

HUDSON

SUPER-SIX (LATE 1927)

AUTO-LITE GENERATING, STARTING AND LIGHTING SYSTEM AUTO-LITE IGNITION

BATTERY:—Prest-O-Lite, Type 6-15-JFK, 6 volt. Starting capacity is 120 amperes for 20 minutes. Lighting capacity is 5 amperes for 20 hours. The negative (—) terminal is grounded.

IGNITION:—Coil Model CE-4001. Distributor Model IGA-4023 and IGA-4024. Breaker contacts separate .020-.024 inch when new. After 1000 miles of operation contact gap should be set at .018-.020 inch. Resurface contacts whenever necessary with a fine flat contact file or on a medium hard oilstone. Distributor is semi-automatic. Manual advance is 25° (engine). Automatic advance begins at 400 R.P.M. (engine). Maximum automatic advance is 50° (engine) at 3200 R.P.M. Breaker arm spring tension is 18-20 ounces. Distributor is fitted with an Electro-lock. When distributor is removed for servicing, the Electro-lock must be removed with the distributor.

Oiling:—Put 6 or 8 drops of light engine oil in the oiler on the side of the distributor housing every two weeks or each 500 miles if the car is driven more than 500 miles in two weeks. Put one drop of oil in the breaker arm pivot every week or each 250 miles. Place a small bit of vaseline on the face of the breaker cam under the fiber bumper every 5000 miles.

Timing:—Breaker contacts begin to separate when the piston entering power stroke reaches a position 1 1/4 inches (on the flywheel) before top dead center with the spark control lever in the fully advanced position. To set timing, crank engine until piston No. 1 reaches this position. The flywheel mark will then be opposite the indicator visible through crankcase opening.

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

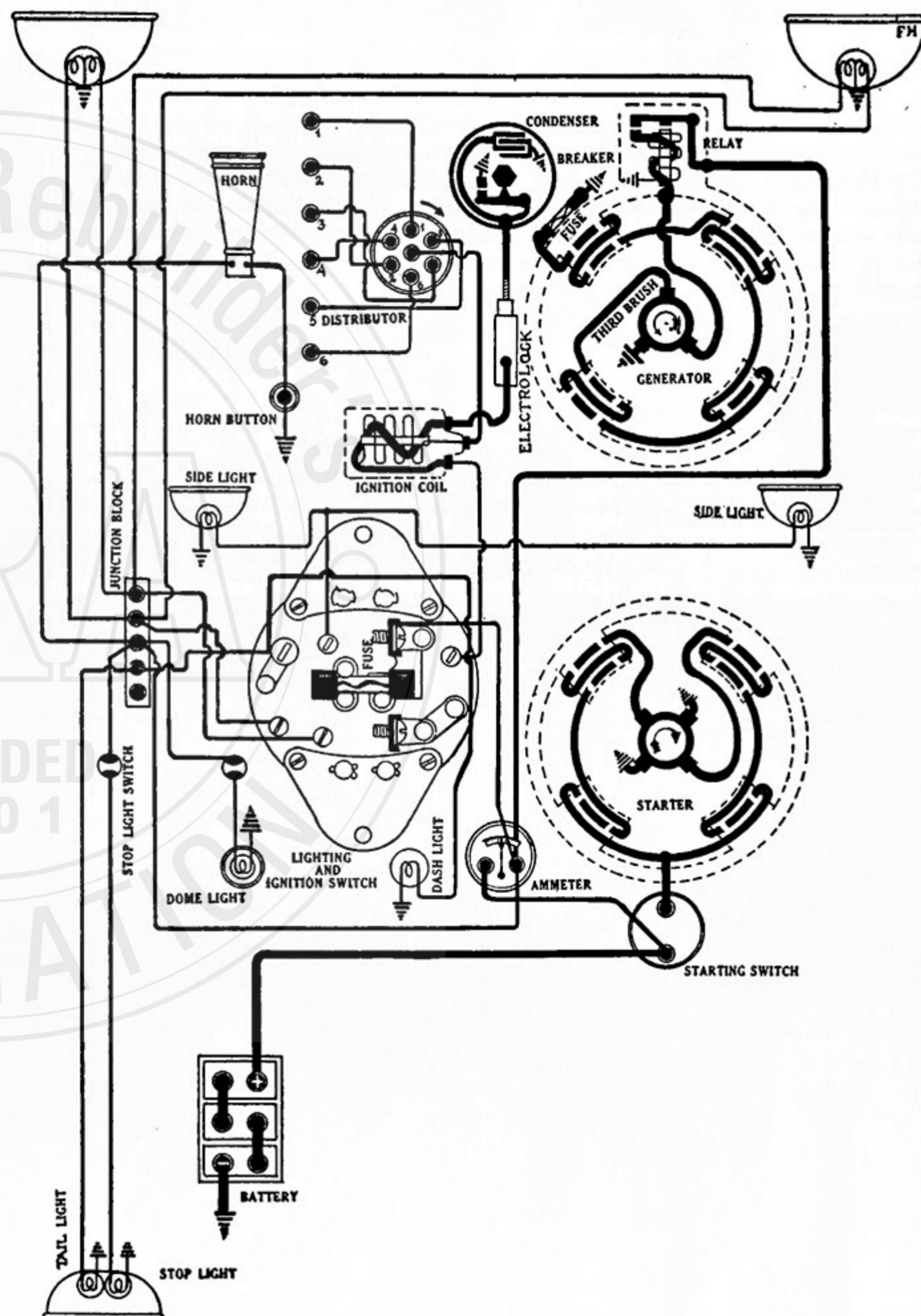
Spark Plugs:—Spark plugs are Metric standard. Gaps are .025 inch.

VALVE TIMING:—Specifications:—Head diameter, 2 1/32 inches (inlet) and 1 27/32 inches (exhaust). Stem diameter, .375 inch (inlet), .371 inch (exhaust). Stem length, 6 inches (inlet), 6 3/4 inches (exhaust). Spring pressure, 100 pounds (inlet) and 75 pounds (exhaust). Tappet clearance, .004 inch (inlet), .006 inch (exhaust).

Timing:—Inlet valves open 7 degrees after top dead center and close 42 degrees after lower dead center. Exhaust valves open 55 degrees before lower dead center and close 8 degrees after top dead center.

STARTER:—Model MUA-4001 (R.H. Drive), Model MUA-4002 (L.H. Drive). Starter is connected to the engine through a sliding gear shift built in the starting switch. Pressing down on the starting pedal meshes the gears and closes the starting switch. When the pedal is released a spring reverses these operations. Starter brush tension should be 1 3/4-2 1/4 pounds each. Starter cranks the engine at 110 R.P.M. taking 250 amperes at 5.5 volts.

Starter Data			
Model MUA-4001			
Torque	R.P.M.	Volts	Amperes
0 lb. ft.	4200	6	50
2 "	1500	5.3	130
4 "	1000	5.0	200
6 "	600	4.6	275
8 "	450	4.2	340
12.7 "	Lock	3.6	480



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Starter Data Model MUA-4002			
Torque	R.P.M.	Volts	Amperes
0 lb. ft.	4200	6	50
2 "	1500	5.3	130
4 "	1000	5.0	200
6 "	600	4.6	275
8 "	450	4.2	340
22 "	Lock	3.5	500

Oiling:—Starter has oilless graphite-bronze bearings. They require no attention.

GENERATOR:—Model GAB-4008. The direction of rotation is counter-clockwise, looking at the commutator end. Generator current regulation is by the third brush system. To adjust charging rate, remove commutator cover band and shift the third brush mounting plate by tapping on the mounting lug with a 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 mounting plate is held in any desired position by the friction between the mounting lug and the generator endplate. Maximum charging rate of 17.5 amperes is reached at 1300 R.P.M. of the generator.

Generator Data					
Cold Test (72°F)			Hot Test (206°F)		
Amperes	Volts	R.P.M.	Amperes	Volts	R.P.M.
4	6.8	630	4	6.8	750
10	7.4	780	10	7.6	1000
14	7.8	950	13	8.0	1400
17	8.0	1300	11	7.8	2000
13	7.8	1950			

Motoring freely at 355-390 R.P.M. generator draws 4.7-5.2 amperes at 6 volts. Shunt field current is 6.1-6.8 amperes at 6 volts. Tested separately each coil draws 24.4-27.2 amperes at 6 volts. Generator brush tension should be 1.0-1.5 pounds.

Oiling:—Put 4 or 5 drops of light engine oil in each of the generator bearing oilers every two weeks or each 500 miles if the car is driven more than 500 miles in two weeks.

RELAY:—Model CB-4014. Relay is mounted on the generator. Relay contacts close at 545-625 R.P.M. when the generator voltage reaches 7-7.5 volts and open with a discharge current of 0-2.5 amperes. Charging current must not exceed 5 amperes at closing of contacts. Contacts separate .025-.035 inch. Air gap is .010-.030 inch with contacts closed.

LIGHTING:—Clum Switch Model 10643. Auto-Lite No. XA-319. Head lamps are 6-8 volt, 21 cp. double filament using second 21 cp. instead of dimming. Stop lamp is 6-8 volt, 21 cp. S.C. Side, dash and tail lamps are each 6-8 volt, 3 cp. S.C.

FUSES:—Generator field fuse is 7.5 amperes. Lighting ruse on switch is 20 amperes.

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