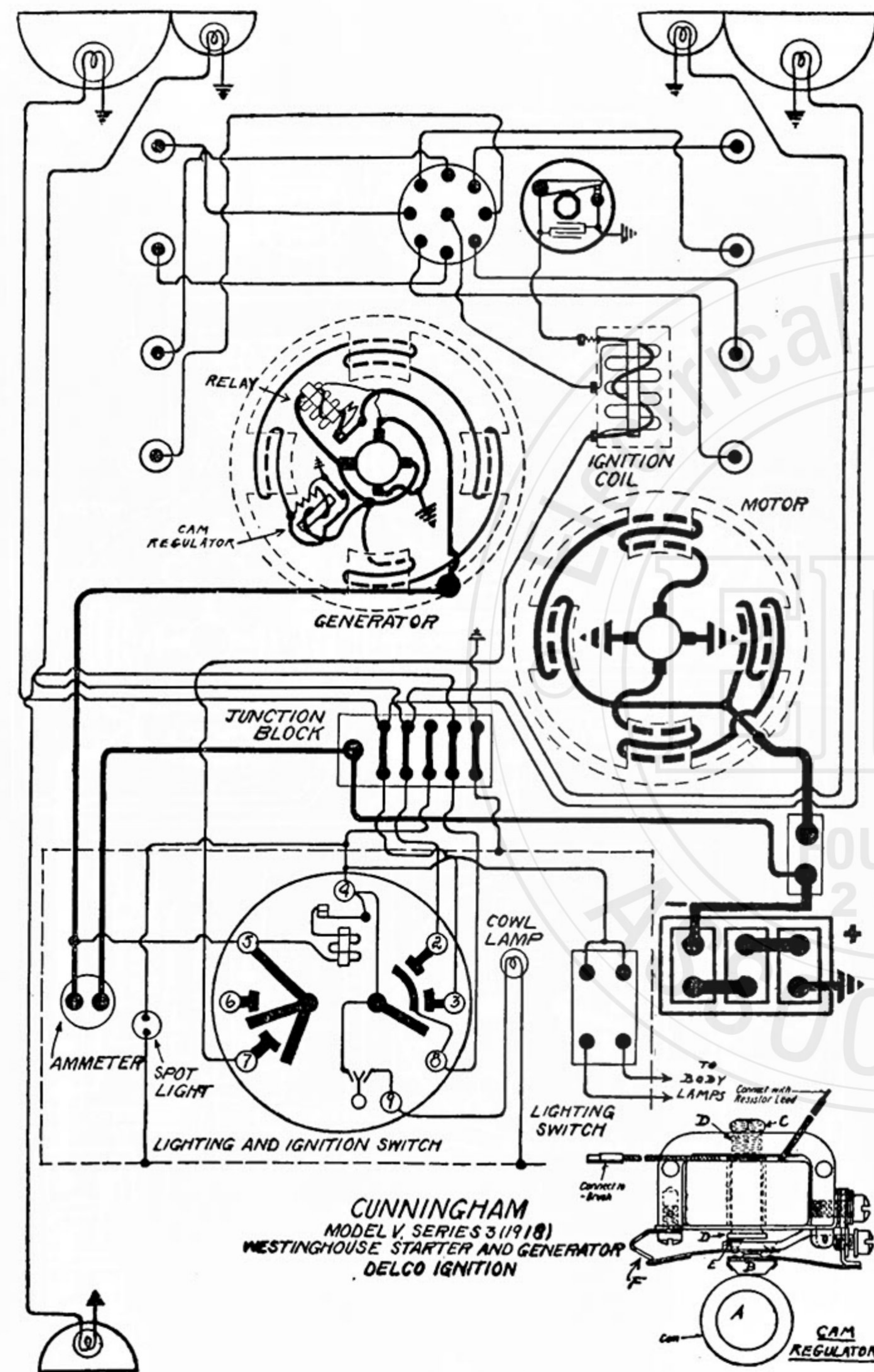




CUNNINGHAM

MODEL V, SERIES 3 (1918-19)

SERIAL NOS. V/3,1601 TO V/3-2050

WESTINGHOUSE GENERATING, STARTING AND LIGHTING SYSTEM DELCO IGNITION

BATTERY.—Battery is 6 volt, 115 ampere-hour. The positive (+) terminal is grounded.

IGNITION.—Model No. 2162. Distributor Model No. 5178. Breaker contacts separate .018 inch. They are made of tungsten. When the condition of the contacts 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.

OILING.—Put 4 or 5 drops of light engine oil in each of the ignition unit oilers every two weeks. If the track of the rotor button in the distributor head is not well polished, apply a small amount of vaseline with a soft cloth. If the car is driven more than 500 miles in two weeks, these attentions must be given every 500 miles.

TIMING.—Breaker contacts begin to separate when the piston entering power stroke is on top dead center, spark control lever 2 inches from the fully retarded position. (First see that the breaker assembly is fully retarded when the control lever is in the fully retarded position. The breaker contacts are beginning to separate when the distributor rotor is directly opposite the V notch on the rim of the case.)

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

SPARK PLUG GAPS.—Spark plug gaps are .023 to .027 inch.

STARTER.—Frame No. 751. Starter is connected to the engine through a Bendix drive.

Starter Data

Torque	R.P.M.	Amperes
2.5 lb. ft.	1450	140
5.0 lb. ft.	1150	200
10.0 lb. ft.	750	340
15.0 lb. ft.	560	460
17.5 lb. ft.	500	530
21.0 lb. ft.	Lock	650

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

GENERATOR.—Frame No. 780-R. Generator voltage regulation is by combined magnetic and mechanical cam regulator. Maximum output of generator is 15 amperes at 6.5-7 volts, reached at 1800 R.P.M. of the armature or 25 miles per hour. On open circuit, generator voltage is 8.0 at 1800 R.P.M. To adjust the cam regulator, loosen the nut C and turn the screw D until the air gap between D and E is .003 inch, when the rider B is on the highest point of the cam A. Further adjustment to obtain the specified action is made by bending the stop F. Resistance of regulator winding is 10 ohms. Resistance of the part of the resistor which is in series with the regulator coil is 10 ohms. Resistance of the part of the resistor connected across the contacts is 30 ohms.

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 in the generator frame. Relay closes at 400-450 R.P.M. of the armature or 6-8 miles per hour, and opens at 350-400 R.P.M. of the armature or 5-7 miles per hour. Adjust the armature stop so that relay contacts open when the discharge current is 0-3 amperes. Adjust spring tension so that relay closes when the voltage of the generator reaches 5.8 to 6.1 volts, battery disconnected. Air gap between relay armature and coil core is .005 inch, contacts closed. Contacts separate .012 to .018 inch. Resistance of the shunt coil with resistor is 56.5 ohms. 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. Fender lamps are 6-8 volt, 5 cp. Dome and pillar lamps are 6-8 volt, 4 cp. Dash lamp is 6-8 volt, 3 cp. Tail lamp is 6-volt, 2 cp.

CIRCUIT BREAKER.—The vibrating circuit breaker on the back of the switch begins to operate at 25-30 amperes, limiting the current to 10-15 amperes.