

Installation manual power upgrade kit

SkiDoo/Lynx ACE 900 turbo 159 to 250 hp

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250 hp (185 kW) power upgrade kit

Supreme of the extreme !

SkiDoo/ Lynx ACE 900 turbo power upgrade kit

Thank you for choosing the MC Xpress power upgrade kit to your SkiDoo/ Lynx ACE 900 turbo.

The upgrade kit is designed for racing use only.

The upgrade kit is designed to give you the best performance possible together with reliability.

During the development work we have tried to keep the snowmobile as stock as possible to make the installation easy and to keep the sled as untouched as possible.

Read this manual before you start with the installation.

We hope you will get much joy with your new investment.

The turbo snowmobile is only recommended to be used by experienced riders and for racing use only.

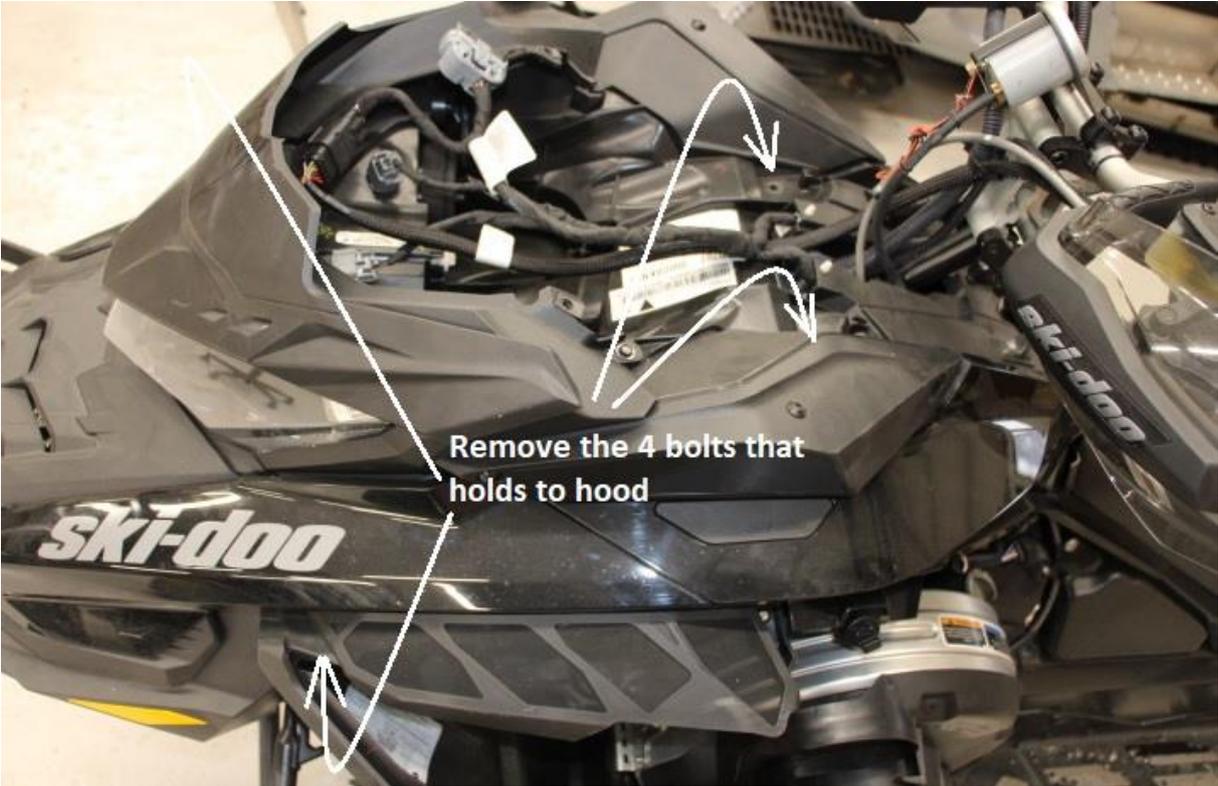
- This upgrade kit greatly enhances the performance of the vehicle it is installed upon!
- Professional training should be received by anyone that operates this modified vehicle.
- Installation of this upgrade kit may void any warranty that is provided by the vehicle manufacturer.
- A one (1) year warranty is provided on the parts only. This warranty does not cover any other parts even if the damage is caused by the installation of the upgrade kit.
- MCXpress AB, its distributors, dealers, nor installers will not be held liable for any personal or physical damaged obtained in association with the installation or use of this product.

By installation or purchase of this product, the end user and or installer agree that the end user has been informed of this information.

Begin the installation by taking off the plastic side fairings and the hood.



The hood is hold by 4 bolts.



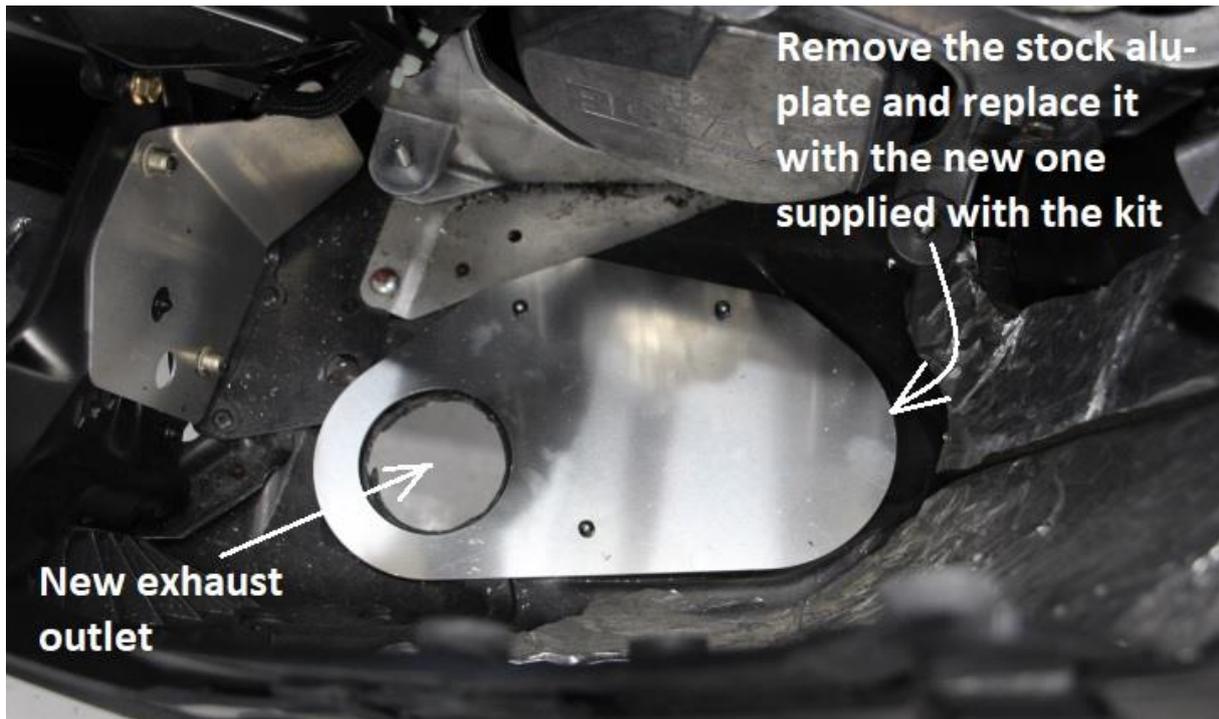
Remove the intercooler and the upper stay for the intercooler by drilling out the rivets, (see picture below)



Remove the stock muffler, the oxygen sensor and the exhaust pipe between the turbo and the muffler.
Remove the water pipes from the turbo, and the turbo/exhaust manifold from the cylinder head.



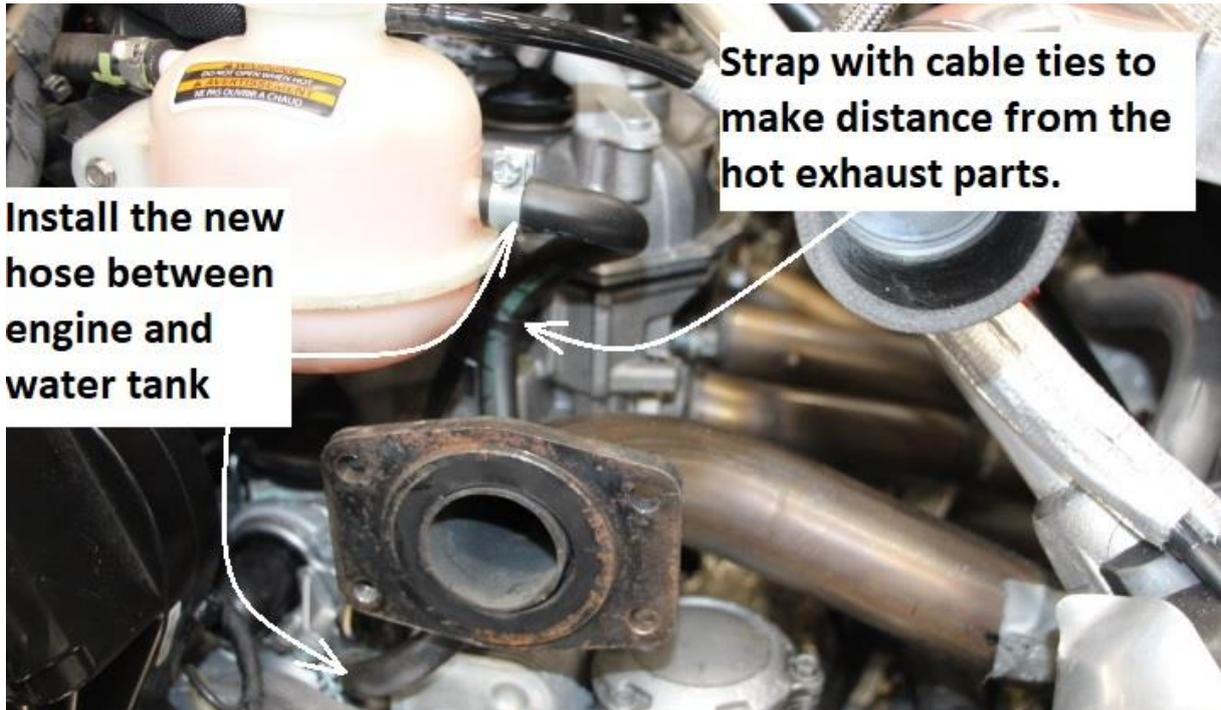
Cut the exhaust manifold bolts 6 mm.



Replace the stock alu-plate under the muffler with the new one supplied with the kit.
Use the black rivets supplied with the kit
Drill out the new exhaust outlet in the plastic.



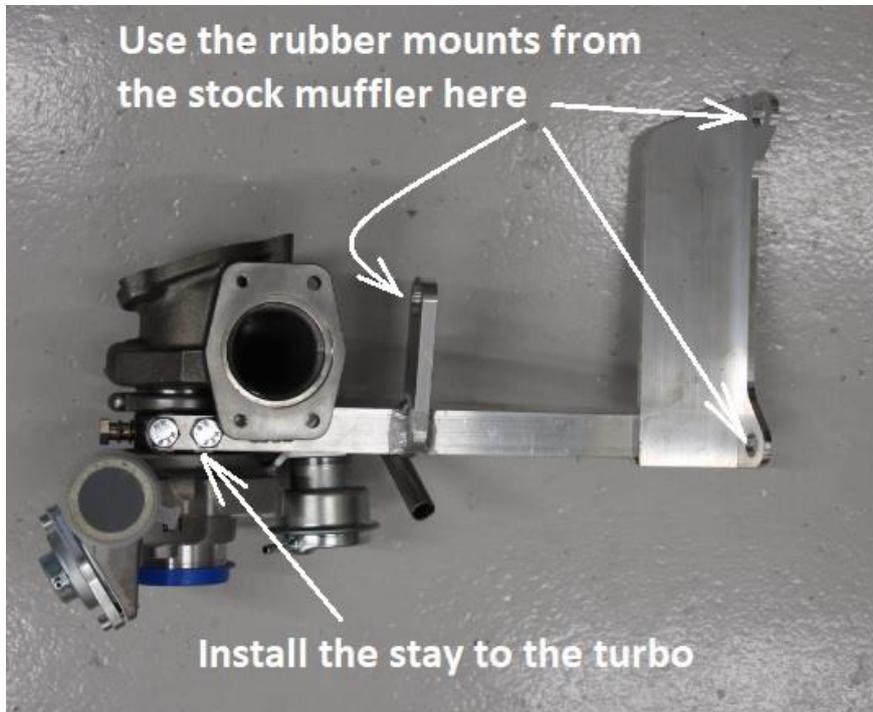
Put in the new exhaust manifold like the picture.
Use the stock exhaust manifold bots (6 mm shorter) for the new headers. Re-use the stock exhaust gasket. Tighten the header bots to the cylinder head.



Install the new hose between engine and water tank

Strap with cable ties to make distance from the hot exhaust parts.

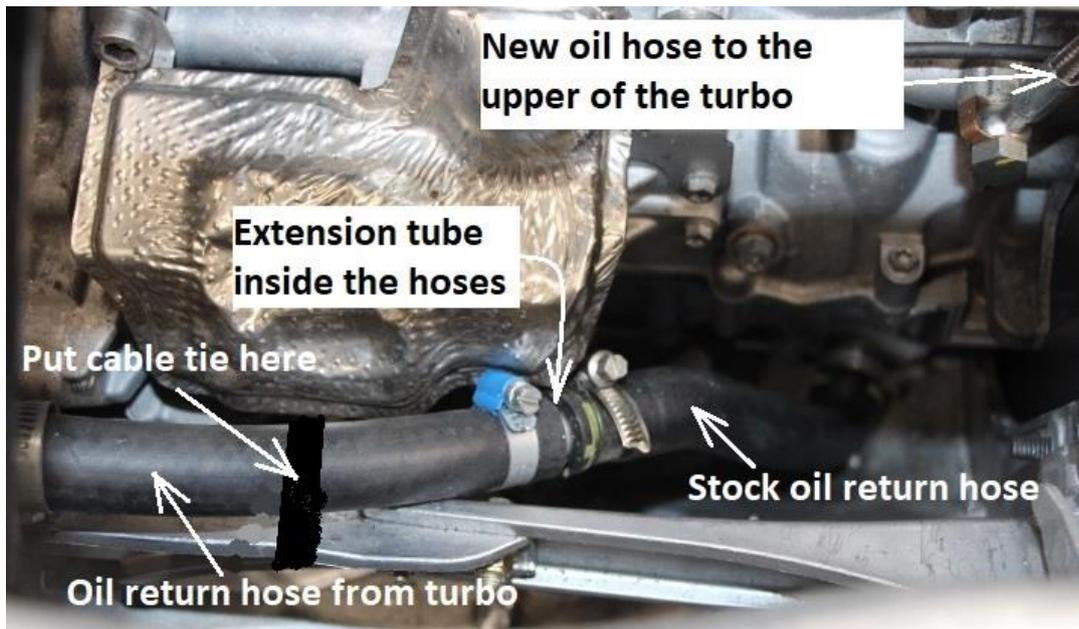
Install a water hose between the engine and the expansion chamber water tank. Strap it to the engine to keep distance to the hot exhaust parts. Fill up the water tank with anit-freeze again.



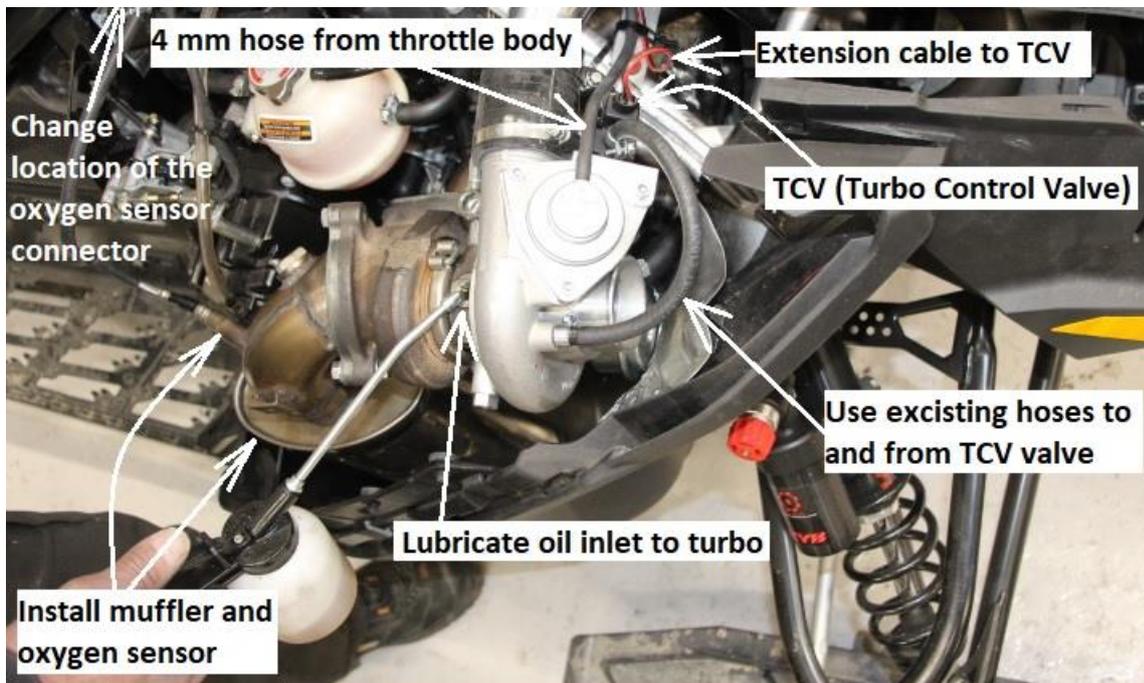
Use the rubber mounts from the stock muffler here

Install the stay to the turbo

Install the turbo to the turbo stay. Do not hard tighten the two M12x1,5 bolts yet. Use the rubber mounts from the stock muffler and put them on the turbo stay. Install the turbo + stay to the snowmobile. Install the bolts between the turbo and the exhaust manifold, except the rear /lower bolt. (A heat shield will later also use this bolt.) But do not hard tighten the bolts yet.

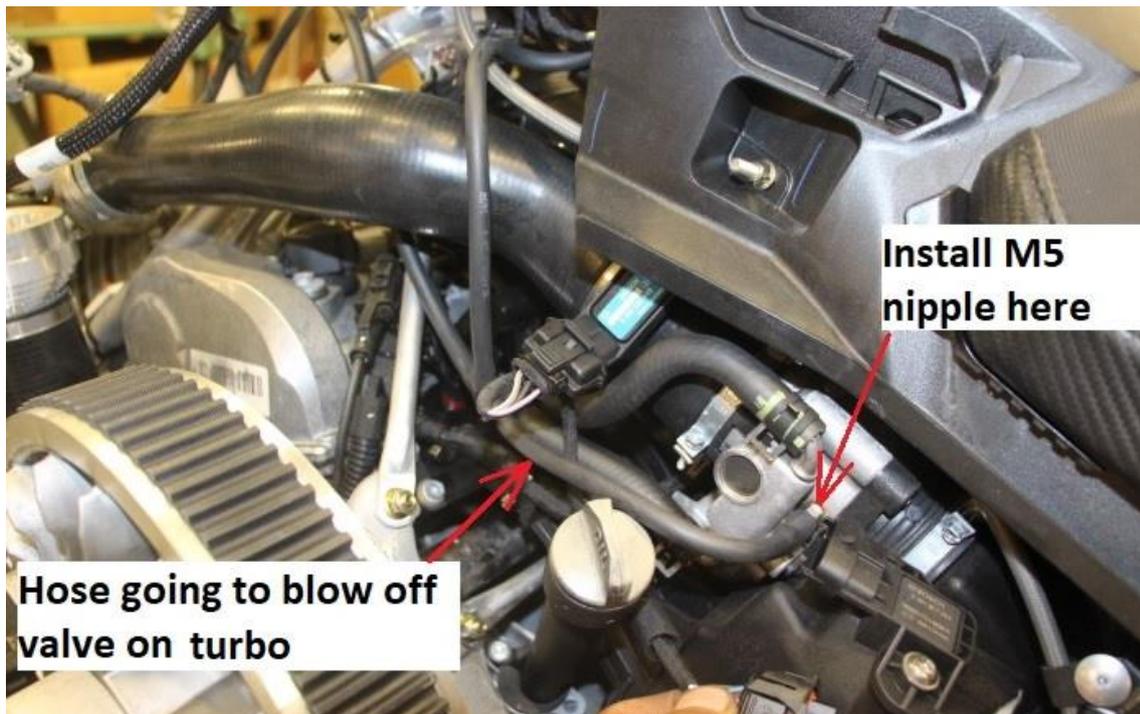


Install the oil hoses to and from the turbo.
 Install a cable tie like the picture to keep the oil return down and to get space from the exhaust parts.



Before you install the oil hose on top of the turbo, lubricate the oil inlet of the turbo with some motor oil.
 Use the existing TCV valve (Turbo control Valve). Use an extension cable.
 Install later into the blow off valve the small 4 mm hose that you will install on the throttle body. (see next picture) Install the muffler and the oxygen sensor. (You will have to change the location of the oxygen sensor connector to make it fit.

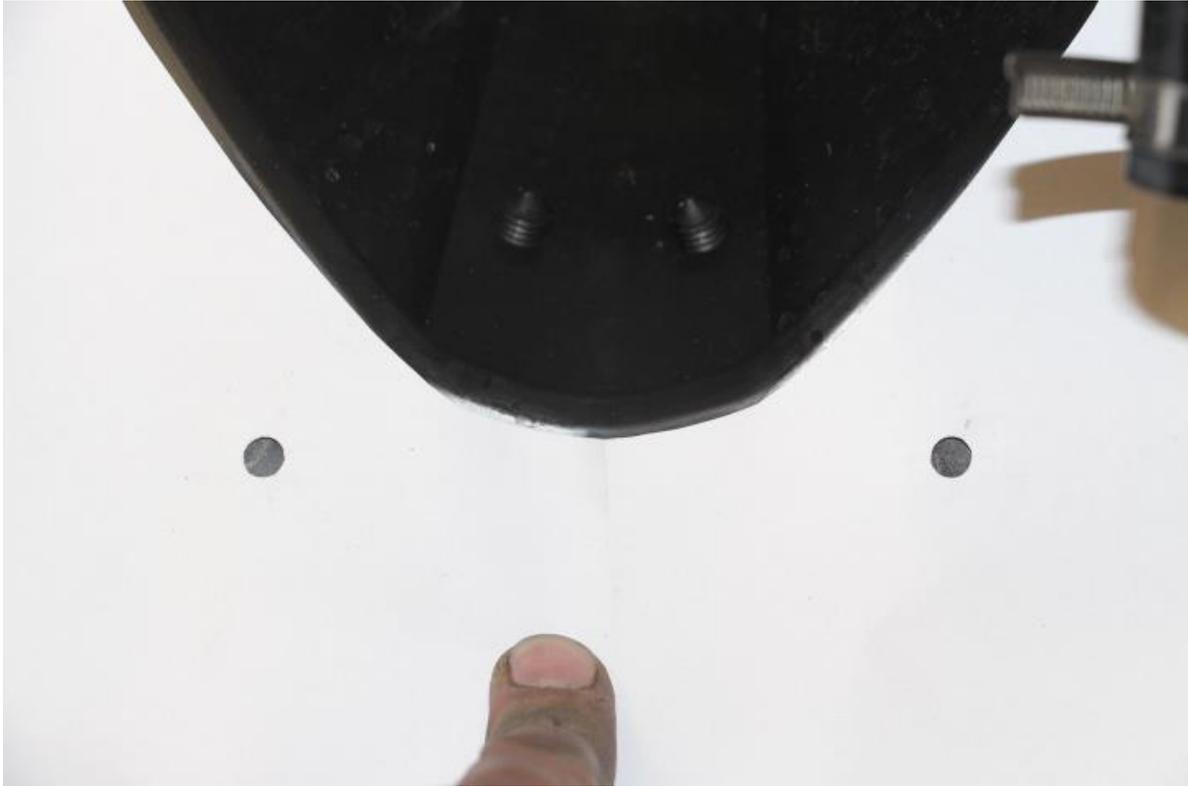
Now you can final tighten all the turbo bolts when the muffler is in place.



Remove the throttle body from the plastic air intake manifold. Install the small nipple included with the kit on the throttle body by making an M5 thread in the throttle body like the picture. Use a 4,2 mm drill. (4,0 mm drill will also work fine)



Install the throttle body to the plastic air intake manifold. We recommend to put some super glue on the throttle body rubber to get a stronger connection against the plastic intake manifold to prevent it from blowing off.



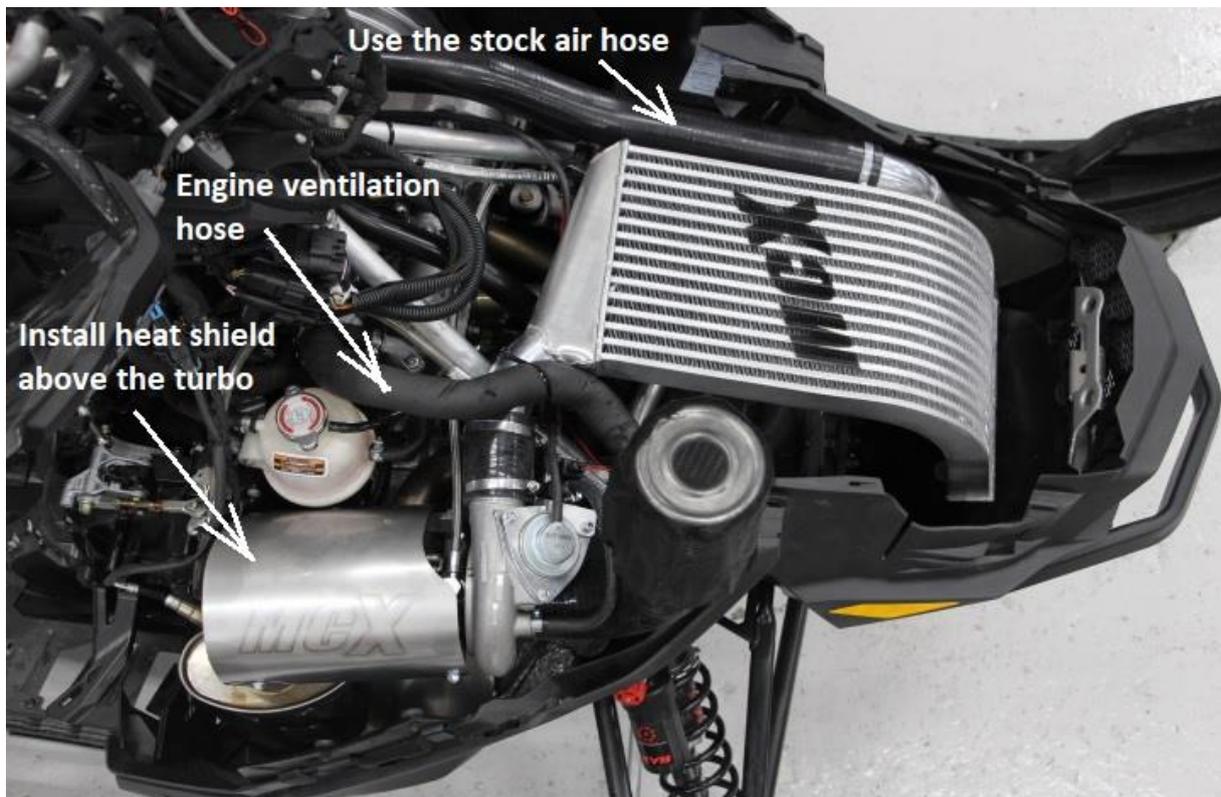
Now it is time for intercooler installation.
Use the template and drill two holes in the plastic.
Install all 4 rubber mounts to the intercooler.



Install 2 M6 nuts from under to keep the intercooler in place.



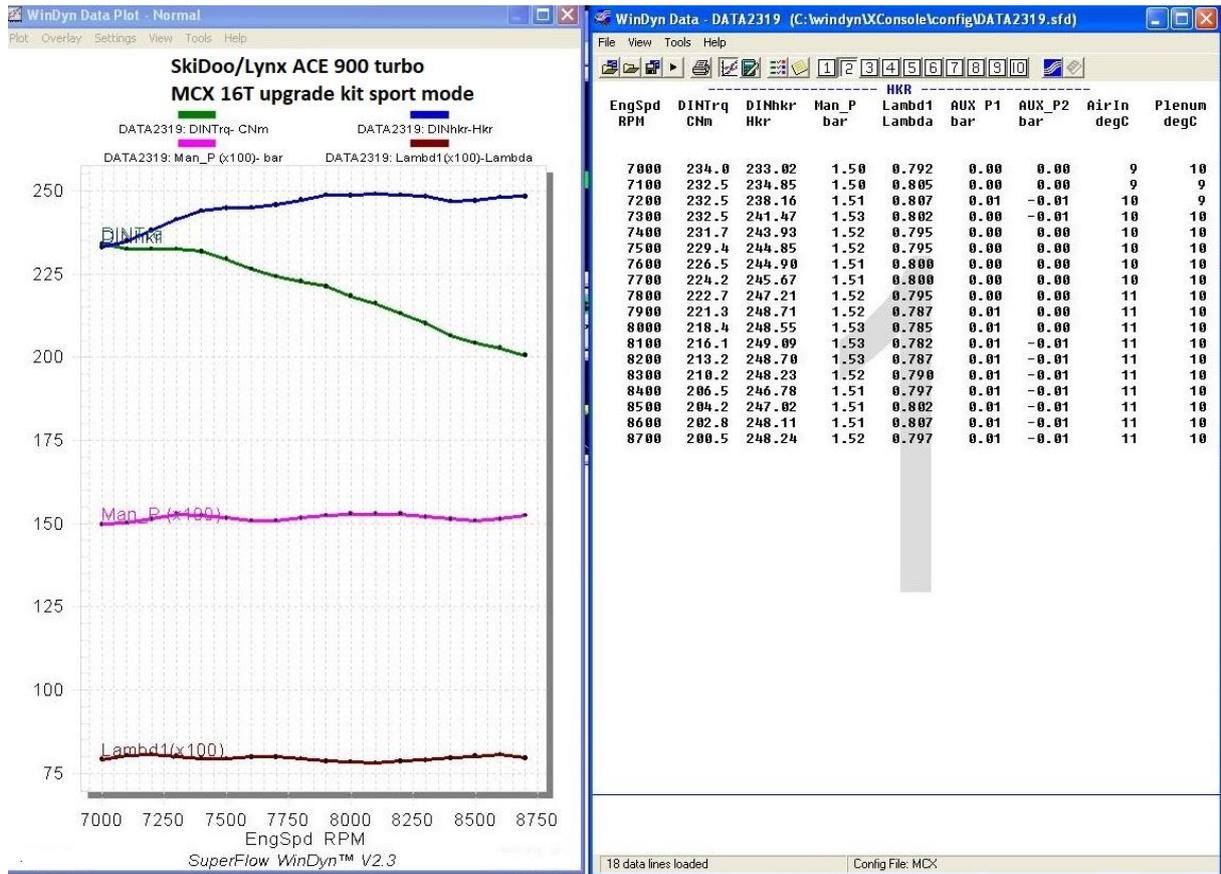
Install the upper stay for the intercooler. Use the self-tapping bolts supplied with the kit



Install the heat shield above the turbo, and the engine ventilation hose between the valve cover and the nipple on the air intake hose to the turbo.

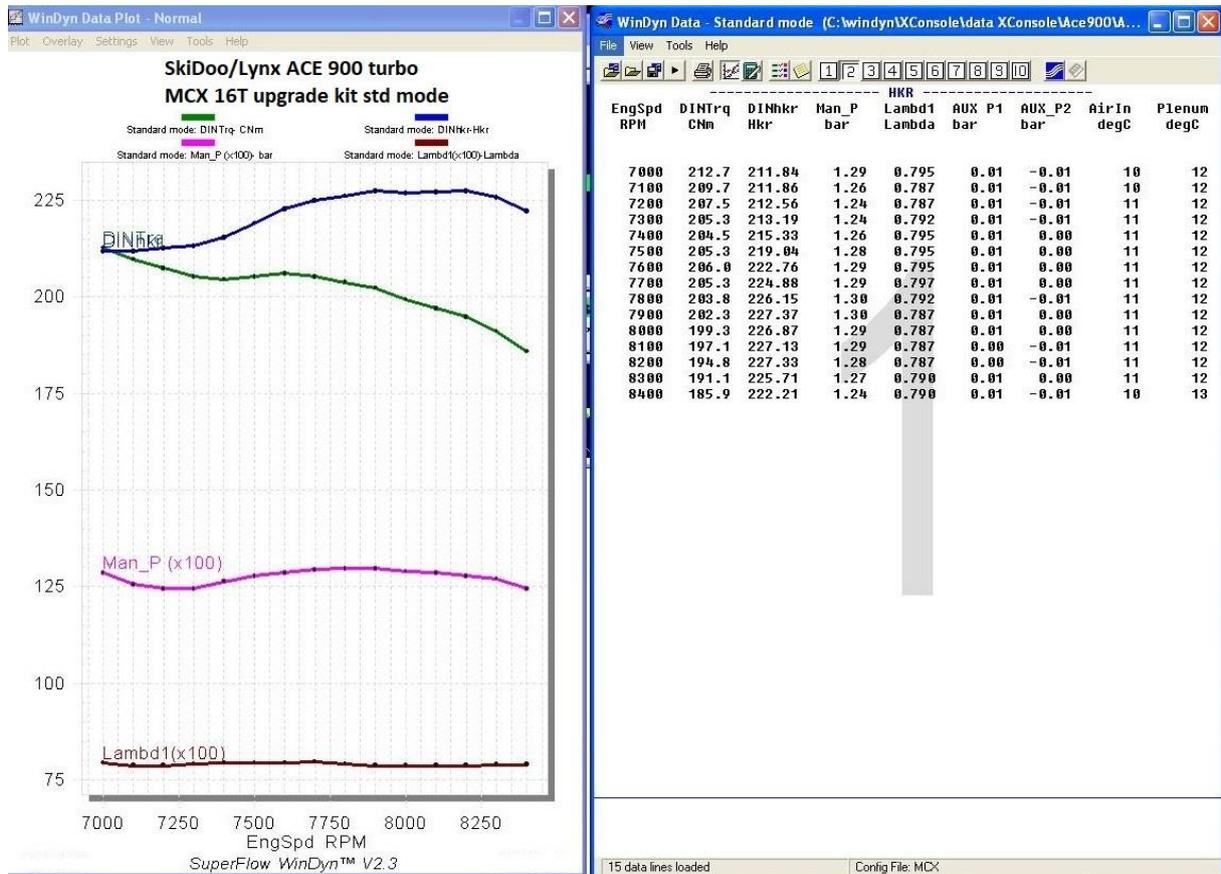


Install the new bigger injectors.
 And make sure the stock ECU is re-flashed by MC Xpress before you start.

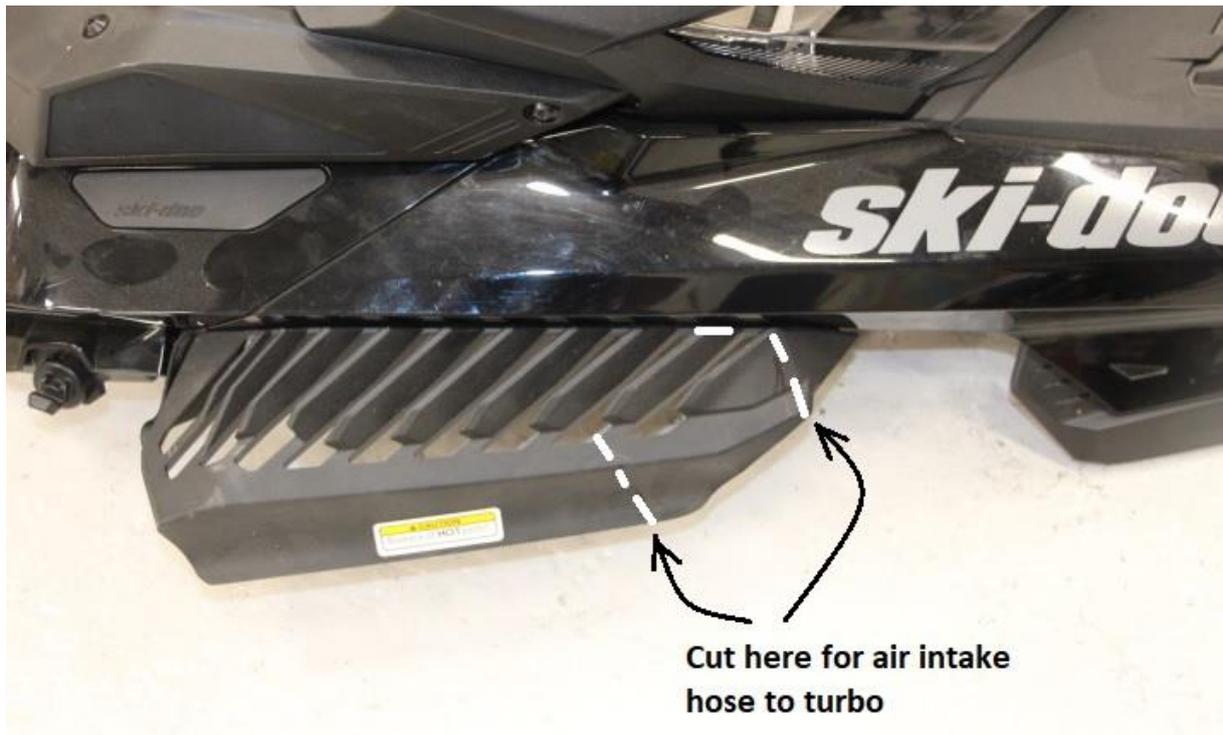


Dyno test printout on sport mode.
 98 octane fuel in Europe recommended and premium only in USA / Canada.
 As you can see, the power range is very wide. This makes the clutching not so sensitive.

If you flip the switch to the standard mode, the turbo pressure will be about 1,30 bar and the power 225 hp.



Clutching: It is possible to drive the sled with the stock clutching. The rpm will rise about 1000 rpm from stock, but the peak power has also risen in rpm about as much thanks to the more efficient turbo system and intercooler.



Now the hood and fairings shall be installed.
The air vent on the right side of the hood must be modified. (see picture above)
And the right side fairing too must be modified to fit the air intake hose.



***Option:
Pressure gauge***

If you like, you can gladly install a pressure gauge.

A suitable place to get the pressure reading, is to cut the 4 mm hose going from the throttle body to the blow off valve, and install a T here leading the pressure to the pressure gauge.



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