

JACKSON

MODELS 68 AND 348 (1916), 349, 350 (1917)

AUTO-LITE GENERATING. STARTING SYSTEM. CONNECTICUT IGNITION

Battery.—Battery is 6 volt, 100 ampere-hour on the Model 68 cars and 6 volt, 80 ampere-hour on the other models. The negative (—) terminal is grounded at the starting motor.

Ignition.—Breaker contacts should separate .018 inch to .020 inch. They are made of tungsten. They will operate properly even though quite rough. Should they become badly worn, affecting the ignition, the inner breaker mechanism should be renewed as directed on Page 50. In an emergency, contacts may be resurfaced enough to give service for 300 or 400 miles by drawing a piece of fine emery cloth between them.

Timing.—Contacts should begin to separate when the piston entering power stroke is on top dead center, spark control lever within one inch of the fully retarded position. See that breaker assembly is fully retarded when lever is in fully retarded position.

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

Spark Plug Gaps.—The spark plug gaps should be about .027 inch.

Oiling.—Refill the cup under the breaker head with pure vaseline and turn down every month. If car is driven more than 1000 miles in a month, this must be done every 1000 miles. Do not put grease or oil in this cup.

Starter.—Starter is connected to engine through a Bendix drive. It should crank the engine at about 125 R. P. M., taking 200 to 250 amperes. Cold engine, tight bearings, heavy oil or other obstructions will cause a greater current flow and reduce the speed. When running free, armature should turn at about 4200 R. P. M., taking 50 to 55 amperes. Much greater speed indicates grounded, short circuited or damp field windings. Greater current or vibrating of the ammeter needle indicates grounded or short circuited armature coils or commutator. Damp armature windings will cause high current or slow speed.

STARTER DATA, MODEL MC

Torque	R.P.M.	Amperes
1 lbs. ft.	2650	100
2 lbs. ft.	1900	145-150
3 lbs. ft.	1600	185-190
4 lbs. ft.	1400	225
5 lbs. ft.	1250	250-255
6 lbs. ft.	1000	290-300

Motor should develop 16 pound-feet lock torque, taking 450-460 amperes at 3.8-4.2 volts.

Brushes.—Use only the special copper-carbon composition brushes as furnished by the manufacturer, as ordinary carbon brushes will cause trouble and their use on motor or generator forfeits the guarantee.

Oiling.—Starter bearings are packed with grease. Bearings should be thoroughly cleaned and repacked with grease twice a season. Do not oil the Bendix drive. Should pinion stick, clean shaft with gasoline.

Generator.—Generator current regulation is by reverse series field. Relay should close at 500-575 R. P. M., of generator armature, charging current being .5 to 1.5 ampere at closing. Relay should open when the discharge current reaches 0 to 1 ampere.

Amperes	GENERATOR DATA, MODEL GG	R. P. M.
5		750-860
10		1225-1400
12.5		1600-1825
15		2175-2450
17-19		3200-3700

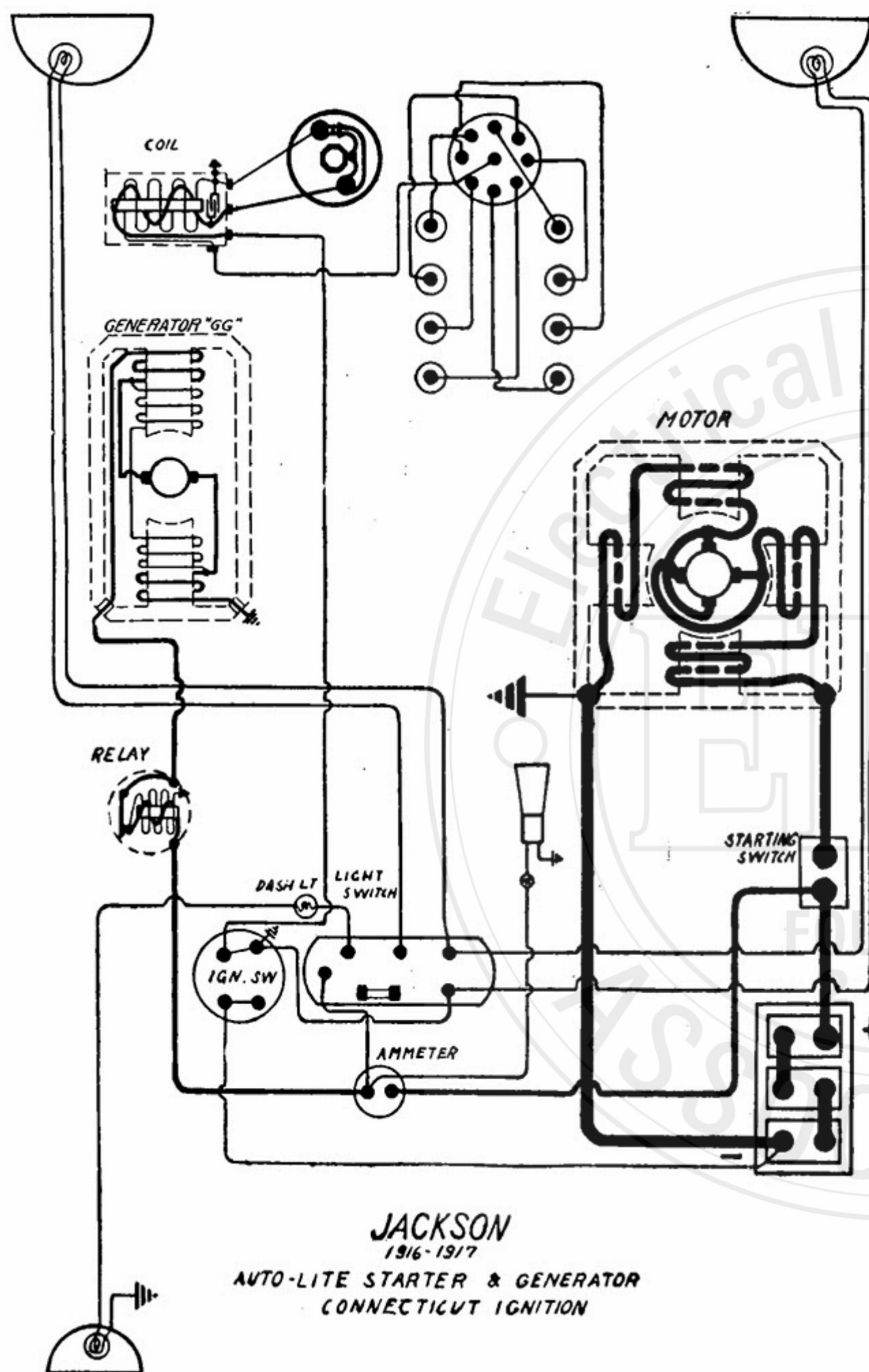
A variation of 1 to 1.5 amperes from this amount is allowable. The output may be varied slightly by varying brush pressure on commutator. The pressure should be 1 to 1 1/4 pounds. If operated freely as a motor, armature should revolve at 350 R. P. M., taking 2.8 amperes. Much higher speed indicates damp, grounded or short circuited field coils. Greater current or lower speed indicates tight bearings or damp, grounded or short circuited armature windings or commutator. Periodic swinging of armature needle indicates grounded or short circuited armature coils or commutator bars. Shunt field should take 1.1 amperes.

Oiling.—Put 4 or 5 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 oil every 500 miles.

Lamps.—Head lamps are 6-8 volts, 15 cp. On Models 68 and 348, dash and tail lamps are in series. They are each 3-4 volts, 2 cp. On Model 349, dash lamp is 6-8 volts, 2 cp. Tail lamp is 6-8 volts, 2 cp.

Fuses.—Lighting fuses are 20 ampere.

Model Numbers.—Generator is Model GG. Starter is Model MC.



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AUTO-LITE STARTER & GENERATOR
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