

UPPER POINT PLATE (with Modern Points and Condenser)

Points and condenser failure and maintenance are major problems with reproduction Model "A" ignition systems. Rubbing block wear and failure are caused by inferior material or an improper distributor cam. Poor construction and heat damage due to being too close to the hot engine head cause condenser failure.

This newly designed and produced plate assembly:

- ◆ properly locates the modern point assembly in relation to the distributor cam high point and rotor brass tip
- ◆ mounts the condenser on the point plate to shield it and reduce engine heat effects
- ◆ identifies a proper cam available from two sources

An article discussing problems which led to the above corrections "Upper Plate with Modern Points" was published in the Model A Trader (Mar/Apr, 1992, pp. 2-3 *(1)).

The new plate with modern point sub-assembly and condenser incorporates:

- ◆ positive pivot pin location for proper cam and rotor contact relations and reproducible point assembly replacement
- ◆ current production tungsten contact points
- ◆ condenser made of modern material, constructed and sealed against moisture for long life
- ◆ two hold-down screws for ease in setting, adjustment and point assembly replacement
- ◆ a fiber/low friction rubbing block for long life
- ◆ a copper current carrying strap in parallel with the steel spring for low electrical resistance

A recommended distributor cam is available from most major Model A parts suppliers.

The use of modern and standard components allows availability and ease of replacement of the point assembly and condenser. Both are available from automotive supply stores while on the road. The points and condenser were used on the Ford V8 1957-1974 year models.

The plate was stamped by the original dies and was modified only to eliminate unnecessary holes. Consequently, it properly fits the distributor housing.

INSTALLATION:

1. Remove rotor, cam locking screw, washer, and cam.
2. Remove the upper point plate and disconnect the pigtail wire from bottom of the pivot post.
3. Check the condition of the distributor bushing/shaft for wear. Replace and clean as required (*see distributor rebuilding articles for procedures*).
4. Remove the existing condenser. It is suggested that the old pigtail wire be replaced--it is probably frayed and short in length. Remove the old wire with a soldering iron and heat the solder connection on the lower plate. Pry open the two tabs. Install a new flexible multi-strand #16/#18 wire (at least inches long). Crimp and solder the two plate tabs to the wire. Solder or make a terminal at the other pigtail end for connection to the point side post screw. If the original pigtail is in good condition, it may be used; however, it may be a tight fit because of the short length. The connection at the points terminal will probably need to be rotated so that there is no contact with the distributor housing.
5. To reassemble, install the lower plate. For appearance, a dummy condenser may be mounted in the lower distributor housing if desired. It **should not** be electrically connected to the lower plate. The original plate pigtail, if used, is dressed in its original counter-clockwise direction, brought up through the plate cut-out and fastened to the point stud. The new pigtail, if used, is dressed in the same rotation but should make a full turn around the distributor inner housing before exiting at the plate cut-out.

Since it does not stress the wire at any point, this full turn is superior to the original short and stiff pigtail. It is also fastened to the point stud with the outermost nut.

Do not disturb the inner stud nut. It fastens the point spring and copper strap.

6. Install the inner spring over the distributor shaft and set the point plate assembly in the distributor housing. The control ball stud should be located between the oil fitting and the pop-out switch cable threaded hole. **Check that the point stud pigtail terminal DOES NOT contact the housing as the plate is rotated between the retard and advance positions.** Contact grounds the points and results in improper ignition.
 7. Place the furnished 0.020" plastic gage in a **VERTICAL** position between the point contacts. **They are to be set for 0.020" plus or minus .002" gap.** Loosen the two hold-down screws to just allow the point assembly to move with some friction when the stationary point is moved by hand. Install the cam, washer, and hold-down screw.
 8. Distributor *Out of Engine*
 - (a) Tighten the cam just enough so that it rotates as the distributor shaft is turned. Turn the shaft and cam **COUNTER-CLOCKWISE (*direction of engine drive*)** and allow the flat to contact the point-rubbing block. Push the points to contact the cam--then continue to slowly rotate the shaft. The cam will ride against the rubbing block moving the point assembly around its pivot point. Continue the shaft rotation until the cam high point is reached and the point assembly maximum rotation is observed. **Tighten the two hold-down screws.** The point gap is now adjusted for 0.020" gap.
 - (b) If the shaft is rotated through 360°, the concentricity of the shaft and cam can be observed. A perfect cam, shaft, and bearings would show the same "just touching" the cam high point at four places.
 - (c) Remove the plastic feeler gage. The points will spring closed. The points should open and close as the shaft is rotated. For uniform operation, the gap openings should be within about plus or minus .001" of each other.
 9. Distributor *In Engine*

The distributor shaft is held fixed by the engine. The above procedure is followed with the cam instead rotated by hand.
 10. Lubricate the cam with cam lubricant to extend the life of the point rubbing block and cam.
 11. Install the rotor, distributor, plug wires, and all connections as usual.
 12. Set the ignition timing. The use of a strobe light is recommended for accurate and reproducible timing settings.
- Note: A high resistance insulating film may form on the points in some storage environments. If spark/ignition does not occur on the first engine start:
- (a) Lightly sand the points, **OR**
 - b) With the ignition **ON**, open and close the points with a screwdriver tip. The hi-voltage coil-distributor wire should spark to ground. If there is no spark, check for voltage at the point-pig tail nut. If the power is good, repeat (a) or (b). If there is still no power, check the wiring.