

Arctic Cat M1100 power upgrade kit



Arctic Cat M1100 turbo during dyno tests in our Superflow engine dyno.

Thank you for choosing the MC Xpress turbo upgrade kit to

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 turbo 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 kit 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.

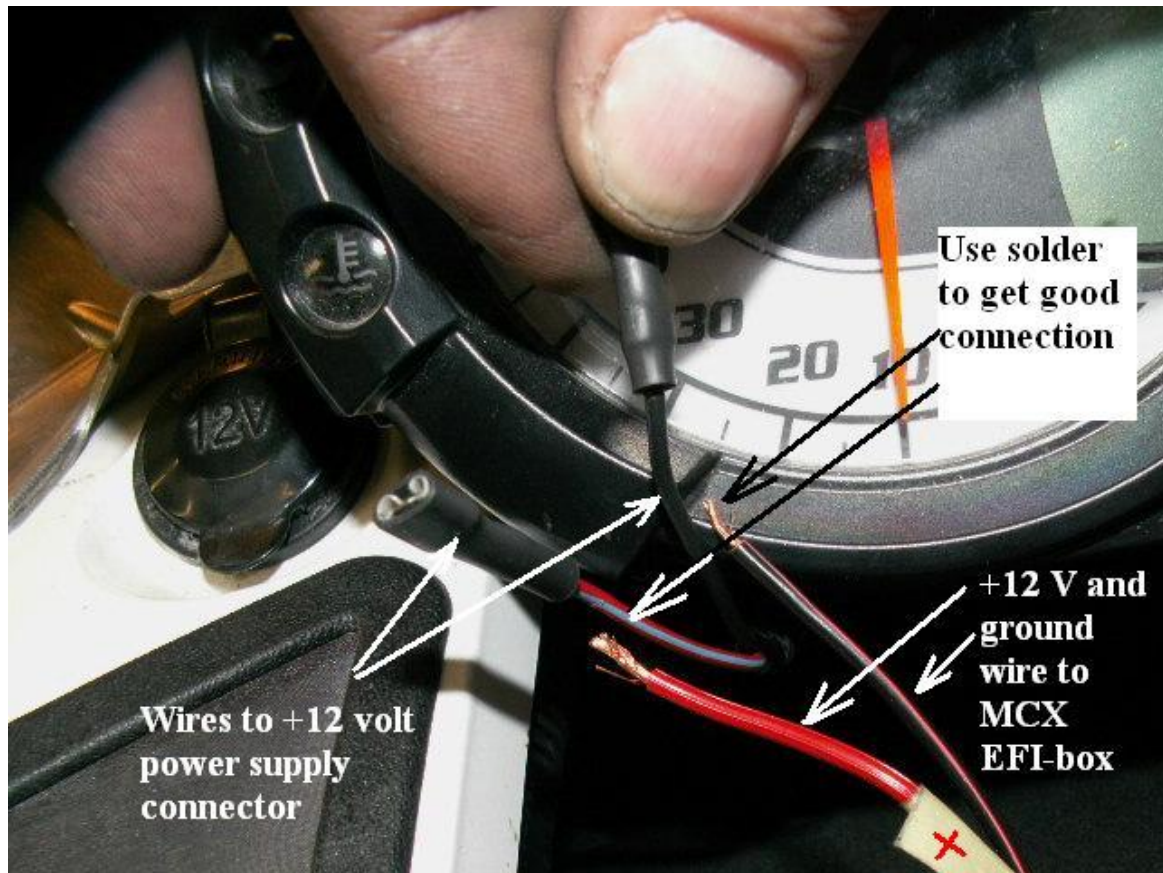
EFI-box installation

Remove the hood, front fairings, driver seat and move the fuel tank a little backwards so you reach the stock injector connectors and the stock MAP sensor.

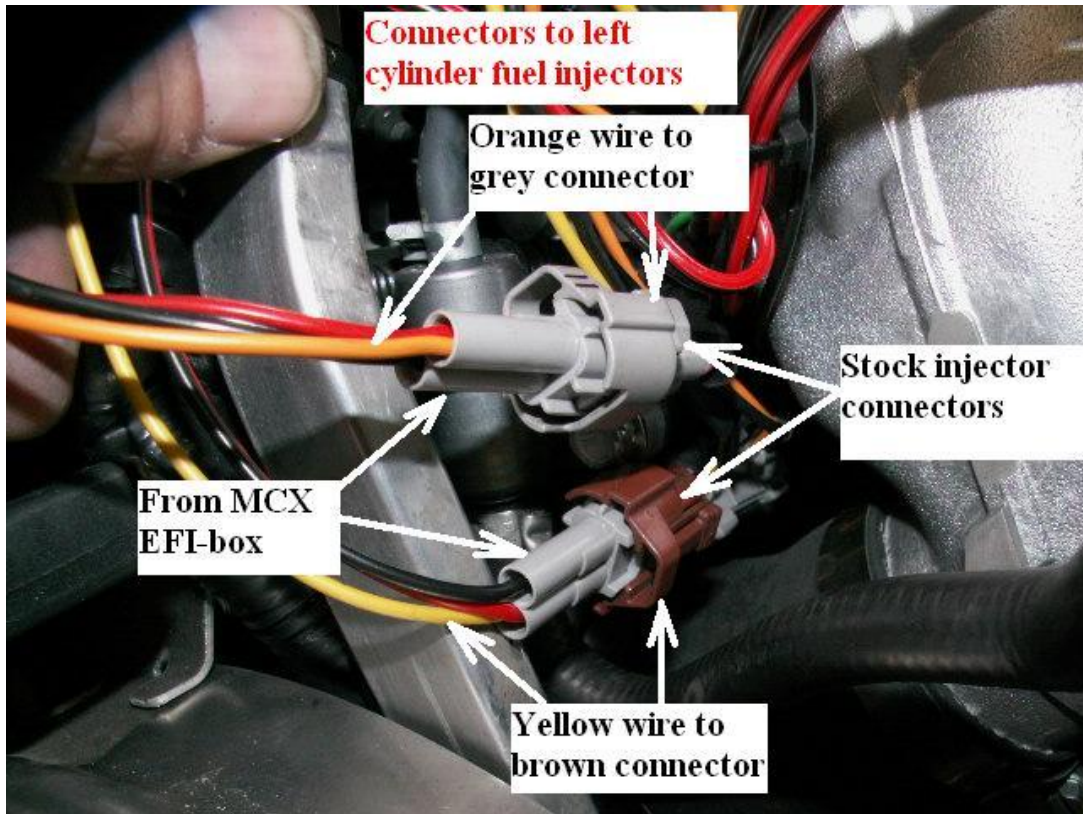


Place the MCX EFI-box above the stock ECU, and strap it against the wire harness. Strap the pulse absorber aluminium canister also against the stock wire harness. Note how the hoses to the MCX EFI-box are connected.

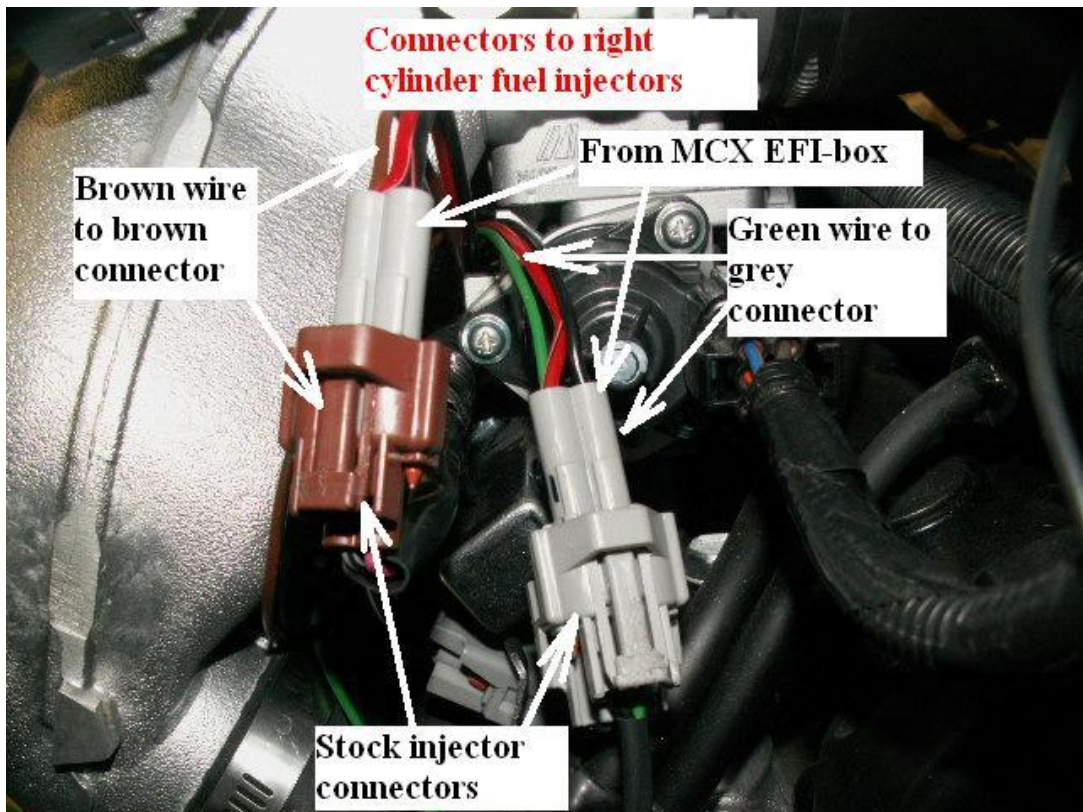
A connector with 10 pins is coming out of the MCX EFI-box.
This connector can be plugged into a MCX-display that can be bought as an option.



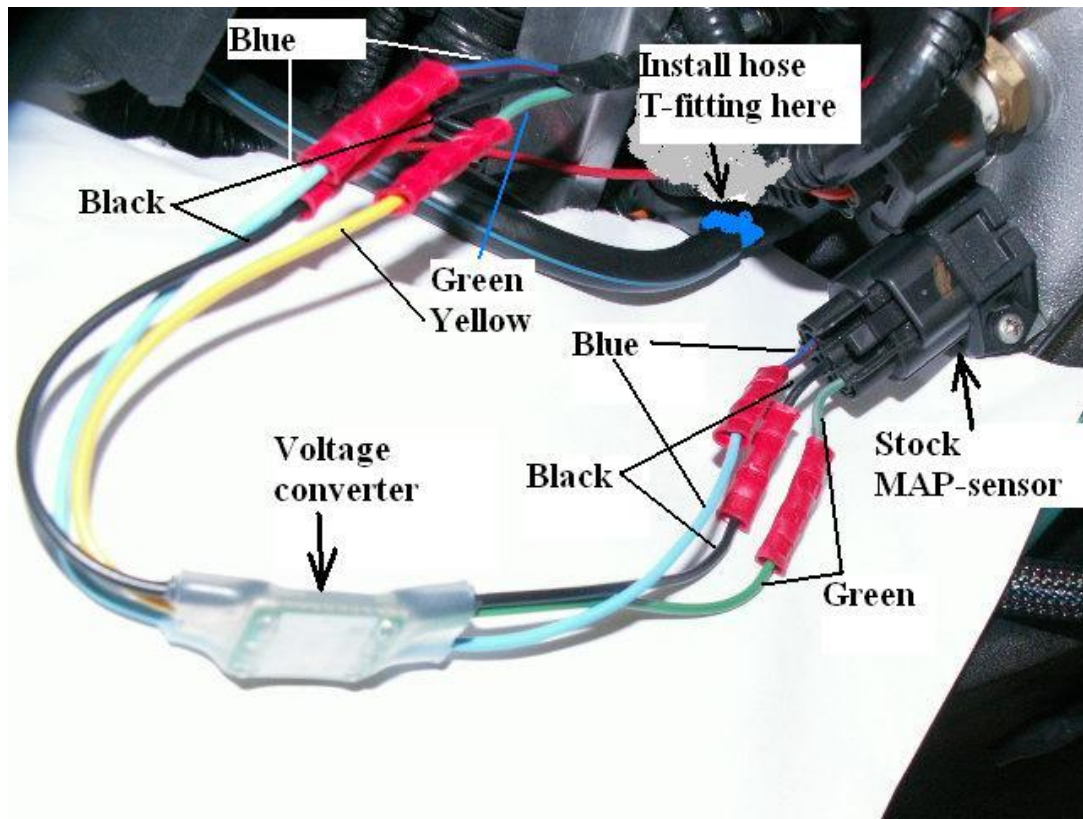
Connect the ground and +12 volt wires to the MCX EFI-box to the power supply connector wires.



The injector signal from the stock ECU shall now pass the MCX EFI-box before it reach the injectors
 Disconnect the connectors from the injectors and plug them into the male connectors coming from the MCX ECU.
 Connect the female connectors coming from the MCX EFI-box to the injectors.



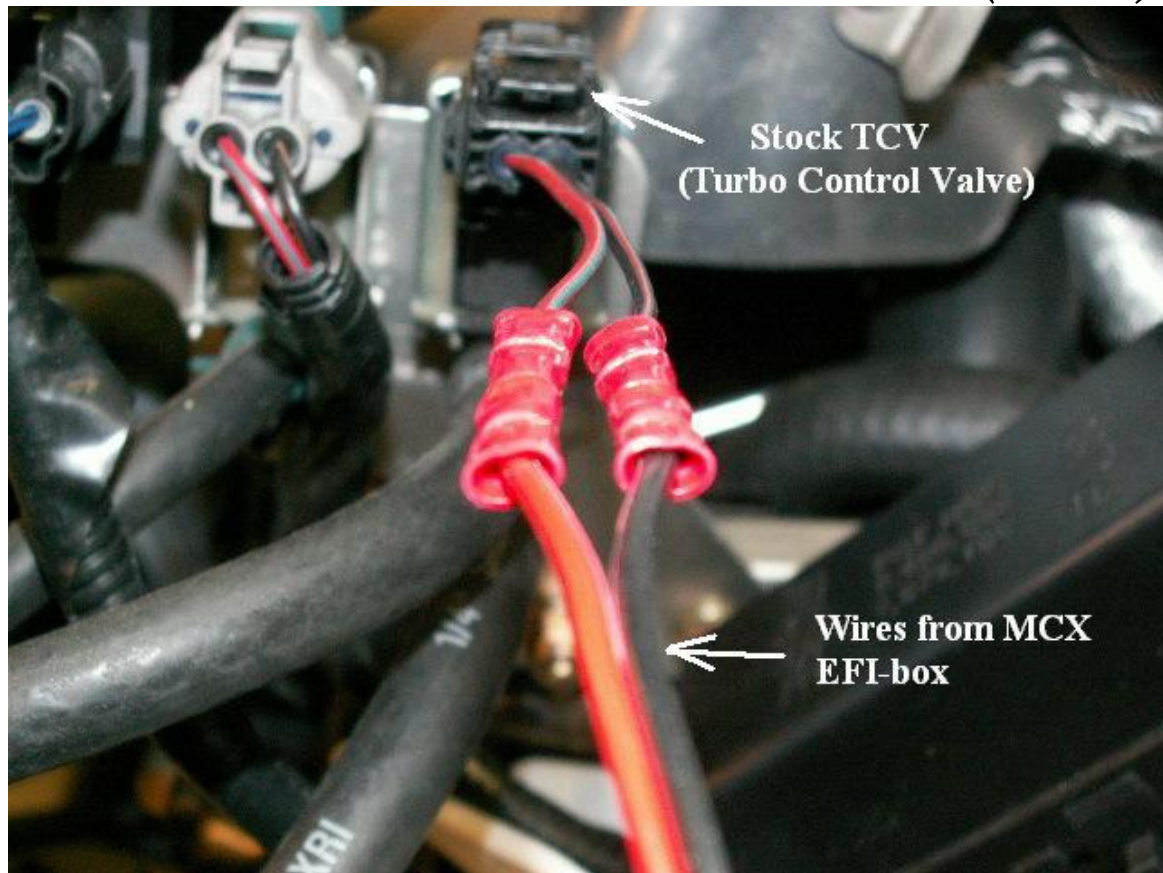
Installation of voltage converter



A Voltage converter shall be installed on the wires to the stock MAP-sensor. Install it like the picture.

Install a plastic T-fitting on the stock hose going from the plenum to the fuel pressure regulator. Install a hose from the T to the pulse absorber canister

Connect the Turbo Control Valve (TCV)



Cut the wires about the stock TCV (Turbo control valve) about 100 mm from the valve. The TCV is the solenoid valve on the left front side of the sled, located closest to the driver.

Connect the wires from the MCX EFI-box marked δ TCV δ . Red to red and black to black.

Pressure gauge

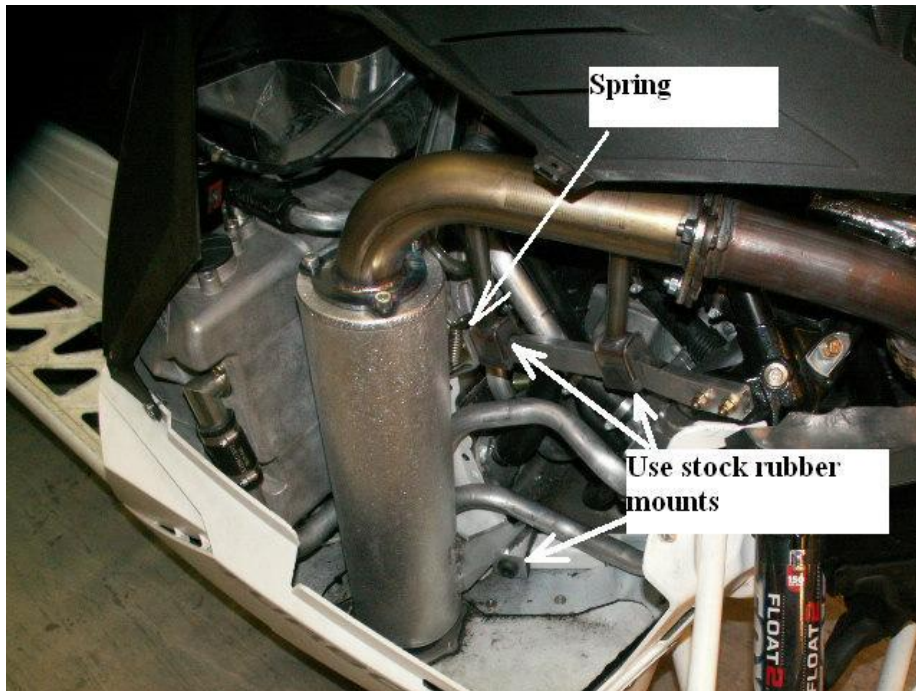


We recommend installing the T-fitting to the pressure gauge on the hose between the pulse absorber and the MCX EFI-box.



Install the pressure gauge in a suitable position, for instance like the picture above. Connect the electrical at the same place as the +12 volt and ground wires to the MCX EFI-box.

High performance exhaust system



Replace the stock muffler and exhaust pipe with the new high performance muffler supplied with the kit.

Use the stock rubber mounts and spring.

Install a new gasket between the stock exhaust tube and the MCX exhaust tube.

No gasket is required between the MCX exhaust tube and the muffler.

High flow turbo air inlet hose



The plastic cover on the left side of the turbo needs to be cut a little to make space for the new wider air intake hose.

Clutching.

The clutching needs to be adjusted.

The higher power will otherwise make the engine to hit the upper rpm limiter during full throttle.

. The max recommended gearing rpm at full throttle is about 8000 rpm.

Test driving:

We recommend driving with 98 octane RON (Europe) of 90 octane PON (USA/Canada)
Start up the engine.

Check so everything seems normal, and so the engine runs fine.

We recommend testing the maximum turbo pressure.

This shall be done by driving with full throttle at max power.

Suitable turbo pressure at sea level is 120 kPa (=220 kPa total pressure)

(This is about 17,5 PSI.)

An over boost safety limit cut off will be activated at about 135 kPa turbo pressure to protect the engine.

The turbo pressure can be adjusted by changing the mapping inside the MCX EFI-box.

This is done by connectiong an USB cable between a PC and the mini USB port located inside the MCX EFI-box.

If you want to do this, please contact us at MCX, and We can E-mail the software.

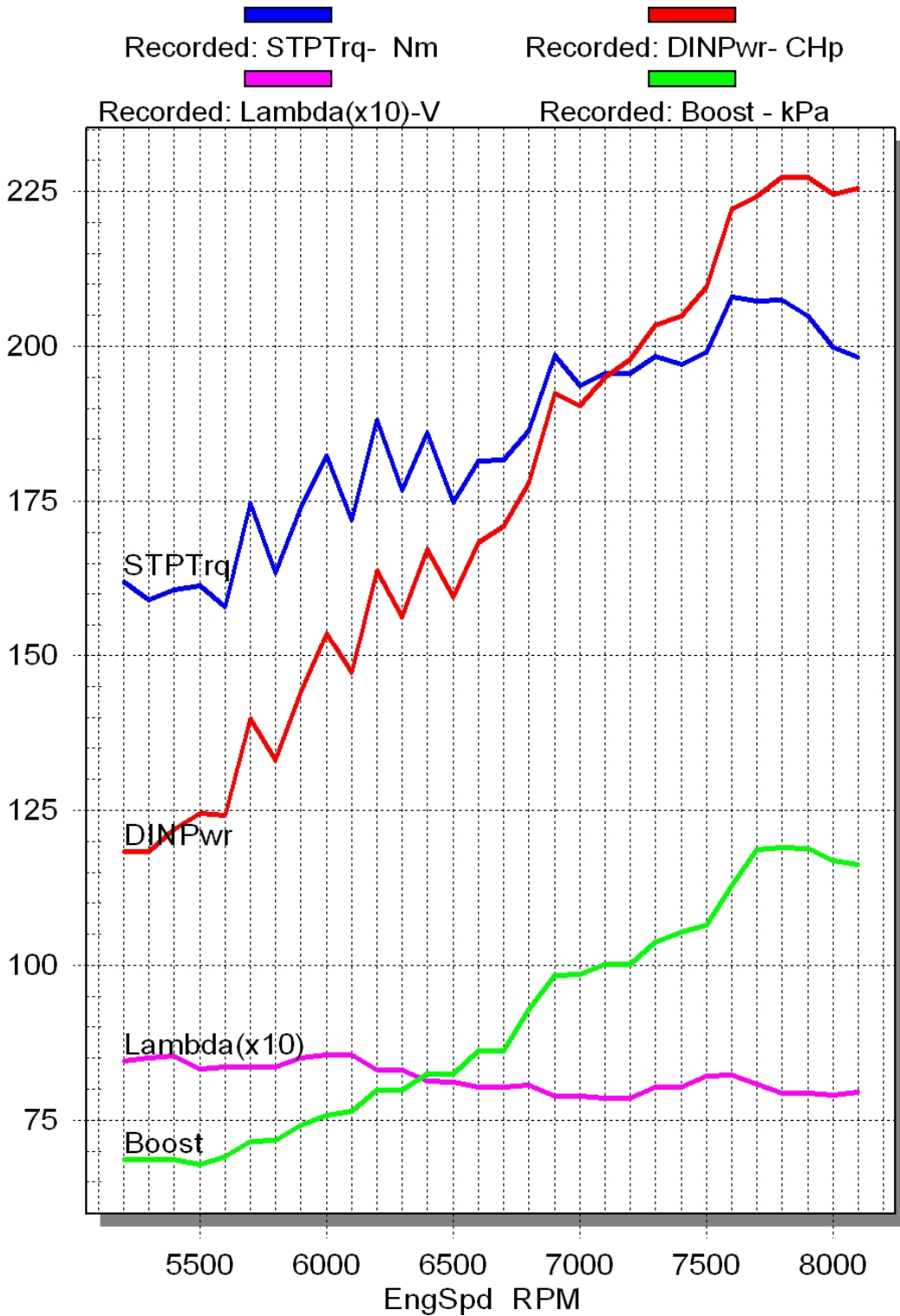
*MC Xpress AB
Norra Altervägen 821
94592 Altersbruk
Sweden*

*tel +46 911 202005,
www.mcx.se*

Supreme of the extreme!

Arctic Cat M1100 turbo

MCX stage 2 update kit



MCX Display (option)



The MCX display can be bought as an option.

The 10 pin connector coming out from the MCX EFI-box is supposed to be connected to the display.

A wide range oxygen sensor is included. You can watch many different things on the display for instance air/fuel ratio, turbo pressure, rpm, throttle position etc.

It is also possible to do data logging and down log into your PC and study all values. Contact us for more info.