

Fueling ratios for E-70, E-85 and E-100

Most O2 sensor readings are calibrated for gasoline

Therefore use table to relate target fuel ratio back to gasoline

Lamda	A/F Gas	A/F E-70	A/F E-85	A/F E-100		
1.027	15.1	10.89	10.03	9.25		
1.014	14.9	10.74	9.90	9.13		
1.000	14.700	10.600	9.765	9.0078	Stoichiometric	
0.986	14.5	10.46	9.63	8.89		
0.973	14.3	10.31	9.50	8.76		
0.959	14.1	10.17	9.37	8.64		
0.946	13.9	10.02	9.23	8.52		
0.932	13.7	9.88	9.10	8.40		
0.918	13.5	9.73	8.97	8.27		
0.905	13.3	9.59	8.84	8.15	Gasoline max power lean	13.230
0.891	13.1	9.45	8.70	8.03		
0.878	12.9	9.30	8.57	7.90		
0.864	12.7	9.16	8.44	7.78	E-85 max power lean	8.469
0.850	12.5	9.01	8.30	7.66	Gasoline max power rich	12.500
0.837	12.3	8.87	8.17	7.54		
0.823	12.1	8.73	8.04	7.41		
0.810	11.9	8.58	7.91	7.29		
0.796	11.7	8.44	7.77	7.17	E-100 max power lean	7.800
0.782	11.5	8.29	7.64	7.05		
0.769	11.3	8.15	7.51	6.92		
0.755	11.1	8.00	7.37	6.80		
0.741	10.9	7.86	7.24	6.68		
0.728	10.7	7.72	7.11	6.56		
0.714	10.5	7.57	6.98	6.43	E-85 max power rich	6.975
0.701	10.3	7.43	6.84	6.31		
0.687	10.1	7.28	6.71	6.19		
0.673	9.9	7.14	6.58	6.07		
0.660	9.7	6.99	6.44	5.94	E-100 max power rich	6.429
0.646	9.5	6.85	6.31	5.82		
0.633	9.3	6.71	6.18	5.70		

Injector adjustments	Winter	Summer	Ethanol
Fuel to add	1	1.387	1.505
	=gas/1	=gas/1.4	=gas/1.5
Injector	83	59.9	55.1
			50.9 (lbs/hr)

For a gasoline gct file using 83 lb/hr injectors to add adequate fuel for
E-85 summer blend change the injector size in the computer to 55 lb/hr injectors

The pH of 100% ethanol is 7.33, compared to 7.00 for pure water. Slightly basic