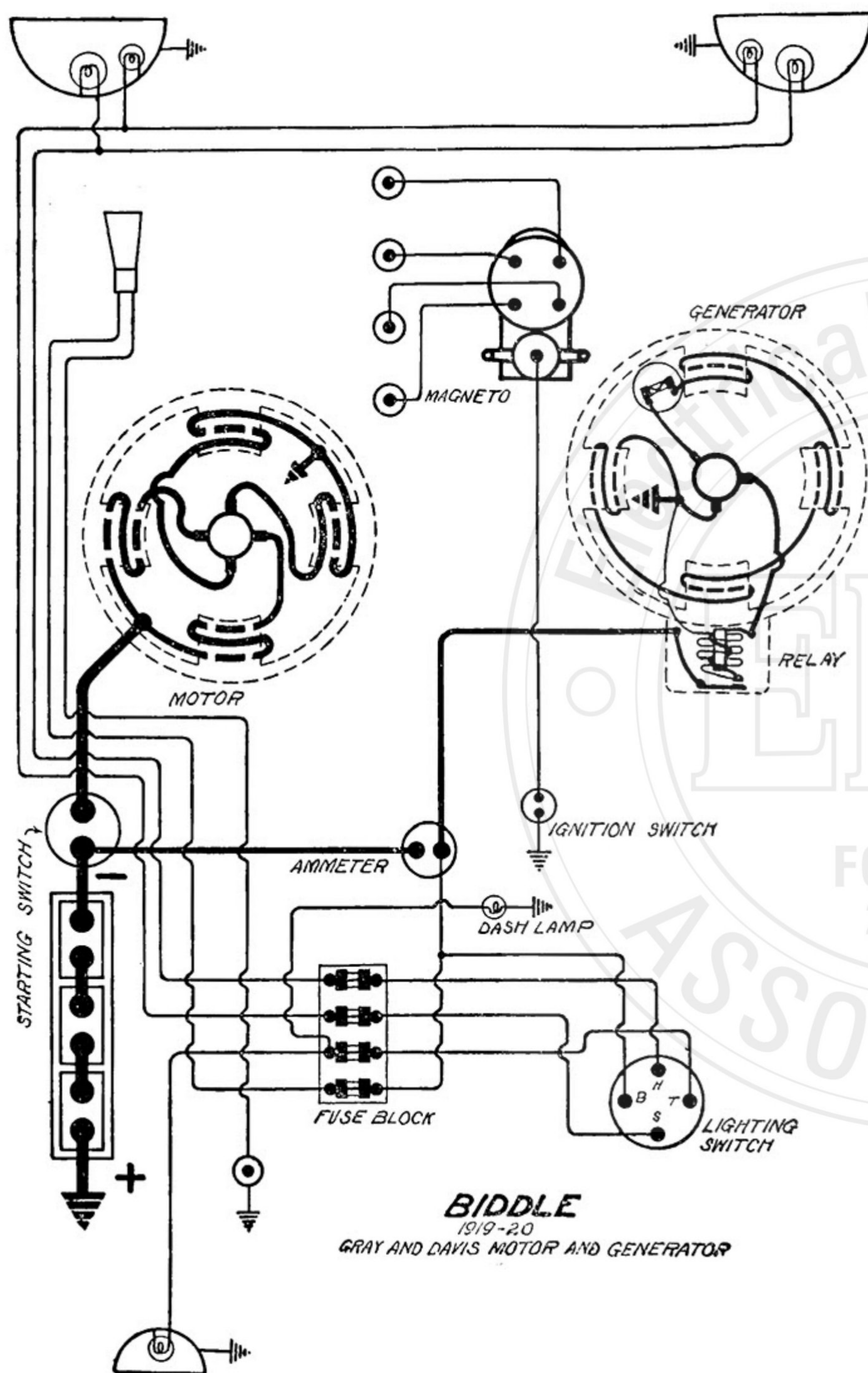




BIDDLE

MODEL H (1919-20-21-22)

GRAY & DAVIS GENERATING, STARTING AND LIGHTING SYSTEM SIMMS OR SPLITDORF IGNITION

BATTERY.—Willard, 6 volt, 90 ampere-hour. The positive (+) terminal is grounded.

IGNITION.—Breaker contacts separate .020 inch. When the condition of the contacts affects the ignition, resurface with a fine, flat jeweler's file or worn No. 00 sandpaper.

OILING.—Put 4 or 5 drops of light engine oil in the magneto oilers every month. If the car is driven more than 1000 miles in a month, the oiling must be done every 1000 miles.

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

FIRING ORDER.—The firing order is 1, 3, 4, 2.

SPARK PLUGS.—Diameter, $\frac{7}{8}$ inch. Spark gaps are .025 inch.

STARTER.—Model No. 513. Starter is connected to the engine through a Bendix drive. Starter cranks the engine at 150 R.P.M., taking 140-180 amperes.

Starter Data

Torque	R.P.M.	Amperes
1 lb. ft.	2100	100
4 lb. ft.	1200	195
6 lb. ft.	900	260
8 lb. ft.	650	320
15 lb. ft.	Lock	500

OILING.—Put 5 or 6 drops of light engine oil in each of the starter oilers every month.

GENERATOR.—Model No. 801. Generator current regulation is by the third brush system. Maximum current output is 18 amperes, reached at 1200 R.P.M. of the armature or 15-18 miles per hour.

Charging rate is varied by adjustment of the third brush setting. Adjustment is made by turning the pinion screw located at the bottom of the rear cover plate, between the fuse and the relay. Turn this screw to the right to increase the charging rate, and to the left to decrease the charging rate.

OILING.—Put 5 or 6 drops of light engine oil in each of the generator oilers every two weeks. If the car is driven more than 500 miles in two weeks, the oiling must be done every 500 miles.

RELAY.—Relay is mounted on the generator frame. Relay closes at 500 R.P.M. of the armature or 8-10 miles per hour and opens at 450 R.P.M. of the armature or 6-8 miles per hour. Relay contacts separate .015 to .018 inch. Air gap between relay armature and coil core is .010 to .012 inch, contacts closed. Clean relay contacts by drawing unglazed paper between them. If badly burned or pitted, resurface with well worn No. 00 sandpaper. Remove all grit. Adjust before again putting into service.

LAMPS.—Head lamps are 6-8 volt, 21 cp. Dimmer lamps are 6-8 volt, 4 cp. Dash and tail lamps are 6-8 volt, 2 cp.