

CADILLAC

SERIES 341 (1927) SERIAL NOS. 3-00001 UP
SERIES 341-A (1928)
DELCO-REMY GENERATING, STARTING AND LIGHTING SYSTEM
DELCO-REMY IGNITION

BATTERY:—Exide, Type 3-LXRV-15-2G, 6 volt. Starting capacity is 137 amperes for 20 minutes. Lighting capacity is 5 amperes for 26 hours. The positive (+) terminal is grounded. Battery is mounted on right side of car on right frame member under the dust shield. This battery is not interchangeable with battery used on Series 314 Cadillac because filler plugs are located on opposite side of cap.

IGNITION:—Coil Model 2195. Distributor Model 4032. Breaker contacts separate .022-.027 inch. They are made of tungsten. Resurface contacts whenever necessary with a fine flat contact file or on a medium hard oilstone. Distributor is semi-automatic. Maximum manual advance is 38° (engine) or 20° distributor. Automatic advance begins at 600 R.P.M. (engine). Maximum automatic advance is 20° (engine) reached at 3000 R.P.M. (engine). Breaker arm spring tension is 16-20 ounces. There are two sets of breaker contacts set at an angle of 135° and operating on a four lobed cam. Contacts open alternately at intervals of 45° corresponding to 90° of crankshaft rotation, which is the correct firing interval for the Cadillac engine. This must be accurately set. (See Timing.)

Mounting:—Ignition coil is mounted on side of distributor mounting. Distributor is mounted at front of engine between the cylinder banks. The ignition system is fitted with an Electrolock switch on the dash which must be removed with the distributor when the distributor is taken off the car. To remove the distributor, disconnect manual advance rod and remove head with high tension cables attached. Then remove hold down screw and lift the distributor from place.

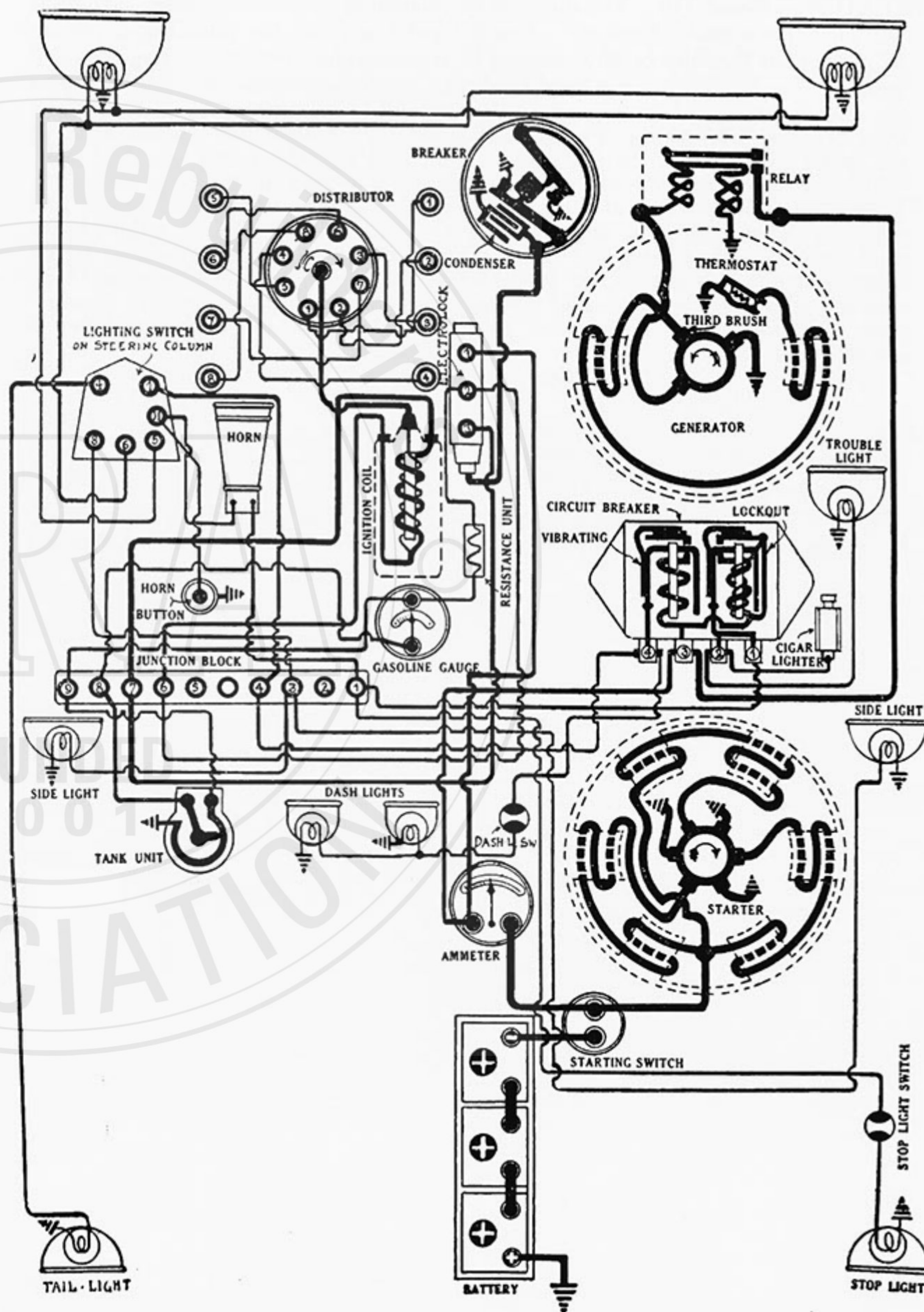
Oiling:—Put 8 or 10 drops of light engine oil in the oiler on the side of the distributor housing every month or each 1000 miles.

Timing:—**Synchronization of Contacts:**—Use Delco-Remy Tool, Part No. 822572, and follow directions given on Page S-24. This is important and contacts must be synchronized when distributor timing is checked.

Timing Distributor to Engine:—One set of breaker contacts begin to separate when the piston entering power stroke reaches a position $\frac{7}{8}$ inch on the flywheel before top dead center with the spark lever fully advanced. With piston No. 1R in firing position the flywheel mark 'IG/A-1-5' will be opposite the indicator on the flywheel case. This mark is $\frac{7}{8}$ inch before top dead center. To set timing, crank engine over until piston No. 1 enters compression stroke (the upstroke with both valves closed). Fully advance spark lever. Then continue to crank engine until flywheel mark 'IG/A-1-5' is opposite the indicator on the case. If contacts are not beginning to separate, loosen the taper screw in the center of the cam and rotate cam until one set of contacts open. The other set will be open but just closing. Tighten the screw. The second set of contacts open 45 degrees (distributor) after this point with the flywheel mark IG/A-2-6' opposite the indicator. These directions apply only to standard compression engines. For high compression engines see following paragraph.

Special Directions for Timing High Compression Engines:—On Cadillac engine with high compression heads (with letters 'H.C' cast in head) contacts separate with the piston $\frac{1}{2}$ inch (on the flywheel) before top dead center. The engine should be cranked over until a point approximately half way between the 'IG/A-1-5' mark on the flywheel and the top dead center mark is opposite the indicator. Contacts should separate at this point. On engines with high compression heads the spark plug gap must be set at .026 inch.

Valve Timing:—**INLET VALVES:**—Head diameter, $1\frac{1}{2}$ inches; stem diameter, $\frac{3}{8}$ inch; stem length, $6\frac{17}{64}$ inches (over all); valve lift, $\frac{23}{64}$ inch; spring pressure, 133-139 pounds compressed to $2\frac{5}{32}$ inches; tappet clearance, .004 inch (cold). Inlet valves open 11° 2' before top dead center and close 58° 38' after lower dead center with cold engine.



CADILLAC

SERIES 341 (1927) SERIAL NOS. 3-00001 UP,

SERIES 341-A (1928)

DELCO-REMY GENERATING, STARTING AND LIGHTING SYSTEM DELCO-REMY IGNITION

EXHAUST VALVES:—Head diameter, $1\frac{1}{2}$ inches; stem diameter, $\frac{3}{8}$ inch; stem length, $6\frac{1}{4}$ inches (over all); valve lift, $\frac{23}{64}$ inch; spring pressure, 133-139 pounds compressed to $2\frac{5}{32}$ inches; tappet clearance, .006 inch (cold). Exhaust valves open $38^{\circ}12'$ before lower dead center and close $7^{\circ}38'$ after top dead center with cold engine. Valve stem guides are removable. Oversize valve stems are not made.

Firing Order:—The firing order is 1L-4R-4L-2L-3R-3L-2R-1R. The right hand cylinder bank is right viewed from the driver's seat. Number one cylinder is nearest the radiator.

Spark Plugs:—Spark plugs are $\frac{7}{8}$ -18 S.A.E. Standard. Spark plug gaps on standard compression engines are .032 inch. Gaps on high compression engines must be set at .026 inch.

STARTER:—Model 382. Starter is connected to the engine through a mechanical pinion shift interconnected with the starting pedal. The direction of rotation is clockwise, looking at the commutator end. Starter brush spring tension is 24-28 ounces.

Starter Data			
Torque	R.P.M.	Volts	Amperes
4.5 lb. ft.	750	5	200
19 "	Lock	3	600

Mounting: Starter is mounted at right of engine on rear of flywheel case. To remove starter, disconnect cable and starter pedal linkage and remove three flange mounting cap screws. Then pull starter to rear and lift from place.

Oiling:—Starter bearings are oilless. They require no attention.

GENERATOR:—Model 384. The direction of rotation is counter-clockwise, looking at the commutator end. Generator current regulation is by third brush shunt field combined with a thermostat. Thermostat contacts open at 165°F. inserting a resistance in the field circuit and reducing the output approximately 2.5 amperes. Generator output is adjusted by shifting third brush. Remove commutator cover band and shift third brush mounting plate in a counter-clockwise direction to

increase the charging rate and in the opposite direction to decrease the charging rate. The third brush is held in any position by friction washers. The maximum charging rate of 18-20 amperes at 8.6 volts is reached at 1400-1600 R.P.M. or 22-25 M.P.H.

Generator Data

Cold Test 75°F.			Hot Test 175°F.		
Amperes	Volts	R.P.M.	Amperes	Volts	R.P.M.
18-20	8.2-8.62	1450	10-12	7.3-7.7	1600

Shunt field current is 1.8-2.3 amperes at 6 volts. Generator brush spring tension is 16-20 ounces.

Mounting:—Generator is mounted at right of engine and is driven by silent chain in tandem with the water pump. To remove generator, disconnect wire and remove three mounting nuts. Then pull generator to rear and lift from place.

Oiling:—Put 8 or 10 drops of light engine oil in each of the generator bearing oilers every two weeks or each 500 miles.

RELAY:—Model 266-N. Relay is mounted on the generator. Relay closes at 8-10 M.P.H. when the generator voltage reaches 7.75 volts and opens with a discharge current of 0-2.5 amperes. Relay contacts separate .015-.025 inch. Air gap is .014-.021 inch with contacts closed.

LIGHTING:—Switch Model 1313 is mounted at lower end of steering column. Head lamps are 6-8 volt, 21 cp. double filament using second 21 cp. filament instead of dimming. Stop lamp is 6-8 volt, 15 cp. S.C. Inspection lamp is 6-8 volt, 21 cp. S.C. Side, dash, tail, tonneau, dome, corner and step lamps are each 6-8 volt, 3 cp. S.C.

CIRCUIT BREAKER:—Model 5759. A combination vibrating and lockout circuit breaker is mounted on the dash. The vibrating unit protects the lighting circuits. It begins to operate at 25-30 amperes limiting the current flow to 10-15 amperes. The lockout circuit breaker protects the horn, stop lamp, inspection lamp, cigar lighter and body lamps. It opens the circuit when the current reaches 25-30 amperes and operate with a discharge current of less than 1 ampere.