



“Setting the World’s  
Performance Standards”

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

## Part# 09-826 SLP Twin Pipe Set for 2022 Polaris 850 Matryx RMK, Khaos and Slash

### Parts List

- |   |  |
|---|--|
| 1 - Instruction (Part #015-09826)                             | 1 - 13 x 13 x 6mm Aluminum Spacer (Part #999-0272 )  |
| 1 - MAG Pipe (Part #090-8164)                                 | 1 - 10 x 1.5 Metric Toplock Nut (Part #999-0266)     |
| 1 - PTO Pipe (Part #090-8263)                                 | 3 - Large Fender Washers (Part #999-7896)            |
| 1 - Silencer (Part #090-8161)                                 | 1 - Large Head Rivet (Part #999-0048)                |
| 1 - Stinger Assembly (Part #090-8165)                         | 1 - 10-16 x 1/2” Self Tapping Screw (Part #999-0211) |
| 1 - PTO Flange (Part #090-8167)                               | 4 - Silicone Filled Spring (Part #090-50)            |
| 1 - MAG Flange (Part #090-8162)                               | 1 - Spring Clip (Part #090-697)                      |
| 1 - Pipe Support Bracket (Part #092-0526)                     | 1 - 9" Insulated Sleeve (Part #09-41)                |
| 1 - Exhaust Flange Gasket (Part #090-969)                     | 1 - 3” x 120” Reflective Heat Tape (Part #092-0529)  |
| 2 - Grafoil Seal (Part #090-621)                              | 1 - Insulated Heat Tape (Part #090-29)               |
| 1 - Orange Silicone Damper (Part #090-1090)                   | 1 - Fusebox Bracket (Part #092-0506)                 |
| 1 - 6 x 1 x 16mm Flanged Bolt (Part #999-0264)                | 1 - Straight Cut Aluminum Spacer (Part #092-0525)    |
| 3 - 6 x 1mm Flanged Nylock Nut (Part #999-0263)               | 1 - Upper Heat Blanket (Part #092-0527)              |
| 2 - 6 x 1 x 20mm Flanged Bolt (Part #999-0265)                | 1 - Lower Heat Blanket (Part #092-0528)              |
| 1 - 6 x 1 x 35mm Flanged Bolt (Part #999-0270)                | 1 - Anti Seize Packet (Part #090-0146)               |
| 1 - 8 x 1.25 x 20mm Bolt (Part #999-8242)                     | 4 - Zip Ties (Part #999-5431)                        |
| 2 - 8 x 1.25 x 16mm Serrated Flanged Bolt<br>(Part #999-0271) | 1 - Centering Punch (Part #20-325)                   |
|   | 1 - Servo Motor Relocation Bracket (Part #093-0134 ) |

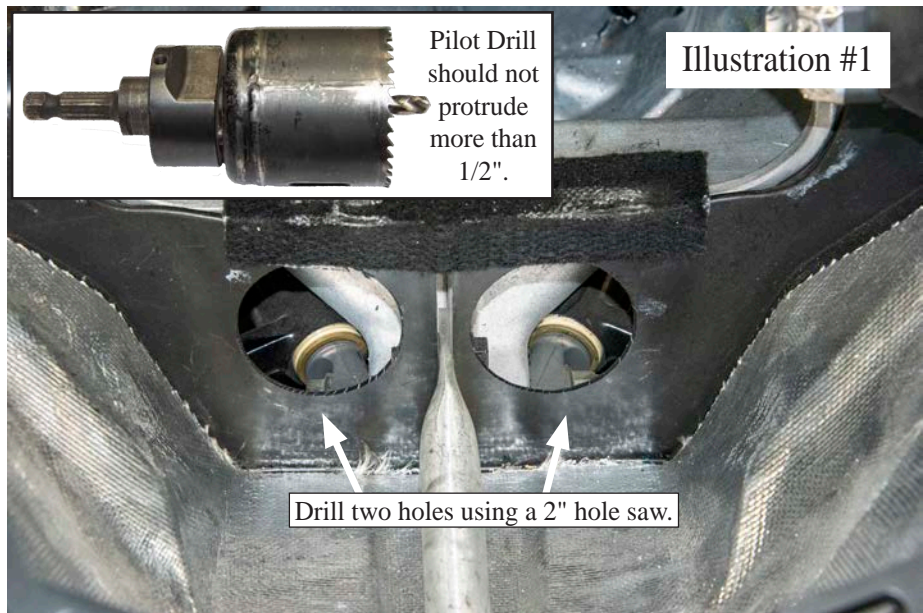
### Recommended Tools List

- |  |   |
|--|---|
| T-30 Torx                                      | 10mm Deep Socket                              |
| T-40 Torx                                      | 10mm Wrench                                   |
| 8” Spring Hook Tool (Part #20-183)             | 13mm Wrench                                   |
| 17” Heavy Duty Spring Hook Tool (Part #20-322) | 15mm Wrench                                   |
| 3/16” Drill Bit                                | 17mm Wrench                                   |
| 1/4” Drill Bit                                 | 19mm Wrench                                   |
| 21/64” Drill Bit                               | Side Cutters                                  |
| 5/16” Screw Gun Bit for Drill                  | 6mm Ball End Allen - 5” Length (Part #20-221) |
| 1/4” Ratchet                                   | Drill   |
| 3/8” Ratchet                                   | Torque Wrench                                 |
|  | 17mm Crow’s Foot (for torquing EGT Sensor)    |
|  | 2” Hole Saw                                   |

**Step 1:** Remove hood, side panels, stock pipe, silencer and spare belt holder.

**NOTE:** Make sure to leave stock rubber isolator on the bulk head support. (See illustration #7)

**Step 2:** Using a 2" hole saw, drill two holes in the back side of the nose cone (see illustration #1). Make sure the pilot drill bit is set approximately 1/2" or less protruding beyond the hole saw. Use caution when drilling not to drill into the bulkhead or lower A-Arms. These holes allow hot air to escape, failure to perform this step can result in heat damage.



**Step 3:** Loosen the jam nut on the exhaust valve servo motor cable and disconnect the cable from the servo motor. Then unbolt exhaust valve servo from the chassis using a T-30 torx bit. (See Illustration #3)

**Note:** To remove the wiring plug from the servo motor, pull the gray safety clip out until it clicks once. Squeeze the gray safety clip towards the wiring harness and lift the connector off to disconnect.

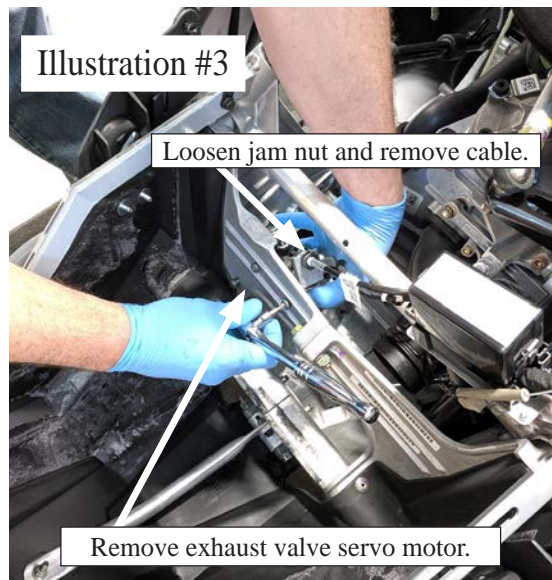
**Step 4:** Clip the two zip ties holding exhaust valve servo motor wires coming from fuse box. Re-

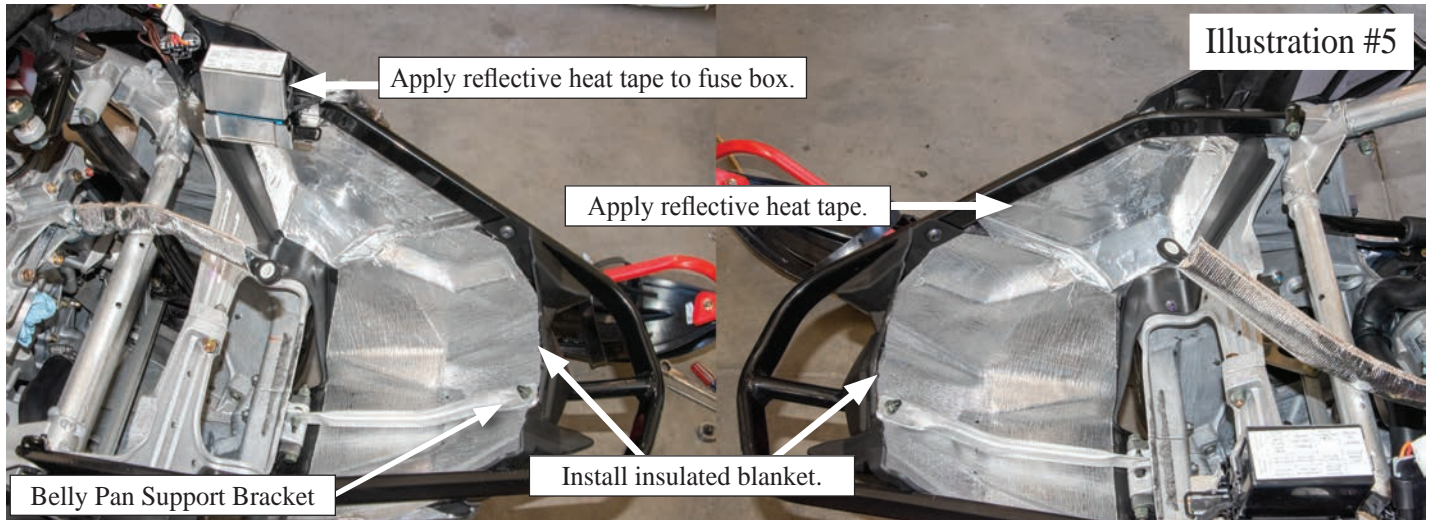
move the fuse box from fuse box bracket by lifting up on the black safety tab and sliding the fuse box towards the center of the sled. Remove the fuse box mounting bracket from the bulk head cross member by drilling out the rivets using a 3/16" drill bit. (Illustration #4). The stock fuse box mounting bracket will not be reinstalled.

**Step 5:** Remove y-pipe by removing Allen bolts using 5" long 6mm ball end Allen wrench (SLP Part #20-221). Clean any residue left by the stock exhaust gasket.

**Step 6:** Remove the foam from inside the belly pan. Remove the front bolt from the belly pan support bracket and swing the bracket up towards the engine (see bracket in Illustration #5). Locate the insulated heat blankets in the parts kit. Dry fit blankets into place aligning it to the contour of the belly pan before pulling off the backer. Center the bottom blanket and mark its location using a marker. Remove the backer and apply to the belly pan working from the center out. Do the same with the upper blanket. The upper blanket will overlap the lower blanket slightly. Apply supplied reflective heat tape to the sides of the belly pan as shown in Illustration #5. Reinstall the belly pan support bracket.

**Step 8:** Apply a strip of insulated heat tape on the MAG side of the upper bulk head support (overstructure). Then cover the support with reflective heat tape. (see Illustration #6)





**Step 9:** Apply heat tape near the exhaust outlet of the belly pan shown in Illustration #7.

**Step 10:** Install the provided spring clip in the 1 o'clock position using the provided 8 x 1.25 x 20mm bolt with a dab of blue thread locker on the threads. (Illustration #7)

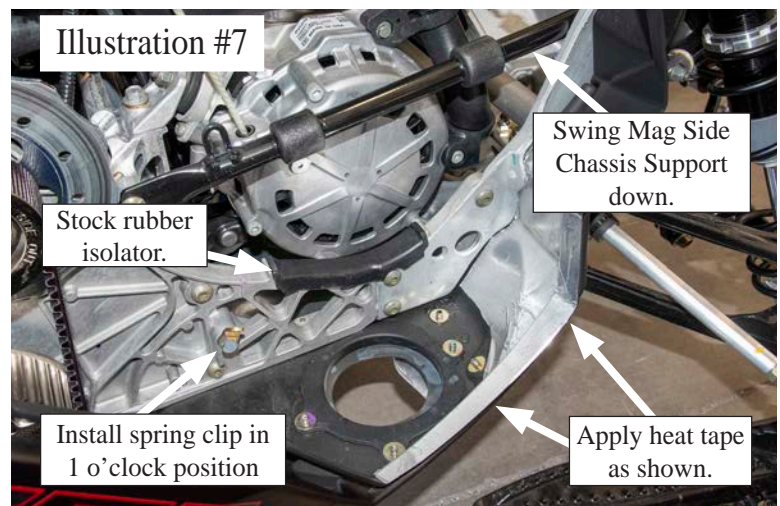
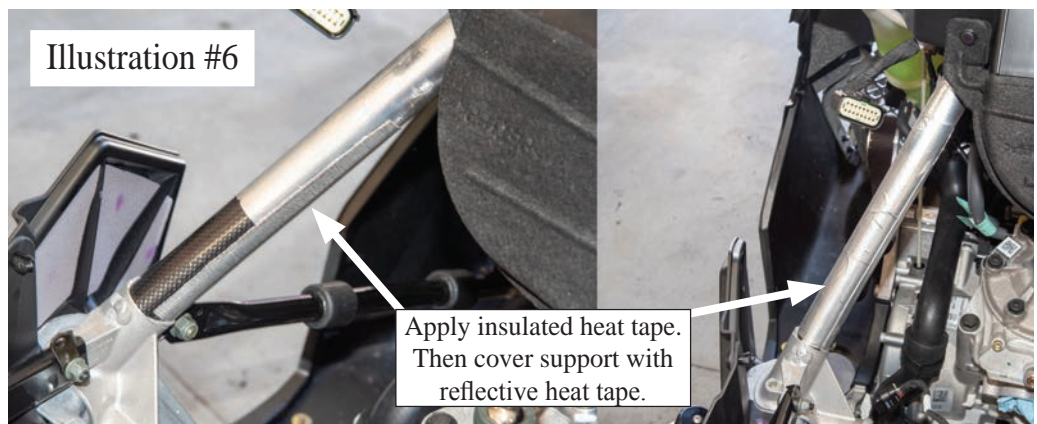
**Step 11:** Using a T-40 Torx, remove the front bolt on the MAG side rear chassis support, and swing down but **DO NOT REMOVE**. (see support in Illustration #7)

**Step 12:** Unbolt the upper steering arm heim joint, then install the provided aluminum straight cut SLP spacer and provided locking nut (see Illustration #8). **Torque to 37 ft/lbs.**

**Step 13:** Remove the bolt on the back of the front bumper on the PTO side, where the brown wires are attached. Install provided SLP fuse box relocation bracket onto the rear inside of the front bumper, using the SLP supplied 6mm x 35mm bolt, SLP supplied aluminum spacer and OEM nut in the rear of the SLP fuse box bracket. Then use the provided self tapping bolt in the front hole of the mounting bracket. Make sure the bracket is flush with the bottom edge of the bumper and the exhaust valve servo control wire is forward. (see Illustration #9)

**Step 14:** Apply heat tape to the fuse box on the side closest to the pipe (see illustration #10)

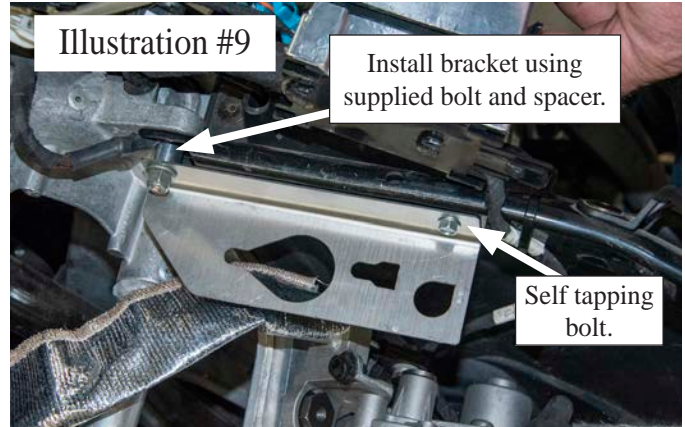
**Step 15:** Slip provided insulated sleeve over the exhaust valve servo cable (see illustration #10).



**Step 16:** Relocate servo motor to the front PTO side of the bulkhead cross-member as shown in illustration #11. Using the bulkhead as a guide align the bracket top and bottom inside radius with the bulkhead as shown in illustration #11. Use a small C-Clamp to hold the supplied servo motor bracket to the front PTO side of the bulkhead cross-member. Slide the supplied centering punch through each of the two threaded holes of the bracket and smack the centering punch with a hammer to mark the bulkhead drill location (see illustration #11). Remove the bracket. In a two step process drill the bulkhead first using a 3/16" bit for a pilot hole then finish with a 21/64" drill bit.



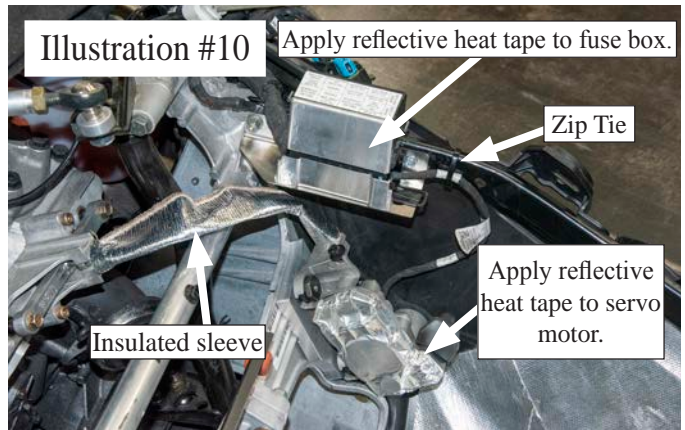
**Step 17:** Apply reflective heat tape to the servo motor on the side closest to the pipe (see illustration #10). Making sure to cover all exposed plastic with heat tape. Attach the servo motor to the servo motor bracket using the stock screws and a small dab of blue thread locker on the threads of each screw.



Attach the exhaust valve actuator cable to the servo motor.

Reinstall the servo motor assembly in the new location using two supplied 8 x 1.25 x 16mm flange hex head bolts (use blue thread locker on the threads).

Attach the servo motor wiring harness to the bumper using a supplied zip tie (see Illustration #10). Plug the connector into the socket and lock into place by pushing the gray clip towards the servo motor.



**Step 18:** Using the three holes that originally held the exhaust valve servo onto the bulk head, install the provided SLP pipe support bracket. Use two supplied 6 x 1 x 20mm bolts in the upper holes and one supplied 6 x 1 x 16mm bolt in the lower hole. They also use the supplied 6 x 1mm nylock nuts. (Illustration #12)

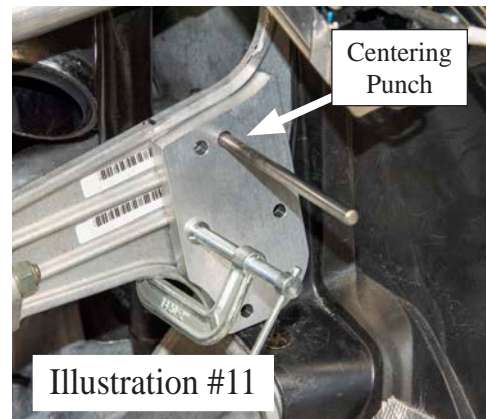
**NOTE: If also installing an SLP Torque Arm do that now.**

**Step 19:** Install the PTO side flange and gasket with the flange angling towards the MAG side (Illustration #13). **Torque bolts to 22 ft/lbs.**

**Note:** The PTO flange is the shorter flange that is angled. The V shaped support that is welded to the flange points down.

**Step 20:** Install the provided grafoil seal onto the PTO flange. Install the PTO pipe into the chassis making sure the pipe stud slides into the pipe support bracket. Spring the PTO pipe into place using the provided SLP silicone filled springs.

**NOTE:** When springing the PTO pipe in place, come in through the PTO side below the clutch cover. Use SLP heavy duty long spring hook tool (Part #20-322). Apply WD-40 or similar lubricant to the pipe stud prior to inserting into the pipe support bracket.



**Step 21:** Install the EGT sensor into the pipe using anti-seize on the threads of the sensor and **torque to 22 ft/lbs.** Tie excess wire to the stock wire loom using a zip tie (see illustration #14).

**Step 22:** Install the MAG side flange pointing forward. Then install the MAG side pipe and spring into place using the provided SLP silicone filled springs. Make sure the pipe stud slides into the pipe support bracket. The MAG flange is the longer, straight flange. The V shaped support that is welded to the flange points down.

**NOTE:** Apply WD-40 or similar lubricant to the pipe stud prior to inserting into the pipe support bracket.

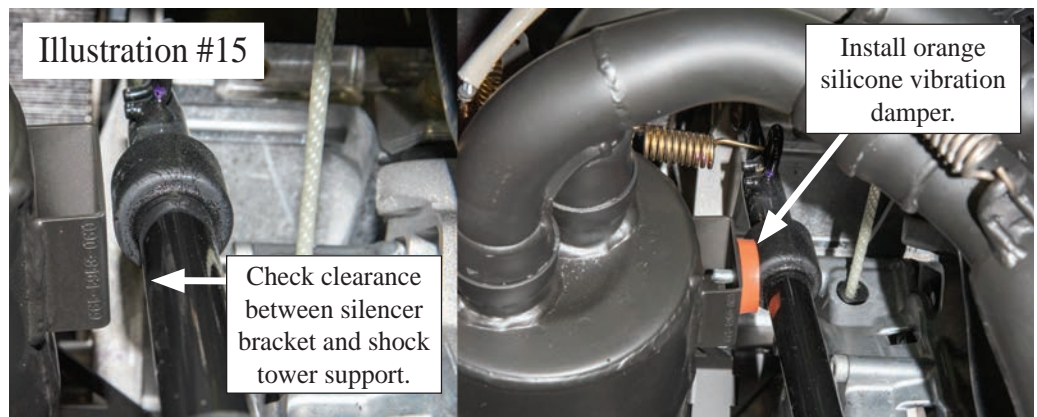
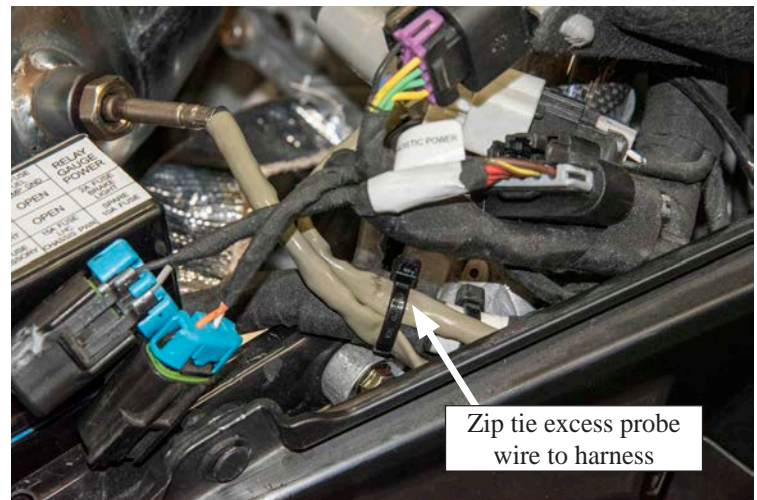
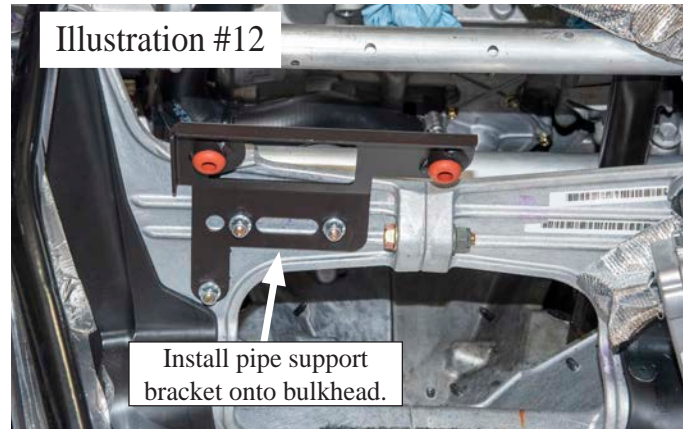
**Step 23:** Reinstall the rear chassis support bracket unbolted in step 11.

**Step 24:** Once both pipes are installed, test fit the silencer and stinger assembly in place. Check the clearance between the silencer bracket and the rear shock tower support member (see Illustration #15). Due to chassis variation, this distance varies. Most sleds will only need the supplied orange silicone vibration damper installed to take up this space, but some will need one, two or three fender washers behind the orange damper for proper fitment. Rivet the orange damper with any necessary fender washers behind it onto the silencer bracket using supplied large head rivet.

**Step 25:** Install the silencer and spring into place using the OEM gold colored short spring to the lower spring clip and OEM medium spring to hold the upper portion of the silencer in place.

**Step 26:** Install silencer EGT sensor using provided anti-seize on the threads of the sensor and **torque to 22 ft/lbs**. The OEM zip tie holding the sensor wire in place will have to be removed and the sensor wire needs routed to the front side of the coolant bottle. Zip tie the wire to the coolant bottle after the sensor has been torqued in place (see Illustration #16).

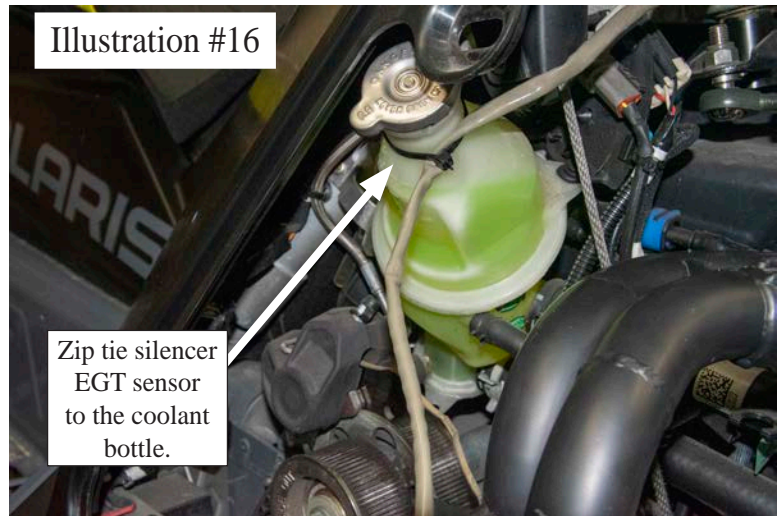
**Step 27:** Install the stinger assembly into the pipe and silencer. Make sure to use Ultra Black High Temp. Silicone (SLP Part #090-24) between all ball and socket joints. Use two silver colored OEM springs between the pipe and stinger assembly and two gold colored OEM springs between the silencer and the stinger assembly.



**Step 28:** Check for clearance between MAG pipe and MAG side over-structure. There should be at least 1/4" of clearance. Check for clearance between the PTO pipe and the exhaust valve cable. There should be at least 1/4" of clearance. Turn the handlebars fully in each direction and check clearance between the PTO pipe and the upper steering arm heim joint retaining nut. There should be at least 1/8" clearance.

**Step 29:** Start the sled and check for exhaust leaks.

**Step 30:** Using SLP Flash Tun'R part #70-800, connect to diagnostic port in the wiring harness (located on the PTO side above the clutch cover) and flash ECU to SLP Twin Pipe map.



**Step 31:** Re-clutch to SLP clutching recommendations (see page 8).

**Step 32:** Reinstall hood and side panels.

## 850 Matryx RMK, Khaos and Slash with SLP Twin Pipe Kit

### Requirements:

#### **Fuel Requirements:**

#### Stock Head

**All Elevations:** 91 Octane pump fuel with 1/2 oz of Lucas Octane Booster per gallon of fuel.

#### SLP Power Dome Heads

**0-4000':** 1 gallon of aviation or race fuel per 4 gallons of 91 octane pump fuel.

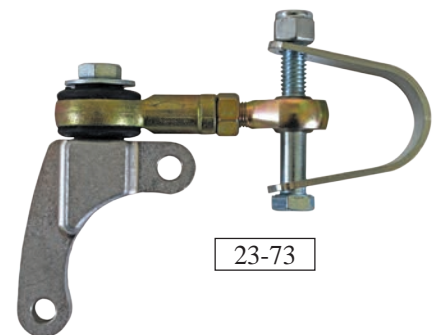
**4000' and Above:** 91 octane pump fuel with 1 oz of Lucas Octane Booster per gallon of fuel.

**ECU Reflash** - This flash is done using SLP Flash Tuner Part #70-800.

**SLP Clutch Kit** - Part #41-531 for elevations 0-3000', Part #41-532 for elevations 3-6000', Part #41-533 for elevations 6-10,000' or Part #41-534 for 10-12,000'

### Highly Recommended:

**SLP Torque Arm** (Part #23-73)



## Caring for your ceramic coated pipes and/or silencer:

Ceramic Coating is applied to your exhaust system to provide a thermal barrier for more consistent performance. It is a coating which requires little maintenance to keep your pipes and/or silencer looking like new.

Upon completion of new installation, wipe the ceramic coated parts of the exhaust system down with water and a mild detergent. This will prevent oils and grease (usually in the form of fingerprints) from burning on and staining the exhaust during first initial startup.

To maintain your ceramic coated system, wash it with soap and water periodically (especially necessary after trailering it to and from your riding area on roads that have been treated with salt and other ice removing chemicals). Salt and other ice removing chemicals will attack and eat away at the ceramic coating. This will result in rust coming through the coating. Typically you will notice this rusting after your snowmobile has set for a period of time without the exhaust system being brought up to running temperature. Also, properly ventilate trailer while sled is drying out.

Failure to maintain your ceramic coated pipes or silencer can result in damage to the ceramic coating for which there is no warranty coverage. A little care will insure that your pipes and/or silencer will continue looking like new for many years.

### IMPORTANT:

**When transporting snowmobile in an open environment (ie. open trailer or on a sled deck) SLP highly recommends covering the snowmobile. This will help keep road salt and other ice removing chemicals off of the pipe as it can attack and eat away at the coating.**

# Clutching for 2022 Polaris 850 Matryx

## RMK, Khaos and Slash with SLP Twin Pipe Kit

**Important:** The following clutching information has been thoroughly tested and is highly recommended for proper performance and reliability. Primary weights, drive spring, driven spring and helix must be changed according to the chart if applicable for your elevation. Running any combination other than recommended may cause poor, inconsistent performance.

Altitude (feet)	Drive Clutch		Driven Clutch	
	Spring	Clutch Weights	Spring	Helix
<b>0-3000'</b>	SLP Blue Silver 140/300 #40-69	SLP# 40-151 (65g) 4 Set Screws 1 Lock Set	Black 155/222 (Stock)	64-42.36 SLP #50-151
<b>3-6000'</b>	SLP Blue / Pink 140/340 #40-76	SLP# 40-150 (60.7g) 4 Set Screws 1 Lock Set	Black / Purple 160/240 SLP #50-55	64-42.36 SLP #50-151
<b>6-8000'</b>	SLP Blue / Pink 140/340 #40-76	SLP Part# 40-150 (60.7g) 3 Set Screws 1 Lock Set	Black / Purple 160/240 SLP #50-55	62-42.36 SLP #50-152
<b>8-10,000'</b>	SLP Blue / Pink 140/340 #40-76	SLP# 40-150 (60.7g) 2 Set Screws 1 Lock Set	Black / Purple 160/240 SLP #50-55	62-42.36 SLP #50-152
<b>10,000'-12,000'</b>	SLP Blue / Pink 140/340 #40-76	SLP# 40-154 (57g) 3 Set Screws 1 Lock Set	Black / Purple 160/240 SLP #50-55	62-42.36 SLP #50-152

**Note:** For 3" tracks it is recommended to run 1 less set screw.

**If using SLP Power Dome™ Heads install 1 additional set screw.**

**Running RPM 8450-8700**