

For my bestest MSF friends;

Love, Bucker.

Ok, so here is an overview for you. Please let me know what questions you have. You WILL have some. Email me at wsbucker@gmail.com

Boost Tables:

Boost Comp: X gear:

Boost compensation by gear. It can limit/ increase boost in each gear independently. I like to leave them at 1.0.

Boost Comp Baro is barometric compensation.

Boost limits:

Fuel Cut: cuts fuel when boost goes over the targeted value.

Throttle Close: closes the throttle (VERY INEFFECTIVE. I don't use it other than setting it higher than boost targets)

Boost Targets:

Set your boost targets here! 68.75+ Throttle is Full Throttle. I keep all of these values consistent.

Boost Tables: Boost Targets															
Engine Speed (RPM) - Read-only															
	500	1000	1500	2000	2250	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000
0.00	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50
6.25	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50
12.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50	-14.50
18.75	0.23	-2.81	-5.85	-8.89	-11.93	-11.76	-11.78	-11.76	-11.77	-11.83	-11.83	-11.94	-12.14	-12.38	-12.72
25.00	0.23	-2.17	-4.57	-6.97	-9.36	-9.02	-9.05	-9.02	-9.03	-9.16	-9.15	-9.38	-9.78	-10.25	-10.94
31.25	0.23	-1.52	-3.28	-4.82	-6.82	-6.43	-6.04	-5.76	-4.95	-5.06	-5.05	-5.34	-5.78	-6.28	-6.87
37.50	0.23	-0.88	-2.00	-2.67	-4.28	-3.85	-3.03	-2.50	-0.86	-0.96	-0.95	-1.31	-1.78	-2.31	-2.80
43.75	0.23	-0.24	-0.71	-0.52	-0.99	-0.44	0.65	1.28	3.26	3.18	3.19	2.82	2.28	1.78	1.39
50.00	0.23	0.40	0.58	1.62	2.30	3.80	4.99	5.46	6.95	6.88	6.39	6.11	5.71	5.34	5.04
56.25	0.23	1.05	2.30	4.41	5.86	8.03	9.33	9.64	10.63	10.59	9.60	9.41	9.14	8.89	8.70
62.50	0.23	1.70	4.02	7.21	9.43	12.27	13.66	13.82	14.31	14.30	12.80	12.71	12.57	12.45	12.35
68.75	0.25	2.34	6.17	10.00	13.00	16.50	18.00	18.00	18.00	18.00	18.00	18.00	17.00	17.00	17.00
75.00	0.26	2.99	6.49	10.00	13.00	16.50	18.00	18.00	18.00	18.00	18.00	18.00	17.00	17.00	17.00
81.25	0.28	3.65	6.82	10.00	13.00	16.50	18.00	18.00	18.00	18.00	18.00	18.00	17.00	17.00	17.00
87.50	0.29	4.08	7.04	10.00	13.00	16.50	18.00	18.00	18.00	18.00	18.00	18.00	17.00	17.00	17.00
93.75	0.29	4.50	7.25	10.00	13.00	16.50	18.00	18.00	18.00	18.00	18.00	18.00	17.00	17.00	17.00
100.00	1.54	5.43	7.71	10.00	13.00	16.50	18.00	18.00	18.00	18.00	18.00	18.00	17.00	17.00	17.00

Accelerator Pedal Position (%) - Read-only

Relative Boost Pressure (psi)

Now I want you to look at the Closed Loop tables.

I suggest the values below. Some people don't use the same values, but that's their problem.

Exit Delay A, B, C:

I have these set the way I do because it allows the car to transition to OL much more quickly and consistently.

A: 15

B: 20

C: 20

Max Load:

I keep these around 1.1 on gas because you rarely get more than 1.1 load without WANTING to go into OL. This also makes the transition more consistent and quicker. On e85 mixes I generally go to a 1.25.

Max Throttle:

I put these tables at 100% to take throttle position out of the equation for consistency.

LTFT Learning zones:

I have these much different than OTS or stock. I use all of the zones. I do this because it lets the ECU better adjust fueling at part throttle. It is safer and MUCH more consistent than the 3 zones the stock and OTS maps use. I have no idea why it WASN'T done this way from the factory.

Zone A: 5.7

Zone B: 18

Zone C: 50

Zone D: 75

Zone E: 120

Zone F: 150

Now we look at fueling.

I set the fueling tables to be as consistent as possible. All WOT regions in the no-knock tables are 11.8 AFR. All WOT regions in the Knocking tables are .5 AFR lower (11.3 in this example).

Fuel Tables: Fuel OL/Part Throttle Commanded EQ (No Knock)

		Engine Speed (RPM) - Read-only													
		500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000
0.25	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800
0.31	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800
0.38	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800
0.44	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800
0.50	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800
0.56	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800
0.63	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800	14.800
0.69	14.800	14.800	14.800	14.800	14.680	14.680	14.680	14.680	14.680	14.680	13.902	13.902	13.852	13.802	13.802
0.75	14.800	14.800	14.800	14.800	14.680	14.680	14.680	14.680	14.680	14.680	13.682	13.682	13.632	13.582	13.582
0.81	14.800	14.800	14.800	14.680	14.680	14.680	14.680	14.680	14.298	13.359	13.359	13.309	13.259	13.259	13.259
0.88	14.800	14.800	14.680	14.680	14.680	14.680	14.680	14.342	14.166	13.065	13.065	13.015	12.965	12.965	12.965
0.94	14.800	14.800	14.680	14.680	14.680	14.680	14.680	14.225	14.034	12.903	12.903	12.854	12.803	12.803	12.803
1.00	14.800	14.800	14.680	14.680	14.622	14.563	14.372	14.107	13.917	12.742	12.742	12.692	12.642	12.642	12.642
1.06	14.800	14.800	14.680	14.680	14.276	13.872	13.729	13.530	13.388	12.506	12.506	12.469	12.431	12.431	12.431
1.13	14.680	14.680	14.680	14.504	13.843	13.181	13.086	12.953	12.858	12.271	12.271	12.246	12.221	12.221	12.221
1.19	14.680	14.680	14.680	14.342	13.416	12.491	12.443	12.377	12.329	12.036	12.036	12.023	12.011	12.011	12.011
1.25	14.680	14.680	14.680	14.166	12.983	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800
1.31	13.960	13.960	13.960	13.703	12.752	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800
1.38	13.241	13.241	13.241	13.241	12.521	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800
1.44	13.241	13.241	13.241	13.241	12.521	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800
1.50	13.241	13.241	13.241	13.241	12.521	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800
1.56	13.241	13.241	13.241	13.241	12.521	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800
1.63	13.241	13.241	13.241	13.241	12.521	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800
1.69	13.241	13.241	13.241	13.241	12.521	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800
1.75	13.241	13.241	13.241	13.241	12.521	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800
1.81	13.241	13.241	13.241	13.241	12.521	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800
1.88	13.241	13.241	13.241	13.241	12.521	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800
1.94	13.241	13.241	13.241	13.241	12.521	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800
2.00	13.241	13.241	13.241	13.241	12.521	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800	11.800

Calculated Load (Load) - Read-only Commanded Fueling (afr)

Fuel Tables: Fuel OL/Part Throttle Commanded EQ (Knocking)

		Engine Speed (RPM) - Read-only													
		500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000
0.25	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300
0.31	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300
0.38	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300
0.44	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300
0.50	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300
0.56	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300
0.63	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300	14.300
0.69	14.300	14.300	14.300	14.300	14.180	14.180	14.180	14.180	14.180	14.180	13.402	13.402	13.352	13.302	13.302
0.75	14.300	14.300	14.300	14.300	14.180	14.180	14.180	14.180	14.180	14.180	13.182	13.182	13.132	13.082	13.082
0.81	14.300	14.300	14.300	14.180	14.180	14.180	14.180	14.180	14.180	13.798	12.859	12.859	12.809	12.759	12.759
0.88	14.300	14.300	14.180	14.180	14.180	14.180	14.180	14.180	13.842	13.666	12.565	12.565	12.515	12.465	12.465
0.94	14.300	14.300	14.180	14.180	14.180	14.180	14.180	13.725	13.534	12.403	12.403	12.354	12.303	12.303	12.303
1.00	14.300	14.300	14.180	14.180	14.122	14.063	13.872	13.607	13.417	12.242	12.242	12.192	12.142	12.142	12.142
1.06	14.300	14.300	14.180	14.180	13.776	13.372	13.229	13.030	12.888	12.006	12.006	11.969	11.931	11.931	11.931
1.13	14.180	14.180	14.180	14.004	13.343	12.681	12.586	12.453	12.358	11.771	11.771	11.746	11.721	11.721	11.721
1.19	14.180	14.180	14.180	13.842	12.916	11.991	11.943	11.877	11.829	11.536	11.536	11.523	11.511	11.511	11.511
1.25	14.180	14.180	14.180	13.666	12.483	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300
1.31	13.460	13.460	13.460	13.203	12.252	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300
1.38	12.741	12.741	12.741	12.741	12.021	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300
1.44	12.741	12.741	12.741	12.741	12.021	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300
1.50	12.741	12.741	12.741	12.741	12.021	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300
1.56	12.741	12.741	12.741	12.741	12.021	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300
1.63	12.741	12.741	12.741	12.741	12.021	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300
1.69	12.741	12.741	12.741	12.741	12.021	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300
1.75	12.741	12.741	12.741	12.741	12.021	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300
1.81	12.741	12.741	12.741	12.741	12.021	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300
1.88	12.741	12.741	12.741	12.741	12.021	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300
1.94	12.741	12.741	12.741	12.741	12.021	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300
2.00	12.741	12.741	12.741	12.741	12.021	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300	11.300

Calculated Load (Load) - Read-only Commanded Fueling (afr)

TIMING!:

Whoa, this is the one that scares people off for whatever reason. Don't let it worry you. I start with the OTS timing values, then adjust a little. Basically, each revision, add in ~0.5-1* in the regions you want to edit. Continue to do this until you get some minor (.4-.7 KR) then drop back .5* in that RPM region.

Start with the No Knock tables. They should both be completely identical.

Now move to the Knocking tables. These tables should 2* lower than the no knock tables.

Look at the Max Ignition A and B tables. These should be set 2* higher than the no knock tables.

I get the values by making ALL values from 1.75 load up identical in each RPM column. I then interpolate from 1.75 to 1.25. I do this first in the no knock tables, then I copy-paste the values to the knocking and max and adjust as described before (-2* for knocking, +2* for Max).

These settings allow for consistency every time.

Ignition Tables: Ign Table - High Throttle/OL (No Knock)														
Engine Speed (RPM) - Read-only														
	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000
0.13	37.50	37.50	46.70	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
0.19	37.50	37.50	46.70	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
0.25	37.50	37.50	46.70	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
0.31	37.50	37.50	46.70	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
0.38	24.50	31.90	39.70	39.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
0.44	26.00	32.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
0.50	23.00	31.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00
0.56	15.90	20.50	26.50	29.00	30.50	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00
0.63	11.50	15.50	20.50	24.50	26.75	29.00	29.00	29.00	29.00	29.00	29.00	29.00	29.00	29.00
0.69	10.16	13.25	15.40	20.70	23.35	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
0.75	8.82	11.00	13.19	15.30	18.15	21.00	21.88	22.75	23.00	23.00	23.00	23.00	23.00	23.00
0.81	7.48	8.75	10.97	12.43	15.41	18.40	18.80	19.50	20.50	20.50	20.50	20.50	20.50	20.50
0.88	6.14	6.50	8.76	10.64	13.31	14.00	16.50	17.69	18.78	20.00	20.00	20.00	20.00	20.00
0.94	4.56	5.50	6.87	8.23	12.40	13.00	15.00	16.40	17.60	18.50	18.50	18.50	18.50	18.50
1.00	2.97	5.03	7.09	9.14	11.20	12.00	13.25	15.26	16.76	18.00	18.00	18.00	18.00	18.00
1.06	1.38	3.54	5.69	7.85	10.00	11.50	12.25	13.68	16.00	16.00	16.00	16.50	17.00	17.50
1.13	0.23	2.46	4.35	6.74	8.75	10.38	11.22	12.72	14.88	15.00	15.19	15.81	16.31	16.81
1.19	-0.92	1.39	3.02	5.64	7.50	9.25	10.19	11.76	13.75	14.00	14.38	15.13	15.63	16.13
1.25	-2.06	0.32	1.68	4.53	6.25	8.13	9.16	10.80	12.63	13.00	13.56	14.44	14.94	15.44
1.31	-3.15	-0.69	0.85	3.84	5.47	7.42	8.51	10.20	11.92	12.38	13.05	14.01	14.51	15.01
1.38	-4.25	-1.70	0.01	3.15	4.69	6.72	7.87	9.60	11.22	11.75	12.55	13.58	14.08	14.58
1.44	-5.34	-2.70	-0.82	2.46	3.91	6.02	7.22	9.00	10.52	11.13	12.04	13.15	13.65	14.15
1.50	-6.43	-3.71	-1.66	1.77	3.13	5.31	6.58	8.40	9.81	10.50	11.53	12.72	13.22	13.72
1.56	-7.52	-4.71	-2.49	1.07	2.34	4.61	5.93	7.80	9.11	9.88	11.02	12.29	12.79	13.29
1.63	-8.62	-5.72	-3.33	0.38	1.56	3.91	5.29	7.20	8.41	9.25	10.52	11.86	12.36	12.86
1.69	-9.71	-6.72	-4.16	-0.31	0.78	3.20	4.64	6.60	7.70	8.63	10.01	11.43	11.93	12.43
1.75	-10.80	-7.73	-5.00	-1.00	0.00	2.50	4.00	6.00	7.00	8.00	9.50	11.00	11.50	12.00
1.81	-11.80	-8.68	-5.00	-1.00	0.00	2.50	4.00	6.00	7.00	8.00	9.50	11.00	11.50	12.00
1.88	-12.80	-9.65	-5.00	-1.00	0.00	2.50	4.00	6.00	7.00	8.00	9.50	11.00	11.50	12.00
1.94	-13.00	-10.05	-5.00	-1.00	0.00	2.50	4.00	6.00	7.00	8.00	9.50	11.00	11.50	12.00
2.00	-14.00	-11.05	-5.00	-1.00	0.00	2.50	4.00	6.00	7.00	8.00	9.50	11.00	11.50	12.00

Calculated Load (Load) - Read-only

Primary Ignition Timing (BTDC) (Degrees)

Now we run into the knock tables!

I do not touch the Knock Retard decay magnitude tables. They are fine at OTS/Stock values.

I DO edit the decay rate though. I like to keep it ~150. This makes any KR go away faster, but lets the knock sensor still do its job (reduce timing/ add fuel if it senses knock). This also lets you see exactly where knock occurs in logs.

I do not touch the multiplier.

I DO edit the Offset. I do this because I like to use the knock sensor over 5500 RPM. 5500 is where stock and OTS maps have the KR sensor turn off. So, to make it effective and to filter out false knock, I set the offset to 1.1 over 1.5 load and 5500 RPM. I set the 5000 RPM values to .9 . This has been VERY effective on many Speeds I have tuned.

The last Knock Table I edit is the Knock Retard Active – RPM (Max). I set this to 6700 (where your rev limiter is). This will let you see if there is knock up until 6700 RPM.

Knock Tables: Knock Retard - Offset														
Engine Speed (RPM) - Read-only														
	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000
0.38	0.16	0.16	0.16	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
0.44	0.16	0.16	0.16	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
0.50	0.16	0.16	0.16	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
0.56	0.16	0.16	0.16	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
0.63	0.16	0.16	0.16	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
0.69	0.16	0.16	0.16	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
0.75	0.16	0.14	0.16	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
0.81	0.16	0.12	0.16	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
0.88	0.16	0.12	0.16	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
0.94	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
1.00	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
1.06	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
1.13	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
1.19	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
1.25	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
1.31	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80
1.38	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.90	0.90	0.90	0.90	0.90
1.44	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.90	1.00	1.00	1.00	1.00
1.50	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.90	1.00	1.00	1.00	1.00
1.56	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.90	1.00	1.00	1.00	1.00
1.63	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.90	1.00	1.00	1.00	1.00
1.69	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.90	1.00	1.00	1.00	1.00
1.75	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.90	1.00	1.00	1.00	1.00
1.81	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.90	1.00	1.00	1.00	1.00
1.88	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.90	1.00	1.00	1.00	1.00
1.94	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.90	1.00	1.00	1.00	1.00
2.00	0.16	0.12	0.14	0.24	0.36	0.40	0.60	0.80	0.80	0.90	1.00	1.00	1.00	1.00

Calculated Load (Load) - Read-only

Degrees of Timing (Degrees)

Load Tables:

ABS Load Limits – Fuel Cut:

I simply set this above any load you will see (ie. Make it 3.0). I do not use load tables, I boost tune.

Load Tables: Abs Load Limits - Fuel Cut														
Engine Speed (RPM) - Read-only														
	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500
-40.00	1.06	1.19	1.33	2.44	2.54	2.66	2.66	2.66	2.66	2.66	2.60	2.54	2.48	2.42
-4.00	1.06	1.19	1.33	2.44	2.54	2.66	2.66	2.66	2.66	2.66	2.60	2.54	2.48	2.42
32.00	1.06	1.19	1.33	2.44	2.54	2.66	2.66	2.66	2.66	2.66	2.60	2.54	2.48	2.42
68.00	1.06	1.19	1.33	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
104.00	1.06	1.19	1.33	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
140.00	1.06	1.19	1.33	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
176.00	1.06	1.19	1.33	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
212.00	1.06	1.19	1.33	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Intake Temp. (F) - Read-only														
Calculated Load (Load)														

Throttle- Req. Load Gear X:

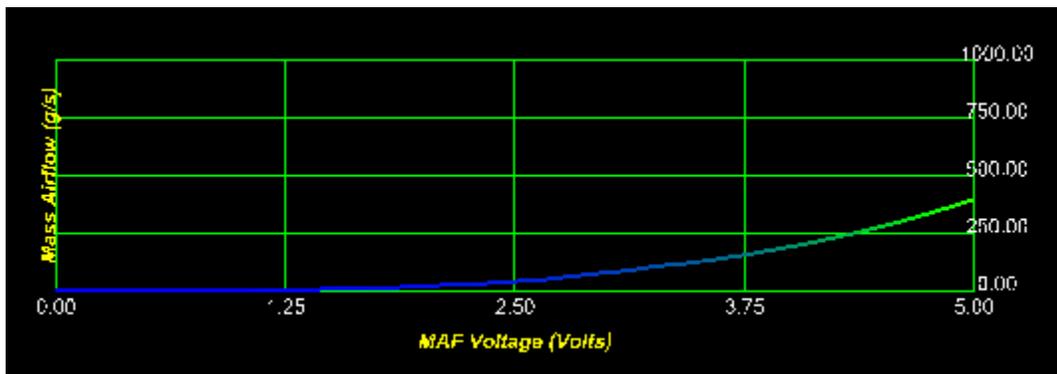
I up these values in the 2500+ RPM sections to loads in the 2.5 region to ensure it is generally out of reach of the K04 on 93 octane fuel. I keep ALL of the Throttle Req. Load Gear tables the same.

Sensor CAL Tables:

MAF Table A: This is where your MAF Calibration will be conducted. Let me know if you need coaching on a MAF Calibration. As you can see below, there should be a smooth curve with no dips or waviness to it. If there are bumps in the curve, there is something wrong.

MAF Table B: Mirror image of MAF table A. Copy the entire MAF Table A to MAF table B after every change.

All of the MAP scalars will only be changed if you have an aftermarket MAP.



Throttle Tables!

DBW A, B, and C:

I change all of the 80's to 90's for consistency. This lets the car open the throttle completely and in your logs you will see ~76% across the entire WOT region. Stock or OTS, the throttle would close and open and not be consistent.

The APP transition tables can be used to restrict the throttle in lower gears. Some people like to do this to control wheelspin on higher boost applications, but I don't like to do that. I leave these stock/ OTS.

Throttle Tables: DBW Throttle A															
Engine Speed (RPM)															
	0	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.06	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
0.13	1.70	1.50	1.50	1.50	1.80	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.50	3.50
0.19	1.90	2.50	2.60	2.60	2.90	3.30	3.00	2.60	3.00	3.00	3.00	4.00	4.00	5.00	5.00
0.25	2.10	3.50	4.40	4.40	4.60	4.90	4.60	4.50	3.90	4.50	4.50	5.50	6.00	7.00	7.00
0.31	2.30	4.00	5.00	5.70	6.10	6.50	6.40	6.20	6.00	6.70	7.00	7.00	7.60	8.10	8.10
0.38	2.50	4.50	5.50	7.30	7.80	8.20	7.80	7.60	7.60	8.20	8.40	8.90	9.90	9.60	9.60
0.44	2.70	5.00	6.80	9.50	9.70	9.90	9.80	9.20	9.20	10.00	10.10	10.40	11.40	11.20	11.20
0.50	2.90	5.50	8.20	10.90	11.30	11.70	11.00	10.70	10.50	11.40	11.70	12.00	12.20	12.50	12.50
0.56	3.10	6.00	10.00	12.60	12.80	13.10	12.50	12.30	11.80	12.20	12.60	13.10	13.80	13.80	13.80
0.63	5.30	7.20	11.70	14.20	14.50	14.80	13.80	13.20	12.80	13.30	14.50	14.40	14.70	14.90	14.90
0.69	7.40	9.40	13.60	15.90	16.10	16.40	15.50	14.40	13.60	14.50	15.30	15.50	16.00	15.80	15.80
0.75	18.00	11.10	16.10	17.90	17.90	17.90	16.50	15.30	14.70	15.60	16.00	16.50	17.80	19.50	19.50
0.81	60.00	22.00	18.60	19.00	18.70	18.30	17.10	16.10	15.80	16.90	17.30	18.20	19.50	21.50	21.50
0.88	60.00	60.00	20.30	20.50	20.00	19.50	17.80	16.90	16.50	17.70	18.60	19.70	21.10	22.00	22.00
0.94	60.00	60.00	23.80	22.00	26.00	25.55	24.02	23.21	22.85	23.93	24.74	25.73	26.99	27.80	27.80
1.00	60.00	60.00	35.60	33.80	32.00	31.60	30.24	29.52	29.20	30.16	30.88	31.76	32.88	33.60	33.60
1.06	60.00	60.00	70.00	54.00	38.00	37.65	36.46	35.83	35.55	36.39	37.02	37.79	38.77	39.40	39.40
1.13	60.00	60.00	70.00	57.00	44.00	43.70	42.68	42.14	41.90	42.62	43.16	43.82	44.66	45.20	45.20
1.19	60.00	60.00	70.00	60.00	50.00	49.75	48.90	48.45	48.25	48.85	49.30	49.85	50.55	51.00	51.00
1.25	60.00	60.00	70.00	90.00	56.00	55.80	55.12	54.76	54.60	55.08	55.44	55.88	56.44	56.80	56.80
1.31	60.00	60.00	70.00	90.00	62.00	61.85	61.34	61.07	60.95	61.31	61.58	61.91	62.33	62.60	62.60
1.38	60.00	60.00	70.00	90.00	68.00	67.90	67.56	67.38	67.30	67.54	67.72	67.94	68.22	68.40	68.40
1.44	60.00	60.00	70.00	90.00	74.00	73.95	73.78	73.69	73.65	73.77	73.86	73.97	74.11	74.20	74.20
1.50	60.00	60.00	70.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
1.56	60.00	60.00	70.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
1.63	60.00	60.00	70.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
1.69	60.00	60.00	70.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
1.75	60.00	60.00	70.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
1.81	60.00	60.00	70.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
1.88	60.00	60.00	70.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
1.94	60.00	60.00	70.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
2.00	60.00	60.00	70.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Calculated Load (Load)															
Target Throttle Position (%)															

VVT Tables:

I don't mess with these. I have in the past and have realized almost 0 gain/ loss on the K04.

Wastegate Dynamics:

WG Duty Baro Error Comp (Fine):

I do not edit this table.

WG Duty Boost Error Comp. (Fine):

The values I use are tried and true. Some people run more, some less, but this is one table that I use on almost EVERY tune I do because it works. This lets the ECU add wastegate duty until the car reaches the boost targets you set earlier. I use the following values VERY successfully:

Boost Error (PSI) - Read-only										
-1.31	-1.02	-0.73	-0.44	-0.15	0.00	0.15	0.44	0.73	1.02	1.31
0.10	0.09	0.08	0.07	0.06	0.00	-0.06	-0.11	-0.22	-0.44	-1.10
Wastegate Duty Compensation (%)										

WG Duty Boost Error Ramp Limiter – High:

I set this to 15 on most maps. This lets the ECU adjust WG Duty up to 15% to meet boost targets.

WG Duty Boost Error Ramp Limiter – Low:

I leave this at 100%. This lets the ECU remove up to 100% WG Duty to meet targets/ avoid overboost.

WG Duty Load Dynamics (Fine):

I zeroize this entire table. I don't use load tables.

WG Duty Load Error Comp. (Course):

I zeroize this entire table. I don't use load tables.

WG Duty Load Error Ramp Limiter – High Limit/ Low Limit:

I do not edit these tables because I do not use load tables.

WG Duty RPM Comp A and B:

I have seen no reason to adjust these from stock/ OTS.

WG Duty Throttle Close Baro Threshold:

I do not modify this table.

Wastegate tables!

WG Duty – baro, battery, IAT Comp:

Barometric, intake air temp, and Battery Compensation. I generally leave these values alone.

WG Duty Cycles:

This table takes some finesse and time to dial in. I start at the OTS values then look at some WOT logs. I compare these logs to the table. If the car meets boost targets at x RPM, I take the logged WGDC and plug it in to the WG Duty Cycle table. ie. Logged WGDC is 45, boost target is 18 and logged is 18 psi at 5500 RPM. I take the 45 WGDC and place that in to the WG Duty Cycle table for the 5500 RPM values.

Like before, Wide Open Throttle for this table is over 68.75. I interpolate the values from 68.75 up to the first 0 in that column to get a smooth, consistent transition.

Wastegate Tables: WG Duty Cycles																
Engine Speed (RPM) - Read-only																
	500	1000	1500	2000	2250	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25.00	100.00	100.00	100.00	100.00	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.25	100.00	100.00	100.00	100.00	15.00	0.00	0.00	0.00	0.00	0.00	10.00	10.71	11.71	12.14	12.14	
37.50	100.00	100.00	100.00	100.00	22.50	0.00	0.00	0.00	0.00	0.00	20.00	21.43	23.43	24.29	24.29	
43.75	100.00	100.00	100.00	100.00	30.00	12.00	0.00	0.00	0.00	0.00	30.00	32.14	35.14	36.43	36.43	
50.00	100.00	100.00	100.00	100.00	37.50	24.00	15.00	15.00	15.00	15.50	40.00	42.86	46.86	48.57	48.57	
56.25	100.00	100.00	100.00	100.00	45.00	36.00	30.00	30.00	30.00	31.00	50.00	53.57	58.57	60.71	60.71	
62.50	100.00	100.00	100.00	100.00	52.50	48.00	45.00	45.00	45.00	46.50	60.00	64.29	70.29	72.86	72.86	
68.75	100.00	100.00	100.00	100.00	65.00	60.00	62.00	62.00	64.00	70.00	77.00	85.00	90.00	75.00	72.00	
75.00	100.00	100.00	100.00	100.00	65.00	60.00	62.00	62.00	64.00	70.00	77.00	85.00	90.00	75.00	72.00	
81.25	100.00	100.00	100.00	100.00	65.00	60.00	62.00	62.00	64.00	70.00	77.00	85.00	90.00	75.00	72.00	
87.50	100.00	100.00	100.00	100.00	65.00	60.00	62.00	62.00	64.00	70.00	77.00	85.00	90.00	75.00	72.00	
93.75	100.00	100.00	100.00	100.00	65.00	60.00	62.00	62.00	64.00	70.00	77.00	85.00	90.00	75.00	72.00	
100.00	100.00	100.00	100.00	100.00	65.00	60.00	62.00	62.00	64.00	70.00	77.00	85.00	90.00	75.00	72.00	
Accelerator Pedal Position (%) - Read-only																
																Duty Cycle (%)