

2002-04 POLARIS 800 XC SLP TWIN PIPE SET P.N. 09-844

Installation Instructions

Revised 1/6/03

IMPORTANT: Read instructions carefully before installation.

NOTE: Do not remove banding placed on the mid section of each pipe. It has been placed there to reduce noise emissions, improve performance and reliability.

1- Remove stock exhaust, Y-pipe, and silencer. (Retain OEM springs for pipe installation)

2- Install two SLP flanges marked "M" for Mag and "P" for PTO. The bottom bolts must be slightly ground to allow for clearance on the flanges. (SEE ILL # 1)

3- Measuring up 8 ½" from the open hood vent on the right side of the hood apply 4 strips of insulated heat tape then cover with reflective heat tape. (SEE ILL # 2) Apply reflective heat tape between the center hood vents. Cover the speedo cable from the hood hinge to the top of hood foam. Remove the hood foam on the right hand side of the hood. Using 5 strips of 7" insulated heat tape cover the top of the MAG side shock tower and cover with reflective heat tape. Using reflective heat tape cover the right hand side of the nose cone and the lower right hand corner of the hood (SEE ILL #6A & 6B).

Warning: Failure to position heat tape properly may result in belly pan damage. Belly pan damage due to improper installation of heat barrier tape will not be covered by Starting Line Products Inc.

NOTE: SLP recommends installing a Torque Arm (P.N. 23-53) and a Push Arm (P.N. 23-50) to stabilize the motor.

4- Install spring clips. Install the canister spring clip by drilling a 3/16" hole in the bulk head in front of the chain case. Rivet spring clip in place. (SEE ILL # 3) Install the PTO pipe spring clip inside of the stock pipe support bracket on the MAG side shock tower. Drill out the rivet farthest from the oil pump with a 3/16" drill bit and rivet the spring clip into place. (SEE ILL # 4)

5- Install mag support strap on top of the mag side shock tower (with the vertical support facing down). Line up the bracket with the shock tower. Using the two 3/16" holes in the bracket as a guide, drill two 3/16" holes through both ends of the bracket and the belly pan and rivet into place. (SEE ILL # 5)

6- SLP recommends that the plastic hood vent be replaced with a metal mesh vent Polaris P.N. 5243463-067.

Warning: Closing the hood vents is not recommended with twin pipes. Closing the vents may result in heat damage.

7- Install SLP silencer without installing springs. Use silicone sealer such as Loctite 598 Ultra Black to seal silencer to belly pan outlet hole.

8- Pipe installation: Run a bead of silicone sealer such as Loctite 598 Ultra Black around the head pipe ring and install the Grafoil seals included. Install MAG (right) pipe first (pipe with SLP logo). Spring silencer into place using 2 short and 1 long OEM springs. Spring MAG pipe into place using short springs. Install PTO pipe (pipe without SLP logo). Spring into place using short springs. **Use a silicone sealer such as Loctite 598 Ultra Black on stinger to silencer joints.** For coolant hose clearance 3" to 4" will need to be cut off the hose at the head and reconnect the hose. This will pull the hose away from the pipes. Pipe to hose clearance should be at least 1".

NOTE: Check tightness of clamps around pipes approximately every 100 miles for the first 300 miles then periodically after that.

Spring Tension Adjustment:

Spring loop adjustment is suggested for proper spring tension to prevent leakage and wear (low tension), allow adequate flex (proper tension) and prevent spring breakage (excessive tension).

When system is installed the spring can be judged for proper tension. The winding spacing at the center of the spring will indicate tension. When proper the two center windings will have .040" to .050" clearance between them. This is easily tested with a feeler gage.

If tension is incorrect, the loop on the pipe or silencer can be bent in the direction needed to increase or decrease tension. Attach a vise grip firmly to the loop and bend.

Fuel Requirements:

Note: For extended running at wide open throttle, we highly suggested the use of SLP Billet Heads for maximum dependability.

Stock 2002-03 Head:

0-3000': Race/premium blend of 1 gallon of 108 motor octane race gas to 4 gallons of 91 octane pump fuel.

3-6000': 91 octane pump fuel

6000+': 91 octane pump fuel

SLP Power Dome Head's for 2002-03 800 (for Part Numbers Please Inquire):

0-3000' w/SLP RO Heads: 91 octane pump fuel

3-6000' w/SLP R3 Heads: 91 octane pump fuel

6000'+ w/SLP R6 Heads: 91 octane pump fuel

2002 POLARIS 800 XC TWIN PIPE JETTING CHART

Altitude		Ambient Temperature			
		Below -20 °F Below -20 °C	-20 ° to +10 °F -29 ° to -12 °C	+10 °F to +40 °F -12 °C to +5 °F	Above 40 °F Above 5 °C
Meters (Feet)	0-900 (0-3000)	MAG 640 PTO 640 #4	MAG 600 PTO 600 #4	MAG 560 PTO 560 #4	MAG 540 PTO 540 #4
	900-1800 (3000-6000)	MAG 560 PTO 560 #4	MAG 540 PTO 540 #4	MAG 500 PTO 490 #3	MAG 480 PTO 470 #2
	1800-2700 (6000-9000)	MAG 490 PTO 480 #3	MAG 460 PTO 450 #3	MAG 430 PTO 420 #2	MAG 410 PTO 400 #2
	2700-3700 (9000-12000)	MAG 440 PTO 430 #3	MAG 430 PTO 420 #2	MAG 400 PTO 390 #2	MAG 390 PTO 380 #2

Pilot 55 (stock)XC
Needle 9DFH10-57/3 (stock)
Needle Jet P-8 (stock)
Cutaway 1.5 (stock)
Fuel Screw Adjust as needed
Air Screw for best idle and throttle response

Air Intake Modification: 2- Flow-Rites (P.N. 14-197) Installed in the hood. High Flow Air Horn Kit (P.N. 14-115) installed in the Air Box.

Important Note: Fuels containing ethanol, alcohol based fuel compounds, or clean air additives will require larger main jets, usually 2 sizes more than the SLP jetting chart. Jet Needle must be raised one "E" clip position.

2003-04 POLARIS 800 XC TWIN PIPE JETTING CHART

Altitude		Ambient Temperature					
		Below -30° F Below -34° C	-30 to -10° F -34 to -23° C	-10 to +10° F -23 to -12° C	10 to 30° F -12 to -1° C	30 to 50° F -1 to 10° C	Above 50° F Above 10° C
Feet (Meters)	0-2000 (0-600)	600 #4	580 #4	560 #3.5*	540 #3.5	500 #3	480 #3
	2000-4000 (600-1200)	540 #3.5	500 #3	490 #3	480 #3	470 #3	460 #2
	4000-6000 (1200-1800)	480 #3	460 #3	440 #3	420 #3	400 #2	380 #2
	6000-8000 (1800-2400)	440 #3	420 #3	400 #3	380 #2	360 #1	340 #1
	8000-10000 (2400-3000)	420 #3	400 #3	380 #2	360 #1	340 #1	320 #1
	10000-12000 (3000-3700)	390 #3	370 #2	350 #2	330 #1	310 #1	290 #1

Pilot 40 (stock)
Needle 9DGN5-57 (stock)
Needle Jet P-8 (stock)
Cutaway 1.5 (stock)
Fuel Screw Adjust as needed
Air Screw for best idle and throttle response

Air Intake Modification: 2- Flow-Rites (P.N. 14-197) Installed in the hood. High Flow Air Horn Kit (P.N. 14-115) installed in the Air Box.

*Needle E-Clip set in the #3 clip position with .020" needle shim under E-clip.

Important Note: Fuels containing ethanol, alcohol based fuel compounds, or clean air additives will require larger main jets, usually 2 sizes more than the SLP jetting chart. Jet Needle must be raised one "E" clip position.

2002-03 POLARIS 800 XC TWIN PIPE CLUTCHING CHART

Clutch Specification using Polaris Button Secondary
(Good Performance)

ALTITUDE		DRIVE			DRIVEN	
		Clutch Spring	Shift Weight (Polaris)	SLP MTX Shift Weight	Clutch Spring	Driven Helix
METERS (FEET)	0-900 (0-3000)	SLP Blu/Yel 40-70	10-66	71 g P.N. 40-84 No Rivets	Polaris Sil/Blu	SLP 52/34 40-52/34 43-52/34 #2
	9-1800 (3-6000)	SLP Blu/Sil 40-69	10-64	68 g P.N. 40-83 3 g Rivet Outer Hole	Polaris Sil/Blu	SLP 50/36 Mountain 44-50/36 #2
	18-2700 (6-9000)	SLP Blu/Red 40-71	10-64	68 g P.N. 40-83 1 g Rivet Outer Hole	SLP Yel/Pur 40-65	SLP 50/36 Mountain 44-50/36 45-50/36 #2
	27-3700 (9-12000)	SLP Blu/Red 40-71	10-62	68 g P.N. 40-83 No Rivets	SLP Yel/Pur 40-65	44-50/36 w/1 shim #2

2002-04 POLARIS 800 XC TWIN PIPE CLUTCHING CHART

Clutch Specification using SLP MTX Weights and
Team Industries Roller Secondary (Best Performance)

ALTITUDE		DRIVE		DRIVEN	
		Clutch Spring	Shift Weight	Clutch Spring	Driven Helix
METERS (FEET)	0-900 (0-3000)	SLP Blue/Yel 40-70	SLP MTX 71 g no rivets	Team Ind. Red/Black P.N. 50-6	Team Ind. P.N. 50-56 Set at 54/42F
	900-1800 (3-6000)	SLP Black/Pink #40-75	SLP MTX 68 g 3 g rivet in outer hole	Team Ind. Red/Black P.N. 50-6	Team Ind. P.N. 50-30 Set at 58/40
	18-2700 (6-9000)	SLP Black/Pink #40-75	SLP MTX 68 g P.N. 40-83 1 g rivet in outer hole	Team Ind. Red/Blk P.N. 50-6	Team Ind. P.N. 50-30 Set at 58/40
	27-3700 (9-12000)	SLP Black/Pink #40-75	SLP MTX 68 g P.N. 40-83 No Rivets	Team Ind. Red/Blk P.N. 50-6	Team Ind. P.N. 50-30 Set at 58/38

Running RPM 8000-8300

EXHAUST VALVE SPRING SPECIFICATION

3000' to 8000' Elevation: Pink P.N. 7041704-03

8000' and higher Elevation: Yellow P.N. 7041704-05

ILLUSTRATIONS

ILLUSTRATION 1



ILLUSTRATION 2

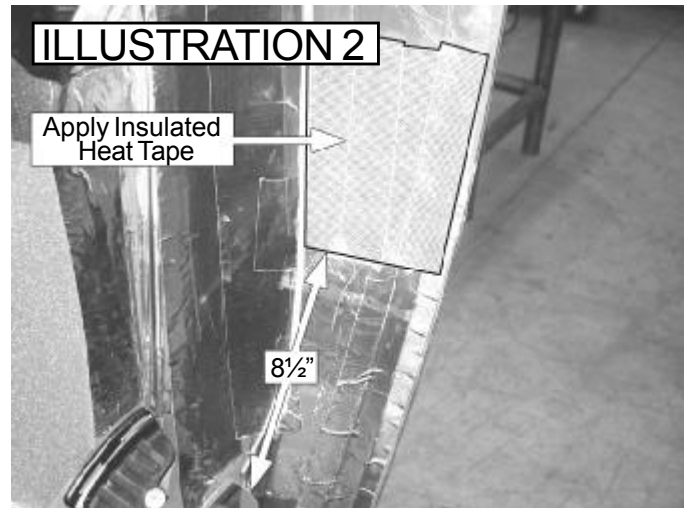


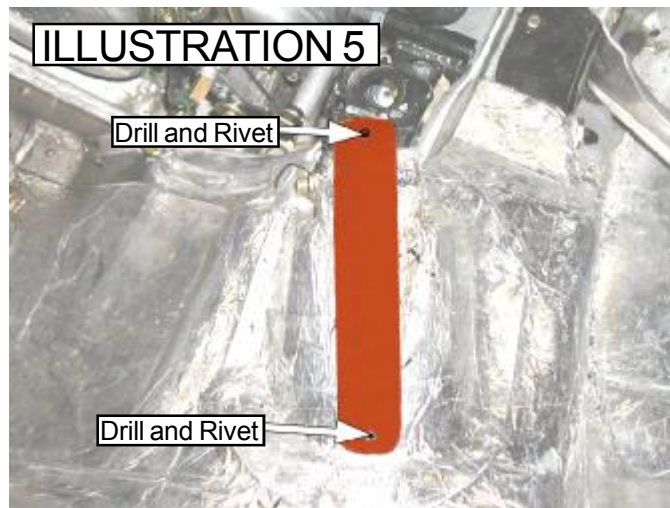
ILLUSTRATION 3



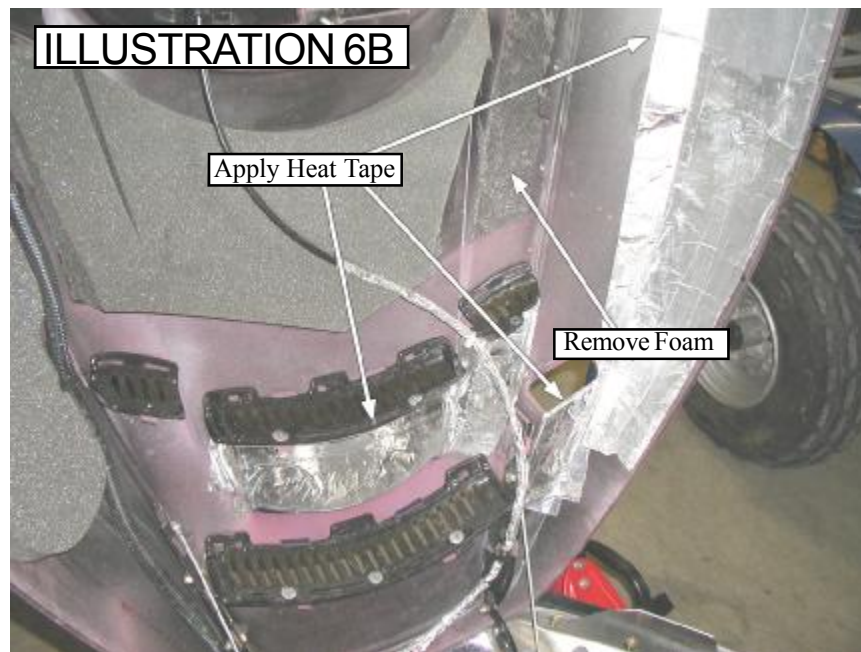
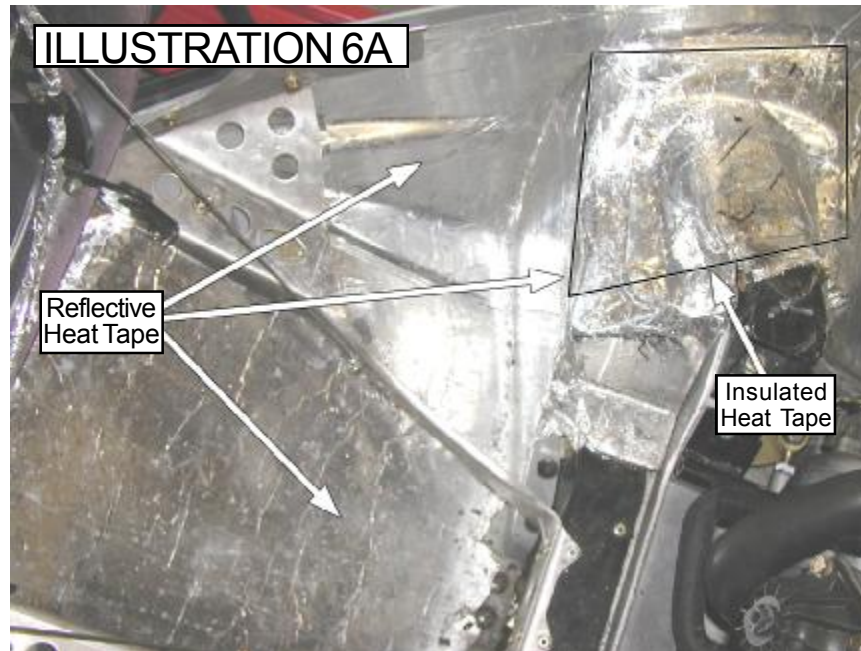
ILLUSTRATION 4



ILLUSTRATION 5



ILLUSTRATIONS



PARTS KIT

- | | |
|---------------------------|------------------------------|
| 2 - EXHAUST GRAFOIL SEALS | 9 - 7" INSULATED HEAT TAPE |
| 1 - MAG FLANGE | 8 - 30" REFLECTIVE HEAT TAPE |
| 1 - PTO FLANGE | 2 - SPRING CLIPS BENT |
| 1 - MAG SUPPORT STRAP | 3 - SHORT SPRINGS |
| 4 - LARGE HEAD RIVETS | 1 - SLP DECAL |

Caring for your ceramic coated pipes and/or silencer:

Ceramic Coating is an aluminum matrix 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 brake cleaner. 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.

Periodically polish your ceramic coated pipes and/or silencer after each washing with an aluminum polish such as Mothers, Maas or Blue Magic aluminum polish that can be found at any automotive parts store. Do not use any acidic cleaners! For stubborn stains use fine 000 steel wool, then use a soft cloth with polish. 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.

Note: In areas of the ceramic coated system where skin temperatures exceed 1300 degrees F, it is normal for the coating to turn dull gray. These areas should also be washed and polished periodically.