

# AEROCHARGER FIELD GUIDE

## AEROCOMMANDER EFI CONTROLLER

The AeroCommander Unit on your RZR 1000 controls the fuel for your turbo system. It manipulates the stock injector signal and controls a third power jet injector included with the system. The AeroCommander comes pre-programmed for a stock RZR 1000 engine and will compensate automatically for different boost levels and elevation changes. The default settings will work for most owners, and the fuel controller is adjustable to take into account variations from engine to engine, and specialized tuning situations like drag racing.

# POLARIS RZR XP 1000

MODE	COLOR	DESCRIPTION
Cruise	Green	Controls how much fuel is added to the stock injectors during low RPM/ low load situations. Cannot control idle AFR values.
Acceleration	Yellow	Controls how much fuel is added to the stock injectors during medium load situations.
Full Throttle	Red	Controls how much fuel is added to the stock injectors during Full Throttle.
Boost Start Point	Green w/ Blue	Controls how much fuel the power jet adds at maximum boost.
Boost Max Fuel	Yellow w/ Blue	Controls how much fuel the power jet adds at maximum boost.
Boost Min Fuel	Red w/ Blue	Controls how much fuel is added at boost start.

## OPERATING DISPLAY

The light colors will change while running the vehicle to show what mode it is currently using.

While adjusting a mode, press the “-” button to lower the value.

The number of lights lit up will change based on the engine load.



The blue light will turn on when the controller is fueling for boost.

While adjusting a mode, press the “+” button to raise the value.

## MODE SELECTION

Press the mode button to scroll through the different modes you can program. Each time you hit the mode button, it will move the next mode. If a button isn't pressed for 5 seconds, the controller automatically returns to normal operation

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## EXPLANATION OF BOOST FUEL

Additional fuel under boost is supplied by the Power Jet injector only. This graph shows an approximation of how the fuel is added, and what the settings that control it are adjusting.

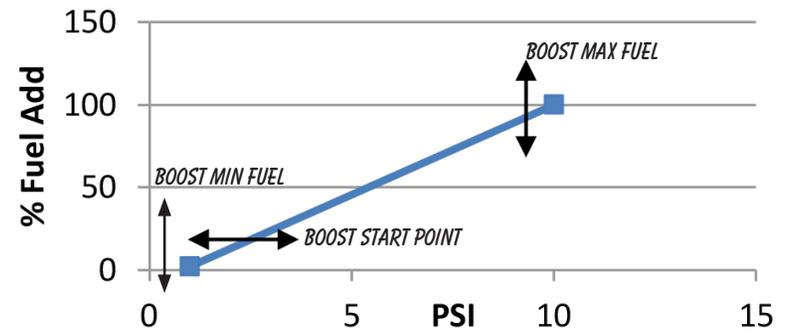
## HOW TO TUNE WITH AN AFR GAUGE

1. Start the vehicle and let it warm up.
2. The AFRs at idle cannot be adjusted by the fuel controller.
3. Begin by slowly accelerating and watching the AFRs. You should not see them go any higher than 14 while accelerating. You should see the mode on the Aerocommander switch from green to yellow as you go faster.
4. Give it enough throttle to build boost and make sure the blue light on your fuel controller comes on. If the blue light comes on, set up for a run at full throttle.
5. Give the vehicle full throttle acceleration and watch the AFR readings. Full Throttle/ Full Boost readings are the most critical, and can indicate the following:

<b>10-</b>	<b>Extremely Rich</b>
<b>10-11.2</b>	<b>Rich</b>
<b>11.2-12.8</b>	<b>Safe</b>
<b>12.8-14.7</b>	<b>Lean</b>
<b>14.7+</b>	<b>Danger at Wide Open Throttle</b>

6. If you need to adjust fuel settings at wide open throttle, then adjust Boost Max Fuel or Full Throttle mode. These are the only two modes that can affect wide open throttle AFRs.
7. If the vehicle is lean while cruising around, adjust whatever mode the Aerocommander is in when it is lean.

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## THE FUEL CONTROLLER DURING OPERATION

Lights are red, signifying it is using the red mode.



Blue light is on, signifying the fuel controller is fueling for boost pressure

5 lights are lit, indicating how much of the pulse width the injectors are using.

8. If the blue light comes on too early or late, you can adjust the boost start point mode.
9. AFR values will always go extremely lean when de-accelerating - this is normal. This can sometimes happen if you are trying to hold speed at a part throttle position as well.