

ENGINE ELECTRICAL

GENERAL DESCRIPTION

The 12 volt electrical system, used on 1955 cars, is basically the same as that used on 1954 cars with the exception of minor changes in spark plugs and distributor advance curves to make the ignition system compatible with the new higher compression engine.

Type 44-5 spark plugs are installed as original equipment on 1955 standard Cadillac engines, while 43-5 spark plugs are installed on Eldorado engines. For owners who drive at higher speeds on long trips, the cooler type 43-5 spark plug is recommended for the standard 1955 engine. Under no circumstances, however, should a 46-5 spark

plug be used in a 1955 engine.

Service procedures for this section remain the same as those outlined in the 1954 Shop Manual.

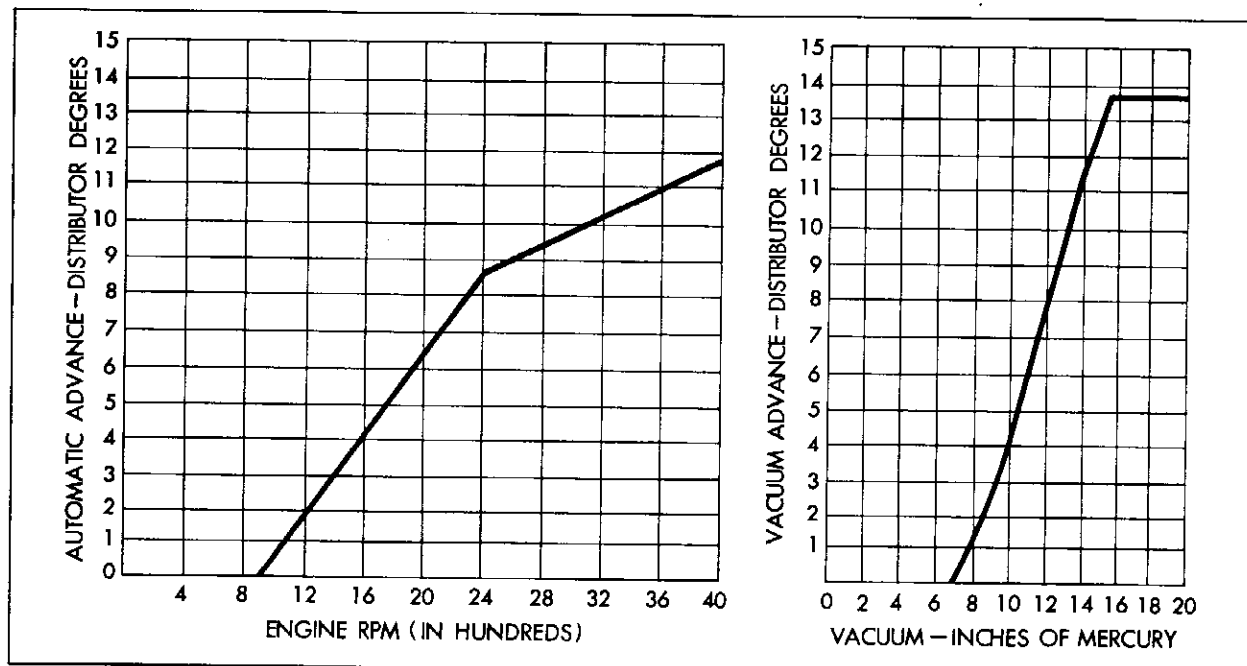
NOTE: When checking and setting the ignition timing on 1955 engines, it is very important that the vacuum pipe to the distributor be disconnected. This will eliminate the possibility of an inaccurate setting due to mispositioned vacuum holes in the carburetor throttle body or poorly seating throttle valves which could expose the vacuum diaphragm to manifold vacuum. Check the timing after connecting the vacuum line. If timing is advanced, check carburetor.

SPECIFICATIONS

DISTRIBUTOR TEST INFORMATION

Centrifugal Advance				Vacuum Advance		
Engine Speed R.P.M.	Engine Spark Advance	Distr. Speed R.P.M.	Distr. Spark Advance	Vacuum-Inches of Mercury	Distributor Degrees	Engine Degrees
800	0	400	0	6	0	0
1,200	2-5	600	1- 2.5	10	2.5- 5.5	5-11
1,600	6.75- 9.75	800	3.5 - 5	12	6.5-10.0	13-20
2,000	11 -14.5	1,000	5.5 - 7.25	14	10.0-13.5	20-27
2,400	15.5 -19.25	1,200	7.75- 9.75	16	13.0-14.5	26-29
3,200	18.5 -22.5	1,600	9.25-11.25	17	13.0-14.5	26-29
4,000	21.5 -25.5	2,000	10.75-12.75			

NOTE: Advance starts at 6.5" to 8.5" mercury. Maximum advance is 13^o-14.5^o at 15"-16" mercury.



Distributor Advance Curves

ENGINE ELECTRICAL

SPECIFICATIONS (Cont'd)

Subject and Remarks	All Series	Subject and Remarks	All Series
IGNITION		*Current setting in amperes	
Coil, amperes draw, engine running.	1.25A	Range	27-33
Coil, Delco-Remy type number	1115082	Adjust to	30
Distributor, Delco-Remy type number	1110852	Cut out relay --	
Distributor advance - engine degrees		Air gap . . . . .	.020"
Centrifugal advance.	23.5 ⁰ + 2 ⁰	Contact point opening. . . . .	.020"
Vacuum advance	27.5 ⁰ + 1.5 ⁰	*Contacts close at volts.	11.8-13.6
Dwell angle range	26 ⁰ - 33 ⁰	Adjust to	12.8
New and used point gap . . . . .	.016"	Voltage regulator --	
Tension of contact arm spring	19-23 oz.	Air gap . . . . .	.075"
Timing mark, ahead of center.	2-1/2 ⁰	Voltage setting --	
Spark plugs - Standard Engine		*Closed circuit in volts	
A.C. type number.	44-5	Range	14-15
Gap . . . . .	.035"	Adjust to	14.5
Thread.	14MM	*At operating temperature after 15 minutes run- ning with 8 to 10 amps. current flow through regulator.	
Spark plugs - Eldorado Engine		STARTING MOTOR	
A.C. type number.	43.5	Delco-Remy type number	1107629
Gap . . . . .	.035"	Armature --	
Thread.	14MM	Commutator out-of-round, not over. . . . .	.005"
Ignition switch --		Bearings --	
Delco-Remy type number.	1116470	Commutator end.	Oilless Bushing
Firing order.	1,8,4,3,6,5,7,2	No center bearing	
Cond. Capacity in Microfarads . . . . .	.18 - .23	Drive end	Oilless Bushing
GENERATOR		Lock Amperage	460
Delco-Remy type number.	1102002	Lock torque, in ft. lbs	11.5
Armature --		Lock voltage.	5.2
Commutator out of round,		Gear ratio	19.5-1
not over. . . . .	.002"	No load RPM	6500
End play in bearing, not over. . . . .	.005"	Amperage . . . . .	.75
Car speed at min. peak charging rate.	25.5 MPH	Volts.	10.3
Generator ventilation	Forced Air	Brush spring tension	30-40
Ratio of armature RPM to engine RPM	2.15-1	Solenoid switch	
Brush spring tension	24-32 oz.	Pull in coil	44 amps. at 13.5 volts
Output, cold --		Hold in coil	19 amps. at 14.0 volts
Cut-in Engine RPM.	535	BATTERY	
Amperes	0	Capacity, ampere hours	
Volts	12.8	55-62,60S,75.	60
Given Speed Engine RPM.	1000	55-86 Comm'l	70
Amperes	30	Delco-Remy type number	
Volts	14.0	55-62,60S,75.	3EM60-W
GENERATOR REGULATOR		55-86 Comm'l	3EM70-W
Delco-Remy type number.	1118826	Plates, number of	
Current regulator --		55-62,60S,75.	9
Air gap (between armature and center of core). . . . .	.075"	55-86 Comm'l.	11
		Terminal grounded	Negative