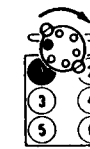
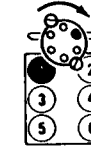


# BUICK

## CYLINDER NUMBERING SEQUENCE

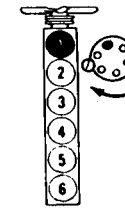


1962-66 Early  
198, 225 eng.



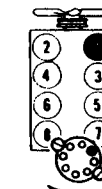
Late 1966-67  
225 eng.

FIRING ORDER: 1-6-5-4-3-2



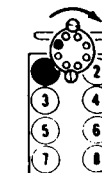
1968-71 250 eng.

FIRING ORDER: 1-5-3-6-2-4

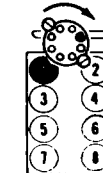


1959-62  
364, 401 eng.  
1963-66  
400, 401, 425 eng.

FIRING ORDER:  
1-2-7-8-4-5-6-3



1961-63 215 eng.  
1964-66 Early  
300, 340 eng.



Late 1966-67 300, 340 eng.  
1967 400 eng.  
1968-73 350, 400, 430 eng.  
1970-72 455 eng.

FIRING ORDER: 1-8-4-3-6-5-7-2

YEAR	ENGINE CUBIC INCHES	AC SPARK PLUG TYPE <sup>Ⓢ</sup>	SPARK PLUG GAP <sup>■</sup>	DISTRIBUTOR			INITIAL TIMING		ENG. IDLE SPEED*		FUEL PUMP		REGULATOR VOLTAGE SETTING @ F°
				BREAKER GAP Inches	DWELL ANGLE degrees	DWELL VARIATION degrees	MAN. TRANS. BTDC degrees	AUTO. TRANS. BTDC degrees	MAN. TRANS. 1	AUTO. TRANS. 1	PRES-SURE LBS. PER SQ. IN.	VOLUME	
<b>6-cylinder &amp; V-6</b>													
1971*	250 eng.	R46TS	.035	.019	30-34	3	4 <sup>12</sup>	4 <sup>12</sup>	500 <sup>15</sup>	550D <sup>15</sup>	3 min.	1 pint/30 sec.	13.5—14.4 @ 125
1970	250 eng.	R46T	.035	.019	32	3	TDC	4	750 <sup>24</sup>	600D <sup>24</sup>	3 min.	1 pint/30 sec.	13.5—14.5 @ 125
1969	250 eng.	R46N	.035	.019	29-31	3	TDC	4	700 <sup>23</sup>	500D <sup>23</sup>	3 min.	1 pint/30 sec.	13.5—14.5 @ 125
1968	250 eng.	46N	.035	.019	31-34	3	TDC	4	700 <sup>23</sup>	500D <sup>23</sup>	3 min.	1 pint/30 sec.	13.5—14.5 @ Norm. Temp.
1967	V-6 225 eng.	44S	.035	.016	29-31	3	5	5	550 <sup>2,3</sup>	500D <sup>2,3</sup>	4.25—5.75	1 pint/30 sec.	13.5—14.5 @ 125
1966	V-6 225 eng.	44S	.035	.016	29-31	3	5 <sup>4</sup>	5 <sup>4</sup>	550 <sup>3</sup>	550D <sup>3</sup>	3.75—5.25	1 pint/30 sec.	13.5—14.3 @ 125
1965-64	V-6 225 eng.	44S	.035	.016	29-31	3	5 <sup>4</sup>	5 <sup>4</sup>	550 <sup>3</sup>	550D <sup>3</sup>	4—5.25	1 pint/30 sec.	13.5—14.3 @ 125
1963	V-6 225 eng.	44S	.035	.016	29-31	3	5 <sup>4</sup>	5 <sup>4</sup>	550 <sup>3</sup>	550D <sup>3</sup>	4—5.25	1 pint/30 sec.	13.8—14.6 @ 85
1962	V-6 198 eng.	44S	.032	.016	29-31	3	5 <sup>4</sup>	5 <sup>4</sup>	525 <sup>3</sup>	525N <sup>3</sup>	4—5.2	1 pint/30 sec.	13.8—14.8 @ 125
<b>V-8</b>													
1973*	455 eng. (stage 1 <sup>20</sup> )	R45TS	.040	.016	.030	3	10	10	900 <sup>15,16,25</sup>	650D <sup>15,17,22,25</sup>	5	1 pint/30 sec.	19
1973*	455 eng.	R45TS	.040	.016	.030	3	4	4	900 <sup>15,16,25</sup>	650D <sup>15,17,22,25</sup>	5	1 pint/30 sec.	19
1973*	350 eng.	R45TS	.040	.016	.030	3	4	4	800 <sup>15,16,25</sup>	600D <sup>15,17,21,25</sup>	5	1 pint/30 sec.	19
1972*	455 eng. (270 H.P. stage 1)	R45TS	.040	.016	30	3	8	10	900 <sup>15,16</sup>	650D <sup>15,17</sup>	4.5 min.	1 pint/30 sec.	13.5—14.5 <sup>11</sup>
1972*	455 eng.	R45TS	.040	.016	30	3	4	4	900 <sup>15,16</sup>	650D <sup>15,17</sup>	4.5 min.	1 pint/30 sec.	13.5—14.5 <sup>11</sup>
1972*	350 eng.	R45TS	.040	.016	30	3	4	4	800 <sup>15,16</sup>	650D <sup>15,17</sup>	3 min.	1 pint/30 sec.	13.5—14.5 <sup>11</sup>
1971*	455 eng. (345 H.P. stage 1)	R44TS	.035	.016	30	3	10	10	700 <sup>15</sup>	600D <sup>15</sup>	4.5 min.	1 pint/30 sec.	13.5—14.4 @ 125
1971*	455 eng. (330, 315 H.P.)	R44TS	.035	.016	30	3	6	4	700 <sup>15</sup>	600D <sup>15</sup>	4.5 min.	1 pint/30 sec.	13.5—14.4 @ 125
1971*	350 eng.	R45TS	.035	.016	30	3	6	10 <sup>13</sup>	800 <sup>15</sup>	600D <sup>15</sup>	3 min.	1 pint/30 sec.	13.5—14.4 @ 125
1970	455 eng. (360 H.P. stage 1)	R44TS	.030	.016	30	3	10	10	700 <sup>6</sup>	600 <sup>6</sup>	4.5 min.	1 pint/30 sec.	13.5—14.5 @ 125
1970	455 eng.	R44TS	.030	.016	30	3	6	6	700 <sup>6</sup>	600 <sup>6</sup>	4.5 min.	1 pint/30 sec.	13.5—14.5 @ 125
1970	350 eng.	R45TS	.030	.016	30	3	6	6	700 <sup>6</sup>	600 <sup>6</sup>	4.5 min.	1 pint/30 sec.	13.5—14.5 @ 125
1969	400, 430 eng.	R44TS	.030	.016	29-31	3	TDC	TDC	700 <sup>6</sup>	600D <sup>6</sup>	4.5 min.	1 pint/30 sec.	13.5—14.5 @ 125
1968	400, 430 eng.	44TS	.030	.016	29-31	3	TDC	TDC	700 <sup>6</sup>	600D <sup>5,6</sup>	4.5 min.	1 pint/30 sec.	13.5—14.5 @ Norm
1969	350 eng.	R45TS	.030	.016	29-31	3	TDC	TDC	700 <sup>6</sup>	600D <sup>6</sup>	3 min.	1 pint/30 sec.	13.5—14.5 @ 125
1968	350 eng.	45TS	.030	.016	29-31	3	TDC	TDC	700 <sup>6</sup>	550D <sup>6</sup>	3 min.	1 pint/30 sec.	13.5—14.5 @ Norm. Temp.
1967	430 eng.	44TS	.035	.016	29-31	3	—	2.5	—	550D <sup>3</sup>	5.5—7	1 pint/30 sec.	13.5—14.5 @ 125
1967	400 eng.	44TS	.035	.016	29-31	3	2.5	2.5	550 <sup>2,3</sup>	550D <sup>2,3</sup>	5.5—7	1 pint/30 sec.	13.5—14.5 @ 125
1967	300, 340 eng.	44S <sup>7</sup>	.035	.016	29-31	3	2.5	2.5	550 <sup>2,3</sup>	550D <sup>2,3</sup>	4.25—5.75	1 pint/30 sec.	13.5—14.3 @ 125

\*For detailed carburetor adjustments refer to manufacturers service manual.

1966	300, 340 eng.	44S <sup>7</sup>	.035	.016	29-31	3	2.5	2.5	550 <sup>2,3</sup>	550D <sup>2,3</sup>	3.25—5.25	1 pint/30 sec.	13.5—14.3 @ 125
1965-64	300, 340 eng.	44S <sup>7</sup>	.035	.016	29-31	3	2.5	2.5	550 <sup>2,3</sup>	550D <sup>2,3</sup>	4—5.25	1 pint/30 sec.	13.5—14.3 @ 125
1966	400, 401, 425 eng.	44S	.035	.016	29-31	3	2.5 <sup>9</sup>	2.5 <sup>9</sup>	500 <sup>3</sup>	500D <sup>3</sup>	5—6.5	1 pint/30 sec.	13.5—14.3 @ 125
1965-64	400, 401, 425 eng.	44S	.035	.016	29-31	3	2.5 <sup>9</sup>	2.5 <sup>9</sup>	500 <sup>3</sup>	500D <sup>3</sup>	4.75—6.5	1 pint/30 sec.	13.5—14.3 @ 125
1963	401 eng.	44S	.035	.016	29-31	3	5 <sup>10</sup>	12 <sup>10</sup>	500 <sup>3</sup>	500D <sup>3</sup>	4.75—6.50	1 pint/30 sec.	13.8—14.6 @ 85
1963	215 eng.	45FFS	.035	.016	29-31	3	7.5 <sup>4</sup>	7.5 <sup>4</sup>	550 <sup>3</sup>	550D <sup>3</sup>	4—5.25	1 pint/30 sec.	13.8—14.6 @ 85
1962	401 eng.	44S	.032	.016	29-31	3	—	12 <sup>10</sup>	—	525N <sup>3</sup>	4—5.2	1 pint/30 sec.	13.8—14.8 @ 125
1962	215 eng.	45FFS	.032	.016	29-31	3	5 <sup>4</sup>	5 <sup>4</sup>	525 <sup>3</sup>	525N <sup>3</sup>	4—5.2	1 pint/30 sec.	13.8—14.8 @ 125

■ Torque Recommendations listed on inside back cover.

● All 1969 and later GM Cars and Trucks use ACNITER Spark Plugs, ACNITERS are optional on all other models.

<sup>1</sup> Hot idle compensator valve held closed, if so equipped, Air Cond. unit turned OFF, set idle to rpm shown unless otherwise indicated.

<sup>2</sup> 1967 w/A.I.R.-equipped engines, add 50 rpm to idle specifications.

<sup>3</sup> w/Air Cond., add 50 rpm to idle specifications, Auto Trans. in DRIVE.

<sup>4</sup> Adjust 1961-63 initial timing with engine operating at 1050 rpm with distributor vacuum line disconnected.

<sup>5</sup> 430 eng. 550D.

<sup>6</sup> 1968-70 Carburetor adjustment: Set throttle to specified rpm. Adjust idle mixture screws to obtain highest rpm. Readjust throttle to 20 rpm faster than specified. Turn each idle mixture screw IN as required to reduce idle 10 rpm for each screw. Thermostatically-controlled air cleaner must be in place when adjusting carburetor.

<sup>7</sup> 1964 models, 44FFS; 1965-67 w/2-bbl. carb., 45S.

<sup>9</sup> 425 eng. w/2x4-bbl. carb. and Auto. Trans., set at 12°.

<sup>10</sup> Adjust 1959-63 initial timing with engine operating at 400 rpm.

<sup>11</sup> After 15 min. warm-up @ 1500 eng. rpm.

<sup>12</sup> Set timing at less than 700 rpm.

<sup>13</sup> LE SABRE - 4° BTDC

<sup>15</sup> Idle mixture and speed information applying to 1971, 1972 and 1973 vehicles with combustion controls. Idle mixture adjustment has been preset at the factory. Do not remove idle limiter caps. However, in case of carburetor overhaul, throttle body replacement or when poor idle quality is apparent requiring the removal of the idle limiter caps, the following procedure must be used:

Disconnect and plug distributor vacuum line at distributor.

Disconnect and plug hose from air cleaner to vapor cannister.

Connect a tachometer to engine and run engine until engine is warm. Disconnect and plug distributor vacuum line, start engine, and set ignition timing. Adjust idle mixture needles, one at a time, to obtain highest tachometer reading. After highest reading is reached using mixture needles, readjust

idle solenoid or throttle stop screw and mixture screws, as required, to obtain 50 rpm faster than specified idle. Next turn each mixture needle in (lean as required to reduce engine speed 25 rpm) this reduces idle speed to the recommended rpm. Reconnect distributor vacuum hose. Reconnect disconnected lines.

<sup>16</sup> 600 rpm w/solenoid electrically disconnected.

<sup>17</sup> 500 rpm w/solenoid electrically disconnected.

<sup>18</sup> Fuel flow should be sufficient at cranking speed.

<sup>19</sup> Integrated Regulator. Refer to charging volts green band indicator or A.C. diagnostic tune up center.

<sup>20</sup> 260 H.P.; G.S. Stage 1 270 H.P.

<sup>21</sup> Century models, except Station Wagons 650D.

<sup>22</sup> Le Sabre & Centurian 600D.

<sup>23</sup> Adjust solenoid plunger adjustment to specified idle speed. Adjust idle mixture screw to obtain highest idle speed. Readjust solenoid plunger to 20 rpm faster than specified idle speed. Turn mixture screw IN to obtain specified idle speed. Disconnect lead from solenoid and adjust carburetor throttle stop screw to obtain shutdown idle speed of 400 rpm. Do not readjust mixture screw or solenoid.

<sup>24</sup> Turn mixture screw IN until lightly seated, then back screw OUT 4 full turns. Adjust solenoid plunger screw to obtain 830 rpm for Man. Trans., 630 D rpm for Auto. Trans. Turn mixture screw IN to obtain specified idle speed without resetting throttle stop screw. Disconnect lead from solenoid and adjust carburetor throttle stop screw to obtain shutdown idle speed of 400 rpm. Do not readjust mixture screw or solenoid.

<sup>25</sup> 1. Open throttle sufficiently to allow solenoid to extend and contact the throttle lever pad in the idle position.

2. Adjust solenoid set screw to obtain specified RPM. Reposition solenoid bracket if additional movement is required.

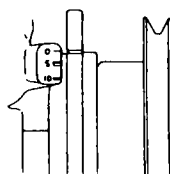
3. Disconnect solenoid wire to disengage solenoid.

4. Adjust carburetor idle screw to obtain specified RPM.

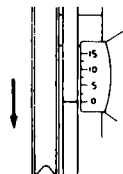
5. Reconnect solenoid wire.

6. Disconnect and plug distributor vacuum line, start engine, and set ignition timing.

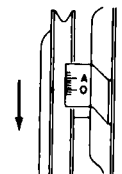
## TIMING MARK



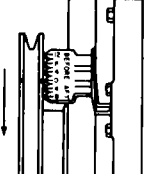
1962-63  
198, 225 V-6 eng.  
1961-63  
215 V-8 eng.



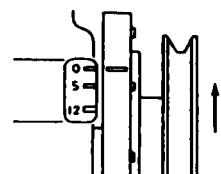
1964-67  
225 V-6 eng.  
300, 340 V-8 eng.



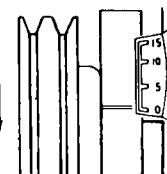
1968-70 250 6-cyl. eng.  
(Each line equals 2°)



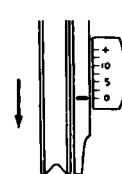
1971  
250 eng.



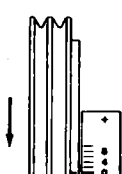
1959-66  
364, 400, 401, 425 V-8 eng.



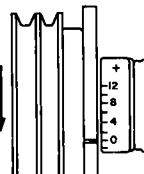
1967  
400, 430 V-8 eng.



Early 1968  
350, 400, 430 V-8 eng.



Late 1968-71  
350, 400, 430 V-8 eng.  
1970-71 455 eng.



1972-73  
340, 350, 455 eng.

Disconnect Vacuum Line hose from distributor and tape before setting timing.

# BUICK