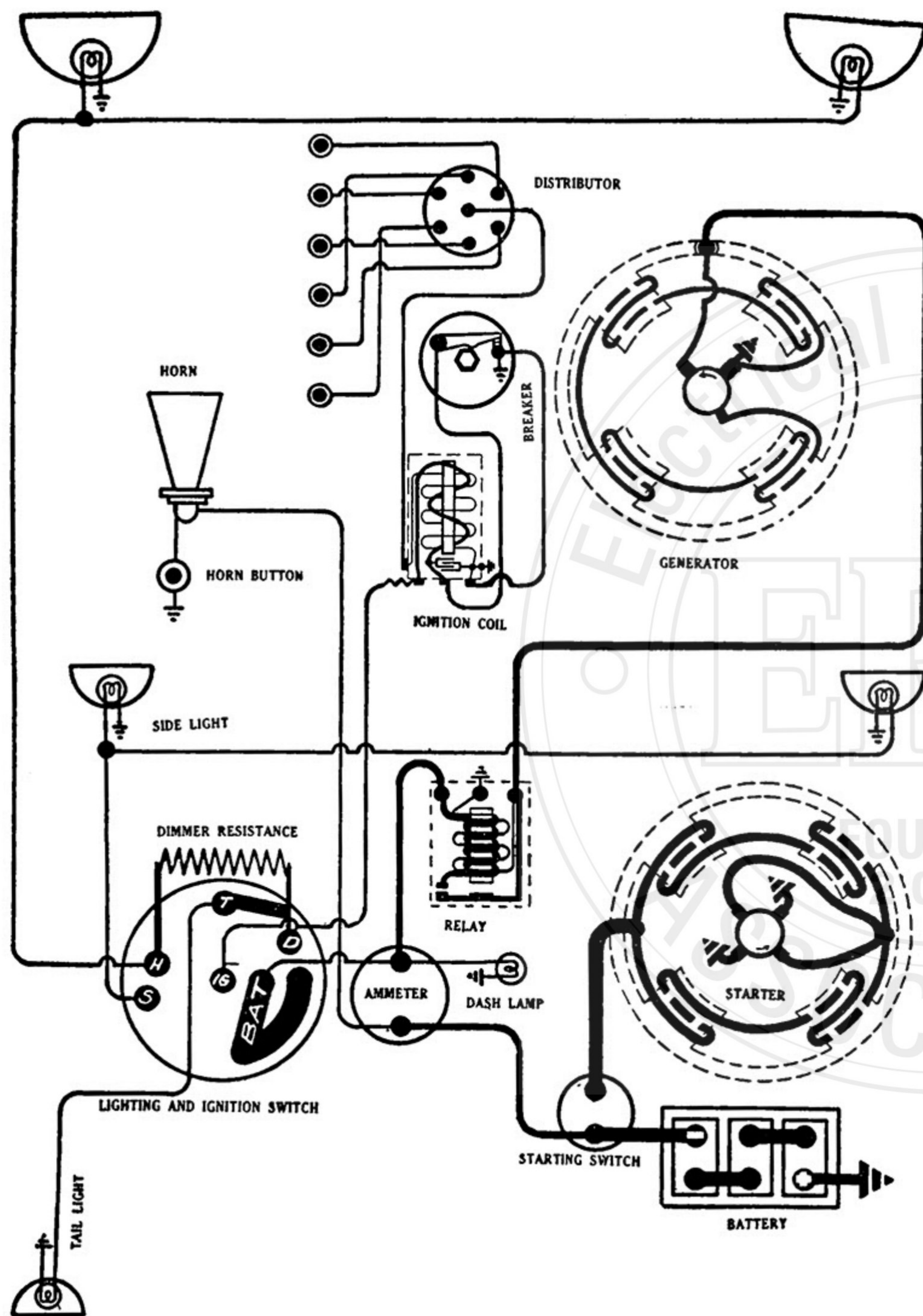




COLUMBIA

LIGHT SIX MODEL (1923-24)

CONTINENTAL 7-W ENGINE

AUTO-LITE GENERATING, STARTING AND LIGHTING SYSTEM

AUTO-LITE IGNITION

BATTERY:—U. S. L. Type CDX-311-X. 6 volt. The positive (+) terminal is grounded. Starting capacity (20 minute rate) is 95 amperes for 20 minutes. Lighting capacity (5 ampere rate) is 5 amperes for 17 hours.

IGNITION:—Coil Models IG-4001, IG-4035. Distributor Models IG-4005A, IG-4034A. Breaker contacts separate .020-.024 inch. Resurface contacts when necessary with a fine flat contact file or on a medium hard oilstone.

Oiling:—Put 4 or 5 drops of light oil in the oiler on the side of the distributor housing every month or each 1000 miles. Every 5000 miles put 1 or 2 drops of oil on the breaker arm pivot pin.

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

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

Spark Plugs:—Spark plugs are S.A.E. 7/8-18. Gaps are .030 inch.

STARTER:—Model MG-4003. Starter is connected to the engine through a Bendix drive. The direction of rotation is counter-clockwise looking at the commutator end. Starter cranks the engine at 125 R.P.M., drawing 150 amperes at 5 volts.

Starter Data

Torque	R.P.M.	Volts	Amperes
0 lb. ft.	4000	6	40-60
1.0 "	2300	5.5	100
3.0 "	1200	5.0	200
5.9 "	650	4.5	300
8.7 "	150	4.0	400
18.0 "	Lock	5.0	650

Oiling:—Put 4 or 5 drops of light oil in the starter bearing oilers every two weeks or each 500 miles.

GENERATOR:—Models GP-4004, 4004A, 4005. 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 the commutator cover band and loosen the nut holding the third brush. Then move the third brush in a counter-clockwise direction to increase the charging rate and in the opposite direction to decrease the charging rate. Tighten the nut after making the adjustment. The maximum charging rate is 16 amperes reached at 1600 R.P.M.

Generator Data

Cold Test			Hot Test		
Amperes	Volts	R.P.M.	Amperes	Volts	R.P.M.
0	6.4	375	0	7.0	475
4	6.6	500	4	7.4	640
8	7.0	650	7	7.6	800
12	7.4	875	10	7.9	1200
15	7.6	1225	10.6	8.0	1540
16	7.8	1600	8.2	7.8	2400
13	7.7	2400			

Motoring generator draws 5 amperes at 6 volts. Shunt field current is 2.2 amperes at 6 volts.

Oiling:—Put 4 or 5 drops of light oil in the generator bearing oilers every two weeks or each 500 miles.

RELAY:—Relay is mounted on the dash. Relay contacts close when the voltage of the generator reaches 6.5-7 volts and open with a discharge current of 0-2 amperes. Charging current at closing of contacts is 2 amperes. Contacts separate .025-.035 inch. Air gap is .010-.030 inch with contacts closed.

LIGHTING:—Briggs and Stratton Switch Model 36800. Head lights are each 6-8 volt, 21 cp. S.C. Side lights are 6-8 volt, 4 cp. S.C. Dash and tail lights are 6-8 volt, 2 cp. D.C. and S.C.