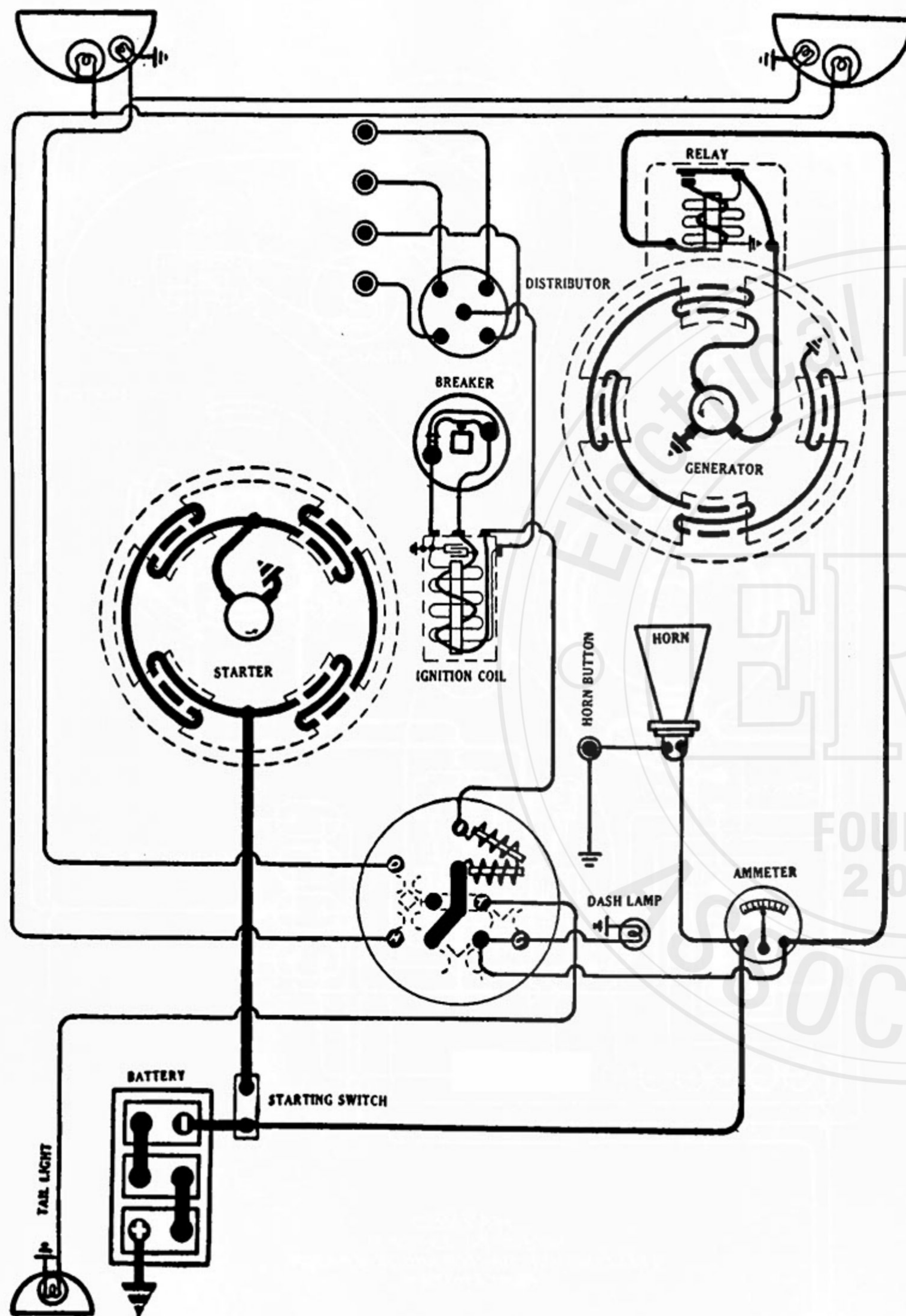




HATFIELD

(1920-21)

DYNETO GENERATING, STARTING, AND LIGHTING SYSTEM CONNECTICUT IGNITION

BATTERY.—Willard, Type SJRN-4, 6 volts, 111 ampere hours capacity. The starting capacity for 20 minutes is 120 amperes, and the lighting capacity is 5 amperes for 22½ hours. The positive (+) terminal is grounded.

IGNITION.—Distributor Model No. 16. Coil Model M. Breaker contacts separate .018-.024 inch. They are made of tungsten. If the condition of the contact points affects the ignition, remove and resurface with a flat jeweller's file or on a medium hard oilstone.

Oiling.—Fill grease cup on side of distributor housing with soft cup grease once a month. If the car is driven more than 1000 miles in a month, this care must be given every 1000 miles. Apply a very small amount of vaseline to the rotor track occasionally during the first 2000 miles. After that the rotor track becomes glazed and it is only necessary to keep it wiped clean. Apply a very small amount of vaseline to distributor cam head once a month.

Timing.—Breaker contact begins to separate when piston No. 1 is at top dead center, spark control lever and breaker assembly fully retarded.

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

Spark Plugs.—The spark plug gaps are .025-.030 inch.

STARTER.—Model D-183. The starter is connected to engine by a Bendix drive. The direction of rotation is counter-clockwise, looking at commutator end. The starter cranks the engine at 150 R.P.M. taking a current of 130 amperes, at 3-4 volts. Brush tension is 2 pounds.

Starter Test Data

Amperes	Volts	Torque	R.P.M.
35	6	0	5000
480-500	4.2	13-14 lb. ft.	Lock

Oiling.—Put 4 or 5 drops of light engine oil into each starter oiler every two weeks. If the car is driven more than 500 miles in two weeks this care must be given every 500 miles.

GENERATOR.—Model C-224. The direction of rotation is counter-clockwise. Looking at commutator end. The third brush system is employed for current regulation. To adjust the charging rate of the generator, remove the leather plug in the commutator end plate, and loosen the screw exposed. Move the third brush in the direction of rotation (counter-clockwise) to increase the charging rate; and move the third brush in the opposite (clockwise) direction to decrease the charging rate. The maximum charging rate of 14 amperes is reached at 1400 R.P.M. of armature or 18 M.P.H. of car speed at high gear. Brush tension is 2 pounds.

Generator Test Data

Hot Test			Cold Test		
Amperes	R.P.M.	M.P.H.	Amperes	R.P.M.	M.P.H.
5	600		6	600	
10	900		13	900	
12 (Max.)	1200	20	15 (Max.)	1200	20
10	2000		12	2000	

Generator motoring freely takes a current of 4-6 amperes at 6 volts; and the field draws a current of 3½ amperes at 6 volts.

Oiling.—Put 4 or 5 drops of light engine oil into each generator oiler every two weeks. If the car is driven more than 500 miles in two weeks, this care must be given every 500 miles.

RELAY.—Relay closes at 8-10 M.P.H. or 450-500 R.P.M. of armature, at 6.5 volts, and opens at 6-8 M.P.H. or 400-450 R.P.M. of armature with a current discharge of 0-3 amperes. The contact gap is .125 inch, and the air gap between relay armature and coil core is .030 inch.

LIGHTING.—Connecticut Switch Model No. 96-8-Y is used. Head lights are each 6-8 volts, 15 cp. Dash and dimmer (or auxiliary) lights are each 6-8 volts, 4 cp. Tail light is 6-8 volts, 2 cp. All lights are of the single base type.