

CHRYSLER

MODEL "75" (1929), SERIAL NOS. CY050P DELCO-REMY GENERATING, STARTING SYSTEM DELCO-REMY IGNITION

BATTERY:—Willard, Type CWR-17. 6 volt. The positive (+) terminal is grounded. Starting capacity (20 minute rate) is 130 amperes for 20 minutes. Lighting capacity (5 ampere rate) is 5 amperes for 23.4 hours. The battery is mounted under the front floor boards on the left frame member.

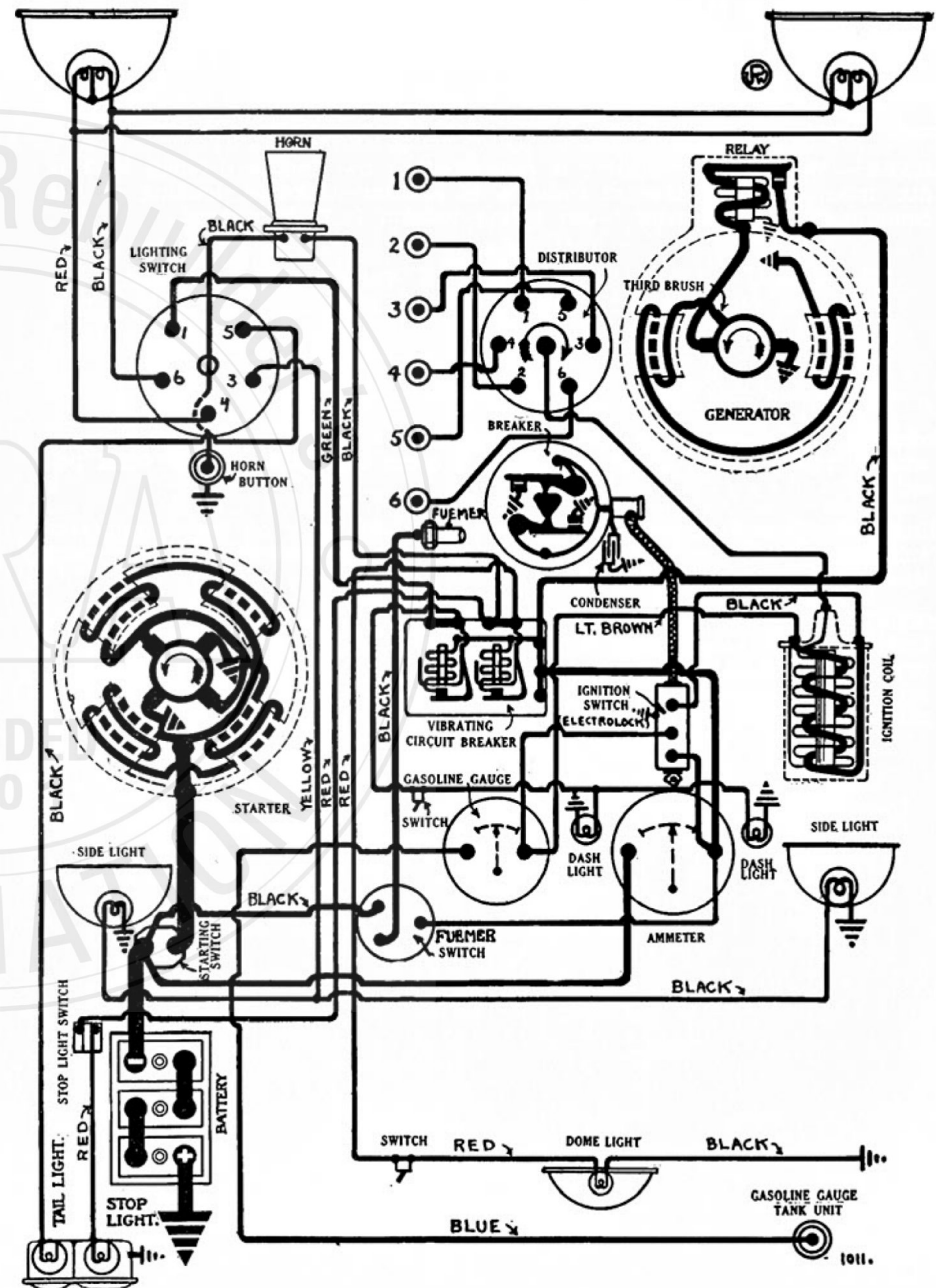
IGNITION:—Coil Model 525-E. Distributor Model 659-B. Breaker contacts separate .022 inch with breaker arm on lobe of cam. To set contact opening, loosen lock screw on stationary contact plate and turn eccentric adjusting screw until proper contact opening is secured. Resurface contacts with a fine flat contact file or on a medium hard oil stone. Breaker arm spring tension is 17.5 to 20.5 ounces. The breaker has two sets of breaker contacts on a three sided cam opening alternately at intervals of 60 degrees corresponding to 120 degrees of crankshaft rotation. This firing interval is very important and must be accurately set. See Timing. Distributor is semi-automatic. Maximum manual advance is 25 degrees (engine). Automatic advance begins at 400 R.P.M. of engine. Maximum automatic advance is 22 degrees (engine) reached at 2900 R.P.M. An Electrolock is used on the distributor. Whenever the distributor requires service, the entire distributor and Electrolock should be removed as a unit and replaced. Ignition current is 2 amperes at 6 volts with engine running and 5 amperes at 6 volts with engine stopped. Coil is mounted on the dash.

Mounting:—The distributor is mounted on top of the cylinder block. To remove distributor, disconnect manual advance rod and remove head with cables intact. Remove manual advance stop screw and lift distributor from place. The distributor and Electrolock must be removed as a unit.

Oiling:—Fill the grease cup under the distributor head with medium cup grease and turn down two turns every 500 miles. Put a small bit of vaseline on the face of the breaker cam every 500 miles.

Timing:—**Synchronization of Contacts:**—Use Delco-Remy Tool, Part No. 829751, and follow directions on Page S-25. Connect a six volt lamp in series with primary circuit at coil to accurately determine when contacts open. The lamp will go out at the instant the contacts separate. After synchronizing contacts, check contact opening. If it is not within the limits of .018-.024 inch, reset at .022 inch and repeat synchronizing operation.

Timing Distributor to Engine:—Remove the $\frac{1}{8}$ inch pipe plug from the cylinder head, above No. 6 piston, and screw a micrometer gauge into the tapped hole. Connect the 6 volt test lamp to the distributor primary terminal and the battery terminal of the relay. If the relay is not connected to a battery, connect lamp to one terminal of a battery and ground the other terminal of the battery to the engine. When the points are closed the test lamp will burn, but when they are open the circuit is broken and the lamp will go out. Set the distributor at the full manual advance point. Turn the engine over and locate the dead center point, setting the micrometer gauge on zero at the dead center point. Turn the engine over again till it is coming up on the compression stroke on piston No 1 and stop with the piston .067 inch before top dead center on standard head engines with a ratio of 5.1 to 1 and .004 inch before top dead center on high compression head engines with a ratio of 6.2 to 1. While doing this press the distributor rotor back against the direction of rotation so as to remove all back lash in the drive mechanism. Make sure the rotor is opposite the segment connected to spark plug No. 1. Loosen the screw which clamps the distributor timing lever to the distributor and rotate the distributor until No 1 cam begins to open the breaker points, i.e., until the lamp goes out. Then tighten the screw and reinstall the spark plug



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wires. To check ignition timing turn over engine two or three times then come up again on No. 1 compression stroke, tapping the crank lightly until the lamp goes out. If the dial reads between the limits of .060 to .075 inch on a standard head engine or .002 to .005 inch on a high compression head engine the timing is satisfactory. If outside these limits, it should be reset.

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

Spark Plugs:—Spark plugs are Chapion $\frac{7}{8}$ inch. Gaps are .027-.030 inch.

VALVE TIMING:—**INLET VALVES:**—Head diameter, $1\frac{1}{8}$ inch; stem diameter, $11/32$ inch; stem length, $6\frac{7}{16}$ inches. Tappet clearance is .005 inch (hot). Spring pressure is 82 pounds with valves open and 52 pounds with valves closed. Valve lift is $5/16$ inch. Intake valves open at 6 degrees after top dead center and close at 46 degrees after lower dead center.

EXHAUST VALVES:—Head diameter, $1\frac{19}{32}$ inches; stem diameter, $11/32$ inch; stem length, $6\frac{7}{16}$ inches. Tappet clearance is .007 inch (hot). Spring pressure is 82 pounds with valves open and 62 pounds with valves closed. Valve lift is $5/16$ inch. Exhaust valves open at 42 degrees before lower dead center and close 8 degrees after top dead center. Valve stem guides are removable. Oversize valve stems are not made.

STARTER:—Model 728-B. Starter is connected to the engine through a manual pinion shift. The direction of rotation is counter-clockwise, looking at the commutator end. Brush spring tension is 24-28 ounces each.

Starter Data			
Torque	R.P.M.	Volts	Amperes
0 lb. ft.	2500	5	70
28 "	Lock	3	600

Mounting:—Starter is mounted at left of engine on forward side of flywheel housing. To remove starter, disconnect starter cable and remove the large pilot mounting screw and lock nut. Then slide starter forward and lift from place.

Oiling:—Put 4 or 5 drops of light engine oil in starter bearing oilers every 1000 miles. Once each year remove grease plug in gear compartment and repack gears with medium grease.

GENERATOR:—Model 955-F. The direction of rotation is counter-clockwise, looking at the commutator end. Generator current regulation is by third brush shunt field. To adjust generator output, loosen the small round

headed screw on the generator end plate and remove the commutator cover band. Then shift the third brush in a counter-clockwise direction to increase the charging rate and in the opposite direction to decrease the charging rate. Tighten the screw after making the adjustment.

Generator Data

Cold Test			Hot Test		
Amperes	Volts	R.P.M.	Amperes	Volts	R.P.M.
6	7.1	775	6	7.1	1000
13.2	7.8	1125	11	7.6	1500
16	8.1	1500	12	7.7	1800
14	7.8	2000	9.6	7.4	2500

Shunt field current is 4-6.1 amperes at 6 volts. Generator brush tension should be 14-16 ounces.

Mounting:—Generator is mounted at right of engine by a No. 3 S.A.E. flange mounting to the timing gear chain case. To remove generator, remove cover plate on front of case and remove three nuts holding generator in place. Then slide generator to rear, removing chain, but being careful that chain does not slip over cam shaft sprocket, or engine timing will be disturbed.

Oiling:—Put 8 or 10 drops of light engine oil in each of the generator oilers every month or each 1000 miles if the car is run more than 1000 miles a month.

RELAY:—Model 265-B. Relay is mounted on top of generator. Relay closes when generator reaches 600 R.P.M. with a terminal voltage of 7.25 volts and opens at approximately 500 R.P.M. with a discharge current of 0-2.5 amperes. Relay contacts separate .020 inch. Air gap is .016 inch with contacts closed.

LIGHTING:—Clum Switch Model 10738. Lighting switch is mounted at the base of the steering column. Head light are 6-8 volt, 21-21 cp. (double filament-double contact). Mazda 1110. Side lights are 6-8 volt, 3 cp. D.C. Mazda 64. Dash light is 6-8 volt, 3 cp. D.C. Mazda 64. Tail light is 6-8 volt, 3 cp. S.C. Mazda 63. Stop light is 6-8 volt, 15 cp. S.C. Mazda 87. Dome and corner lights are 6-8 volt, 15 cp. S.C. Mazda 87.

CIRCUIT BREAKER:—Model 410-B. Lighting circuits are protected by a circuit breaker mounted on the dash. Circuit breaker begins to operate with a current of 25-30 amperes limiting the current to 15 amperes.