



Congratulations! You have purchased the finest clutch kit available. This **patented** "dual quadrant" technology is revolutionary to the industry! This technology is **ONLY AVAILABLE** from Super Torquer Systems, Inc.!

## **STS1POL 38-12**

## **STS1ATV72**

### **How to Install and Use the Heel Clicker™ Clutch Weight System and Most Frequently Asked Questions** (Polaris EBS and nonEBS clutch designs only)



#### **WARNING! READ BEFORE INSTALLATION!**

Personal injury and damage to property can result from the improper installation and use of any product, including the Heel Clicker Clutch Kit. Installation of this kit should not be attempted unless you are a trained service technician or have a thorough and complete knowledge of CVT systems and their repair and tuning. Novice tuner should not attempt installation. It is recommended that a qualified dealership or repair facility install this kit.

**DEFINED WARNING:** This is a high performance product for use in sanctioned racing events only and is not for installation or operation by "consumers" as defined by the Magnuson-Moss Warranty Act. **DO NOT** install any performance parts unless you have the technical ability to properly set up the entire machine to compensate for the installation of these parts.

The expertise and necessary work needed to install products varies from one product to another. Instructions (where provided) are given to assist in installation only and are not a substitute for mechanical expertise. References to performance gains, reliability, ease of installation and tuning are based on our experiences. This is **NOT** a guarantee of similar performance in every installation. While we sell tested and proven products, individual results may vary.

**Before you begin to install your Heel Clicker™ clutch kit, please note the following:**

- **DO ACCEPT** only genuine HEEL CLICKER™ parts. This kit is assembled with made-to-specification parts. Accept no substitutes.
- **DO ALWAYS** use the same combination of fasteners on each weight arm and shoulder. NO EXCEPTIONS.
- **DO** make sure the weight arms are balanced (weigh the same) before installation.
- **DO** make certain you have any excess side play shimmed out of the pivot area of your weight arm.
- **DO** make sure your Stationary pin and nut are new or in like-new condition and securely fastened.
- **DO** make sure your drive belt is in good condition. Also, verify that your center-to-center and offset adjustments are correct.
- **DO** use LOCTITE™ (not included in kit) or similar product on each fastener after you determine the proper combination for your setup.
- **DO NOT** grind or alter any portion of the weight arm or shoulder.
- **DO NOT** adjust the mass while the weight is mounted on the stationary pin in the clutch.
- **DO NOT** operate your machine without checking the full range of motion of each weight to make sure you clear the spider assembly and related areas.
- **DO NOT** exceed 6300 RPM's.
- **DO NOT** allow an unqualified person to make any adjustments to your clutch kit.
- **DO NOT** install a Heel Clicker™ clutch kit in any clutch assembly that has excess wear, damage, or is in otherwise questionable condition.

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**Provided in this kit are the following items:**

- Three (3) bushed billet Heel Clicker™ clutch weights
- (6) or (9) 1/4x28x1/4" stainless steel button headed bolts    2.5 grams approx.
- (6) or (9) 1/4x28x3/8" black steel button headed bolts    3.5 grams approx.
- Twelve or Eighteen (18) 6.0mm steel washers    1.0 gram approx.
- Two primary clutch springs, White (35-135), Orange (15-260)
- One Secondary clutch spring, Silver (75-110) 38-12 Kit (**EBS use**) only
- One Heel Clicker™ Super Torquer Systems, Inc., sticker

**NOW YOU ARE READY TO INSTALL YOUR NEW  
HEEL CLICKER™ CLUTCH KIT.**

- 1) Remove the drive clutch from the machine. Disassemble the cover and remove the drive spring, and clutch weights.
- 2) **You are now ready to tune the Heel Clicker™ weights** for your particular application. The Heel Clicker™ weights are adjustable for different applications.

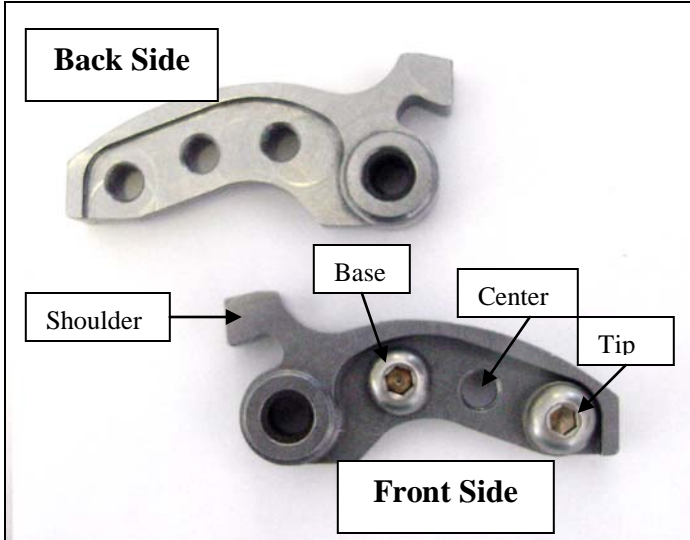


Figure #1 (38-12 Shown. No Base Hole in ATV72)

The application chart tells you how to set the clutch weights up for stock Polaris applications. Find your model and determine how much weight to add to each of the base, center and tip hole locations. When adjusting the weight with the button head bolts (2.5 or 3.5 grams each) and washers (1.0 gram each), make sure the bolt and washer are installed from the front side. Figure #1 above shows the base hole with a 1/4" bolt and the tip hole having the 3/8" bolt w/ 1 washer on it. Some Polaris ATV models require no center or tip hole adjustments.

For reference, the next picture shows the combination bolt/washers needed to achieve each gram total listed in the application chart.

2.5 gr  
1/4" Bolt



3.5 gr  
3/8" Bolt



4.5 gr  
3/8" Bolt  
w/ 1 washer



5.5 gr  
3/8" Bolt  
w/ 2 washers



**IMPORTANT NOTE: The 3.5gr and 5.5 gr settings CAN ONLY BE USED WITH THE 800 Sportsman clutch (wide roller clutch). Use of the 3.5gr or 5.5 gr settings in a narrow roller clutch will cause a spider clearance issue (scrubbing and/or sticking of the arm)—DO NOT USE!! Never use more than two washers on the 3/8" long bolt and zero on the 1/4" bolt!**

### Application Chart for Heel Clicker™ Clutch Weights

<u>Model</u>	<u>Kit</u>	<u>Base</u>	<u>Center</u>	<u>Tip</u>	<u>Primary</u>	<u>Secondary</u>
400 Sportsman Non-EBS	38-12	0.0	0.0	0.0	White	Stock
400 Sportsman EBS	38-12	0.0	0.0	0.0	White	Silver
500 Sportsman Non-EBS	38-12	2.5	0.0	0.0	White	Stock
500 Sportsman HO	38-12	2.5	0.0	0.0	White	Silver
600 Sportsman	38-12	2.5	0.0	0.0	White	Silver
700 Sportsman	38-12	2.5	4.5	4.5	White	Silver
06-07 800 Sportsman	38-12	4.5	4.5	4.5	White	Stock
08+ 800 Sportsman/RZR	ATV 72	--	4.5	0.0	White	Stock

**Note: For applications with large tires other than the 800 Sportsman, use the orange primary spring. The orange primary spring will not fit in the 800 Sportsman clutch.**

400 Scrambler	38-12	2.5	4.5	2.5	White	Silver
500 Scrambler	38-12	2.5	2.5	0.0	White	Silver

- 3) Set all three clutch weights up with the same weight in each location. Install all three clutch weights using the OEM stationary pins
- 4) Install one of the primary clutch springs supplied with this kit. The White spring is a (35lb-135lb) spring and is intended to be used when low clutch engagement is desired. Other manufacturer's springs can be used with these weights.
- 5) After installing the kit and you have decided on your settings, put the side cover back on. Always replace the side cover gasket with a new one. Before you tighten the side cover on completely, push down on the cover from the top and hold while tightening the cover screws. This helps ensure the clutch weights do not come in contact with the inside of the clutch cover. It is imperative that the weights do not come in contact with the cover during operation. Note: On models from 1995 to 2000, replacement of the side cover is needed to give the clutch weights sufficient clearance to fully rotate. The replacement side cover is a stock Polaris cover available at your local Polaris dealer.





## **Limited Warranty**

Super Torquer Systems, Inc., (“Manufacturer”) warrants that the clutch arms sold hereunder will be free from defects in material and workmanship when subject to normal and proper use for the original purchaser’s ownership. If the clutch arms do not conform to this limited warranty during the warranty period of one (1) year from the date of purchase, the Buyer shall notify Super Torquer Systems, Inc., in writing of the claimed defect and demonstrate to Manufacturer’s satisfaction that said defects are covered by this limited warranty. If the defects are properly reported to Manufacturer within the warranty period, and the defects are of such type as to be covered by this warranty, the sole and exclusive obligation of the Manufacturer shall be, at its own expense, to furnish replacement product, or at Manufacturer’s option, replacement parts for the defective product. Removal, shipping and installation of the replacement product or parts shall be at the Buyer’s expense.

Manufacturer does not warrant against damages or defects arising out of improper or abnormal use or handling of the clutch arms; against defects or damage occurring from improper installation, against sudden impact arising from abnormal occurrences (ex., belt breaking or clutch slams shut unexpectedly); nor damages incurred to the machine from the use of this product.

Purchaser is responsible to do maintenance checks on the complete CVT system on a regular basis to ensure proper operation. Normal wear components including, but not limited to, springs and bushings are not covered by warranty.

**U.S. Patent # 6,346,056**

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