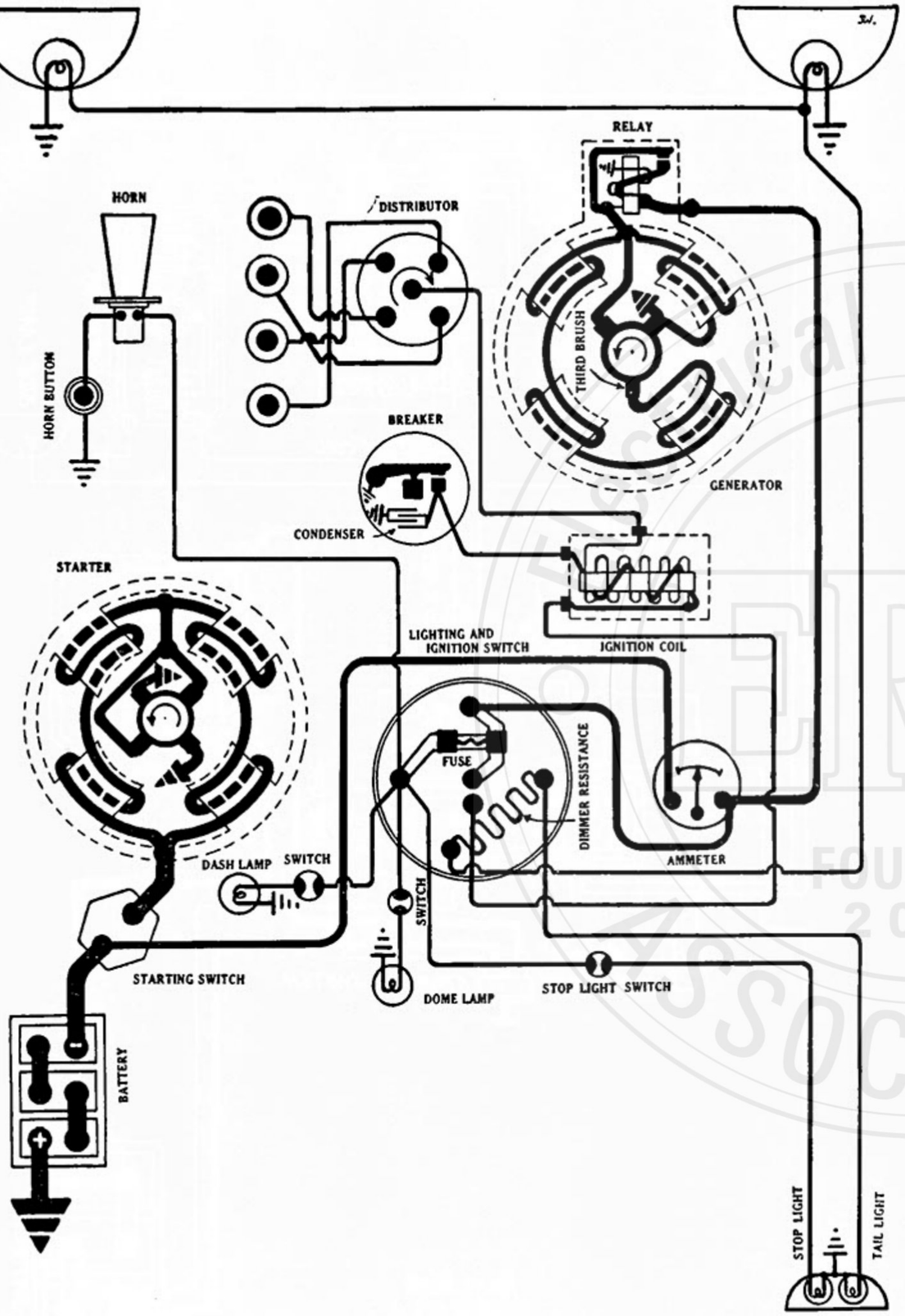

GRAY

MODEL S (1925-26)
AUTO-LITE GENERATING, STARTING AND LIGHTING SYSTEM
AUTO-LITE IGNITION

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

IGNITION—Coil Model IG-4063. Distributor Model IG-4112-A. Breaker contacts separate .020-.024 inch. Resurface contacts with a fine, flat jeweler's file or on a medium hard oilstone. Distributor is of the manual type. Manual advance is 50°. Ignition current is 1-3 amperes 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 week or each 250 miles if the car is driven more than 250 miles in a week. Put a small bit of vaseline on the face of the breaker cam under the bumper on the breaker arm every month.

Timing.—Breaker contacts begin to separate when piston No. 1 entering power stroke reaches top dead center with the spark control lever and breaker assembly in the fully retarded position.

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

Spark Plugs.—Spark plug diameters are 7/8 inch. Gaps are .025 inch.

STARTER.—Model MO-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 should be 1¼-1½ pounds each. Starter cranks the engine at 175 R.P.M. taking 125 amperes at 5 volts.

Starter Data

Torque	R.P.M.	Volts	Amperes	
0 lb. ft.	Free	5	45	(Without Bendix)
0 "	Free	5	50	(With Bendix)
2 "	1700	5.1	180	
5 "	700	4.4	315	
7 "	230	4	395	
10 "	Lock	3.6	490	

Oiling.—Put 5 to 10 drops of light engine oil in the oiler on the drive end of the starter every month or each 1000 miles if the car is driven more than 1000 miles in a month. The commutator end bearing requires no attention.

GENERATOR.—Model GW-4101. The direction of rotation is counter-clockwise, looking at the commutator end. Generator current regulation is by the third brush system. To adjust the charging rate, remove the commutator cover band and shift the third brush mounting bracket by tapping the mounting stud with a screwdriver. Shift the third brush in the direction of armature rotation to increase the charging rate and in the opposite direction to decrease the charging rate. Maximum charging rate is 15 amperes at 8 volts.

Generator Data

Cold Test				Hot Test			
Amperes	Volts	R.P.M.	M.P.H.	Amperes	Volts	R.P.M.	M.P.H.
0	..	610	8	2	..	750	10
5	..	750	10	5	..	940	12
10	..	1000	13.5	10	..	1400	18
14	8	1450	19				

Running freely as a motor generator draws 5 amperes at 6 volts. Shunt field current is 2.5 amperes at 6.2 volts. Generator brush tension should be 1¼-1½ pounds each.

Oiling.—Put 4 or 5 drops of light engine oil in the oiler on the commutator end of the generator every two weeks or each 500 miles if the car is driven more than 500 miles in two weeks. The drive end bearing is oiled by splash from the gears.

RELAY.—Model CB-4007. Relay is mounted on the generator. Relay contacts close when the voltage of the generator reaches 7-7.5 volts and open with a discharge current of .5-2.5 amperes. Contacts separate .025-.035 inch. Air gap between armature and coil core is .010-.030 inch, contacts closed.

LIGHTING.—Head and stop lamps are each 6-8 volts, 21 cp. S. C. Dash and tail lamps are each 6-8 volts, 2 cp. S. C.

FUSES.—Generator field fuse is 5 amperes. Lighting fuse on switch is 20 amperes.