



“Setting the World’s Performance Standards”

743 East Iona Road, Idaho Falls, ID 83401, (208) 529-0244 Fax (208) 529-9000

SLP Clutching for Stock or SLP Stage 1 Kit 2021 Ski-Doo 850 Summit Turbo

Altitude (feet)	Drive Clutch		Driven Clutch	
	Weight		Helix	Driven Spring
0-8000' (0-2743m)	Magnum Force Ultra (#40-167)		Yellow-Purple/Green 200/330 (#40-238)	Stock
	Barrel	Launch Tube		
	4 Set Screws 1 Lock Set	1 Bolt, 1 washer		
8-10,000' (2743-3048m)	Magnum Force Ultra (#40-167)		Yellow-Purple/Green 200/330 (#40-238)	Stock
	Barrel	Launch Tube		
	3 Set Screws 1 Lock Set	1 Bolt with 2 washers		
10-12,000' (3048-3658m)	Magnum Force Ultra (#40-167)		Yellow-Purple/Green 200/330 (#40-238)	Stock
	Barrel	Launch Tube		
	2 Set Screws 1 Lock Set	1 Set Screw 1 Bolt with 2 washers		

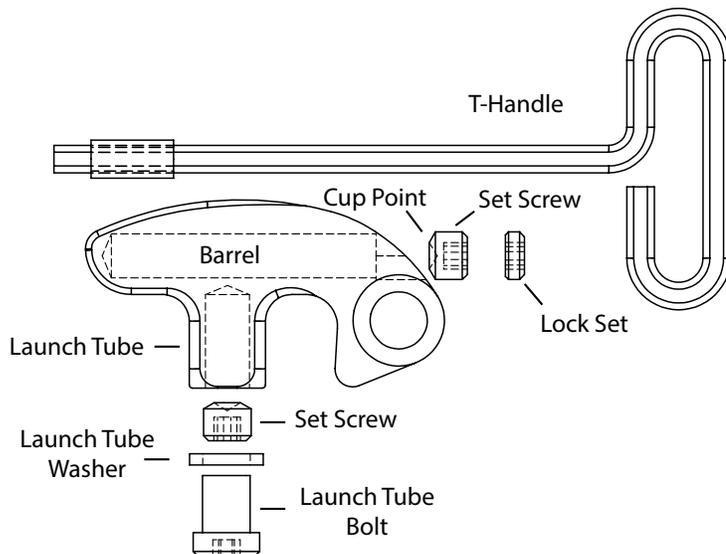
Running RPM 7800-8000

Component Weight (each):

- Base Weight - 82.5 g
- Set Screw - 1.2g
- Lock Set - 0.6g
- Launch Tube Bolt - 5.2g
- Launch Tube Washer - 1.0g

Maximum Load (each weight):

- Barrel:**
- 6 Set Screws
- 1 Lock Set
- Launch Tube:**
- 1 Set Screw
- 1 Bolt with 2 washers
- Total Max Weight: 98.7**



CAUTION! Do not install more than 2 washers on Launch Tube Bolt.

Clutch Kit Install Instructions for Ski-Doo P-Drive Clutch

Recommended Tools:

P-Drive Clutch Compression Tool (#20-233)
Clutch Puller (#20-228)
Weight Removal Tool (#20-235)
P-Drive Holding Tool (#20-309)

T25 and T40 Torx Bits
Torque Wrench
Ratchet
21mm 12-point socket

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.

Clutch Kit Installation:

1. Remove drive clutch retaining bolt with ratchet, 21mm 12-point socket and holding tool (#20-309). Remove drive clutch using clutch puller (# 20-228) & holding tool. After removing clutch, thread puller into the clutch about 1/2". While holding clutch by the movable sheave just above a work bench, strike head of the puller. This will separate the movable sheave from the stationary sheave.

HINT: Best performed with 2 people: one to strike with the hammer and the other holding the clutch.

2. Mount the compression tool (#20-233) in a vice or bolt to a solid surface. Remove 6 Torx T40 bolts holding the counter weight/cap. Once the counter weight/cap is removed, place the spring compression adapter on top of the spring cap (Illustration #1). Make sure the white washer is between the spring compression adapter and the handle while compressing spring.



Illustration #1



Illustration #2

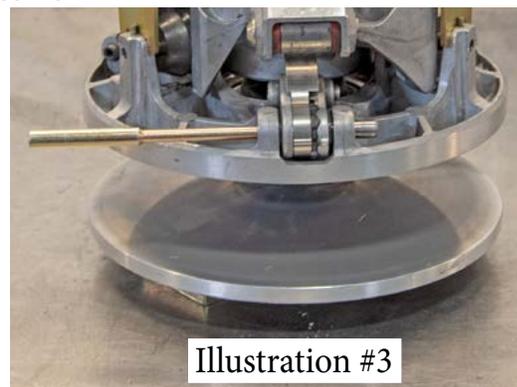
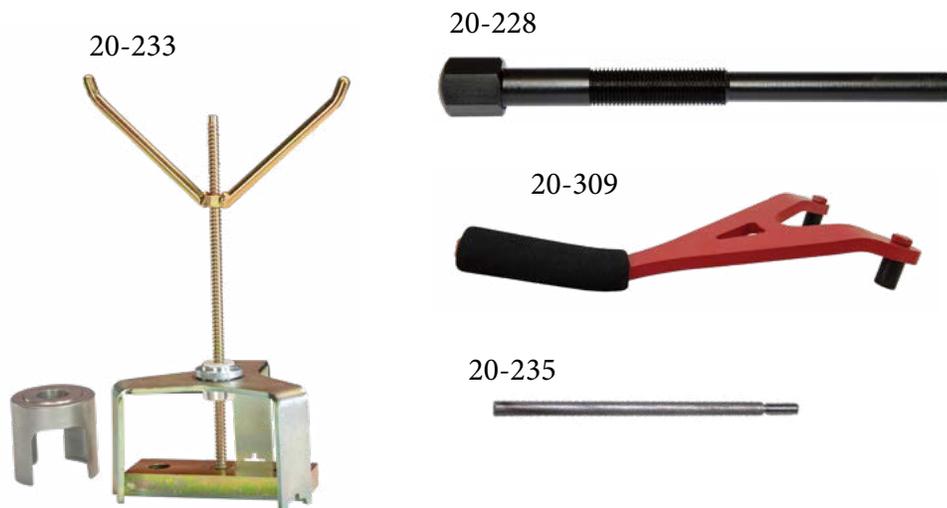


Illustration #3

4. Align the larger cut-out on the spring compression adapter with the split in the retaining ring. Thread the handle down until the spring cap is compressed enough to remove the retaining ring. Slowly unscrew the handle, decompressing the spring.
 5. Once the spring is removed from the clutch, remove the T-25 torx bolts holding the weight pins (Illustration #2). Using the weight removal tool (# 20-235), thread the tool into the weight pin and gently tap them out with a hammer (Illustration #3).
 6. Before installing weights in clutch, install the recommended number of fasteners into the Magnum Force Weights for your elevation.
 7. Place Magnum Force weights in the clutch. Insert weight pins into clutch from the same direction as they were originally installed. Once all the pins are in place, thread the T25 Torx bolts into the pins and torque bolts to **44 in/lbs**.
 8. Install SLP clutch spring. Align the larger cut out on the spring compression adapter with the split in the retaining ring. Using the spring compression tool, **SLOWLY** compress the spring until the spring cap is in place. Install retaining ring.
 9. Install counter weight/cap and torque the 6 torx T40 bolts to **23 ft/lbs** using a star pattern.
 10. Align the arrow shaped index mark of the movable sheave assembly with the dot on the fixed sheave.
- NOTE:** Make sure the tapered surface on the clutch assembly and the crankshaft are both clean before installing drive clutch (we recommend using brake cleaner and a fresh shop rag).
11. 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.

Recommended SLP Tools



- 20-228 P-Drive Clutch Puller
- 20-233 P-Drive Clutch Compression Tool
- 20-235 P-Drive Weight/Roller Pin Removal Tool
- 20-309 P-Drive Holding Tool
- 20-320 P-Drive Clutch Service Kit (all the tools listed above).