



Automotive Electronics Services, Inc.

3849 N Fine Ave #102 Fresno CA 93727

877-351-9573

www.aeswave.com

This chart shows typical calculated air flow for different engine sizes and RPM conditions. It used in PWR's seminar titled, "OBDII Top 10 Codes." Note: The bottom of the chart shows Idle Calculated Air Flow.

Calculated Air Flow Chart															
Courtesy of: PWR Training															
Wide-Open-Throttle - Calculated Air Flow @ 80% Volumetric Efficiency															
	Engine Displacement Liters														
RPM	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8
600	4.7	7.1	9.5	11.8	14.2	16.6	18.9	21	24	26	28	31	33	36	38
1,000	7.9	11.8	15.8	19.7	24	28	32	36	39	43	47	51	55	59	63
1,500	11.8	17.8	24	30	36	41	47	53	59	65	71	77	83	89	95
2,000	15.8	24	32	39	47	55	63	71	79	87	95	103	111	118	126
2,500	20	30	39	49	59	69	79	89	99	109	118	128	138	148	158
3,000	24	36	47	59	71	83	95	107	118	130	142	154	166	178	189
3,500	28	41	55	69	83	97	111	124	138	152	166	180	193	207	221
4,000	32	47	63	79	95	111	126	142	158	174	189	205	221	237	253
4,500	36	53	71	89	107	124	142	160	178	195	213	231	249	266	284
5,000	39	59	79	99	118	138	158	178	197	217	237	257	276	296	316
5,500	43	65	87	109	130	152	174	195	217	239	260	282	304	326	347
6,000	47	71	95	118	142	166	189	213	237	260	284	308	332	355	379
Idle - Calculated Air Flow @ 100% Volumetric Efficiency & 10.0" MAP															
	Engine Displacement Liters														
RPM	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8
600	1.97	2.97	3.93	4.93	5.93	6.90	7.90	8.87	9.87	10.87	11.67	12.83	13.80	14.80	15.80
Idle - Calculated Air Flow @ 50% Volumetric Efficiency & 10.0" MAP															
	Engine Displacement Liters														
RPM	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8
600	0.98	1.48	1.97	2.47	2.97	3.45	3.95	4.43	4.93	5.43	5.83	6.42	6.90	7.40	7.90

Always check a MAF sensor with the engine running and warmed up at idle to see if the value makes sense. If it does not look for unmetered air or a MAF sensor/circuit problem.

Secondly, MAF should be checked at 5,000 RPM wide open throttle. Compare to the chart above (corrections need to be made for higher altitude). If the reading is incorrect further diagnosis is needed to determine if an actual air flow problem exists or if the MAF sensor/circuit is at fault.

If you clean a sensor (not recommended for anything more than diagnosis) then you should retest after the cleaning to be sure that the sensor is reasonably near the original flow specification.

Catch a Wave!