

CADILLAC

YEAR	ENGINE CUBIC INCHES	AC SPARK PLUG TYPE [●]	SPARK PLUG GAP ■	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. ¹²	AUTO. TRANS. ¹²	PRES-SURE LBS. PER SQ. IN.	VOLUME	
V-8													
1973*	500, 472 eng.	R46N	.035	1	28-32	2	—	8	—	6,7,14	5.25—6.5	1 pint/30 sec.	13
1972*	500, 472 eng.	R46N	.035	1	28-32	2	—	8	—	6,7,9	5.25—6.5	1 pint/30 sec.	13.5—14.4 @ 125 ¹¹
1971*	500, 472 eng.	R46N	.035	1	28-32	2	—	8	—	6,7,9	5.25—6.5	1 pint/30 sec.	13.8—14.8 @ 100 ⁸
1970	500, 472 eng.	R46N	.035	1	28-32	2	—	5	—	600D ^{2,4}	5.25—6.5	1 pint/30 sec.	13.8—14.8 @ 85
1969	472 eng.	R44N	.035	1	28-32	2	—	5	—	550D ^{2,4}	5.25—6.5	1 pint/30 sec.	13.5—14.4 @ 125
1968	472 eng.	44N	.035	1	28-32	2	—	5	—	550D ^{2,4}	5.25—6.5	1 pint/30 sec.	13.5—14.4 @ 125
1967	390, 429 eng.	44 ⁵	.035	1	28-32	2	—	5	—	480D ^{2,3}	5.25—6.5	1 pint/30 sec.	13.5—14.4 @ 125
1966-65	390, 429 eng.	44 ⁵	.035	1	28-32	2	—	5	—	480D ^{2,3}	5.25—6.5	1 pint/30 sec.	13.5—14.4 @ 125
1964	390, 429 eng.	44 ⁵	.035	1	28-32	2	—	5	—	480D ^{2,3}	5.25—6.5	1 pint/30 sec.	13.8—14.2 @ 100
1963	390, 429 eng.	44 ⁵	.035	1	28-32	2	—	5	—	480D ^{2,3}	5.25—6.5	1 pint/30 sec.	13.8—14.2 @ 100
1962-61	390 eng.	44 ⁵	.035	1	28-32	2	—	5	—	480D ²	5.2—6.5	1 pint/30 sec.	13.8—14.7 @ 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.

¹ Proper gap will be obtained with dwell angle at 30°.

² w/Air Cond., 900 rpm in NEUTRAL with idle speed-up device ON.

³ w/A.I.R.-equipped engines, 550D.

⁴ 1968-70 Carburetor adjustment: Set idle speed to specified rpm. Adjust one idle mixture screw IN (lean) to get highest rpm. Continue to turn screw IN until speed drops 20 rpm, then back OUT screw, 1969—1½ turns, 1969—1 turn. Do same with other mixture screw and repeat procedure until specified idle speed is obtained.

⁵ Light service, use 45S.

⁶ Air Cond. off.

⁷ 600D rpm w/Solenoid energized; 350-400D rpm w/Solenoid electrically disconnected.

⁸ Regulator for 80 AMP Alternator is integral part of alternator.

⁹ Idle mixture and speed information applying to 1971 and 1972 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 canister. 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. Re-connect distributor vacuum hose. Install "RED" service idle needle limiter caps on mixture screws. Reconnect disconnected lines.

(NOTE: Before idle mixture adjustment is made, distributor vacuum advance hose must be disconnected at the distributor and plugged to eliminate the possibility of advancing the timing and increasing engine rpm.)

1. Disconnect parking brake vacuum hose at vacuum release cylinder and plug hose. Disconnect air leveling compressor hose at air cleaner and plug hose. Remove air cleaner but keep vacuum hoses connected.

(NOTE: Hoses must be disconnected at these locations to include any calibrated leakage in balance of system.)

2. Connect tachometer to engine, set parking brake securely and block wheels. Place transmission selector lever in Neutral.

3. Mixture screws should be out approximately 6 turns. Start and warm engine to normal operating temperature. Be sure that choke is fully off and that carburetor is on slow idle with primary and secondary throttle valves closed.

4. Place transmission selector lever in either "DR" position and turn A/C off.
5. Hot idle compensator must be closed when adjustment is made. This can be done by pressing compensator pin with eraser on end of pencil. Compensator pin is located in the air horn at the front mounting screw on the choke side. (697 and 698 A/C cars only.)

6. Set idle speed to 620 rpm by adjusting anti-dieseling solenoid. Lock solenoid in place with sheet metal jam nut.

7. Turn one idle mixture adjustment screw clockwise.

8. Turn screw until speed falls off 10 rpm.

9. Repeat steps 7 and 8 with other idle mixture adjusting screw. Idle mixture and speed adjustment is now complete. Idle speed should be 600 rpm. Install new red mixture screw limiter caps.

10. Shut off engine and remove tachometer.

11. Connect parking brake vacuum line.

12. Connect distributor vacuum line.

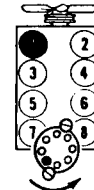
13. Install air cleaner.

¹¹ Eldorado equipped w/integral regulator. Refer to charging volts green band indicator or A.C. diagnostic tune up center.

¹² Hold hot idle compensator valve closed if so equipped.

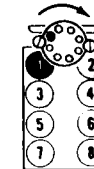
¹³ Integrated Regulator. Refer to charging volts green band indicator or A.C. diagnostic tune up center.

CYLINDER NUMBERING SEQUENCE



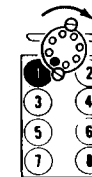
1959-62

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



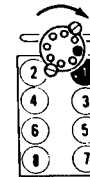
1963

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



1964-67

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



1968-73

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

*For detailed carburetor adjustments refer to manufacturers service manual.

14 1973 Idle mixture and speed adjustments (on car)

a. Mixture adjustment: The following procedure should not be considered part of a normal tuneup. Idle mixture screws are equipped with limiter caps to prevent their being adjusted. Idle mixture limiter caps should not be removed unless it is necessary to replace the idle mixture needles or clean the idle passages. If mixture needles are replaced, the following procedure must be performed.

(NOTE: Before idle mixture adjustment is made, distributor vacuum advance hose must be disconnected at the distributor and plugged to eliminate the possibility of advancing the timing and increasing engine rpm.)

1. Disconnect parking brake vacuum hose at vacuum release cylinder and plug hose. Disconnect air leveling compressor hose at air cleaner and plug hose. Remove air cleaner but keep vacuum hoses connected.

(NOTE: Hoses must be disconnected at these locations to include any calibrated leakage in balance of system.)

2. Connect tachometer to engine, set parking brake securely and block wheels. Place transmission selector lever in Neutral.

3. Mixture screws should be out approximately 6 turns. Start and warm engine to normal operating temperature. Be sure that choke is fully off and that carburetor is on slow idle with primary and secondary throttle valves closed.

4. Place transmission selector lever in either "DR" position and turn A/C off.

5. Set idle speed to 640 rpm by adjusting anti-dieseling solenoid. Lock solenoid in place with sheet metal jam nut.

6. Using Extension Hex-Head Driver turn alternately each mixture screw inward ¼ turn at a time until the 600 rpm speed is reached.

7. After the setting is made in Step 6 turn each mixture screw out ¼ turn.

8. Readjust anti-dieseling solenoid to give an idle speed of 600 rpm. Lock solenoid in place with sheet metal jam nut.

9. Idle mixture and speed adjustment is now complete. Idle speed should be 600 rpm. Do not install any mixture screw limiter caps.

10. Shut off engine and remove tachometer.

11. Connect parking brake vacuum line.

12. Connect distributor vacuum line.

13. Install air cleaner.

b. Idle speed adjustment: Normal engine idle speed is no longer adjusted with the commonly used idle speed screw as in past years but with an anti-dieseling solenoid located where the dashpot was previously. To make an idle speed adjustment the car must be running; this energizes the solenoid and permits the solenoid plunger to move out.

The throttle must be opened slightly to allow the plunger to move out completely and then returned to idle position against the extended solenoid plunger before an idle speed adjustment can be made.

When the ignition is turned off the solenoid plunger retracts and the throttle lever comes to rest against the low speed idle adjusting screw.

The solenoid is not strong enough to open the throttle when energized, but if the throttle is opened slightly to allow the plunger to move out completely then the plunger will keep the throttle open at the adjusted idle speed.

(NOTE: Before low idle speed adjustment is made, distributor vacuum advance hose must be disconnected at the distributor and plugged to eliminate the possibility of advancing the timing and increasing engine rpm. Hose must be disconnected at this location to include any calibrated leakage in balance of system.)

Mixture adjustment must be correct before idle speed setting can be made.

1. Disconnect parking brake hose at vacuum release cylinder and plug hose. Set parking brake and block wheels. Disconnect air leveling compressor hose at air cleaner and plug hose.

2. Remove air cleaner (keep vacuum hoses connected), connect tachometer, start and warm-up engine to operating temperature in park. Choke should be fully off and throttle completely off the fast idle cam.

3. Place transmission selector lever in drive, turn air conditioning off and disconnect wire to anti-dieseling solenoid. Plunger should be retracted and not hold throttle open.

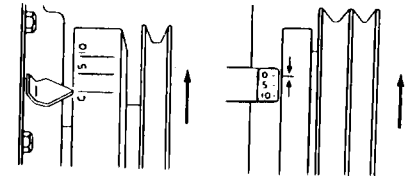
4. Adjust idle speed screw on carburetor to give 350-400 rpm.

5. Reconnect solenoid wire, crack throttle slightly to extend plunger fully. Turn solenoid to adjust fore and aft position to provide a 600 rpm idle in drive with A/C off.

6. Tighten lock nut and shut off engine. Remove tachometer.

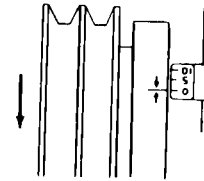
7. Reconnect all disconnected hoses. Install air cleaner.

TIMING MARK

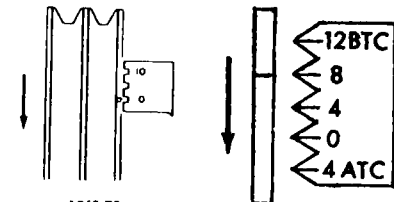


1959-62
365, 390 V-8 eng.

1963-64
390, 429 V-8 eng.
Early 1965 429 V-8 eng.



Late 1965
429 V-8 eng.
1966-67 429 V-8 eng.



1968-70
472 V-8 eng.
1970
500 V-8 eng.

1971-73
472, 500 V-8 eng.

Disconnect Vacuum Line Hose from Distributor and tape before setting timing.

NOTES

Blank lined area for notes.