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Emission Test Driving Schedules

SAE Information Report
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EMISSION TEST DRIVING SCHEDULES

1. SCOPE:

This SAE Information Report describes various dynamometer driving schedules currently in use in the world for measurement of exhaust emissions and fuel economy of passenger cars and light trucks. Issuance of this information report will allow driving schedules to be deleted from individual test procedures, thus reducing the amount of repeated information in the SAE Handbook.

This information report includes:

- 1 - Descriptions of driving schedules.
- 2 - Second-by second definition of speed versus time sequences.

2. DESCRIPTIONS OF DRIVING SCHEDULES:

- 2.1 United States (US) 1972 Schedule; Also Known as EPA Urban Dynamometer Driving Schedule (UDDS), 1972 Federal Test Procedure (FTP) Schedule, LA-4 Schedule, or Swedish A10 Test Schedule: This test schedule requires 1372 seconds to complete and covers a distance of 7.5 miles (12.1 km) at an average speed of 19.55 mph (31.46 km/h). A second-by-second description of this schedule is shown in Table I. The driving schedule is defined by a smooth curve drawn through the specified speed versus time relationship.
- 2.2 505 Schedule: This schedule consists of the first 505 s of the US 1972 Schedule and covers a distance of 3.59 miles (5.78 km). The average speed of this schedule is 25.6 mph (41.2 km/h). This schedule can be run from a cold start, but is normally run with a fully warmed-up vehicle and is then referred to as a Hot 505 Schedule. There is a 10-minute "hot soak", where the fully warmed-up vehicle is at rest with the engine and cooling fan off, and the hood closed, just prior to the engine start. This driving schedule is often used for emissions development work.

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- 2.3 US 1975 Schedule, or 1975 FTP Schedule: This schedule consists of a 1972 FTP Schedule, followed by a 10-minute hot soak, followed by a repeat of the first 505 s of the 1972 FTP Schedule (505 Schedule). This same driving schedule is retained in the 1978 revisions to the US Federal regulations (40 CFR 6.144-78), so it is also sometimes called the 1978 schedule. Effective in 1978, the actual distance driven using this driving schedule, rather than the theoretical distance is used in the calculation of official exhaust emission and "city" fuel economy values.
- 2.4 Highway Fuel Economy Test Schedule (HWFET): This schedule consists of two 765 s driving cycles, with emissions collected during the second cycle only. The average speed of each 10.2 mile (16.4 km) cycle is 48.6 mph (78.2 km/h). A second-by-second description of this cycle is shown in Table 2. This schedule is used in the US to obtain the official "highway" fuel economy figures.
- 2.5 Economic Commission for Europe (ECE) R15.04 Schedule: This test schedule is run in official certification for exhaust emissions and fuel economy of vehicles offered for sale in many European countries. This schedule can be run hot or cold, and is run 4 times in succession. There are small differences in the schedule depending on whether the vehicle has a manual or an automatic transmission. The schedule covers a total distance of 4.06 km (2.52 miles) at an average speed of 18.7 km/h (11.6 mph) with a manual transmission vehicle and 3.98 (2.47 miles) at an average speed of 18.4 km/h (11.4 mph) with an automatic transmission vehicle. Emissions are not collected during an initial 40-s idle period. A second-by-second description of this schedule is shown in Tables 3A and 3B, for manual and automatic transmission equipped vehicles, respectively.
- 2.6 Japanese 10-Mode Test Schedule: This driving schedule is part of the official vehicle emissions test used for Japanese certification. This schedule is driven with a fully warmed-up vehicle following a 10 km (6 mile) preconditioning. A second-by-second description of the schedule is shown in Table 4. The schedule is run 6 times in succession, with the exhaust gas sampled only during the last five times. The distance traveled during these last 5 times is 3.32 km (2.06 miles) with an average speed of 18 km/h (11.2 mph).
- 2.7 Japanese 11-Mode Test Schedule: This driving schedule is part of the official vehicle emissions test used for Japanese certification for vehicles built after the 1976 model year. This schedule is driven from a cold start. A second-by-second description of the schedule is shown in Table 5. The schedule is run 4 times in succession. The total distance traveled is then 4.08 km (2.54 miles) at an average speed of 30.6 km/h (19.0 mph).

TABLE 1 - US 1972 Schedule

Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)
0	0.0	0.0	98	29.5	47.5	196	36.2	58.2	294	50.1	80.6	392	14.5	23.3	490	34.6	55.7
1	0.0	0.0	99	29.8	47.9	197	37.3	60.0	295	50.0	80.4	393	12.0	19.3	491	34.5	55.5
2	0.0	0.0	100	30.3	48.8	198	39.3	63.2	296	49.6	79.8	394	8.7	14.0	492	33.5	53.9
3	0.0	0.0	101	30.7	49.4	199	40.5	65.2	297	49.5	79.6	395	5.4	8.7	493	32.0	51.4
4	0.0	0.0	102	30.9	49.7	200	42.1	67.7	298	49.5	79.6	396	2.1	3.4	494	30.1	48.4
5	0.0	0.0	103	31.0	49.9	201	43.5	70.0	299	49.5	79.6	397	0.0	0.0	495	28.0	45.1
6	0.0	0.0	104	30.9	49.7	202	45.1	72.6	300	49.1	79.0	398	0.0	0.0	496	25.5	41.0
7	0.0	0.0	105	30.4	48.9	203	46.0	74.0	301	48.6	78.2	399	0.0	0.0	497	22.5	36.2
8	0.0	0.0	106	29.8	47.9	204	46.8	75.3	302	48.1	77.4	400	0.0	0.0	498	19.8	31.9
9	0.0	0.0	107	29.9	48.1	205	47.5	76.4	303	47.2	75.9	401	0.0	0.0	499	16.5	26.5
10	0.0	0.0	108	30.2	48.6	206	47.5	76.4	304	46.1	74.2	402	0.0	0.0	500	13.2	21.2
11	0.0	0.0	109	30.7	49.4	207	47.3	76.1	305	45.0	72.4	403	2.6	4.2	501	10.3	16.6
12	0.0	0.0	110	31.2	50.2	208	47.2	75.9	306	43.8	70.5	404	5.9	9.5	502	7.2	11.6
13	0.0	0.0	111	31.8	51.2	209	47.0	75.6	307	42.6	68.5	405	9.2	14.8	503	4.0	6.4
14	0.0	0.0	112	32.2	51.8	210	47.0	75.6	308	41.5	66.8	406	12.5	20.1	504	1.0	1.6
15	0.0	0.0	113	32.4	52.1	211	47.0	75.6	309	40.3	64.8	407	15.8	25.4	505	0.0	0.0
16	0.0	0.0	114	32.2	51.8	212	47.0	75.6	310	38.5	61.9	408	19.1	30.7	506	0.0	0.0
17	0.0	0.0	115	31.7	51.0	213	47.0	75.6	311	37.0	59.5	409	22.4	36.0	507	0.0	0.0
18	0.0	0.0	116	28.6	46.0	214	47.2	75.9	312	35.2	56.6	410	25.0	40.2	508	0.0	0.0
19	0.0	0.0	117	25.3	40.7	215	47.4	76.3	313	33.8	54.4	411	25.6	41.2	509	0.0	0.0
20	0.0	0.0	118	22.0	35.4	216	47.9	77.1	314	32.5	52.3	412	27.5	44.2	510	0.0	0.0
21	3.0	4.8	119	18.7	30.1	217	48.5	78.0	315	31.5	50.7	413	29.0	46.7	511	1.2	1.9
22	5.9	9.5	120	15.4	24.8	218	49.1	79.0	316	30.6	49.2	414	30.0	48.3	512	3.5	5.6
23	8.6	13.8	121	12.1	19.5	219	49.5	79.6	317	30.5	49.1	415	30.1	48.4	513	5.5	8.8
24	11.5	18.5	122	8.8	14.2	220	50.0	80.4	318	30.0	48.3	416	30.0	48.3	514	6.5	10.5
25	14.3	23.0	123	5.5	8.8	221	50.6	81.4	319	29.0	46.7	417	29.7	47.8	515	8.5	13.7
26	16.9	27.2	124	2.2	3.5	222	51.0	82.1	320	27.5	44.2	418	29.3	47.1	516	9.6	15.4
27	17.3	27.8	125	0.0	0.0	223	51.5	82.9	321	24.8	39.9	419	28.8	46.3	517	10.5	16.9
28	18.1	29.1	126	0.0	0.0	224	52.2	84.0	322	21.5	34.6	420	28.0	45.1	518	11.9	19.1
29	20.7	33.3	127	0.0	0.0	225	53.2	85.6	323	20.1	32.3	421	25.0	40.2	519	14.0	22.5
30	21.7	34.9	128	0.0	0.0	226	54.1	87.0	324	19.1	30.7	422	21.7	34.9	520	16.0	25.7
31	22.4	36.0	129	0.0	0.0	227	54.6	87.9	325	18.5	29.8	423	18.4	29.6	521	17.7	28.5
32	22.5	36.2	130	0.0	0.0	228	54.9	88.3	326	17.0	27.4	424	15.1	24.3	522	19.0	30.6
33	22.1	35.6	131	0.0	0.0	229	55.0	88.5	327	15.5	24.9	425	11.8	19.0	523	20.1	32.3
34	21.5	34.6	132	0.0	0.0	230	54.9	88.3	328	12.5	20.1	426	8.5	13.7	524	21.0	33.8
35	20.9	33.6	133	0.0	0.0	231	54.6	87.9	329	10.8	17.4	427	5.2	8.4	525	22.0	35.4
36	20.4	32.8	134	0.0	0.0	232	54.6	87.9	330	8.0	12.9	428	1.9	3.1	526	23.0	37.0
37	19.8	31.9	135	0.0	0.0	233	54.8	88.2	331	4.7	7.6	429	0.0	0.0	527	23.8	38.3
38	17.0	27.4	136	0.0	0.0	234	55.1	88.7	332	1.4	2.3	430	0.0	0.0	528	24.5	39.4
39	14.9	24.0	137	0.0	0.0	235	55.5	89.3	333	0.0	0.0	431	0.0	0.0	529	24.9	40.1
40	14.9	24.0	138	0.0	0.0	236	55.7	89.6	334	0.0	0.0	432	0.0	0.0	530	25.0	40.2
41	15.2	24.5	139	0.0	0.0	237	56.1	90.3	335	0.0	0.0	433	0.0	0.0	531	25.0	40.2
42	15.5	24.9	140	0.0	0.0	238	56.3	90.6	336	0.0	0.0	434	0.0	0.0	532	25.0	40.2
43	16.0	25.7	141	0.0	0.0	239	56.6	91.1	337	0.0	0.0	435	0.0	0.0	533	25.0	40.2
44	17.1	27.5	142	0.0	0.0	240	56.7	91.2	338	0.0	0.0	436	0.0	0.0	534	25.0	40.2
45	19.1	30.7	143	0.0	0.0	241	56.7	91.2	339	0.0	0.0	437	0.0	0.0	535	25.0	40.2
46	21.1	33.9	144	0.0	0.0	242	56.5	90.9	340	0.0	0.0	438	0.0	0.0	536	25.6	41.2
47	22.7	36.5	145	0.0	0.0	243	56.5	90.9	341	0.0	0.0	439	0.0	0.0	537	25.8	41.5
48	22.9	36.8	146	0.0	0.0	244	56.5	90.9	342	0.0	0.0	440	0.0	0.0	538	26.0	41.8
49	22.7	36.5	147	0.0	0.0	245	56.5	90.9	343	0.0	0.0	441	0.0	0.0	539	25.6	41.2

TABLE 1 - US 1972 Schedule (Continued)

Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)
50	22.6	36.4	148	0.0	0.0	246	56.5	90.9	344	0.0	0.0	442	0.0	0.0	540	25.2	40.5	638	0.0	0.0
51	21.3	34.3	149	0.0	0.0	247	56.5	90.9	345	0.0	0.0	443	0.0	0.0	541	25.0	40.2	639	0.0	0.0
52	19.0	30.6	150	0.0	0.0	248	56.1	90.3	346	0.0	0.0	444	0.0	0.0	542	25.0	40.2	640	0.0	0.0
53	17.1	27.5	151	0.0	0.0	249	56.1	90.3	347	1.0	1.6	445	0.0	0.0	543	25.0	40.2	641	0.0	0.0
54	15.8	25.4	152	0.0	0.0	250	55.8	89.8	348	4.3	6.9	446	0.0	0.0	544	24.4	39.3	642	0.0	0.0
55	15.8	25.4	153	0.0	0.0	251	55.1	88.7	349	7.6	12.2	447	0.0	0.0	545	23.1	37.2	643	0.0	0.0
56	17.7	28.5	154	0.0	0.0	252	54.6	87.9	350	10.9	17.5	448	3.3	5.3	546	19.8	31.9	644	0.0	0.0
57	19.8	31.9	155	0.0	0.0	253	54.2	87.2	351	14.2	22.8	449	6.6	10.6	547	16.5	26.5	645	0.0	0.0
58	21.6	34.8	156	0.0	0.0	254	54.0	86.9	352	17.3	27.8	450	9.9	15.9	548	13.2	21.2	646	2.0	3.2
59	23.2	37.3	157	0.0	0.0	255	53.7	86.4	353	20.0	32.2	451	13.2	11.2	549	9.9	15.9	647	4.5	7.2
60	24.2	38.9	158	0.0	0.0	256	53.6	86.2	354	22.5	36.2	452	16.5	26.5	550	6.6	10.6	648	7.8	12.6
61	24.6	39.6	159	0.0	0.0	257	53.9	86.7	355	23.7	38.1	453	19.8	31.9	551	3.3	5.3	649	10.2	16.4
62	24.9	40.1	160	0.0	0.0	258	54.0	86.9	356	25.2	40.5	454	23.1	37.2	552	0.0	0.0	650	12.5	20.1
63	25.0	40.2	161	0.0	0.0	259	54.1	87.0	357	26.6	42.8	455	26.4	42.5	553	0.0	0.0	651	14.0	22.5
64	24.6	39.6	162	0.0	0.0	260	54.1	87.0	358	28.1	45.2	456	27.8	44.7	554	0.0	0.0	652	15.3	24.6
65	24.5	39.4	163	0.0	0.0	261	53.8	86.6	359	30.0	48.3	457	29.1	46.8	555	0.0	0.0	653	17.5	28.2
66	24.7	39.7	164	3.3	5.3	262	53.4	85.9	360	30.8	49.6	458	31.5	50.7	556	0.0	0.0	654	19.6	31.5
67	24.8	39.9	165	6.6	10.6	263	53.0	85.3	361	31.6	50.8	459	33.0	53.1	557	0.0	0.0	655	21.0	33.8
68	24.7	39.7	166	9.9	15.9	264	52.6	84.6	362	32.1	51.6	460	33.6	54.1	558	0.0	0.0	656	22.2	35.7
69	24.6	39.6	167	13.2	21.2	265	52.1	83.8	363	32.8	52.8	461	34.8	56.0	559	0.0	0.0	657	23.3	37.5
70	24.6	39.6	168	16.5	26.5	266	52.4	84.3	364	33.6	54.1	462	35.1	56.5	560	0.0	0.0	658	24.5	39.4
71	25.1	40.4	169	19.8	31.9	267	52.0	83.7	365	34.5	55.5	463	35.6	57.3	561	0.0	0.0	659	25.3	40.7
72	25.6	41.2	170	22.2	35.7	268	51.9	83.5	366	34.6	55.7	464	36.1	58.1	562	0.0	0.0	660	25.6	41.2
73	25.7	41.4	171	24.3	39.1	269	51.5	83.2	367	34.9	56.2	465	36.0	57.9	563	0.0	0.0	661	26.0	41.8
74	25.4	40.9	172	25.8	41.5	270	51.7	82.9	368	34.8	56.0	466	36.1	58.1	564	0.0	0.0	662	26.1	42.0
75	24.9	40.1	173	26.4	42.5	271	51.6	83.0	369	34.5	55.5	467	36.2	58.2	565	0.0	0.0	663	26.2	42.2
76	25.0	40.2	174	25.7	41.4	272	51.8	83.3	370	34.7	55.8	468	36.0	57.9	566	0.0	0.0	664	26.2	42.2
77	25.4	40.9	175	25.1	40.4	273	52.1	83.8	371	35.5	57.1	469	35.7	57.4	567	0.0	0.0	665	26.4	42.5
78	26.0	41.8	176	24.7	39.7	274	52.5	84.5	372	36.0	57.9	470	36.0	57.9	568	0.0	0.0	666	26.5	42.6
79	26.0	41.8	177	25.0	40.2	275	53.0	85.3	373	36.0	57.9	471	36.0	57.9	569	3.3	5.3	667	26.5	42.6
80	25.7	41.4	178	25.2	40.5	276	53.5	86.1	374	36.0	57.9	472	35.6	57.3	570	6.6	10.6	668	26.0	41.8
81	26.1	42.0	179	25.4	40.9	277	54.0	86.9	375	36.0	57.9	473	35.5	57.1	571	9.9	15.9	669	25.5	41.0
82	26.7	43.0	180	25.8	41.5	278	54.9	88.3	376	36.0	57.9	474	35.4	57.0	572	13.0	20.9	670	23.6	38.0
83	27.5	44.2	181	27.2	43.8	279	55.4	89.1	377	36.0	57.9	475	35.2	56.6	573	14.6	23.5	671	21.4	34.4
84	28.6	46.0	182	26.5	42.6	280	55.6	89.5	378	36.1	58.1	476	35.2	56.6	574	16.0	25.7	672	18.5	29.8
85	29.3	47.1	183	24.0	38.6	281	56.0	90.1	379	36.4	58.6	477	35.2	56.6	575	17.0	27.4	673	16.4	26.4
86	29.8	47.9	184	22.7	36.5	282	56.0	90.1	380	36.5	58.7	478	35.2	56.6	576	17.0	27.4	674	14.5	23.3
87	30.1	48.4	185	19.4	31.2	283	55.8	89.8	381	36.4	58.6	479	35.2	56.6	577	17.0	27.4	675	11.6	18.7
88	30.4	48.9	186	17.7	28.5	284	55.2	88.8	382	36.0	57.9	480	35.2	56.6	578	17.5	28.2	676	8.7	14.0
89	30.7	49.4	187	17.2	27.7	285	54.5	87.7	383	35.1	56.5	481	35.0	56.3	579	17.7	28.5	677	5.8	9.3
90	30.7	49.4	188	18.1	29.1	286	53.6	86.2	384	34.1	54.9	482	35.1	56.5	580	17.7	28.5	678	3.5	5.6
91	30.5	49.1	189	18.6	29.9	287	52.5	84.5	385	33.5	53.9	483	35.2	56.6	581	17.5	28.2	679	2.0	3.2
92	30.4	48.9	190	20.0	32.2	288	51.5	82.9	386	31.4	50.5	484	35.5	57.1	582	17.0	27.4	680	0.0	0.0
93	30.3	48.8	191	22.2	35.7	289	51.5	82.9	387	29.0	46.7	485	35.2	56.6	583	16.9	27.2	681	0.0	0.0
94	30.4	48.9	192	24.5	39.4	290	51.5	82.9	388	25.7	41.4	486	35.0	56.3	584	16.6	26.7	682	0.0	0.0
95	30.8	49.6	193	27.3	43.9	291	51.1	82.2	389	23.0	37.0	487	35.0	56.3	585	17.0	27.4	683	0.0	0.0
96	30.4	48.9	194	30.5	49.1	292	50.1	80.6	390	20.3	32.7	488	35.0	56.3	586	17.1	27.5	684	0.0	0.0
97	29.9	48.1	195	33.5	53.9	293	50.0	80.4	391	17.5	28.2	489	34.8	56.0	587	17.0	27.4	685	0.0	0.0

TABLE 1 - US 1972 Schedule (Continued)

Time		Speed		Time		Speed		Time		Speed		Time		Speed		Time		Speed			
(s)	(mph)	(km/h)	(km/h)	(s)	(mph)	(km/h)	(km/h)	(s)	(mph)	(km/h)	(km/h)	(s)	(mph)	(km/h)	(km/h)	(s)	(mph)	(km/h)	(km/h)		
686	0.0	0.0	46.5	882	28.9	46.5	882	28.9	46.5	980	27.5	44.2	1078	21.5	34.6	1176	23.0	37.0	1274	21.8	35.1
687	0.0	0.0	46.5	883	28.5	45.9	883	28.5	45.9	981	27.2	43.8	1079	20.6	33.1	1177	23.5	37.8	1275	22.2	35.7
688	0.0	0.0	46.3	884	28.1	45.2	884	28.1	45.2	982	26.8	43.1	1080	18.0	29.0	1178	22.0	36.2	1276	23.0	37.0
689	0.0	0.0	45.9	885	28.0	45.1	885	28.0	45.1	983	26.5	42.6	1081	15.0	24.1	1179	22.5	37.0	1277	23.6	38.0
690	0.0	0.0	45.5	886	28.0	45.1	886	28.0	45.1	984	26.0	41.8	1082	12.3	19.8	1180	20.0	32.2	1278	24.1	38.8
691	0.0	0.0	45.5	887	27.6	44.4	887	27.6	44.4	985	25.7	41.4	1083	11.1	17.9	1181	16.7	26.9	1279	24.5	39.4
692	0.0	0.0	45.5	888	27.2	43.8	888	27.2	43.8	986	25.2	40.5	1084	10.6	17.1	1182	13.4	21.6	1280	24.5	39.4
693	0.0	0.0	45.4	889	26.6	42.8	889	26.6	42.8	987	24.0	38.6	1085	10.0	16.1	1183	10.1	16.3	1281	24.0	38.6
694	1.4	2.3	44.4	890	27.0	43.4	890	27.0	43.4	988	22.0	35.4	1086	9.5	15.3	1184	6.8	10.9	1282	23.5	37.8
695	3.4	5.3	44.2	891	27.5	44.2	891	27.5	44.2	989	21.5	34.6	1087	9.1	14.6	1185	3.5	5.6	1283	23.5	37.8
696	4.4	7.1	44.2	892	27.8	44.7	892	27.8	44.7	990	21.5	34.6	1088	8.7	14.0	1186	0.2	0.3	1284	23.5	37.8
697	6.5	10.5	44.2	893	28.0	45.1	893	28.0	45.1	991	21.8	35.1	1089	8.6	13.8	1187	0.0	0.0	1285	23.5	37.8
698	9.2	14.8	44.2	894	27.8	44.7	894	27.8	44.7	992	22.5	36.2	1090	8.8	14.2	1188	0.0	0.0	1286	23.5	37.8
699	11.3	18.2	44.2	895	28.0	45.1	895	28.0	45.1	993	23.0	37.0	1091	9.0	14.5	1189	0.0	0.0	1287	23.5	37.8
700	13.5	21.7	44.2	896	28.0	45.1	896	28.0	45.1	994	22.8	36.7	1092	8.7	14.0	1190	0.0	0.0	1288	24.0	38.6
701	14.6	23.5	44.4	897	28.0	45.1	897	28.0	45.1	995	22.8	36.7	1093	8.6	13.8	1191	0.0	0.0	1289	24.1	38.8
702	16.4	26.4	45.1	898	27.7	44.6	898	27.7	44.6	996	23.0	37.0	1094	8.0	12.9	1192	0.0	0.0	1290	24.5	39.4
703	16.7	26.9	45.9	899	27.4	44.1	899	27.4	44.1	997	22.7	36.5	1095	7.0	11.3	1193	0.0	0.0	1291	24.7	39.7
704	16.5	26.5	48.3	900	26.9	43.3	900	26.9	43.3	998	22.7	36.5	1096	5.0	8.0	1194	0.0	0.0	1292	25.0	40.2
705	16.5	26.5	49.9	901	26.6	42.8	901	26.6	42.8	999	22.7	36.5	1097	4.2	6.8	1195	0.0	0.0	1293	25.4	40.9
706	18.2	29.3	51.5	902	26.5	42.6	902	26.5	42.6	1000	23.0	37.8	1098	2.6	4.2	1196	0.0	0.0	1294	25.6	41.2
707	19.2	30.9	53.1	903	26.5	42.6	903	26.5	42.6	1001	24.0	38.6	1099	1.0	1.6	1197	0.2	0.3	1295	25.7	41.4
708	20.1	32.3	53.1	904	26.5	42.6	904	26.5	42.6	1002	24.6	39.6	1100	0.0	0.0	1198	1.5	2.4	1296	26.0	41.8
709	21.5	34.6	54.1	905	26.3	42.3	905	26.3	42.3	1003	24.8	39.9	1101	0.1	0.2	1199	3.5	5.6	1297	26.2	42.2
710	22.5	36.2	54.7	906	26.2	42.2	906	26.2	42.2	1004	25.1	40.4	1102	0.6	1.0	1200	6.5	10.5	1298	27.0	43.4
711	22.5	36.2	55.2	907	26.2	42.2	907	26.2	42.2	1005	25.5	41.0	1103	1.6	2.6	1201	9.8	15.8	1299	27.8	44.7
712	22.1	35.6	55.0	908	25.9	41.7	908	25.9	41.7	1006	25.6	41.2	1104	3.6	5.8	1202	12.0	19.3	1300	28.3	45.5
713	22.7	36.5	54.7	909	25.6	41.2	909	25.6	41.2	1007	25.5	41.0	1105	6.9	11.1	1203	12.9	20.8	1301	29.0	46.7
714	23.3	37.5	54.7	910	25.6	41.2	910	25.6	41.2	1008	25.0	40.2	1106	10.0	16.1	1204	13.0	20.9	1302	29.1	46.8
715	23.5	37.8	54.5	911	25.9	41.7	911	25.9	41.7	1009	24.1	38.8	1107	12.8	20.6	1205	12.6	20.3	1303	29.0	46.7
716	22.5	36.2	54.1	912	25.8	41.5	912	25.8	41.5	1010	23.7	38.1	1108	14.0	22.5	1206	12.8	20.6	1304	28.0	45.1
717	21.6	34.8	53.3	913	25.5	41.0	913	25.5	41.0	1011	23.2	37.3	1109	14.5	23.3	1207	13.1	21.1	1305	24.7	39.7
718	20.5	33.0	53.1	914	24.6	39.6	914	24.6	39.6	1012	22.9	36.8	1110	16.0	25.7	1208	13.1	21.1	1306	21.4	34.4
719	18.0	29.0	52.3	915	23.5	37.8	915	23.5	37.8	1013	22.5	36.2	1111	18.1	29.1	1209	14.0	22.5	1307	18.1	29.1
720	15.0	24.1	51.5	916	22.2	35.7	916	22.2	35.7	1014	22.0	35.4	1112	20.0	32.2	1210	15.5	24.9	1308	14.8	23.8
721	12.0	19.3	51.3	917	21.6	34.8	917	21.6	34.8	1015	21.6	34.8	1113	21.0	33.8	1211	17.0	27.4	1309	11.5	18.5
722	9.0	14.5	50.8	918	21.6	34.8	918	21.6	34.8	1016	20.5	33.0	1114	21.2	34.1	1212	18.6	29.9	1310	8.2	13.2
723	6.2	10.0	50.7	919	21.7	34.9	919	21.7	34.9	1017	17.5	28.2	1115	21.3	34.3	1213	19.7	31.7	1311	4.9	7.9
724	4.5	7.2	49.2	920	22.6	36.4	920	22.6	36.4	1018	14.2	22.8	1116	21.4	34.4	1214	21.0	33.8	1312	1.6	2.6
725	3.0	4.8	49.3	921	23.4	37.7	921	23.4	37.7	1019	10.9	17.5	1117	21.7	34.9	1215	21.5	34.6	1313	0.0	0.0
726	2.1	3.4	48.1	922	24.0	38.6	922	24.0	38.6	1020	7.6	12.2	1118	22.5	36.2	1216	21.8	35.1	1314	0.0	0.0
727	0.5	0.8	48.1	923	24.2	38.9	923	24.2	38.9	1021	4.3	6.9	1119	23.0	37.0	1217	21.8	35.1	1315	0.0	0.0
728	0.5	0.8	48.1	924	24.4	39.3	924	24.4	39.3	1022	1.0	1.6	1120	23.8	38.3	1218	21.5	34.6	1316	0.0	0.0
729	3.2	5.1	48.1	925	24.9	40.1	925	24.9	40.1	1023	0.0	0.0	1121	24.5	39.4	1219	21.2	34.1	1317	0.0	0.0
730	6.5	10.5	47.6	926	25.1	40.4	926	25.1	40.4	1024	0.0	0.0	1122	25.0	40.2	1220	21.5	34.6	1318	0.0	0.0
731	9.6	15.4	47.5	927	25.2	40.5	927	25.2	40.5	1025	0.0	0.0	1123	24.9	40.1	1221	21.8	35.1	1319	0.0	0.0
732	12.5	20.1	47.1	928	25.3	40.7	928	25.3	40.7	1026	0.0	0.0	1124	24.8	39.9	1222	22.0	35.4	1320	0.0	0.0
733	14.0	22.5	47.1	929	25.5	41.0	929	25.5	41.0	1027	0.0	0.0	1125	25.0	40.2	1223	21.9	35.2	1321	0.0	0.0
734	16.0	25.7	46.5	930	25.4	40.5	930	25.4	40.5	1028	0.0	0.0	1126	25.4	40.9	1224	21.7	34.9	1322	0.0	0.0
735	18.0	29.0	45.4	931	25.0	40.2	931	25.0	40.2	1029	0.0	0.0	1127	25.8	41.5	1225	21.5	34.6	1323	0.0	0.0

[illegible]

TABLE 2 - Highway Fuel Economy Test Schedule

Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)
0	0.0	0.0	90	46.3	74.5	180	43.1	69.4	270	46.7	75.2	360	57.4	92.4	450	58.2	93.7
1	0.0	0.0	91	46.2	74.4	181	42.2	67.9	271	46.2	74.4	361	57.2	92.1	451	58.1	93.5
2	0.0	0.0	92	46.3	74.5	182	41.5	66.8	272	46.0	74.0	362	57.1	91.9	452	58.0	93.3
3	2.0	3.2	93	46.5	74.8	183	41.5	66.8	273	45.8	73.7	363	57.0	91.7	453	58.0	93.3
4	4.9	7.9	94	46.9	75.5	184	42.1	67.8	274	45.6	73.4	364	57.0	91.7	454	58.0	93.3
5	8.1	13.0	95	47.1	75.8	185	42.9	69.0	275	45.4	73.1	365	56.9	91.6	455	58.0	93.3
6	11.3	18.2	96	47.4	76.3	186	43.5	70.0	276	45.2	72.7	366	56.9	91.6	456	58.0	93.3
7	14.5	23.3	97	47.7	76.8	187	43.9	70.7	277	45.0	72.4	367	56.9	91.6	457	58.0	93.3
8	17.3	27.8	98	48.0	77.2	188	43.6	70.2	278	44.7	71.9	368	57.0	91.7	458	57.9	93.2
9	19.6	31.5	99	48.2	77.6	189	43.3	69.7	279	44.5	71.6	369	57.0	91.7	459	57.9	93.2
10	21.8	35.1	100	48.5	78.1	190	43.0	69.2	280	44.2	71.1	370	57.0	91.7	460	58.0	93.3
11	24.0	38.6	101	48.8	78.5	191	43.1	69.4	281	43.5	70.0	371	57.0	91.7	461	58.1	93.5
12	25.8	41.5	102	49.1	79.0	192	43.4	69.8	282	42.8	68.9	372	57.0	91.7	462	58.1	93.5
13	27.1	43.6	103	49.2	79.2	193	43.9	70.3	283	42.0	67.6	373	57.0	91.7	463	58.2	93.7
14	28.8	45.1	104	49.1	79.0	194	44.3	71.3	284	40.1	64.5	374	57.0	91.7	464	58.3	93.8
15	29.9	46.7	105	49.1	79.0	195	44.6	71.8	285	38.6	62.1	375	57.0	91.7	465	58.3	93.8
16	30.0	48.3	106	49.0	78.9	196	44.9	72.3	286	37.5	60.4	376	57.0	91.7	466	58.3	93.8
17	30.7	49.4	107	49.0	78.9	197	44.8	72.1	287	35.8	57.6	377	56.9	91.6	467	58.2	93.7
18	31.5	50.7	108	49.1	79.0	198	44.4	71.5	288	34.7	55.8	378	56.8	91.4	468	58.1	93.5
19	32.2	51.8	109	49.2	79.2	199	43.9	70.7	289	34.0	54.7	379	56.5	90.9	469	58.0	93.3
20	32.9	52.9	110	49.3	79.3	200	43.4	69.8	290	33.3	53.6	380	56.2	90.4	470	57.8	93.0
21	33.5	53.9	111	49.4	79.5	201	43.2	69.5	291	32.5	52.3	381	56.0	90.1	471	57.5	92.5
22	34.1	54.9	112	49.5	79.7	202	43.2	69.5	292	31.7	51.0	382	56.0	90.1	472	57.1	91.9
23	34.6	55.7	113	49.5	79.7	203	43.1	69.4	293	30.6	49.2	383	56.0	90.1	473	57.0	91.7
24	34.9	56.2	114	49.5	79.7	204	43.0	69.2	294	29.6	47.6	384	56.1	90.3	474	56.6	91.1
25	35.1	56.5	115	49.4	79.5	205	43.0	69.2	295	28.8	46.3	385	56.4	90.8	475	56.1	90.3
26	35.7	57.5	116	49.1	79.0	206	43.1	69.4	296	28.4	45.7	386	56.7	91.2	476	56.0	90.1
27	35.9	57.8	117	48.9	78.7	207	43.4	69.8	297	28.6	46.0	387	56.9	91.6	477	55.8	89.8
28	35.8	57.6	118	48.6	78.2	208	43.9	70.7	298	29.5	47.5	388	57.1	91.6	478	55.5	89.3
29	35.3	56.8	119	48.4	77.9	209	44.0	70.8	299	31.4	50.5	389	57.3	92.2	479	55.2	88.8
30	34.9	56.2	120	48.1	77.4	210	43.5	70.0	300	33.4	53.8	390	57.4	92.4	480	55.1	88.7
31	34.5	55.5	121	47.7	76.8	211	42.6	68.6	301	35.6	57.3	391	57.4	92.4	481	55.0	88.5
32	34.6	55.7	122	47.4	76.3	212	41.5	66.8	302	37.5	60.4	392	57.2	92.1	482	54.9	88.4
33	34.8	56.0	123	47.3	76.1	213	40.7	65.5	303	39.1	62.9	393	57.0	91.7	483	54.9	88.4
34	35.1	56.5	124	47.5	76.4	214	40.0	64.4	304	40.2	64.7	394	56.9	91.6	484	54.9	88.4
35	35.7	57.5	125	47.8	76.9	215	40.0	64.4	305	41.1	66.1	395	56.6	91.1	485	54.9	88.4
36	36.6	58.1	126	47.9	77.1	216	40.3	64.9	306	41.8	67.3	396	56.3	90.6	486	54.9	88.4
37	36.2	58.3	127	48.0	77.2	217	41.0	66.0	307	42.4	68.2	397	56.1	90.3	487	54.9	88.4
38	36.5	58.7	128	47.9	77.1	218	42.0	67.6	308	42.8	68.9	398	56.4	90.8	488	55.0	88.5
39	36.7	59.1	129	47.9	77.1	219	42.7	68.7	309	43.3	69.7	399	56.7	91.2	489	55.0	88.5
40	36.9	59.4	130	47.9	77.1	220	43.1	69.4	310	43.8	70.5	400	57.1	91.9	490	55.0	88.5
41	37.0	59.5	131	48.0	77.2	221	43.2	69.5	311	44.3	71.3	401	57.5	92.5	491	55.0	88.5
42	37.0	59.5	132	48.0	77.2	222	43.4	69.8	312	44.7	71.9	402	57.8	93.0	492	55.0	88.5
43	37.0	59.5	133	48.0	77.2	223	43.9	70.7	313	45.0	72.4	403	58.0	93.3	493	55.0	88.5
44	37.0	59.5	134	47.9	77.1	224	44.3	71.3	314	45.2	72.7	404	58.0	93.3	494	55.1	88.7
45	37.0	59.5	135	47.3	76.1	225	44.7	71.9	315	45.4	73.1	405	58.0	93.3	495	55.1	88.7
46	37.0	59.5	136	46.0	74.0	226	45.1	72.6	316	45.5	73.2	406	58.0	93.3	496	55.0	88.5
47	37.1	59.7	137	43.3	69.7	227	45.4	73.1	317	45.8	73.7	407	58.0	93.3	497	54.9	88.4
48	37.3	60.0	138	41.2	66.3	228	45.8	73.7	318	46.0	74.0	408	58.0	93.3	498	54.9	88.4
49	37.8	60.8	139	39.5	63.6	229	46.5	74.8	319	46.1	74.2	409	57.9	93.2	499	54.8	88.2

TABLE 2 - Highway Fuel Economy Test Schedule (Continued)

Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)
50	38.6	62.1	140	39.2	63.1	230	46.9	75.5	320	46.5	74.8	410	57.8	93.0
51	39.3	63.2	141	39.0	62.8	231	47.2	76.0	321	46.8	75.3	411	57.7	92.9
52	40.0	64.4	142	39.0	62.8	232	47.4	76.3	322	47.1	75.8	412	57.7	92.9
53	40.7	65.5	143	39.1	62.9	233	47.3	76.1	323	47.7	76.8	413	57.8	93.0
54	41.4	66.6	144	39.5	63.6	234	47.3	76.1	324	48.3	77.7	414	57.9	93.2
55	42.2	67.9	145	40.1	64.5	235	47.2	76.0	325	49.0	78.9	415	58.0	93.3
56	42.9	69.0	146	41.0	66.0	236	47.2	76.0	326	49.7	80.0	416	58.1	93.5
57	43.5	70.0	147	42.0	67.6	237	47.2	76.0	327	50.3	81.0	417	58.4	94.0
58	44.0	70.8	148	43.1	69.4	238	47.1	75.8	328	51.0	82.1	418	58.9	94.8
59	44.3	71.3	149	43.7	70.3	239	47.0	75.6	329	51.7	83.2	419	59.1	95.1
60	44.5	71.6	150	44.1	71.0	240	47.0	75.6	330	52.4	84.3	420	59.4	95.6
61	44.8	72.1	151	44.3	71.3	241	46.9	75.5	331	53.1	85.5	421	59.8	96.2
62	44.9	72.3	152	44.4	71.5	242	46.8	75.3	332	53.8	86.6	422	59.9	96.4
63	45.0	72.4	153	44.6	71.8	243	46.9	75.5	333	54.5	87.7	423	59.9	96.4
64	45.1	72.6	154	44.7	71.9	244	47.0	75.6	334	55.2	88.8	424	59.8	96.2
65	45.4	73.1	155	44.9	72.3	245	47.2	76.0	335	55.8	89.8	425	59.6	95.9
66	45.7	73.5	156	45.2	72.7	246	47.5	76.4	336	56.4	90.8	426	59.4	95.6
67	46.0	74.0	157	45.7	73.5	247	47.9	77.1	337	56.9	91.6	427	59.2	95.3
68	46.3	74.5	158	45.9	73.9	248	48.0	77.2	338	57.0	91.7	428	59.1	95.1
69	46.5	74.8	159	46.3	74.5	249	48.0	77.2	339	57.1	91.9	429	59.0	95.0
70	46.8	75.3	160	46.8	75.3	250	48.0	77.2	340	57.3	92.2	430	58.9	94.8
71	46.9	75.5	161	46.9	75.5	251	48.0	77.2	341	57.6	92.7	431	58.7	94.5
72	47.0	75.6	162	47.0	75.6	252	48.0	77.2	342	57.8	93.0	432	58.6	94.3
73	47.1	75.8	163	47.1	75.8	253	48.1	77.4	343	58.0	93.3	433	58.5	94.1
74	47.2	76.0	164	47.6	76.6	254	48.2	77.6	344	58.1	93.5	434	58.4	94.0
75	47.3	76.1	165	47.9	77.1	255	48.2	77.6	345	58.4	94.0	435	58.4	94.0
76	47.2	76.0	166	48.0	77.2	256	48.1	77.4	346	58.7	94.5	436	58.3	93.8
77	47.1	75.8	167	48.0	77.2	257	48.6	78.2	347	58.8	94.6	437	58.2	93.7
78	47.0	75.6	168	47.9	77.1	258	48.9	78.7	348	58.9	94.8	438	58.1	93.5
79	46.9	75.5	169	47.8	76.9	259	49.1	79.0	349	59.0	95.0	439	58.0	93.3
80	46.9	75.5	170	47.3	76.1	260	49.1	79.0	350	59.0	95.0	440	57.9	93.2
81	46.9	75.5	171	46.7	75.2	261	49.1	79.0	351	58.9	94.8	441	57.9	93.2
82	47.0	75.6	172	46.2	74.4	262	49.1	79.0	352	58.8	94.6	442	57.9	93.2
83	47.1	75.8	173	45.9	73.9	263	49.0	78.9	353	58.6	94.3	443	57.9	93.2
84	47.1	75.8	174	45.7	73.5	264	49.0	78.9	354	58.4	94.0	444	57.9	93.2
85	47.2	76.0	175	45.5	73.2	265	48.9	78.7	355	58.2	93.7	445	58.0	93.3
86	47.1	75.8	176	45.4	73.1	266	48.2	77.6	356	58.1	93.5	446	58.1	93.5
87	47.0	75.6	177	45.3	72.9	267	47.7	76.8	357	58.0	93.3	447	58.1	93.5
88	46.9	75.5	178	45.0	72.4	268	47.5	76.4	358	57.9	93.2	448	58.2	93.7
89	46.5	74.8	179	44.0	70.8	269	47.2	76.0	359	57.6	92.7	449	58.2	93.7

TABLE 2 - Highway Fuel Economy Test Schedule (Continued)

Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)
540	56.0	90.1	580	51.1	82.2	620	49.7	80.0	660	51.0	82.1	700	54.2	87.2
541	56.0	90.1	581	50.7	81.6	621	50.6	81.4	661	51.1	82.2	701	54.5	87.7
542	56.0	90.1	582	50.3	81.0	622	51.5	82.9	662	51.4	82.7	702	54.8	88.2
543	56.0	90.1	583	49.8	80.1	623	52.2	84.0	663	51.7	83.2	703	55.0	88.5
544	56.0	90.1	584	49.3	79.3	624	52.7	84.8	664	52.0	83.7	704	55.5	89.3
545	56.0	90.1	585	48.7	78.4	625	53.0	85.3	665	52.2	84.0	705	55.9	90.0
546	56.0	90.1	586	48.2	77.6	626	53.6	86.3	666	52.5	84.5	706	56.1	90.3
547	55.9	90.0	587	48.1	77.4	627	54.0	86.9	667	52.8	85.0	707	56.3	90.6
548	55.9	90.0	588	48.0	77.2	628	54.1	87.1	668	52.7	84.8	708	56.4	90.8
549	55.9	90.0	589	48.0	77.2	629	54.4	87.5	669	52.6	84.7	709	56.5	90.9
550	55.8	89.8	590	48.1	77.4	630	54.7	88.0	670	52.3	84.2	710	56.7	91.2
551	55.6	89.5	591	48.4	77.9	631	55.1	88.7	671	52.3	84.2	711	56.9	91.6
552	55.4	89.2	592	48.9	78.7	632	55.4	89.2	672	52.4	84.3	712	57.0	91.7
553	55.2	88.8	593	49.0	78.9	633	55.4	89.2	673	52.5	84.5	713	57.3	92.2
554	55.1	88.7	594	49.1	79.0	634	55.0	88.5	674	52.7	84.8	714	57.7	92.9
555	55.0	88.5	595	49.1	79.0	635	54.5	87.7	675	52.7	84.8	715	58.2	93.7
556	54.9	88.4	596	49.0	78.9	636	53.6	86.3	676	52.4	84.3	716	58.8	94.6
557	54.6	87.9	597	49.0	78.9	637	52.5	84.5	677	52.1	83.8	717	59.1	95.1
558	54.4	87.5	598	48.9	78.7	638	50.2	80.8	678	51.7	83.2	718	59.2	95.3
559	54.2	87.2	599	48.6	78.2	639	48.2	77.6	679	51.1	82.2	719	59.1	95.1
560	54.1	87.1	600	48.3	77.7	640	46.5	74.8	680	50.5	81.3	720	58.8	94.6
561	53.8	86.6	601	48.0	77.2	641	46.2	74.4	681	50.1	80.6	721	58.5	94.1
562	53.4	85.9	602	47.9	77.1	642	46.0	74.0	682	49.8	80.1	722	58.1	93.5
563	53.3	85.8	603	47.8	76.9	643	46.0	74.0	683	49.7	80.0	723	57.7	92.9
564	53.1	85.5	604	47.7	76.8	644	46.3	74.5	684	49.6	79.8	724	57.3	92.2
565	52.9	85.1	605	47.9	77.1	645	46.8	75.3	685	49.5	79.7	725	57.1	91.9
566	52.6	84.7	606	48.3	77.7	646	47.5	76.4	686	49.5	79.7	726	56.8	91.4
567	52.4	84.3	607	49.0	78.9	647	48.2	77.6	687	49.7	80.0	727	56.5	90.9
568	52.2	84.0	608	49.1	79.0	648	48.8	78.5	688	50.0	80.5	728	56.2	90.4
569	52.1	83.8	609	49.0	78.9	649	49.5	79.7	689	50.2	80.8	729	55.5	89.3
570	52.0	83.7	610	48.9	78.7	650	50.2	80.8	690	50.6	81.4	730	54.6	87.9
571	52.0	83.7	611	48.0	77.2	651	50.7	81.6	691	51.1	82.2	731	54.1	87.1
572	52.0	83.7	612	47.1	75.8	652	51.1	82.2	692	51.6	83.0	732	53.7	86.4
573	52.0	83.7	613	46.2	74.4	653	51.7	83.2	693	51.9	83.5	733	53.2	85.6
574	52.1	83.8	614	46.1	74.2	654	52.2	84.0	694	52.0	83.7	734	52.9	85.1
575	52.0	83.7	615	46.1	74.2	655	52.5	84.5	695	52.1	83.8	735	52.5	84.5
576	52.0	83.7	616	46.2	74.4	656	52.1	83.8	696	52.4	84.3	736	52.0	83.7
577	51.9	83.5	617	46.9	75.5	657	51.6	83.0	697	52.9	85.1	737	51.3	82.6
578	51.6	83.0	618	47.8	76.9	658	51.1	82.2	698	53.3	85.8	738	50.5	81.3
579	51.4	82.7	619	49.0	78.9	659	51.0	82.1	699	53.7	86.4	739	49.5	79.7

TABLE 3A - ECE R15.04 Schedule - Manual Transmission

Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)
0	.0	.0	49	.0	.0	98	.0	.0	147	31.1	50.0
1	.0	.0	50	1.9	3.0	99	.0	.0	148	31.1	50.0
2	.0	.0	51	3.7	6.0	100	.0	.0	149	31.1	50.0
3	.0	.0	52	5.6	9.0	101	.0	.0	150	31.1	50.0
4	.0	.0	53	7.5	12.0	102	.0	.0	151	31.1	50.0
5	.0	.0	54	9.3	15.0	103	.0	.0	152	31.1	50.0
6	.0	.0	55	9.3	15.0	104	.0	.0	153	31.1	50.0
7	.0	.0	56	9.3	15.0	105	.0	.0	154	31.1	50.0
8	.0	.0	57	11.4	18.4	106	.0	.0	155	31.1	50.0
9	.0	.0	58	13.5	21.8	107	.0	.0	156	29.9	48.1
10	.0	.0	59	15.7	25.2	108	.0	.0	157	28.7	46.3
11	.0	.0	60	17.8	28.6	109	.0	.0	158	27.6	44.4
12	2.3	3.8	61	19.9	32.0	110	.0	.0	159	26.4	42.5
13	4.7	7.5	62	19.9	32.0	111	.0	.0	160	25.2	40.6
14	7.0	11.3	63	19.9	32.0	112	.0	.0	161	24.1	38.8
15	9.3	15.0	64	19.9	32.0	113	.0	.0	162	22.9	36.9
16	9.3	15.0	65	19.9	32.0	114	.0	.0	163	21.7	35.0
17	9.3	15.0	66	19.9	32.0	115	.0	.0	164	21.7	35.0
18	9.3	15.0	67	19.9	32.0	116	.0	.0	165	21.7	35.0
19	9.3	15.0	68	19.9	32.0	117	.0	.0	166	21.7	35.0
20	9.3	15.0	69	19.9	32.0	118	1.9	3.0	167	21.7	35.0
21	9.3	15.0	70	19.9	32.0	119	3.7	6.0	168	21.7	35.0
22	9.3	15.0	71	19.9	32.0	120	5.6	9.0	169	21.7	35.0
23	9.3	15.0	72	19.9	32.0	121	7.5	12.0	170	21.7	35.0
24	7.8	12.5	73	19.9	32.0	122	9.3	15.0	171	21.7	35.0
25	6.2	10.0	74	19.9	32.0	123	9.3	15.0	172	21.7	35.0
26	4.1	6.7	75	19.9	32.0	124	9.3	15.0	173	21.7	35.0
27	2.1	3.3	76	19.9	32.0	125	10.7	17.2	174	21.7	35.0
28	.0	.0	77	19.9	32.0	126	12.1	19.4	175	21.7	35.0
29	.0	.0	78	19.9	32.0	127	13.5	21.7	176	21.7	35.0
30	.0	.0	79	19.9	32.0	128	14.8	23.9	177	20.8	33.5
31	.0	.0	80	19.9	32.0	129	16.2	26.1	178	19.9	32.0
32	.0	.0	81	19.9	32.0	130	17.6	28.3	179	17.9	28.9
33	.0	.0	82	19.9	32.0	131	19.0	30.6	180	16.0	25.7
34	.0	.0	83	19.9	32.0	132	20.4	32.8	181	14.0	22.6
35	.0	.0	84	19.9	32.0	133	21.7	35.0	182	12.1	19.4
36	.0	.0	85	19.9	32.0	134	21.7	35.0	183	10.1	16.3
37	.0	.0	86	18.2	29.3	135	21.7	35.0	184	8.2	13.1
38	.0	.0	87	16.5	26.5	136	22.9	36.9	185	6.2	10.0
39	.0	.0	88	14.8	23.8	137	24.1	38.8	186	4.1	6.7
40	.0	.0	89	13.0	21.0	138	25.2	40.6	187	2.1	3.3
41	.0	.0	90	11.3	18.3	139	26.4	42.5	188	.0	.0
42	.0	.0	91	9.6	15.5	140	27.6	44.4	189	.0	.0
43	.0	.0	92	7.9	12.8	141	28.7	46.3	190	.0	.0
44	.0	.0	93	6.2	10.0	142	29.9	48.1	191	.0	.0
45	.0	.0	94	4.1	6.7	143	31.1	50.0	192	.0	.0
46	.0	.0	95	2.1	3.3	144	31.1	50.0	193	.0	.0
47	.0	.0	96	.0	.0	145	31.1	50.0	194	.0	.0
48	.0	.0	97	.0	.0	146	31.1	50.0	195	.0	.0

TABLE 3B - ECE R15.04 Schedule - Automatic Transmission

Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)	Time (s)	Speed (mph)	Speed (km/h)
0	.0	.0	49	.0	.0	98	.0	.0	147	31.1	50.0
1	.0	.0	50	1.7	2.7	99	.0	.0	148	31.1	50.0
2	.0	.0	51	3.3	5.3	100	.0	.0	149	31.1	50.0
3	.0	.0	52	5.0	8.0	101	.0	.0	150	31.1	50.0
4	.0	.0	53	6.6	10.7	102	.0	.0	151	31.1	50.0
5	.0	.0	54	8.3	13.3	103	.0	.0	152	31.1	50.0
6	.0	.0	55	9.9	16.0	104	.0	.0	153	31.1	50.0
7	.0	.0	56	11.6	18.7	105	.0	.0	154	31.1	50.0
8	.0	.0	57	13.3	21.3	106	.0	.0	155	31.1	50.0
9	.0	.0	58	14.9	24.0	107	.0	.0	156	29.9	48.1
10	.0	.0	59	16.6	26.7	108	.0	.0	157	28.7	46.3
11	.0	.0	60	18.2	29.3	109	.0	.0	158	27.6	44.4
12	2.3	3.8	61	19.9	32.0	110	.0	.0	159	26.4	42.5
13	4.7	7.5	62	19.9	32.0	111	.0	.0	160	25.2	40.6
14	7.0	11.3	63	19.9	32.0	112	.0	.0	161	24.1	38.8
15	9.3	15.0	64	19.9	32.0	113	.0	.0	162	22.9	36.9
16	9.3	15.0	65	19.9	32.0	114	.0	.0	163	21.7	35.0
17	9.3	15.0	66	19.9	32.0	115	.0	.0	164	21.7	35.0
18	9.3	15.0	67	19.9	32.0	116	.0	.0	165	21.7	35.0
19	9.3	15.0	68	19.9	32.0	117	.0	.0	166	21.7	35.0
20	9.3	15.0	69	19.9	32.0	118	1.2	1.9	167	21.7	35.0
21	9.3	15.0	70	19.9	32.0	119	2.4	3.8	168	21.7	35.0
22	9.3	15.0	71	19.9	32.0	120	3.6	5.8	169	21.7	35.0
23	9.3	15.0	72	19.9	32.0	121	4.8	7.7	170	21.7	35.0
24	7.5	12.0	73	19.9	32.0	122	6.0	9.6	171	21.7	35.0
25	5.6	9.0	74	19.9	32.0	123	7.2	11.5	172	21.7	35.0
26	5.7	6.0	75	19.9	32.0	124	8.4	13.5	173	21.7	35.0
27	1.9	3.0	76	19.9	32.0	125	9.6	15.4	174	21.7	35.0
28	.0	.0	77	19.9	32.0	126	10.8	17.3	175	21.7	35.0
29	.0	.0	78	19.9	32.0	127	11.9	19.2	176	21.7	35.0
30	.0	.0	79	19.9	32.0	128	13.1	21.2	177	19.9	32.1
31	.0	.0	80	19.9	32.0	129	14.3	23.1	178	18.1	29.2
32	.0	.0	81	19.9	32.0	130	15.5	25.0	179	16.3	26.3
33	.0	.0	82	19.9	32.0	131	16.7	26.9	180	14.5	23.3
34	.0	.0	83	19.9	32.0	132	17.9	28.8	181	12.7	20.4
35	.0	.0	84	19.9	32.0	133	19.1	30.8	182	10.9	17.5
36	.0	.0	85	19.9	32.0	134	20.3	32.7	183	9.1	14.6
37	.0	.0	86	18.1	29.1	135	21.5	34.6	184	7.2	11.7
38	.0	.0	87	16.3	26.2	136	22.7	36.5	185	5.4	8.8
39	.0	.0	88	14.5	23.3	137	23.9	38.5	186	3.6	5.8
40	.0	.0	89	12.7	20.4	138	25.1	40.4	187	1.8	2.9
41	.0	.0	90	10.8	17.5	139	26.3	42.3	188	.0	.0
42	.0	.0	91	9.0	14.5	140	27.5	44.2	189	.0	.0
43	.0	.0	92	7.2	11.6	141	28.7	46.2	190	.0	.0
44	.0	.0	93	5.4	8.7	142	29.9	48.1	191	.0	.0
45	.0	.0	94	3.6	5.8	143	31.1	50.0	192	.0	.0
46	.0	.0	95	1.8	2.9	144	31.1	50.0	193	.0	.0
47	.0	.0	96	.0	.0	145	31.1	50.0	194	.0	.0
48	.0	.0	97	.0	.0	146	31.1	50.0	195	.0	.0