

FORD

MODEL A (LATE 1928)

FORD GENERATING, STARTING AND LIGHTING SYSTEM AUTO-LITE COIL, AMERICAN BOSCH DISTRIBUTOR

BATTERY:—Ford, 6 volt, 80 ampere hour. Starting capacity is 98 amperes for 20 minutes. Lighting capacity is 5 amperes for 16 hours. The positive (+) terminal is grounded. Battery is mounted on left frame member under the floor boards of the front compartment. The terminal assembly is opposite to that of the battery used on the Model T and for this reason the two batteries are not interchangeable.

IGNITION:—Breaker contacts separate .018-.022 inch. They are made of tungsten. Resurface contacts with a fine flat contact file or on a medium hard oilstone. Distributor is of the manual type. Maximum manual advance is 20°. Breaker arm spring tension is 14-20 ounces. Ignition current is 6 amperes at 7 volts with engine running and 4.2 amperes at 6 volts with engine stopped.

Oiling:—There is an oiler on the side of the distributor housing. Put a few drops of light engine oil in this oiler every 1000 miles. At the same time wipe the face of the breaker cam with medium heavy cup grease.

Mounting:—Ignition coil is mounted on the engine side of the dash. Distributor is mounted on top of the engine between cylinders 2 and 3. Breaker mounting plate can be removed by removing distributor cap and removing lock screw in center of breaker cam and the breaker cam. Turn plate until groove and projection on housing line up. Then lift breaker plate from place. The ignition circuit is theft-proof with the breaker lead run from the switch to the breaker in an armored cable. It will not be necessary to remove the distributor housing from the cylinder head but this can be done by disconnecting the advance rod and all connections and removing the stud and locknut on the side of the engine block. The ignition switch and distributor housing must be removed as a unit.

Timing:—Breaker contacts separate when the piston entering power stroke reaches top dead center with the breaker fully retarded. To set timing, crank engine over until piston No. 1 enters compression stroke (the upstroke with both valves closed). Then remove timing pin screwed in cover of timing gear case directly over camshaft and reverse pin so that the end of the pin is in contact with the camshaft gear. Crank engine slowly until pin drops in recess on face of the gear. This is the top dead center position for piston No. 1. If breaker contacts are not separating, loosen cam lock screw and rotate breaker cam until contacts separate. Tighten the lock screw. Withdraw the timing pin from the gear recess, reverse and screw in place in the gear housing cover.

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

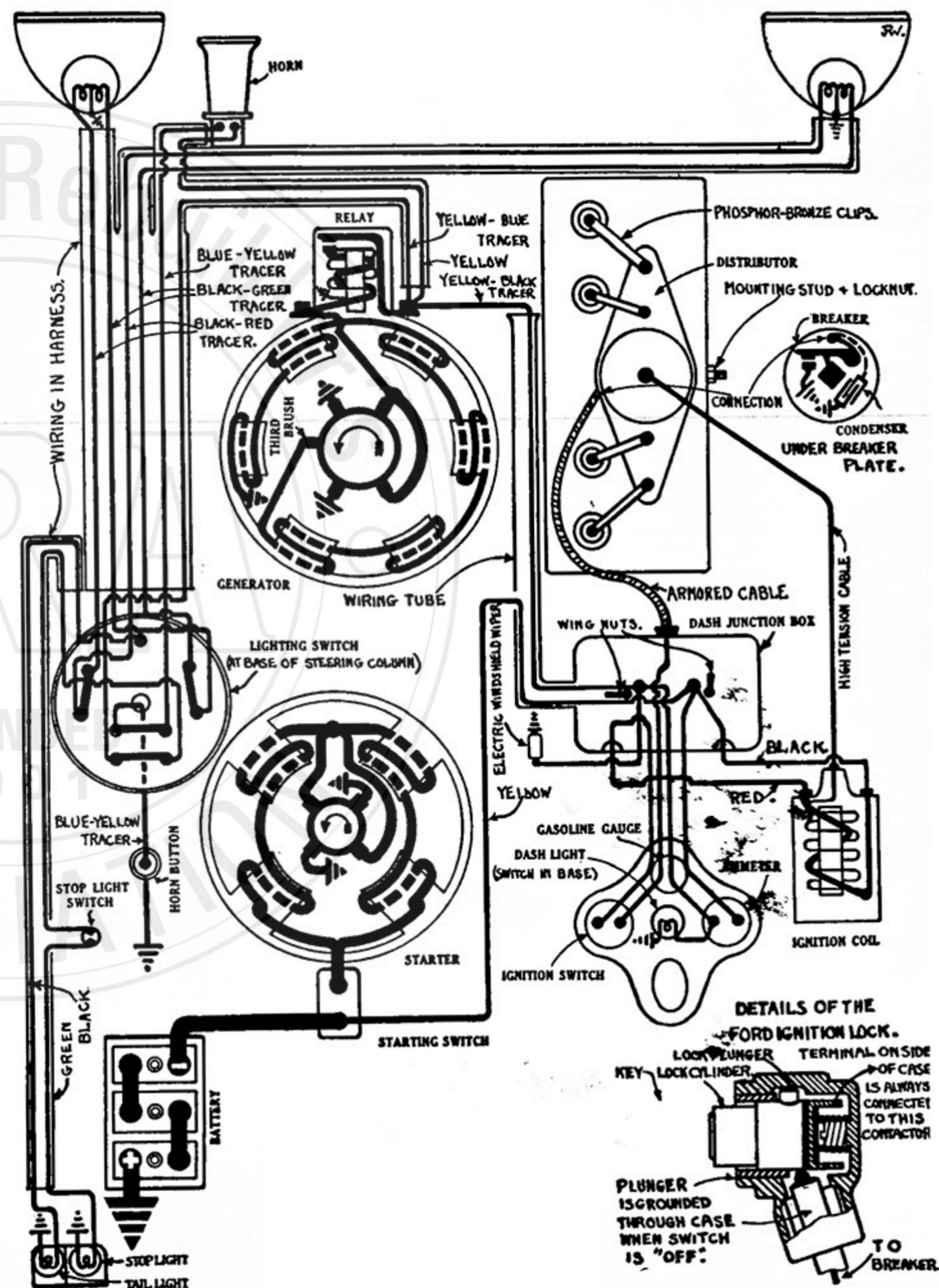
Spark Plugs:—Spark plugs are 7/8-18 S.A.E. Gaps are .025 inch.

STARTER:—Starter is connected to the engine through a Bendix drive. The direction of rotation is counter-clockwise, looking at the commutator end. Starter brush spring tension is 2 pounds.

Stator Data			
Torque	R.P.M.	Volts	Amperes
0 lb. ft.	2700	6	50
14 "	Lock	3.75	560

Oiling:—Starter bearings are oilless. They require no attention.

Mounting:—Starter is flange mounted at left of engine on forward side of flywheel case. To remove starter, disconnect starting pedal and cable from starter switch. Then remove three flange mounting screws and pull starter forward. When clear of housing lift starter from place.



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GENERATOR:—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, remove the commutator cover cap and loosen the small screw holding the third brush on the fiber mounting ring. 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 brush spring tension should be 12-16 ounces each.

Generator Data		
Amperes	Volts	R.P.M.
12.....	7.....	1500

Generator motoring draws 2.5-3 amperes at 6 volts. Shunt field current is 2 amperes at 6 volts. Generator stalled draws 22 amperes at 6 volts.

Oiling:—Generator is equipped with ball bearings packed with cup grease. The grease compartment forms a hollow hub inside the armature and holds sufficient grease so that replenishing is necessary only infrequently. To repack grease com-

partment it is necessary to remove drive pulley and end cap.

Mounting:—Generator is mounted on left of engine at forward end of engine by special swinging bracket and is belt driven from the crankshaft by the fan belt. To remove generator, disconnect lead and loosen bolts on adjustment bracket and mounting lug under generator. Then swing generator toward engine and slip off drive belt. Remove mounting bolts and lift generator from place. The tension of the drive belt is adjusted by swinging generator on the lower mounting lug. To adjust belt, loosen lower mounting bolt and the bolt on the adjustment bracket extending from the generator to the crankcase. Then swing the generator on the lower bolt as a pivot until the proper tension of the belt is secured and tighten the bolts. The belt must not be too tight or it will crowd the generator bearings.

RELAY:—The relay is mounted on top of the generator.

LIGHTING:—Headlights are standard Ford 6-8 volt, 21 and 2 cp. double filament bulbs using 2 cp. filaments for dimming. Dash and tail lamps are each 6-8 volt, 3 cp. S.C. Stop lamp is 6-8 volt, 21 cp. S.C.

