

CHANDLER

BIG SIX MODEL 35 (1927)

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

BATTERY:—Prest-O-Lite, Type 613-RHK, 6 volt. Starting capacity is 115 amperes for 20 minutes. Lighting capacity is 5 amperes for 20 hours. The positive (+) terminal is grounded. Battery is mounted under the floor boards of the front compartment on the right hand frame member.

IGNITION:—Coil Model 525-C. Distributor Model 637-X. Breaker contacts separate .015-.020 inch. They are made of tungsten. Resurface contacts with a fine flat contact file or on a medium hard oilstone. Stationary contact is mounted on crescent shaped mounting plate which moves in same arc as breaker arm. This allows setting of contacts without disturbing parallel surface of breaker contacts. To adjust contact opening, loosen lock screw on crescent mounting plate just back of stationary contact. Then turn eccentric adjusting screw until correct opening is secured. Tighten the lock screw. Ignition current is 1-3 amperes with engine running and 3.4-5 amperes with engine stopped. Distributor is semi-automatic. Manual advance is 22°. Automatic advance begins at 400 R.P.M. (engine). Maximum automatic advance of 22° is reached at 2600 R.P.M. Breaker arm spring tension is 15-20 ounces.

Mounting:—Distributor is mounted on rear of generator at right of engine. To remove distributor, disconnect primary lead and remove distributor head with high tension cables intact. Then loosen lock screw on side of distributor mounting and lift distributor from place.

Oiling:—Refill the grease cup with medium cup grease and turn down two turns every month or each 1000 miles. Every month put a small bit of vaseline on the face of the breaker cam.

Timing:—Breaker contacts begin to separate when the piston entering power stroke reaches a position one-half tooth on the flywheel past top dead center with the manual spark control lever in the fully advanced position. To set timing, crank engine until piston No. 1 enters compression stroke. This is the upstroke with both valves closed. Fully advance spark control lever and continue to crank engine until piston No. 1 reaches top dead center. At this point the dead center mark on the flywheel '1/6' will be directly on top of the flywheel and under the center of the flywheel housing. Then crank engine over one half tooth from this point. The breaker contacts should begin to separate. If they do not, loosen advance arm clamp screw and rotate distributor housing until contacts begin to separate. Tighten the clamp screw. Make certain that the rotor button is under the segment connected to the spark plug in cylinder No. 1.

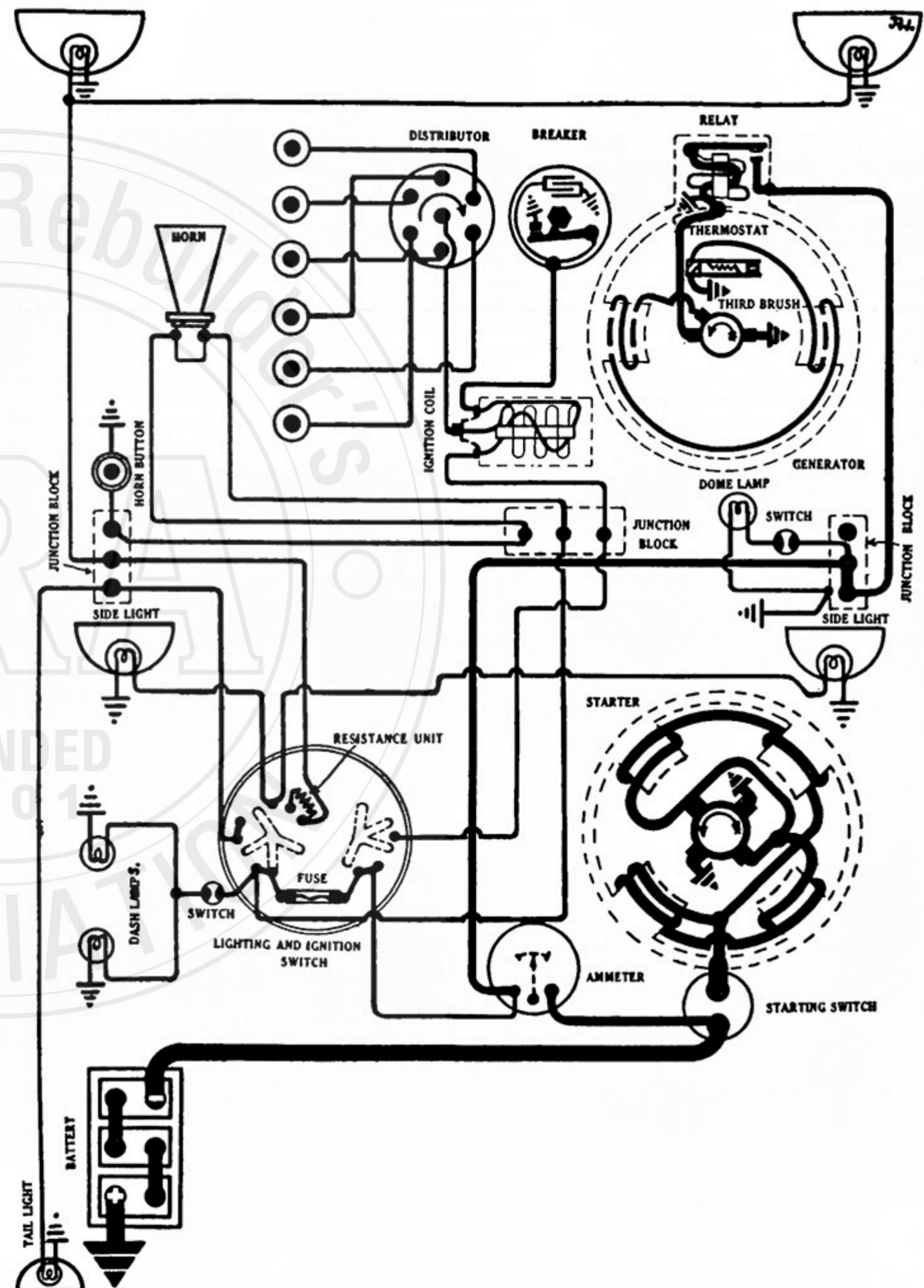
On cars with magneto ignition, breaker contacts should be fully open when the piston entering power stroke reaches a position two and one half teeth on the flywheel past top dead center with the spark control lever and breaker assembly in the fully retarded position. To set magneto timing, crank engine until piston No. 1 reaches firing position. Then loosen coupling at front of magneto and remove breaker box cover and distributor head. Rotate magneto armature until distributor brush is directly under No. 1 segment. Then turn armature slightly until breaker contacts just begin to separate. Tighten magneto coupling and replace breaker box cover and distributor head.

Valve Timing:—INLET VALVES:—Head diameter, 1 23/32 inches; stem diameter, .372 inch; stem length, 6 9/16 inches; valve lift, 5/16 inch; spring pressure, 60 pounds; tappet clearance, .007 inch recommended. Inlet valves open 2° before top dead center and close 52° after lower dead center.

EXHAUST VALVES:—Head diameter, 1 23/32 inches; stem diameter, .372 inch; stem length, 6 9/16 inches; valve lift, 5/16 inch; spring pressure, 60 pounds; tappet clearance, .007 inch recommended. Exhaust valves open 53° before lower dead center and close 16° after top dead center. Valve stem guides are not removable. Oversize valve stems are not made.

Firing Order:—The firing order is 1-5-3-6-2-4.

Spark Plugs:—Spark plugs are 7/8-18 S.A.E. Gaps are .025 inch.



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STARTER:—Model 720-W. Starter is connected to engine through an outboard Bendix drive Type R-11X-11T. The direction of rotation is counter-clockwise, looking at the commutator end. Starter switch is Model 405-C. Brush spring tension is 24-28 ounces each.

Starter Data			
Torque	R.P.M.	Volts	Amperes
0 lb. ft.	6000	5	65
15 " "	Lock	3.15	570

Mounting:—Starter is mounted by special flange mounting at right of engine on forward side of flywheel housing under the flange of the crankcase. To remove starter, disconnect starter cable and remove stud extending through crankcase flange and flange mounting capscrews. Then slide starter forward from place.

Oiling:—Put 5 or 6 drops of light engine oil in the oiler on the commutator end of the starter every month or each 1000 miles. The drive end bearing is oilless.

GENERATOR:—Model 944-C. 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. cutting a resistance in the shunt field circuit and reducing the output approximately 40%. To adjust generator output, loosen the small round headed screw on the generator end plate and remove the commutator cover band. Then shift the third brush in a counter-clockwise direction to increase the charging rate and in the opposite direction to decrease the charging rate. The maximum charging rate of 20 amperes (cold) is reached at 1300 R.P.M.

Generator Data

Cold Test			Hot Test		
Amperes	Volts	R.P.M.	Amperes	Volts	R.P.M.
18-20	8.5	1300	9-12	7.6	1400

Running freely as a motor, generator draws 5 amperes at 6 volts. Shunt field current is 5 amperes at 6 volts. Brush spring tension is 22-28 ounces.

Mounting:—Generator is base mounted on special bracket at right of engine and is driven from the pump shaft. To remove generator, disconnect generator lead and all ignition wires or remove distributor from mounting. Then disconnect generator coupling. Remove nuts from two base mounting studs and lift generator from place.

Oiling:—Put 4 or 5 drops of light engine oil in each of the generator bearing oilers every month or each 1000 miles.

RELAY:—Model 265-B. Relay is mounted on top of the generator. Relay closes at 500 R.P.M. when the voltage of the generator reaches 7-7.5 volts and opens with a discharge current of 0-2.5 amperes. Charging current at closing of contacts is 3 amperes. Relay contacts separate .015-.025 inch. Air gap between relay armature and coil core is .014-.021 inch, contacts closed.

LIGHTING:—Remy Switch Model 470-S. Head lamps are each 6-8 volt, 21 cp. S.C. Side lamps are 6-8 volt, 2 cp. S.C. Dome lamp is 6-8 volt, 4 cp. S.C. Instrument board lamps and tail lamp are each 6-8 volt, 2 cp. S.C. Dimming is by resistance on switch.

FUSES:—Lighting fuse on switch is 20 amperes.

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