second nut on, right up against the other nut. This will work as a jam nut. That way you will have the jam nut and the lock-washer that work together keeping everything in place.
7. Repeat steps 1-6 on second pipe.

#### **General Notes:**

If you have no hole at the end of your pipe, then it is a simple matter of drilling a  $\frac{3}{8}$ " hole in the bottom of your pipe, 1/2" - 2" from the end. V&H is the only company we know of that uses a non-standard size hole for the exhaust baffle bolt. It either needs to be drilled out, or just drill a new hole for the TTI's. Thunder Torque Inserts™ can be installed in an infinite # of positions to

accommodate all different tunes and desired sound.

In instances where the TTI cannot be put close to the center, use our LT (LongThread) TTI. The Thunder Torque can be installed facing forward or backward or at any angle in-between to give you your desired sound and best torque. All of our testing has shown that the most power is achieved by installing it with the threaded stud Closest to the engine, meaning the cupped part of the TTI will be closest to the tail end of the pipe.

There is no need to use thread-locker on this installation, the heat will just burn it off.

### **Tips on tuning your Thunder Torques:**

**SOUND:** Desirable sound is totally subjective to each individual. To get the sound You desire simply try different installation angles of the Thunder Torques. The direction the Thunder Torque is facing will make a noticeable change in Tone & Volume. 90%+ of the time the best results are when the threaded part of the TTI is closest to the engine (with the cupped part closest to the tail end of the exhaust).

In many instances the removal of the baffle completely in conjunction with the Thunder Torques will produce the most desirable sound.

**TORQUE:** The Increase in Torque is accomplished by reducing engine pumping losses, increasing exhaust gas velocity and increasing inertial scavenging. The unique combination of materials and design of the Thunder Torque Inserts™ are able to accomplish the above.

Installation angles have a direct impact on how much more torque you will gain. Because each bike is different (air cleaners, fuel management, headers, slip-ons) there is no single adjustment that is best for all.

In most cases centering the Thunder Torque (height wise) in the pipe is optimal (it does not make a significant difference if it is a little off center, but as close as you can get is best). In some instances our LT (Long Thread) TTI can be used to get it centered.

90%+ of the time the best results are when the threaded part of the TTI is closest to the engine (with the cupped part closest to the tail end of the exhaust).

[www.DKCustomProducts.com](http://www.DKCustomProducts.com)

For info on Choosing the Right Size TTI, see the following Link

<http://www.dkcustomproducts.com/choosing-the-right-size-thunder-torque-inserts.htm>