1969 Tune-Up Specifications

ENGINE	IGNITION TIMING		DISTRIBUTOR		SPARK PLUGS		CARBURETOR	No.
	Synchro. Trans.	Auto. Trans.	Cam Angle	Point Gap	Type	Gap	Make & Type	
AMERICAN MOTORS								
199" & 232" 6 Cyl.	TDC	5° BTDC	31-34°	.016"	CH. N14Y	.033-.037"	Car. RBS	1
232" 6 Cyl. 2 Bbl.	TDC	TDC	31-34°	.016"	CH. N14Y	.033-.037"	Car. WCD	2
232" Rogue "Auto"	–	5° BTDC	31-34°	.016"	CH. N14Y	.033-.037"	Hol. 1931	3
290" & 343" V8 2 Bbl.	TDC	TDC	29-31°	.016"	CH. N12Y	.033-.037"	Ford 6200	4
290" & 343" V8 4 Bbl.	TDC	TDC	29-31°	.016"	CH. N12Y	.033-.037"	Car. AFB	5
390" V8 4 Bbl.	TDC	TDC	29-31°	.016"	CH. N12Y	.033-.037"	Car. AFB	6
BUICK								
250" 6 Cyl.	TDC	4° BTDC	30-34°	.019"	AC R46N	.035"	Roch. MV	7
350" V8 2 Bbl.	TDC	TDC	29-31°	.016"	AC R45TS	.030"	Roch. 2GV	8
350" V8 4 Bbl.	TDC	TDC	29-31°	.016"	AC R45TS	.030"	Roch. 4MV	9
400" V8	TDC	TDC	29-31°	.016"	AC R44TS	.030"	Roch. 4MV	10
430" V8	–	TDC	29-31°	.016"	AC R44TS	.030"	Roch. 4MV	11
CADILLAC								
472" V8	–	5° BTDC	28-32°	.016"	AC R44N	.035"	Roch. 4MV	12
CHEVROLET								
153" 4 Cyl.	TDC	4° BTDC	31-34°	②.019"	AC R46N	.035"	Roch. M	13
230" 6 Cyl.	TDC	4° BTDC	31-34°	②.019"	AC R46N	.035"	Roch. MV	14
250" 6 Cyl.	TDC	4° BTDC	31-34°	②.019"	AC R46N	.035"	Roch. MV	15
302" V8	4° BTDC	–	28-32°	②.019"	AC R43	.035"	Hol. 4150	16
307" V8	2° BTDC	2° BTDC	28-32°	②.019"	AC R45	.035"	Roch. 2GV	17
327" V8, 210 & 235 HP	2° ATDC	2° BTDC	28-32°	②.019"	AC R45	.035"	Roch. 2GV	18
350" V8 255 HP	④TDC	4° BTDC	28-32°	②.019"	AC R44	.035"	Roch. 4MV	19
350" V8 300 HP	④TDC	4° BTDC	28-32°	②.019"	AC R44	.035"	Roch. 4MV	20
350" V8 350 HP	4° BTDC	–	28-32°	②.019"	AC R44	.035"	Roch. 4MV	21
350" V8 370 HP	4° BTDC	–	28-32°	②.019"	AC R43	.035"	Hol. 4150	22
396" V8 265 HP	4° BTDC	4° BTDC	28-32°	②.019"	AC R44N	.035"	Roch. 2GV	23
396" V8 325 HP	4° BTDC	4° BTDC	28-32°	②.019"	AC R44N	.035"	Roch. 4MV	24
396" V8 350 HP	TDC	4° BTDC	28-32°	②.019"	AC R43N	.035"	Roch. 4MV	25
396" V8 375 HP	4° BTDC	4° BTDC	28-32°	②.019"	AC R43N	.035"	Hol. 4150	26
427" V8 335 HP	4° BTDC	4° BTDC	28-32°	②.019"	AC R43N	.035"	Roch. 4MV	27
427" V8 390 HP	4° BTDC	4° BTDC	28-32°	②.019"	AC R43N	.035"	Roch. 4MV	28
427" V8 400 HP	4° BTDC	4° BTDC	28-32°	②.019"	AC R43N	.035"	(3) Hol. 2300	29
427" V8 425 HP	4° BTDC	4° BTDC	28-32°	②.019"	AC R43N	.035"	Hol. 4150	30
427" V8 430 HP	12° BTDC	–	28-32°	②.019"	AC R43XL	.035"	Hol. 4150	31
427" V8 435 HP	4° BTDC	4° BTDC	28-32°	②.019"	AC R43N	.035"	(3) Hol. 2300	32
CHRYSLER CORP.								
170" 6 Cyl.	5° ATC	2½° ATDC	42-47°	.017-.023"	CH. N14Y	.035"	Car. BBS	33
225" 6 Cyl.	TDC	TDC	42-47°	.017-.023"	CH. N14Y	.035"	Hol. 1920	34
273" V8	2½° ATC	2½° ATC	30-35°	.014-.019"	CH. N14Y	.035"	Car. BBD	35
318" V8	TDC	TDC	30-35°	.014-.019"	CH. N14Y	.035"	Car. BBD	36
340" V8	TDC	5° BTDC	②30-35°	.014-.019"	CH. NY9	.035"	Car. AVS	37
383" V8 2 Bbl.	TDC	5° BTDC	30-35°	.014-.019"	CH. J14Y	.035"	Car. BBD	38
383" V8 4 Bbl.	TDC	5° BTDC	②30-35°	.014-.019"	CH. J11Y	.035"	Car. AVS	39
426" V8 Hemi.	TDC	TDC	②	.014-.019"	CH. N10Y	.035"	Car. AFB (2)	40
440" V8	–	7.5° BTDC	30-35°	.014-.019"	CH. J13Y	.035"	Hol. 4160	41
440" V8 Hi-Perf.	TDC	5° BTDC	②30-35°	.014-.019"	CH. J11J	.035"	Car. AVS	42
440" V8 "6-Pack"	–	–	–	–	–	–	(3) Hol. 2300	43

SPARK PLUGS: AL.–AUTOLITE, CH.–CHAMPION
CARBURETORS: Car.–CARTER, Hol.–HOLLEY, Roch.–ROCHESTER, Str.–STROMBERG

1969 Tune-Up Specifications

No.	HOT IDLE		FAST IDLE				Initial Idle Mixture	Air Fuel Ratio	Remarks
			Synchro Trans.		Auto. Trans.				
	Synchro Trans.	Auto. Trans.	RPM	Cam Step	RPM	Cam Step			
1	600	525	2000	Index	2000	Index	Rich Stop	14:1	① **Eng. Mod** – Set at Rich stop. **Air Guard** – Set 2 turns out. ② **Eng. Mod** 14.0:1 **AirGuard** 13.0:1
2	600	525	2000	High	2000	Index	Rich Stop	14:1	
3	–	525	–	–	1600	2nd	Rich Stop	14:1	
4	650	550	1600	Index	2000	Index	①	②	
5	650	550	2000	Index	2000	Index	①	②	
6	650	550	2000	Index	2000	Index	①	②	
7	①700/400	①500/400	720	Low	620	Low	2 Turns	②	① Idle Stop Solenoid used: Higher RPM – Solenoid connected. Lower RPM – Solenoid disconnected. ② See Chevrolet ⑤.
8	700	600	–	–	–	–	2 Turns	②	
9	700	600	720	Low	620	Low	2 Turns	②	
10	700	600	720	Low	620	Low	2 Turns	②	
11	–	550	–	–	620	Low	2 Turns	②	
12	–	550	–	–	1900-1950	High	4 Turns	②	② See Chevrolet ⑤.
13	750	600	2400	High	2400	High	3 Turns	⑤	① Correct when Hot Idle is set. ② .016" for used points. ③ Idle Stop Solenoid used: Higher RPM – Solenoid connected. Lower RPM – Solenoid disconnected. ④ Corvette models set at 4° BTDC. ⑤ A/F ratio not available, tune engine for smoothest idle with highest vacuum reading at leanest mixture setting. ⑥ Set idle with A/C on
14	700	③550/400	2400	High	2400	High	3 Turns	⑤	
15	700	③550/400	1800-2400	High	1800-2400	High	3 Turns	⑤	
16	900	–	1800-2400	High	–	–	3 Turns	⑤	
17	700	600	1800-2400	High	1800-2400	High	3 Turns	⑤	
18	700	600	1800-2400	High	1800-2400	High	3 Turns	⑤	
19	700	600	2400	High	2400	High	3 Turns	⑤	
20	700	600	2400	High	2400	High	3 Turns	⑤	
21	750	–	2400	High	–	–	3 Turns	⑤	
22	750	–	2200	High	–	–	3 Turns	⑤	
23	700	600	1800-2400	High	1800-2400	High	3 Turns	⑤	
24	800	600	2400	High	2400	High	3 Turns	⑤	
25	800	600	2400	High	2200	High	3 Turns	⑤	
26	750	③750/400	2200	High	2200	High	3 Turns	⑤	
27	800	600	2400	High	2200	High	3 Turns	⑤	
28	⑥ 800	⑥ 750	2200	High	2200	High	3 Turns	⑤	
29	⑥ 800	⑥ 600	2200	High	2200	High	3 Turns	⑤	
30	750	③750/400	2200	High	2200	High	3 Turns	⑤	
31	1000	–	2200	High	–	–	3 Turns	⑤	
32	750	③750/400	2200	High	2200	High	3 Turns	⑤	
33	①700	①650	1600	2nd	1800	2nd	2 Turns	14.2	① Set idle with A/C on, if equipped, and lights on ② With dual points: one set – 27-32° both sets – 37-42° ③ Idle Stop Solenoid used: Higher RPM – Solenoid connected. Lower RPM – Solenoid disconnected.
34	①700	①650	1600	2nd	1800	2nd	2 Turns	14.2	
35	700	650	1500	2nd	1600	2nd	2 Turns	14.2	
36	700	650	1300	2nd	1700	2nd	2 Turns	14.2	
37	750	700	1700	2nd	1700	2	2 Turns	14.2	
38	700	600	1600	2nd	1600	2	2 Turns	14:2	
39	700	650	1700	2nd	1700	2	2 Turns	14.2	
40	750	750	2000	2nd	2000	2	2 Turns	14.2	
41	–	600	–	–	1400	2	2 Turns	14.2	
42	700	650	1700	2nd	1700	2nd	2 Turns	14.2	
43	③1000/500	③ 900/500	2200	2nd	1800	2nd		14.2	

1969 Tune-Up Specifications

ENGINE	IGNITION TIMING		DISTRIBUTOR		SPARK PLUGS		CARBURETOR	No.
	Synchro. Trans.	Auto. Trans.	Cam Angle	Point Gap	Type	Gap	Make & Type	
CORVAIR								
95 HP.	5° BTDC	14° BTDC	31-34°	②.019"	AC 46FF	.035"	Roch. H	1
110 HP.	4° BTDC	12° BTDC	31-34°	②.019"	AC 44FF	.030"	Roch. H	2
140 HP.	4° BTDC	4° BTDC	31-34°	②.019"	AC 44FF	.030"	Roch. H & HV	3
FORD MOTOR CO.								
170" 6 Cyl.	6° BTDC	6° BTDC	35-40°	.027"	AL BF82	.032-.036"	Car. YF	4
200" 6 Cyl.	6° BTDC	6° BTDC	35-40°	.027"	AL BF82	.032-.036"	Ford 1100	5
240" 6 Cyl.	6° BTDC	6° BTDC	35-40°	.027"	AL BF42	.032-.036"	Ford 1101 Car. YF	6
250" 6 Cyl.	6° BTDC	6° BTDC	37-42°	.025"	AL. BF82	.032-.036"	Ford 1101	7
302" V8	6° BTDC	6° BTDC	③26-31°	③.017"	AL. BF42	.032-.036"	Ford 2100	8
351" V8 2 Bbl.	6° BTDC	6° BTDC	26-31°	.017"	AL. BF42	.032-.036"	Ford 2100	9
351" V8 4 Bbl.	6° BTDC	6° BTDC	26-31°	.017"	AL. BF32	.032-.036"	Ford 4300	10
390" V8 2 Bbl.	6° BTDC	6° BTDC	④26-31°	④.017"	AL. BF42	.032-.036"	Ford 2100	11
390" V8 4 Bbl.	6° BTDC	6° BTDC	26-31°	.017"	AL. BF42	.032-.036"	Ford 4300	12
428" V8	6° BTDC	6° BTDC	③26-31°	③.017"	AL. BF32	.032-.036"	Hol. 4150C	13
428" V8 Pol.	–	6° BTDC	26-31°	.017"	AL. BF32	.032-.036"	Ford 4100	14
429 V8 2 Bbl.	–	6° BTDC	26-31°	.017"	AL. BF42	.032-.036"	Ford 2100	15
429" V8 4 Bbl.	6° BTDC	6° BTDC	③26-31°	③.017"	AL. BF42	.032-.036"	Ford 4300	16
460" V8	–	10° BTDC	26-31°	.017"	AL. BF42	.032-.036"	Ford 4300	17
OLDSMOBILE								
250" 6 Cyl.	0° TDC 700 RPM	4° BTDC 500 RPM	31-34°	.019"	AC R46N	.035"	Roch. MV	18
350" V8 2 Bbl.	6° BTDC 850 RPM	6° BTDC 850 RPM	30°	.016"	AC R46S	.030"	Roch. 2GC	19
350" V8 4 Bbl.	8° BTDC 850 RPM	8° BTDC 850 RPM	30°	.016"	AC R45S	.030"	Roch. 4MV	20
350" V8 4 Bbl. "W31"	10° BTDC 850 RPM	10° BTDC 850 RPM	30°	.016"	AC R44S	.030"	Roch. 4MV	21
400" V8 10.25:1	12° BTDC 1000 RPM	12° BTDC 1000 RPM	30°	.016"	AC R43S	.030"	Roch. 4MV	22
400" V8 10.50:1	2° BTDC 850 RPM	8° BTDC 850 RPM	30°	.016"	AC R44S	.030"	Roch. 4MV	23
400" V8 "W30"	14° BTDC 1250 RPM	14° BTDC 1250 RPM	30°	.016"	AC R43S	.030"	Roch. 4MV	24
455" V8 2 Bbl.	6° BTDC 850 RPM	6° BTDC 850 RPM	30°	.016"	AC R45S	.030"	Roch. 2GC	25
455" V8 4 Bbl.	–	8° BTDC 850 RPM	30°	.016"	AC R44S	.030"	Roch. 4MV	26
455" V8 Police or "W34"	–	10° BTDC 850 RPM	30°	.016"	AC R44S	.030"	Roch. 4MV	27
PONTIAC								
250" 6 Cyl.	0° TDC	0° TDC	33°	③	AC R44NS	.035"	Roch. MV	28
250" 6 Cyl. 4 Bbl.	5° BTDC	5° BTDC	33°	③	AC R44NS	.035"	Roch. 4MV	29
350" V8 2 Bbl.	9° BTDC	9° BTDC	30°	③	AC R45S	.035"	Roch. 2GV	30
350" V8 4 Bbl.	9° BTDC	9° BTDC	30°	③	AC R45S	.035"	Roch. 4MV	31
400" V8 2 Bbl.	9° BTDC	9° BTDC	30°	③	AC R45S	.035"	Roch. 2GV	32
400" V8 4 Bbl.	9° BTDC	9° BTDC	30°	③	AC R45S	.035"	Roch. 4MV	33
400" V8 Ram Air	15° BTDC	15° BTDC	30°	③	AC R44S	.035"	Roch. 4MV	34
428" V8	9° BTDC	9° BTDC	30°	③	AC R44S	.035"	Roch. 4MV	35

SPARK PLUGS: AL–AUTOLITE, CH.–CHAMPION
CARBURETORS: Car.–CARTER, Hol.–HOLLEY, Roch.–ROCHESTER, Str.–STROMBERG

1969 Tune-Up Specifications

No.	HOT IDLE		FAST IDLE				Initial Idle Mixture	Air Fuel Ratio	Remarks
			Synchro Trans.		Auto. Trans.				
	Synchro Trans.	Auto. Trans.	RPM	Cam Step	RPM	Cam Step			
1	700	600	①	–	①	–	3 Turns	②	① .075" between idle stopscrew and throttle lever. ② See Chevrolet ⑤.
2	700	600	①	–	①	–	3 Turns	②	
3	650	550	①	–	①	–	3 Turns	②	
4	750	550	①	①	①	①	1½ Turns	⑤	① Bench adjustment ② Idle Stop Solenoid used: Higher RPM – Solenoid connected. Lower RPM – Solenoid disconnected. ③ Man. Trans.: Dist. gap – .021" Cam angle – 24-29° ④ 390" 2 Bbl., premium fuel Dist. gap–.021" Cam angle – 24-29° ⑤ *See Notes at end of this Section.*
5	750	550	1400	Center	1500	Center	1½ Turns	⑤	
6	②775/500	500	1400	Center	1600	Center	1½ Turns	⑤	
7	②700/500	②550/450	1400	Center	1600	Center	1½ Turns	⑤	
8	650	550	1400	Center	1600	Center	1½ Turns	⑤	
9	650	550	1300	Center	1600	Center	1½ Turns	⑤	
10	675	575	1250	Center	1400	Center	1½ Turns	⑤	
11	650	550	1300	Center	1500	Center	1½ Turns	⑤	
12	700	550	1400	Center	1500	Center	1½ Turns	⑤	
13	700	650	1350	High	1350	High	1½ Turns	⑤	
14	–	600	–	–	1550	2nd	1½ Turns	⑤	
15	–	550	–	–	1500	Center	1½ Turns	⑤	
16	650	550	1200	2nd	1300	Center	1½ Turns	⑤	
17	–	550	–	–	1300	Center	1½ Turns	⑤	
18	①775/400	①625/400	750	Low	750	Low	2 Turns	②	"W30", "W31", "W34" Outside Air Option used with Thermostatic Air Cleaner. ① Idle stop solenoid used: Higher RPM – solenoid connected Lower RPM – solenoid disconnected ② Air/fuel ratio not available. Tune engine for smoothest idle with highest vacuum at leanest mixture setting.
19	①675/400	①600/400	800	Low	900	Low	2 Turns	②	
20	675	575	700	Low	700	Low	2 Turns	②	
21	800-850	575	900	Low	900	Low	2 Turns	②	
22	750	575	750	Low	900	Low	2 Turns	②	
23	750	575	750	Low	900	Low	2 Turns	②	
24	800-850	600-650	1000	Low	1400	Low	2 Turns	②	
25	675	575	900	Low	900	Low	2 Turns	②	
26	–	575	–	–	700	Low	2 Turns	②	
27	–	575	–	–	700	Low	2 Turns	②	
28	①730/500	① 610/500	2400	High	2800	High	5 Turns	④	① Idle Stop Solenoid used: Higher RPM – Solenoid connected Lower RPM – Solenoid disconnected. ② No adjustment. ③ .019" – New .016" – Used ④ See Oldsmobile ② (above).
29	①880/600	① 610/500	2600	High	2800	High	5 Turns	④	
30	850	650	②	②	②	②	4 Turns	④	
31	1000	650	2300	High	2300	High	5 Turns	④	
32	850	650	②	②	②	②	4 Turns	④	
33	1000	650	2300	High	2300	High	5 Turns	④	
34	① 1100/650	① 650/500	2800	High	2800	High	5 Turns	④	
35	1000	650	2300	High	2300	High	5 Turns	④	