| asdfadsf |  |  | CBA |  |  | DBA |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | What is it? | What can it tell me? | Idle | Part Throttle | Full Throttle | Idle | Part Throttle | Full Throttle |
| AF Ratio B1/B2 | A Measure of air fuel ratio for bank 1 and bank 2 | Gives us an idea of the current air fuel ratio per bank. Can help to diagnost leaks and fueling problems | $\sim 14.7$ | All over the place | 10.8-11.7 | $\sim 14.7$ | All over the place | 10.8-11.7 |
| Boost Left/Right | A measure of intake manifold pressure/vacuum | Looking at boost pressure we can help to diagnose failing turbos, boost creep and help to make sure boost levels are appropriate | Numbers will vary based on environment | Numbers will vary based on environment and load | <20psi | Numbers will vary based on environment | Numbers will vary based on environment and load | <20psi |
| Knock Sums (CBA) | A number of knocks observed over a predetermined amount of time. | Every - 300 count causes about a 1 degree change of ignition timing being removed (retarded) |  |  | <900 |  |  |  |
| Dynamic Advance (DBA) | A Multiplier for overall ignition timing. | Active ignition timing adjustment in response to knock (detonation) or engine noise. An incremement of -1 is equal to 1 degree of ignition timing being removed (retarded) |  |  |  |  |  | -3 |
| Manifold Absolute Pressure | A measure of absolute air pressure in the manifold without adjusting for the atmospheric pressure in your location. | Manifold absolute pressure (reported as negative values in vacuum and positive values in boost). This value comes from the pressure sensor located in the intake manifold and is the monitor you use in order to measure "Boost" in the engine. |  |  |  |  |  |  |
| LTFT (Long Term Fuel Trims) | Learned corrections based on the short term corrections the engine required in the past. | Just like AF Corrections, these are percentages added or subtracted to fueling. These values are learned slowly over time and are often referred to as long term trim. AF Learning and AF Correction values are added together and then applied to fueling. Be mindful that you may experience both long and short term trims which partially cancel eachother out. For example a short term trim of $+12 \%$ and a long term trim of $-15 \%$ may both seem large, but they're only causing a $-3 \%$ change to the total trim overall. Generally over time both trims will get smaller as the ECU continues learning. Excessive long term trimming, much like short term, may indicate mechanical issues such as an intake tract leak, bad sensor, or using the incorrect intake for specific mapping. |  |  | Below 108 <br> (Adding 8\% <br> Fuel) |  |  | Below 108 (Adding 8\% Fuel) |
| STFT (Short Term Fuel Trims) | Corrections based on current fueling error (failure to hit the fuel target) | The values shown are percentage correction applied to the injector pulsewidth. Positive values mean more fuel is being injected and negative values mean less is. These corrections are called trims. Their purpose is to adjust fueling in order to help the engine run at the currently desired air/fuel ratio. When you floor it or lift throttle and coast, you'll notice trimming stops (0\%). During throttle transitions expect to see trims move around, this is normal. Consistent corrections under similar operating conditions will be learned by the ECU and applied as Long Term Fuel Trim. Excessive short term trimming much like long term, may indicate mechanical issues such as an intake tract leak, bad sensor, or using the incorrect intake for the specific mapping used. |  |  | Below 108 (Adding 8\% Fuel) |  |  | Below 108 (Adding 8\% Fuel) |
| Alpha b1/b2 | A combination of LTFT and STFT | Shows an addition of both short term and long term trims together to more easily see the total amount of fueling changes the engine is using. |  |  | Below 110 |  |  | Below 110 |
| Theoretical Pulsewidth (TPW) | The GTR'S Units for measuring engine load based on theoretical injector open time. | Can clue us in to how a car is driven at a specific moment. Light cruising will have less load than spirited driving. A certain amount of load is required in order to spool a turbo, additionally higher load will require more fuel than lower load ocnditions. |  |  |  |  |  |  |

