



BOSCH BATTERY IGNITION SYSTEM FOR FORDS—Continued

braided tube. The other ends of these wires are connected to the timer at the front of the engine. Disconnect them from the timer and cut them off where they leave the front end of the braided tube. Be careful not to cut the lamp wires by mistake.

4. Control: The Bosch fitting was originally designed for replacement on Ford cars prior to the 1922 models, and for this reason the long control rod on the engine front plate was furnished to screw into the Ford ball joint at the end of the steering column. However, on the later models of Ford cars this ball joint is eliminated and the timer control arm is bent and fastened to the steering column by means of a cotter pin. In order to take care of this change in the Ford cars, the control rod furnished with the Bosch fitting was redesigned, the threads being eliminated and the end bent and drilled.

If the fitting furnished you is supplied with a threaded control rod, unfasten the Ford control rod at the timer and unscrew it from the ball joint at the end of the steering column.

If no ball joint is furnished unfasten the Ford control rod at timer, take out cotter pin and remove the rod.

5. Removing Ford Timer: Loosen the spring which holds the timer assembly in place and remove the timer.

Unfasten the hexagon nut on the end of the cam shaft and pry off the roller and arm with a screw driver.

Now take off the engine front plate but be sure to save (a) the lock nut on the fan belt tension adjusting bolt (b) the paper gasket (if the paper gasket is damaged it should be replaced by the new paper gasket which

we furnish) (c) the oil cover and (d) the semi-circular felt packing which is in the groove where the engine front plate sets around the crank shaft. These parts are all used later.

6. Mounting the Bosch Coil: Fasten the Bosch Coil to the dash a little to the right of the center so that you can easily connect the black wire which formerly led to the Ford Coil, to the screw terminal of the Bosch Coil. Use wood screws on Fords previous to 1923 Model. For metal dash use bolts and nuts furnished.

7. Mounting the Cam Shaft Driving Gear: Unscrew the nut which holds the timing gear in position and place washer on cam shaft just over timing gear. Replace the nut with keyed nut furnished, drawing the keyed nut up firmly against the washer. Put the driving gear on the cam shaft so that the two tongues on the nut which holds the timing gear fit into the slots in the back of the driving gear. Fasten the gear firmly in place by means of the hexagon nut which previously held the Ford timer mechanism on the cam shaft. Put plenty of oil on the gear.

8. Mounting Bosch Timer and Engine Front Plate: Loosen the lock nut and back up cam shaft thrust screw in the engine front plate until it is flush with the inner surface.

Remove from the engine front plate the set screw which is provided to hold the timer in place and set the timer distributor in position, at the same time attaching the timing arm. Place this set screw back in the plate, making sure that the timer distributor turns freely after tightening the set screw. Put plenty of oil on the timer distributor shank, timer gear and cam shaft gear. The timer housing should rotate freely and should be well lubricated.

Shellac the paper gasket on the engine front plate and set the engine front plate in place, carefully meshing the gears. Fasten the engine front plate to the crank case, using the original Ford cap screws and bolts, but be sure that all bolts are in place before any are tightened. The Cap Screws through the Flange at the bottom of the Engine Front Plate must be put in first. Be careful when tightening up the cap screws not to lose the alignment established between the two gears. Gears out of alignment run the system. The cap screws should be tightened gradually and must not be screwed all the way home, one at a time.

Should the gears not mesh at once do not force them. Look for some interference. Do not use a wrench on the cam or wedge a tool in the timer in order to force the gears into mesh.

Set spark control lever at the steering wheel in the full retard position (top of quadrant).

If the Bosch fitting is supplied with the threaded control rod, it is to be connected as follows: Remove the long control rod from the lever mounted on the engine front plate, and screw the threaded end into the ball joint at the end of the steering column. (Ball joint must be attached if not furnished on the car.)

If the Bosch fitting is supplied with the bent control rod, connect the free end to lever on the steering column by means of cotter pin.

Set the fan pulley on the crank shaft in its original position and fasten with pin and cotter.

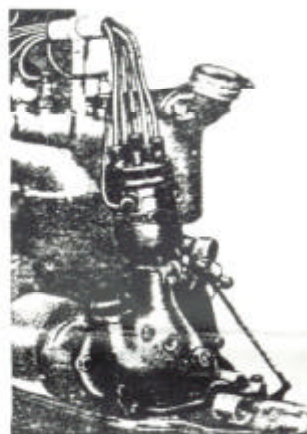
The grounding cable which is fastened to the control arm of the timer distributor should be fastened to the screw at the end of the generator. On some of the first fittings this cable was grounded to a screw on the front of the engine front plate, but it should be changed and grounded on the generator so that there is no chance of it getting caught in the fan.

9. Timing: Put the ignition switch in off position, and take out the spark plug in No. 1 cylinder. Turn over the engine until the piston in No. 1 cylinder comes up to top dead center position (highest point) on the compression stroke. Remove the distributor cap from the timer, lift the timer until the gears are out of mesh and remesh with the distributor rotor insert (metal finger) toward No. 1 spark plug.

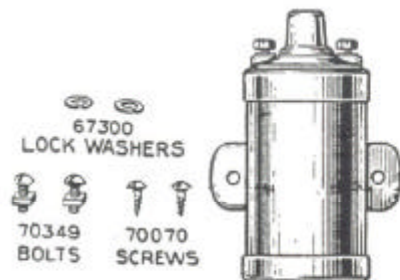
Loosen the clamping screw which holds the timing arm on the timer.

Remove the distributor rotor. **POINT THE TIMER HOUSING OIL CUP TOWARD THE REAR OF THE**

Remove from the engine front plate the set screw which is provided to hold the timer in place and set the timer distributor in position, at the same time attaching the timing arm. Place this set screw back in the plate, making sure that the timer distributor turns freely after tightening the set screw. Put plenty of oil on the timer distributor shank, timer gear and cam shaft gear. The timer housing should rotate freely and should be well lubricated.



Front view of Fitting installed



TYPE TC-30
IGNITION COIL

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The grounding cable which is fastened to the control arm of the timer distributor should be fastened to the screw at the end of the generator. On some of the first fittings this cable was grounded to a screw on the front of the engine front plate, but it should be changed and grounded on the generator so that there is no chance of it getting caught in the fan.

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Loosen the clamping screw which holds the timing arm on the timer.

Remove the distributor rotor. **POINT THE TIMER HOUSING OIL CUP TOWARD THE REAR OF THE**

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