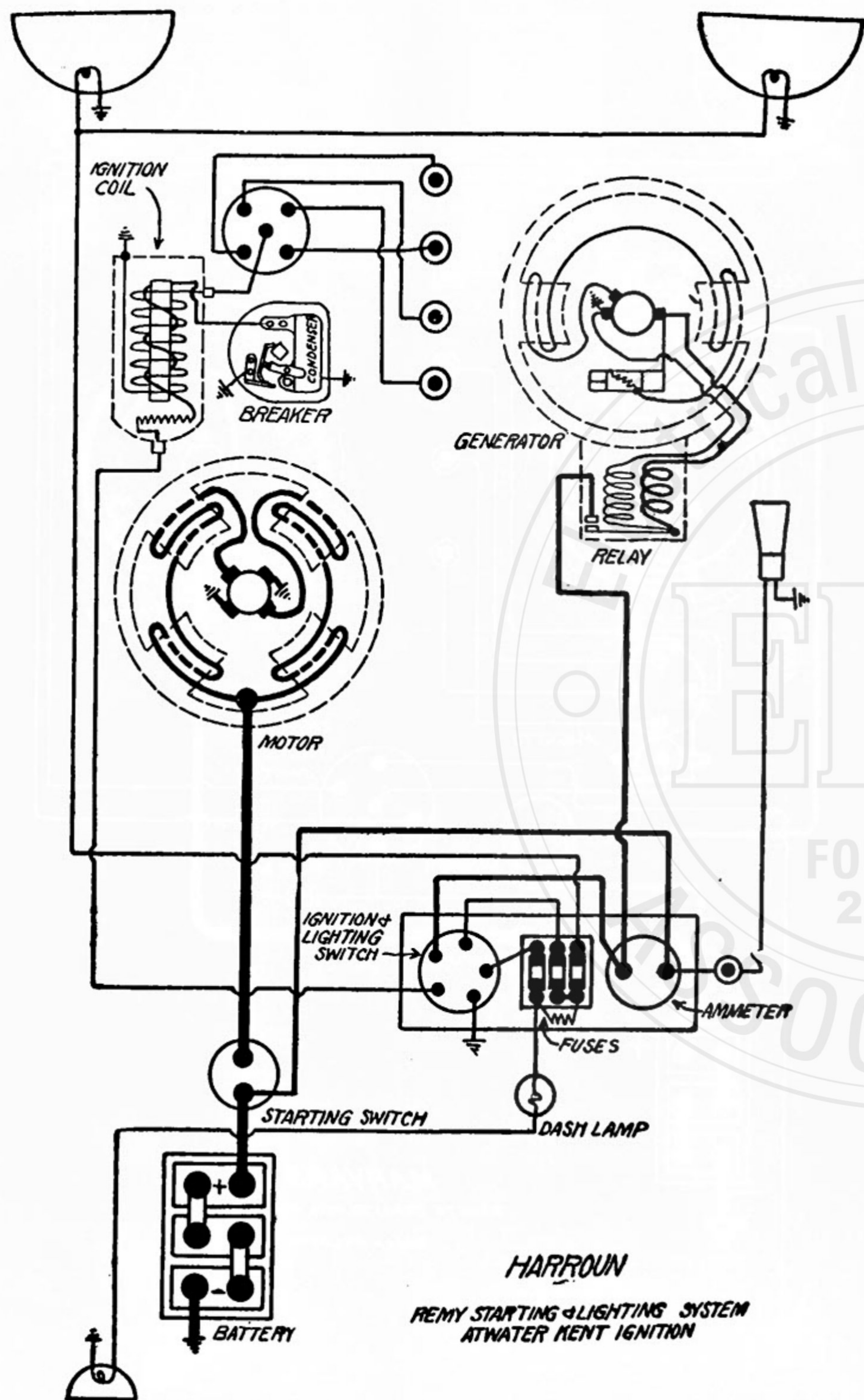




HARROUN

MODEL AA-1 (1917-18-19) SERIAL NOS. 1 UP.

Remy Generating, Starting and Lighting System Atwater Kent Ignition

Battery.—Battery is 6 volt, 80 ampere-hour. The negative (—) terminal is grounded.

Ignition.—Breaker contacts separate .005 inch to .008 inch. They are made of tungsten. When the condition of the points affects the ignition, remove and resurface with fine emery cloth or against the flat side of an emery wheel, finishing on a hard oil stone.

Timing.—Breaker contacts separate when piston entering power stroke is on top dead center, spark control lever and breaker assembly in fully retarded position.

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

Spark Plug Gaps.—The spark plug gaps are .020 inch to .025 inch.

Oiling.—Put several drops of light engine oil in the oil hole, exposed when distributor cap is removed, every two weeks. At the same time put a very small amount of vaseline on the cam, applying with a toothpick. If car is driven more than 500 miles in two weeks, these attentions must be given every 500 miles.

Starter.—Starter is connected to the engine through a Bendix drive.

STARTER DATA, 305-A

Torque	R. P. M.	Amperes	Volts
1 lb. ft.	2500	110-130	5.4-5.6
2 lb. ft.	1900	165-175	5.1-5.4
3 lb. ft.	1500	215-225	4.8-5.2
4 lb. ft.	1000	265-275	4.6-4.9
5 lb. ft.	650	325-335	4.3-4.5
9 lb. ft.	Lock	540-560	3.5-3.65

Oiling.—Put 5 or 6 drops of light engine oil in each of starter oilers every six months.

Generator.—Generator current regulation is by third brush system. A thermostat located in the brush rigging of the generator, cuts in a resistance at a temperature of 175° F., reducing the maximum charging rate 6 amperes. Resistance also acts as a shunt field fuse. The thermostat is intended to change the charging rate as demand of seasons or car operation requires. Never touch the thermostat points.

GENERATOR DATA, MODEL 233-A

Amperes	R. P. M.	Volts
0	525	6.4
7	780	7.1
14	1100	7.8
19.5-20.5	1680	8.6
19.0-20	2000	8.6
13.0-15	3000	8

Above tests made with relay in circuit and thermostat points closed, but without ignition. Field windings draw 5 amperes at 6.4 volts. Brush tension on third brush is 13 to 17 ounces, and on main brushes, 17 to 20 ounces.

Oiling.—Fill generator bearing oil wells with light engine oil every month. If car is driven more than 1000 miles in a month, the oiling must be done every 1000 miles.

Relay.—Relay is No. 246-A, and is mounted on top of generator frame. It closes at 7-10 miles per hour and opens at 5-8 miles per hour. Air gap between relay contacts is .012 inch to .015 inch. Air gap between armature (moving member) and coil core is .012 inch to .015 inch, with contacts closed. Clean contacts by drawing unglazed paper between them. If badly burned or pitted, resurface with well worn No. 00 sand paper. Remove all grit. Adjust before again putting into service.

Lamps.—Head lamps are 6-8 volt, 17 cp. Tail and dash lamps are connected in series and are each 3-4 volt, 2 cp.