

# GARDNER

## MODEL 6-B (1926-27)

### REMY GENERATING, STARTING AND LIGHTING SYSTEM REMY IGNITION

**BATTERY:**—Prest-O-Lite, Type 611-SHK. 6 volt, 92.5 ampere hour. The starting capacity is 110 amperes for 20 minutes. The lighting capacity is 5 amperes for 18.5 hours. The positive (+) terminal is grounded.

**IGNITION:**—Coil Model 284-P. Distributor Model 636-H. Breaker contacts separate .020-.028 inch. They are made of tungsten. Resurface contacts with a fine, flat jeweler's file or on a medium hard oilstone. Distributor is semi-automatic. Manual advance is 25°. Maximum automatic advance is 30°. The tension of the breaker arm spring is 17-21 ounces.

**Mounting:**—Distributor is mounted on top of the cylinder head. To remove distributor, disconnect primary lead and manual advance rod. Then remove distributor head with high tension cables intact. Remove the set screw in side of mounting and lift distributor from place.

**Oiling:**—Screw up the grease cup on the side of the distributor housing one or two turns every two weeks or each 500 miles if the car is driven more than 500 miles in two weeks. Place a small bit of vaseline on the face of the breaker cam and oil the wick oiler under the rotor with light engine oil every 5000 miles.

**Timing:**—Breaker contacts begin to separate when the top dead center mark on the flywheel reaches a position 10° or approximately one inch past the mark on the flywheel housing. The manual spark advance lever should be in the fully retarded position. To check timing, crank engine until piston No. 1 enters compression stroke. This is the upstroke with both valves closed. Fully retard spark control lever and continue to crank engine until piston No. 1 reaches top dead center. At this point the flywheel mark "UDC-1-6" will be opposite the indicator on the flywheel housing. If breaker contacts are not beginning to separate, loosen distributor clamp screw and rotate distributor housing until contacts begin to separate. Tighten the clamp screw and make certain that the rotor is under the segment connected to the spark plug in cylinder No. 1.

**Firing Order:**—The firing order is 1-5-3-6-2-4.

**Spark Plugs:**—Spark plug diameters are 7/8 inch. Gaps are .025 inch.

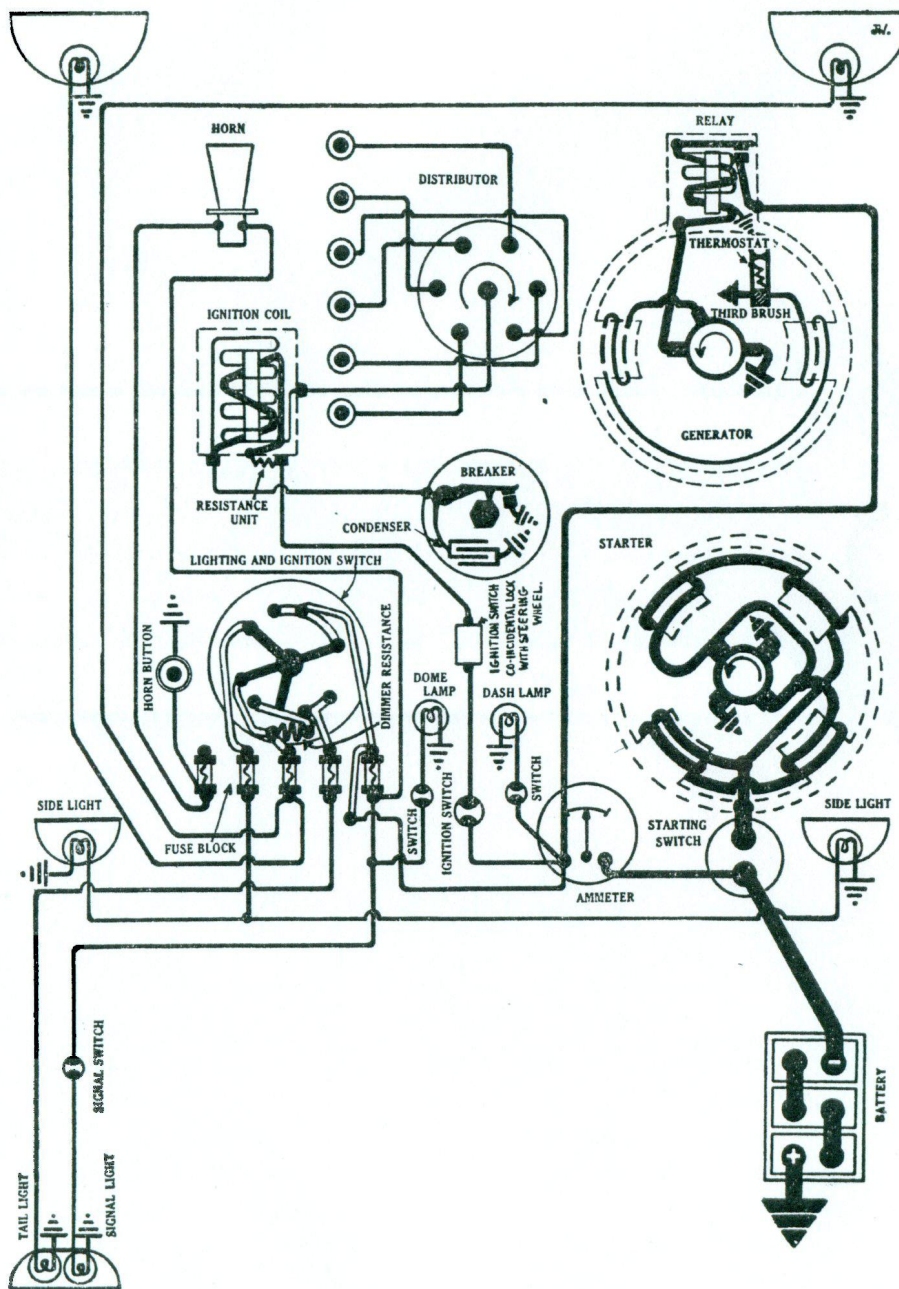
**VALVE TIMING:**—**Inlet Valves.** Head diameter is 1 5/8 inches stem diameter is .3425-.341 in; stem length is 5 19/32 inches (over head). Tappet clearance is .006 inch (hot). Valve lift is 5/16 inch. Spring pressure is 34-38 pounds (valves closed). Inlet valves open at top dead center and close 35 degrees after lower dead center.

**Exhaust Valves:**—Head diameter is 1 15/32 inches; stem diameter is .3425-.341 inch; stem diameter is 5 9/16 inches (over head). Tappet clearance is .008 inch (hot). Valve lift is 5/16 inch. Spring pressure is 34-38 pounds (valves closed). Exhaust valves open 42 degrees before lower dead center and close 5 degrees after top dead center. Valve stem guides are removable. Oversize valve stems are made.

**STARTER.**—Model 720-Q. Starter is connected to the engine through a Bendix drive. The direction of rotation is counter-clockwise, looking at the commutator end. Starter brush tension should be 24 ounces.

#### Starter Data.

Torque	R.P.M.	Volts	Amperes
0 lb. ft. ....	6000 .....	5 .....	65 .....
15 " " .....	Lock .....	3.15 .....	570 .....



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#### REMY IGNITION

**Mounting:**—Starter is mounted at right of engine on forward side of flywheel housing. To remove starter, disconnect starter cable and remove three flange mounting cap screws. Then slide starter forward and lift from place.

**Oiling:**—Put 4 or 5 drops of light engine oil in the oiler on the commutator end of the starter every month or each 1000 miles if the car is driven more than 1000 miles in a month.

**GENERATOR.—Model 941-D.** The direction of rotation of the generator is counter-clockwise, looking at the commutator end. Current regulation is by the third brush system combined with a thermostat. The thermostat contacts open at approximately 160° inserting a resistance in the shunt field circuit and cutting down the output 50%. To adjust the generator output, loosen the screw on the generator end plate and shift the third brush mounting plate. Moving the third brush in the direction of generator rotation increases the charging rate and in the opposite direction decreases the charging rate. The maximum charging rate of 18-20 amperes is reached at 1450 R.P.M. or approximately 25 M.P.H.

#### Generator Data.

Cold Test			Hot Test		
Amperes	Volts	R.P.M.	Amperes	Volts	R.P.M.
7	7.3	750			
21	8.35-8.5	1450	11	7.5	1900

The brush tension should be 22-28 ounces each.

**Mounting:**—Generator is flange mounted at right of engine on rear of timing gear case. To remove generator, disconnect generator lead and remove three flange mounting cap screws. Then slide generator to rear and lift from place.

**Oiling:**—Put 4 or 5 drops of light engine oil in the oiler at the commutator end of the generator every month or each 1000 miles if the car is driven more than 1000 miles in a month.

**RELAY:—Model No. 265-B.** Relay contacts close at 675 R.P.M. of the generator armature with a generator voltage of 7.25 volts. Charging current at closing of contacts is 3 amperes. Contacts open with a discharge current of 0-2.5 amperes. Relay contacts separate .020 inch. Air gap between relay armature and coil core is .014 inch, contacts closed.

**LIGHTING.—Combination Switch Model 420-H.** Head lamps are 6-8 volts, 21 cp. S. C. Side, tail and dash lamps are each 6-8 volt, 3 cp.S.C. Stop lamp is 6-8 volt, 21 cp. S.C. Dome lamp is 6-8 volt, 4 cp.D.C.

**FUSES:**—Lighting fuses are 20 ampere.