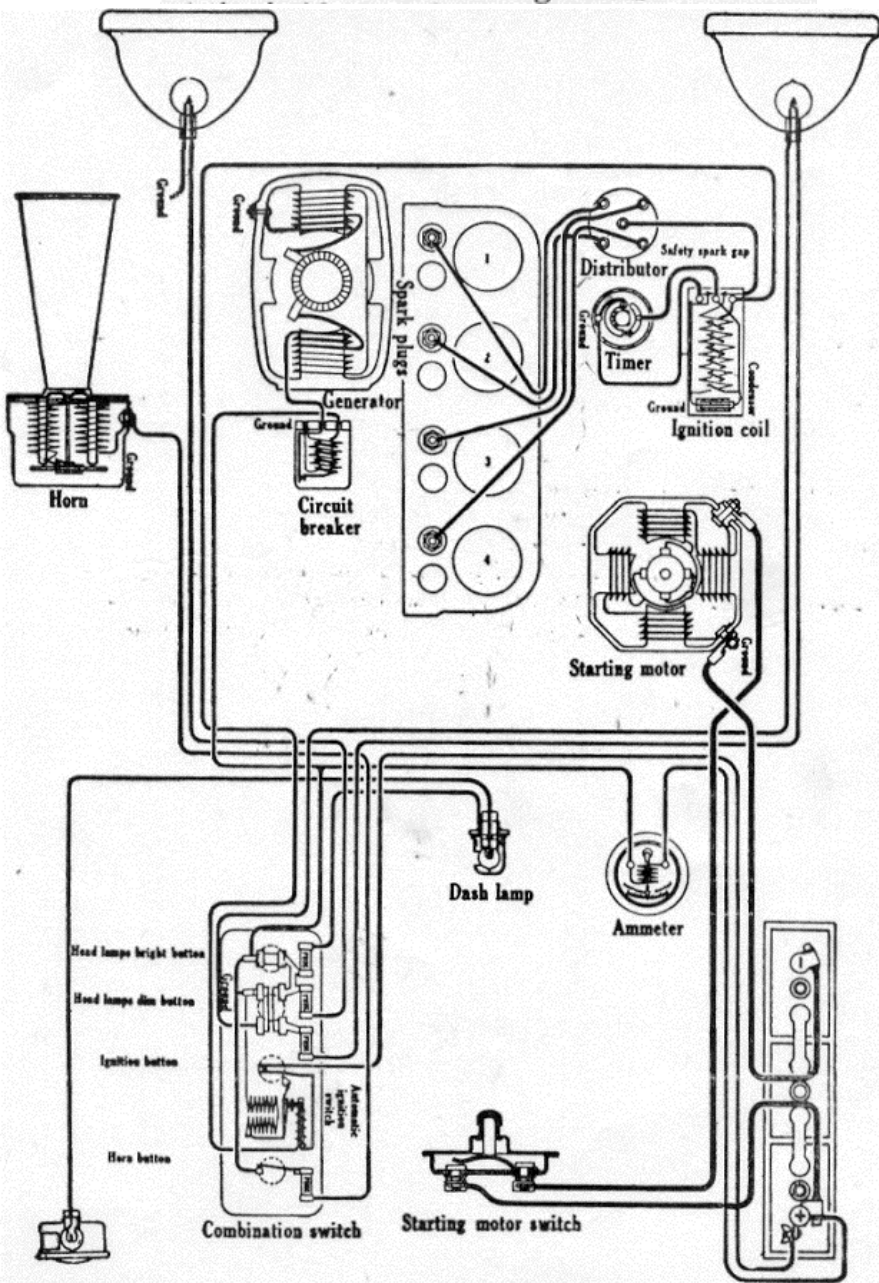


Overland

Model 85-4 (1917)

Auto-Lite Starting and Lighting System

Connecticut Ignition



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

Ignition.—Breaker contacts should separate .016 inch to .018 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 mark "1-4 U-P" on the flywheel is 1-1/4 to 1-7/16 inches past the indicator, spark control lever and breaker assembly in the fully retarded position.

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

Spark Plug Gaps.—Spark plug gaps should be about .023 inch.

Ignition Cutout.—There is a thermostat in the combination switch to prevent discharging of battery through ignition should the switch be left "On" with engine idle and contacts closed. This device is fully described on Page 41.

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 the cup.

Starter.—Starter is connected to engine through a Bendix drive. When running free, armature should revolve at about 4200 R. P. M., taking 50-55 amperes. 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 lb. ft.	2650	100
2 lb. ft.	1900	145-150
3 lb. ft.	1000	185-190
4 lb. ft.	1400	225
5 lb. ft.	1250	250-255
6 lb. ft.	1000	290-300

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

Oiling.—Clean and repack starter bearings with soft cup grease every six months. Put in one or two drops of oil every month to keep grease soft.

Generator.—Generator current regulation is by reverse series field. Relay should close at 8-10 miles per hour or 575-650 R. P. M., of generator armature. Charging current should be .6 to 1.5 amperes at closing and discharge current 0-1 at opening.

Amperes	GENERATOR DATA, MODEL GD	R. P. M.
5.0		800-1000
10.0		1350-1575
12.5		1700-2050
15.0		2250-3300
15-18		3300-3700

A variation of 1.5 amperes from these amounts is allowable. Generator output may be varied slightly by adjusting the brush pressure on commutator. The pressure should be 1-1/4 pounds. Shunt field should take about .8 ampere. If operated freely as a motor, armature should revolve at 450 R. P. M., taking 1.75 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 ammeter needle indicates grounded or short circuited armature coils or commutator bars.

Oiling.—Put 5 or 6 drops of light engine oil in each of the generator oilers every two weeks.

If car is driven more than 500 miles in two weeks, the oiling must be done every 500 miles.

Lamps.—Head lamps are 6-7 volts, 16 cp. Dash and tail lamps are in series. They are each 3-3 1/2 volts, 2 cp.

Fuses.—Fuses are 20 ampere.

Model Numbers.—Generator is Model GD. Starter is Model MC. On early models battery is Willard OHSLB or Prestolite 613 WO2. On the later models U. S. L. type AD-313 battery is used.