

# SLP Magnum Force Ultra™ Weights for Ski-Doo Turbo with P-Drive Primary Clutch P.N. 40-167

## Kit Contents:

- 3 - Magnum Force Ultra™ Drive Clutch Weights (#40-1670)  
- (82.5g empty, 98.7g fully loaded)
- 21 - 1.2g Set Screws (#999-0589)
- 7 - 0.6g Lock Set Screws (#999-0588)
- 6 - 1.0 g Launch Tube Washers (#40-1671)
- 3 - 5.2g Launch Tube Bolt (#40-1672)
- 1 - T-Handle Allen (#20-308)

## **Tuning Theory**

Weights can be adjusted by adding or subtracting mass to the barrel or launch tube to achieve desired engagement and peak RPM.

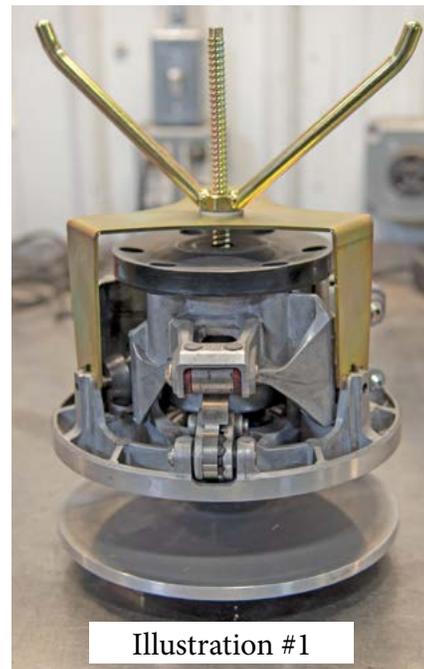
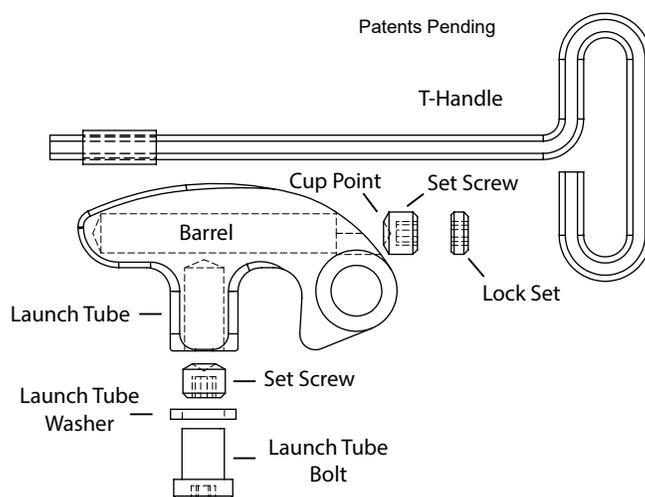
Adding weight to the barrel will reduce peak RPM. **Maximum 6 set screws and one lock set in the barrel.** This adjustment can be made easily in the field without removing the weight from the clutch.

Adding weight to the launch tube will increase engagement RPM, reduce low speed shift force and slightly reduce peak RPM. **Maximum 1 set screw, 1 bolt and 2 washers in the launch tube. CAUTION: DO NOT install more than 2 washers onto the Launch Tube Bolt.** If adding a set screw without the launch tube bolt a lock, set must be used to lock into place. When installing the launch tube bolt, put a dab of blue thread locker (included) onto the threads before installing. Adjustments to the launch tube must be done with the weight removed from the clutch. Refer to SLP recommendations for specific combinations located in clutch kit instruction sheets.

**Read instructions carefully and completely before attempting installation.**

## **Installing Set Screws:**

With the cup point of the set screw pointed into the weight, use the T-Handle Allen wrench to drive set screw in until it bottoms out in the weight. Add the desired number of set screws, bottoming each one to the other. Then drive in lock set until it bottoms on the set screw and tighten it up to lock in place.



## Removal/Installation of weights into the clutch.

1. Remove drive clutch from sled using SLP Clutch Puller (#20-228).
2. Use Spring Compression Tool (SLP Part #20-233) to compress clutch for weight removal (see illustration #1).
3. Remove torx bolt from the weight pin (see illustration #2).
4. Using weight pin removal tool (SLP Part #20-235), screw removal tool into weight pin and tap pin out using a hammer (see illustration #3).
5. Install SLP Magnum Force Ultra™ Weight into clutch and install pins and bolt in reverse orders of the steps above. (see illustration #4)

**Note:** Torque bolt to  $5 \text{ N}\cdot\text{m} \pm 0.5 \text{ N}\cdot\text{m}$  ( $44 \text{ in}\cdot\text{lb} \pm 4 \text{ in}\cdot\text{lb}$ ).



6. Install clutch on crankshaft, making sure the flat on the crank end engages into the flat inside the clutch taper. Install conical spring washer on clutch bolt (with concave side of washer towards the clutch). Using holding tool to prevent clutch from spinning, torque retaining bolt to **89 ft/lbs** with 21mm 12-point socket and torque wrench.

**IMPORTANT:** Belt deflection is very important for optimum performance. After primary clutch and belt are reinstalled, check your belt deflection. We recommend setting the belt deflection as tightly as you can without the sled creeping or squealing at idle. Deflection will need to be checked and adjusted periodically as it will change as the belt wears.

With Magnum Force Ultra™ Weights installed the belt to sheave clearance with new a belt is near zero and may squeal until the belt is broken in (has several miles on it).

