

FLINT

JUNIOR MODEL Z-18 (1927)

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

BATTERY:—U.S.L. Type 3-CVX-5X, 6 volt, 84 ampere hour. Starting capacity is 96 amperes for 20 minutes. Lighting capacity is 5 amperes for 16.8 hours. The negative (—) terminal is grounded.

IGNITION:—Coil Model IG-4070. Distributor Model IG-4118-A. Breaker contacts separate .020-.024 inch. Resurface contacts whenever necessary with a fine flat contact file or on a medium hard oilstone. Distributor is semi-automatic. Maximum manual advance is 20° (engine). Automatic advance begins at 350 R.P.M. (engine). Maximum automatic advance is 20° reached at 3200 R.P.M. Breaker arm spring tension is 20 ounces. Ignition current is 1-3 amperes with engine running and 3.4-5 amperes with engine stopped.

Oiling:—Put 4 or 5 drops of light engine oil in the oiler on the side of the distributor housing every 250 miles.

Timing:—Breaker contacts begin to separate when the piston entering power stroke reaches top dead center with the spark control lever and breaker assembly in the fully retarded position.

Mounting:—Distributor is mounted on the rear of the generator. To remove distributor, remove the set screw and lift unit from place.

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

Spark Plugs:—Spark plug diameters are $\frac{7}{8}$ inch. Gaps are .025 inch.

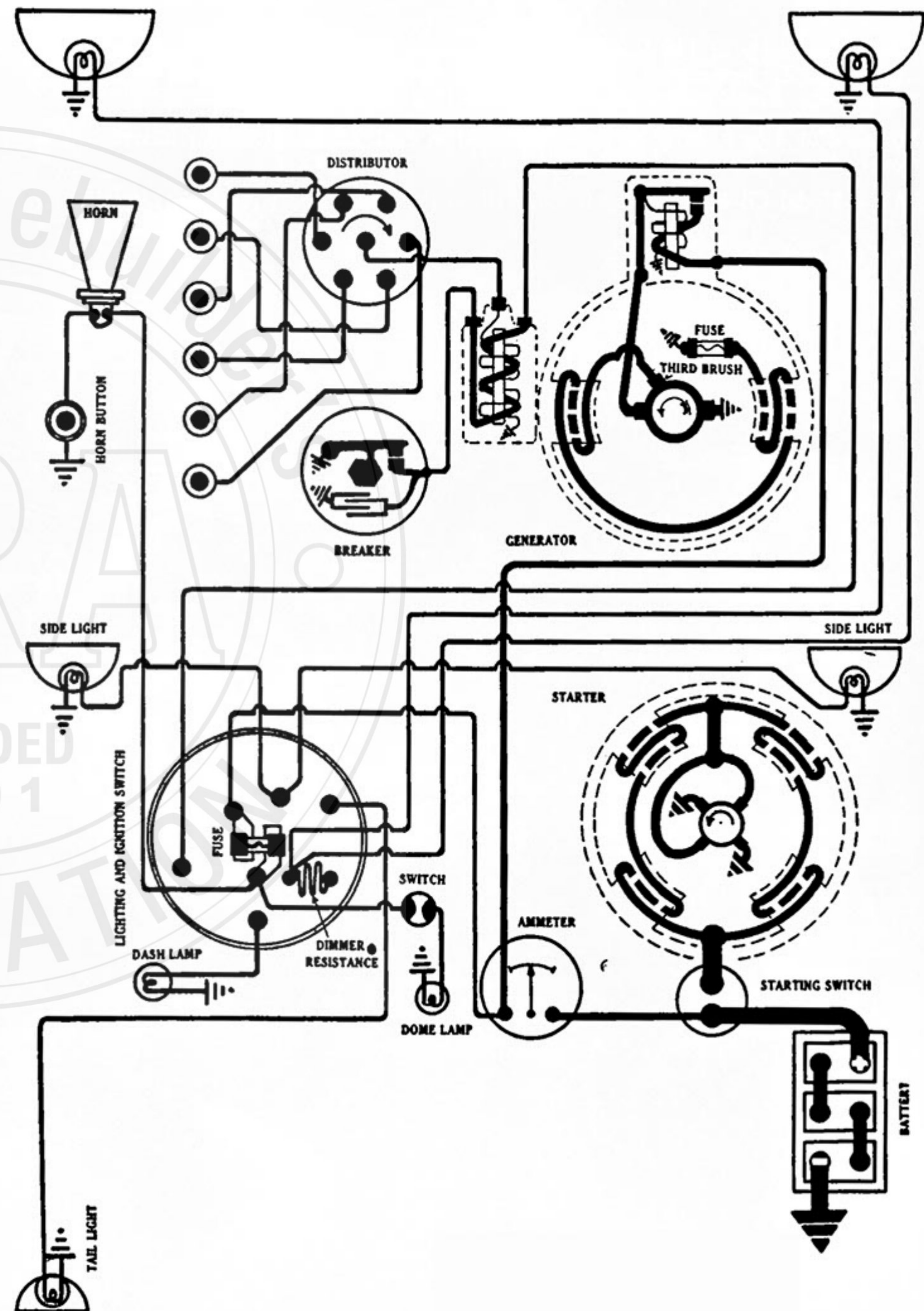
STARTER:—Model MP-4102. Starter is connected to the engine through a Bendix drive. The direction of rotation is counter-clockwise, looking at the commutator end. Starter brush tension is $1\frac{1}{4}$ - $1\frac{1}{2}$ pounds each. Starter cranks the engine at 175 R.P.M. taking 180 amperes at 4.5 volts.

Starter Data			
Torque	R.P.M.	Volts	Amperes
0 lb. ft.	4000	5	45 (Without Bendix)
0 "	4000	5	50 (With Bendix)
1 "	2800	5.2	150
2 "	2050	5	200
4 "	1320	4.5	300
8 "	300	3.5	500
12.5 "	Lock	3	650

Mounting:—Starter is mounted at right of engine. To remove starter, remove the mounting cap screws and slide starter forward from place.

Oiling:—Put 4 or 5 drops of light engine oil in the oiler on the drive end of the starter every 1000 miles.

GENERATOR:—Model GYA-4204. The direction of rotation is counter-clockwise, looking at the commutator end. The third brush system is used for current regulation. To adjust the charging rate, remove the generator cover band and shift the third brush. Shifting the brush in the direction of armature rotation increases the charging rate and in the opposite direction decreases the charging rate. The maximum charging rate is 15 amperes reached at 1500 R.P.M. of the generator or 25 M.P.H.



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Generator Data

Cold Test (78°)			Hot Test (240°)		
Amperes	Volts	R.P.M.	Amperes	Volts	R.P.M.
0.....	6.4.....	550	0.....	6.5.....	650
2.....	6.6.....	640	2.....	6.6.....	720
10.....	7.4.....	940	10.....	7.5.....	1200
15.....	7.85.....	1500	12.....	7.9.....	1700
12.....	7.6.....	2200	10.....	7.7.....	2400

Motoring freely at 150 R.P.M. generator draws 4.5 amperes at 6 volts. Shunt field current is 3.25 amperes at 6 volts. Generator brush tension should be 1 pound each.

Mounting:—Generator is mounted at right of engine by a bell housing. To remove, remove mounting cap screws and lift generator from place.

Oiling:—Put 4 or 5 drops of light engine oil in each of the generator bearing oilers every 100 miles.

RELAY:—Model CB-4007. Relay is mounted on top of the generator. Relay contacts close at 550 R.P.M. or 9 M.P.H. when the voltage of the generator reaches 7-7.5 volts and open at 8 M.P.H. with a discharge current of 1½-2½ amperes. Charging current at closing of contacts is 0-2 amperes. Contacts separate .025-.035 inch. Air gap between relay armature and coil core is .010-.030 inch, contacts closed.

LIGHTING:—Clam Switch Model 10544. Head lamps are each 6-8 volt, 21 cp. S.C. Dash, tail, side and dome lamps are each 6-8 volt, 3 cp. S.C.

FUSES:—Lighting fuse is 20 amperes.

