

*** FOR COMPETITION USE ONLY per US EPA regulations ***

Factory Pipe
Bill of Materials
Sea-Doo 785XP Spec I 1997

<u>Item#</u>	<u>Qty</u>	<u>Part #</u>	<u>Part Description</u>
-	1	COMASM0200	785 Spec I hardware kit, 97 (includes items 1-10, 12-14, 17-19)
1	4	COMCLP0010	#06 SS hose clamp (3/8")
2	1	COMGAS0110	Spec I hp to man gasket
3	1	COMFAS0260	10mm x 1.5 x 30mm SS Socket hd bolt
4	1	COMHOS0001	1/4@ x 18" Waterline
5	1	COMHOS0150	5-1/2" Silicone coupler (3")
6	2	COMCLP0080	#600 High torque SS clamp (5-1/2")
7	1	COMBRK0140	800 Headpipe support bracket
8	1	COMFAS0211	15" Zip tie
9	1	COMFTG0090	1/8" NPT pipe plug
10	1	COMHOS00696	2" x 17" Waterline
11	1	COMIGN0011	97/98 Spec I & II Sea-Doo rev limiter
12	1	COMCRB0140	#150 Mikuni main jet
13	1	COMFTG0020	1/8" NPT x 3/8" hose fitting
14	1	COMHOS0003	3/8" x 3" Waterline
15	1	COMCH78506	785 Sea-Doo 97 XP chamber only
16	1	COMCST0370	785 Spec I headpipe
17	5	COMFAS0210	4" Plastic zip tie
18	4	COMCLP0012	SS hose clamp (1/2")
19	2	COMCLP0007	#04 SS hose clamp (1/4")

- < **CHECK CONTENTS AGAINST BILL OF MATERIALS. REPORT ANY SHORTAGES WHERE YOU PURCHASED YOUR FACTORY PIPE.**
- < **READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION.**

Factory Pipe
Instructions
Sea-Doo 800XP 1997

These carburetor adjustments/changes must be done prior to running the engine with the pipe installed. Failure to do so can and will result in serious engine damage. If you are not familiar with tuning carburetors, consult a qualified technician. For best performance we suggest the use of a Solas AXO@ or Skat Trak 17/26 super slim line prop with this pipe.

CARBURETOR ADJUSTMENTS

These carburetor recommendations are for 730 feet above sea level on a completely stock engine. All of our testing was performed on a stock engine with aftermarket flame arrestors & choke plates retained. No claims are made by Factory Pipe for the performance, reliability or function of this exhaust system on a modified engine. If you are running other modifications consult a qualified technician. Carburetor adjustments will vary depending on engine modifications, fuel, altitude and other variables. PLEASE CONSULT A QUALIFIED TECHNICIAN IF YOU ARE NOT FAMILIAR WITH TUNING YOUR CARBURETOR(S). These carburetor adjustments must be done prior to running the engine with this exhaust system. The Rotax is a high performance engine and damage can and will occur if the carburetor(s) are not tuned properly. Factory Pipe does not recommend altering the stock ignition timing of this engine with our exhaust system. Make sure you follow the ECWI/Rev limiter module instructions very carefully so that you don=t change your ignition timing. Make sure you check the stock jets, some units have been found to be incorrect.

Main jet : 150 on front (Mag)carb, 152.5 on rear (PTO) carb

Pilot Jet : 70 (stock)

High speed screw : 2 turn out from closed on front(Mag) carb, 1 turn out on rear (PTO) carb

Low speed screw : 1-2 turns out from closed

Needle & Seat : 1.5 (stock)

Spring : 65 gram (stock)

Disconnect the battery before starting installation. Remove the stock exhaust headpipe and 2" hose, tailcone, headpipe support bracket and the 10mm stud in stock manifold. Do not remove the stock 2" hose or clamps from waterbox pipe. **Retain the following items:** two rubber mounts and one bolt from the stock chamber body, three of the stock exhaust headpipe to manifold bolts, and four lock washers and the stock bolts from the headpipe support bracket. If you do not have these items they may be purchased through your local Sea-Doo dealer.

Install the supplied Micro-Touch rev limiter /ECWI module (item#11) **per the supplied instructions.** Secure the rev limiter to the large wire harness on the left using the 15" zip tie (item #8).

Install one of the retained stock rubber chamber body mounts into the Factory Pipe rear chamber mount. Remove the front motor mount bolt then lift up the front of the motor and slip the stock headpipe bracket between the case and motor mount. This will allow you to slip the Factory Pipe chamber (item #15) between the hull and the cylinders. After the pipe is in place, you can reinstall motor mount bolt and torque to 17 ft.-lbs.

Cut the zip tie holding the oil line to the bottom left side hull clip. Using the second 15" zip tie (item #8) loosely attach the oil line to the front motor mount tower.

Note: Do not use any type of oil lubricant on silicone couplers or waterlines. Use only water or windex if required for installation.

Slip the stinger end of the chamber into the stock hose on the waterbox pipe, do not tighten the clamp at this time. The waterbox may have to be pushed rearward about 3/4" or so. Install the 5-1/2"silicone coupler (item # 5) over the chamber body coupler. Secure with a #600 hose clamp (item #6) and slip the remaining #600 hose clamp over the silicone coupler and leave loose. Install the retained stock 8mm x 40mm hex socket bolt through the rubber mount on the rear of the chamber body into the threaded hole on the rear engine case. Do not tighten at this time.

Install the 2" x 17" waterline (item # 10) on the 2" barbed fitting on the Factory Pipe headpipe (item # 16) and secure with a 1/2" hose clamp (item #18). If you are running this system on a completely stock 97XP, leave the 1/8" npt x 1/4" spray nozzle (installed in the headpipe) in the rear hole of the headpipe where the original fitting was on the stock headpipe. Make sure the 1/8" NPT pipe plug is installed in the front hole of the headpipe next to the 2" 90 degree fitting.

Note: To make the headpipe installation easier, you may need to temporarily remove the stock flame arrestor plastic airbox, if still being used.

Spray some water or glass cleaner on the inside of the 5-1/2" blue silicone coupler and on the coupler end of the headpipe. Slip the headpipe into the silicone coupler already attached to the chamber. You may need to use a small screwdriver to lift the hose over the end of the headpipe coupler. Once the headpipe is seated on the hose, align the headpipe flange with the manifold and slip the gasket (item #2) between them. Install the three retained stock bolts and lock washers with the supplied 10mm x 30mm bolt (item #3). Use medium strength Loctite and torque to 30 ft.-lb.

Note: When chamber body coupler and headpipe coupler are seated properly the 5-1/2" blue silicone coupler will touch the ring on both the headpipe and chamber couplers.

After properly seated, secure the remaining #600 hose clamp on the 5-1/2" blue silicone coupler. Then, secure the hose clamp on the stinger end of the chamber body and torque the rear chamber mount bolt to 18 ft.-lbs. Install the second retained stock rubber mount into the headpipe support bracket (item #7). Install on engine/headpipe with the retained stock bolts. Use medium strength Loctite and torque to 18 ft.-lb.

Remove the stock regulator assembly with fitting, from the waterbox and install the 1/8" npt pipe plug (item #9) in waterbox. Remove the stock 1/8" pipe nipple from the regulator and install the 1/8" npt x 3/8" barbed fitting (item #13). Attach the 3/8" x 3" waterline (item #14) to the 3/8" fitting on the regulator. Secure with a #06 hose clamp (item #1). Install the #150 Mikuni main jet (item #12) into the threaded hose barb on the end of the Factory Pipe chamber body. Attach the open end of the 3/8" x 3" to the barbed fitting on the chamber body and secure with a #06 hose clamp. Attach the 1/4"x 18" waterline (item #4) to the top fitting on the regulator attach the other end to the spray nozzle on the rear of the headpipe and secure with a #04 hose clamp (item #19). Disconnect the 2" inlet line coming from the pump and the cylinder head. Disconnect the short 2" line and the 2" x 1/4" x 2" stock tee, pull the long 2" line back to the pump inlet fitting and reconnect. Secure with hose clamp. Now remove the 2" x 1/4" tee from the short 2" line that was removed and install on the cylinder head inlet then install the filter/solenoid assembly between the long & short 2" lines, secure with 1/2" hose clamps. Double check all hose connections and bolts.

PIPE TUNING

On a stock 97 XP we suggest using the sprayer on the cylinder head (rear) side of the headpipe, plug the front headpipe hole with the 1/8" pipe plug. Engines with slightly higher compression, larger carburetors, a smaller pitched impeller, or all of the above may find better performance using the front headpipe sprayer.

To tune your pipe for best performance, adjust the red center cap on the regulator on top of the waterbox with a screwdriver. We suggest turning the regulator all the way in (clockwise) then out 2 to 1 turn. Turning the adjuster clockwise will spray more water into the pipe and counterclockwise will spray less water. Our testing has shown this system performs best with more water.

IMPORTANT NOTES

- 1. You must run a resistor type spark plug to prevent interference with the Micro-Touch rev limiter/ECWI module.**
- 2. You must run fuel with a minimum octane rating of 92 (premium pump fuel). Running a lower octane fuel can cause detonation and serious engine damage.**
- 3. Always warm up the engine prior to full throttle/high speed operation.**

SEA-DOO 800XP WATER ROUTING

