



Aero-Commander EFI Controller

To adjust your Aerocharger® Turbo system for varying elevations and operating conditions and riding styles, you may choose to make slight adjustments to the fuel settings. There are six different program modes of the Aero-Commander:

- **Cruise** (Green light) - Idle and Low-load fueling
- **Acceleration** (Yellow light) - Mid-load fueling
- **Full Throttle** (Red light) – High-load fueling
- **Boost Minimum Fuel** (Green w/ Blue light) – Minimum amount of fuel being added when under boost.
- **Boost Maximum Fuel** (Yellow w/ Blue light) – Maximum amount of fuel being added when under boost.
- **Full Throttle Lower Switch Point** (Red w/ Blue light) – Changes the engine load at which the Full Throttle Zone enrichment begins.

To make adjustments to the Aero-Commander you will need the snowmobile to be running, and allow the AEM wideband air/ fuel gauge O2 Sensor to heat up and become active for about one minute. The Aero-Commander will also need to run through a startup sequence. **This will be indicated by a single green LED scrolling back and forth for a couple seconds.**



Then the far left LED will become a solid green, indicating that the controller is in “Operation Mode” and will start with “Cruise” mode.



If there is a green LED on the left along with a flashing red LED on the right, the Aero-Commander is not receiving a proper injector signal.



Once the system is active you may make adjustments to the controller. To do this press the **Mode Button** to activate the **Programming Mode**.



Each time you hit the **Mode Button** you advance to the next **Programming Mode**. Once you get to the desired mode, you can add or remove fuel from the controller by using the + (moves the setting to the right or “more fuel”) and – (moves the setting to the left of “less fuel”) buttons on the Aero-Commander. You can move to the next mode by hitting the **Mode Button** again or you can simply wait and the controller will automatically go back to the normal **Operating Mode**.

“Brad’s Recommended” Settings

- Example of **Cruise** settings while in Programming Mode.....
- Example of **Acceleration** settings while in Programming Mode.....
- Example of **Full Throttle** settings while in Programming Mode.....
- Example of **Boost Min Fuel** settings during Programming Mode.....
- Example of **Boost Max Fuel** settings during Programming Mode.....
- Example of **Full Thottle Lower Switch Point** settings during Programming Mode.....





After adjusting your settings in **Programming Mode**, simply wait and you will default back to **Operating Mode**. When the Aero-Commander is operating you can see only four standard statuses. **Cruise**, **Acceleration**, and **Full Throttle** statuses will be indicated by LEDs changing to their programming mode colors. When boost mode is active, it will be indicated by the **8th light turning blue**, while the other lights remain the color associated with the current mode.

Example of **Cruise** status during **Operating Mode**.....



Example of **Acceleration** status during **Operating Mode**.....



Example of **Full Throttle** status during **Operating Mode**.....



Example of **Boost** status during **Operating Mode**.....

(Note: Left lights can be other colors)



While you can make any changes desired to the fuel cont roller, we recommend that you keep the Air/Fuel ratio between **12.75 - 13.25** while under full throttle. If you run your engine too lean, as would be indicated by larger readings on the air/ fuel O2 gauge, serious damage can be done to your engine. **Note:** When you get off of the throttle, there will be a temporary spike in the air/fuel reading, this is to be expected. You may also see lean readings during no throttle acceleration, e.g. coasting down a hill. This too is normal.

A guideline for Air/Fuel Ratios:	
11.8	Rich
12.2	Slightly Rich
12.5	Safe Power
13.2	Best Power
13.7	Slightly lean
14.7	Very Lean
15.4	Dangerously Lean at Wide Open Throttle