

CHANDLER

MODEL 65, SERIAL NOS. C-50001 UP
PRODUCTION STARTED JULY, 1928
AUTO-LITE GENERATING, STARTING SYSTEM
AUTO-LITE IGNITION

BATTERY:—Prest-O-Lite, Type A-613-JF. 6 volt, 13 plates. The positive (+) terminal is grounded. Starting capacity (20 minute rate) is 102 amperes for 20 minutes. Lighting capacity (5 ampere rate) is 5 amperes for 20 hours. Battery is mounted under the front floor boards on the left frame member.

IGNITION:—Coil Model IG-4064. The ignition coil is mounted on a bracket at front of engine block. Ignition current is 2 amperes at 6 volts with engine running and 5 amperes at 6 volts with engine stopped.
Distributor Model IGB-4018. Breaker contacts separate .022 inch with breaker arm on lobe of cam. Resurface contacts with a fine flat contact file or on a medium hard oilstone. Contact points may be adjusted by loosening lock nut on stationary point. Breaker arm spring tension is 17-20 ounces. Distributor is full automatic. Automatic advance begins at 400 R.P.M. of engine. Maximum automatic advance is 14 degrees (engine) reached at 2000 R.P.M.

Mounting:—Distributor is mounted on accessory bracket at right front of engine. To remove distributor, disconnect primary lead and remove distributor head with cables intact. Then remove set screw on side of distributor shaft and lift distributor from place.

Oiling:—Put a few drops of light engine oil in the oil cup on the side of the distributor shaft every month or each 1000 miles. Put a small bit of vaseline on the face of the breaker cam every month.

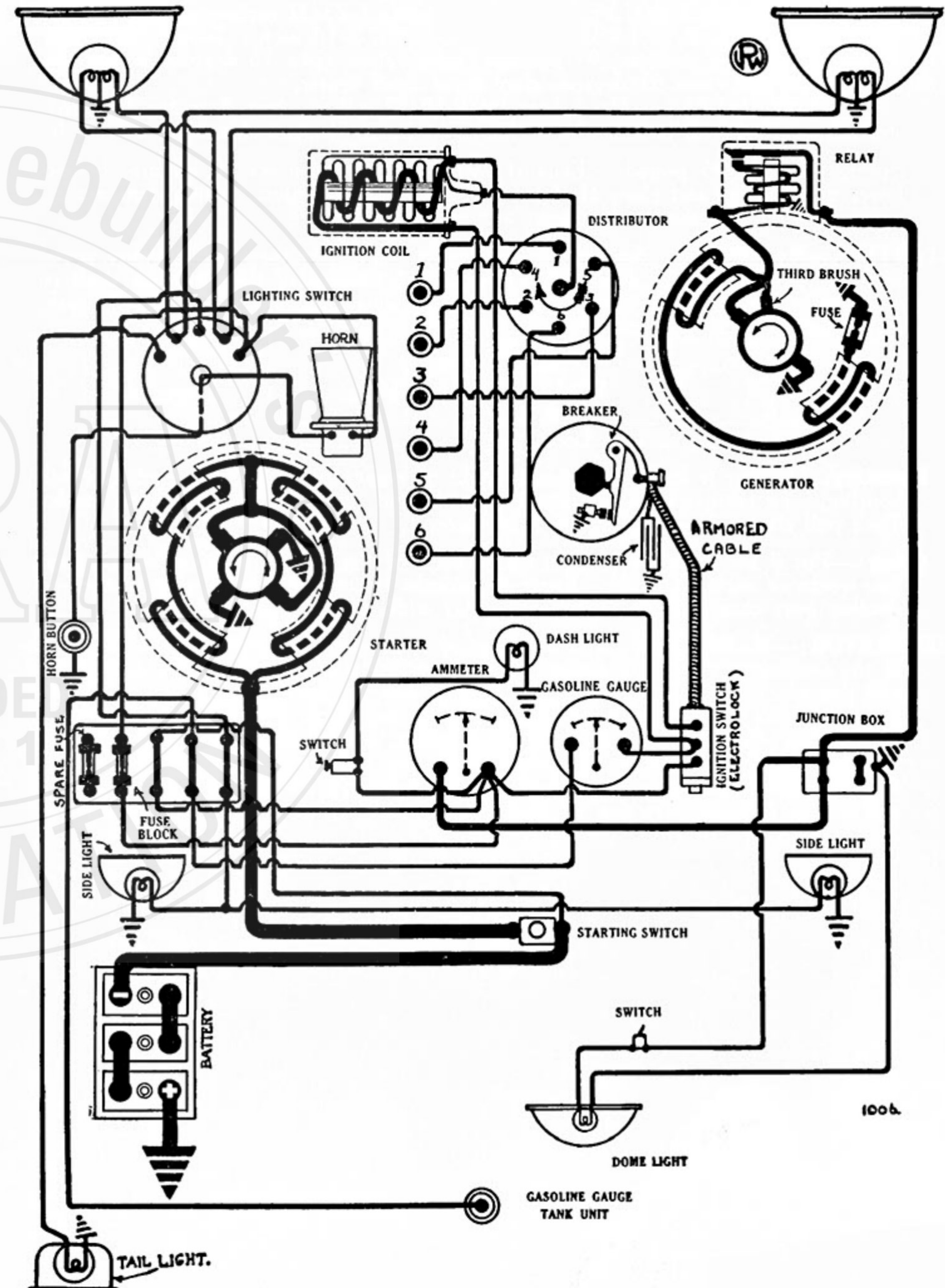
Timing:—Breaker contacts separate when piston entering power stroke reaches a position one tooth past top dead center with the breaker assembly in the fully retarded position. To set timing, crank engine over until piston No. 1 enters compression stroke. This is the upstroke with both valves closed. Continue to crank engine until piston No. 1 reaches top dead center when flywheel mark "DC-1 & 6" will be opposite the indicator mark on the flywheel housing. Continue to crank engine until a position one tooth past top dead center is reached. This is the firing point. If contacts do not separate at this point loosen the clamp screw and rotate the distributor until contacts begin to separate. Tighten the screw and make certain that the rotor is opposite the segment connected to the spark plug in cylinder No. 1 and connect the remaining plugs in order 5-3-6-2-4 around the distributor head.

Firing Order:—The firing order is 1-5-3-6-2-4. (No. 1 cylinder nearest the radiator.)

Spark Plugs:—Spark plugs are $\frac{7}{8}$ -18 S.A.E. Standard. Gaps are .027 inch.

VALVE TIMING:—**INLET VALVES:**—Head diameter is $1 \frac{15}{32}$ inches; stem diameter is $\frac{5}{16}$ inch; stem length is $5 \frac{1}{8}$ inches. Tappet clearance is .009 inch (cold) and .007 inch (hot). Spring pressure is 70 pounds compressed to $1 \frac{17}{32}$ inches. Valve lift is $\frac{5}{16}$ inch. Inlet valves open at top dead center and close at 54 degrees or 14 teeth on flywheel after lower dead center.

EXHAUST VALVES:—Head diameter is $1 \frac{15}{32}$ inches; stem diameter is $\frac{5}{16}$ inch; stem length is $5 \frac{1}{8}$ inches. Tappet clearance is .009 inch (cold) and .007 inch (hot). Spring pressure is 70 pounds compressed to $1 \frac{17}{32}$ inches. Valve lift is $\frac{5}{16}$ inch. Exhaust valves open at 37 degrees or 12 teeth before lower dead center and close at 5 degrees or $1 \frac{1}{2}$ teeth after



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top dead center. Valve stem guides are removable. Oversize valve stems are not made.

ARTER:—Model MN-4015. Starter is connected to the engine through an inboard Bendix drive. The direction of rotation is counter-clockwise, looking at the commutator end. Brush spring tension is 24-28 ounces.

Starter Data			
Torque	R.P.M.	Volts	Amperes
11 lb. ft.	Lock	4	550

Mounting:—Starter is flange mounted at left of engine on forward side of flywheel housing. To remove starter, disconnect cable and remove 3 flange mounting cap screws. Pull starter forward and lift from place.

Oiling:—Put 8 or 10 drops of light engine oil in each of the starter bearings oilers every 1000 miles or each month.

GENERATOR:—Model GAL-4115. The direction of rotation is counter-clockwise, looking at the commutator end. Generator current regulation is by third brush shunt field. To adjust generator output, remove commutator cover band and shift third brush and mounting bracket by tapping on mounting stud with screwdriver. 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 third brush is held in any position by friction between the mounting stud and the end plate. With standard car setting, the charging rate is 14 amperes (hot) reached at a speed of 20 miles per hour.

Generator Data					
Cold Test		Hot Test			
Amperes	Volts	R.P.M.	Amperes	Volts	R.P.M.
16-18	8	1600	14	8	2000

Motoring, generator draws 6 amperes at 6 volts. Shunt field current is 4.4 amperes at 6 volts. Brush spring tension is 14-18 ounces.

Mounting:—Generator is flange mounted at right of engine on rear of accessory bracket. The water pump is driven by an extension of the generator shaft. To remove generator, disconnect lead and water pump coupling and remove 4 mounting bolts. Then pull generator to the rear and lift from place.

Adjustment of Timing Chain:—Timing chain is adjusted by loosening nuts holding generator and moving generator outward. Make adjustment with engine running and move generator until chain hums. Then slack up on chain tension until the noise disappears. Tighten the nuts. It is very important not to get too much tension on the chain. With correct setting the chain will operate noiselessly.

Oiling:—Put 8 or 10 drops of light engine oil in each of the generator oilers every month or each 1000 miles.

RELAY:—Model CB-4014. Relay is mounted on the generator. Relay closes at 500 R.P.M. when the generator voltage reaches 6.75-7.5 volts and opens with a current discharge of 0-2.5 amperes. Charging current at closing of contacts is approximately 2 amperes. Relay contacts separate .025-.035 inch. Air gap is .015-.020 inch with contacts closed.

LIGHTING:—Clum Switch Model 10677. Lighting switch is mounted at the base of the steering column. Head lights are 6-8 volt, 21-21 cp. (double filament-double contact). Mazda 1110. Stop, dash, tail and side lights are 6-8 volt, 3 cp, S.C. Mazda 63. Dome light is 6-8 volt, 6 cp. S.C. Mazda 81.

FUSES:—Lighting fuses are 20 ampere capacity and are located in the fuse block on the dash. Generator field fuse is 5 amperes and is located in the commutator end of the generator.