Distributor Seminar

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1. Distributor failure is the most common cause of breakdown in Model A's.
   - Points close up- set to .020- new points will wear quickly- reset after 100 miles, check every 1000 miles
   - Short circuit- usually due to frayed stranded wire between upper and lower plate. To replace buy lower plate with wire installed. It could also be lower plate due to ignition cable screwed in too tight and/or lack of insulation or tab for condenser.
   - Bad condenser- rare today due to better quality parts. Buy condenser that is stake welded, not soldered. Shorted condenser will not run, open will run poorly with backfiring.

2. Poor idle and/or missing is often caused by worn distributor. Check for:
   - Looseness of shaft in the bushings
   - Misaligned points, pitted points
   - Cam with uneven lobes
   - Frayed or broken wire between upper and lower plates
   - Cracked or loose body
   - Rotor/body with improper or varied gaps.
   - Rotor/body gap should be .025-.030. Don't try bending metal contact on rotor. File the contacts on the body.
   - Spring tension on points may be weak, causing float at high speed.
   - Coil polarity reversed
   - Weak coil

3. Rebuild

   Disassembly
   - Grind the end of the pin holding the collar on the lower end of the shaft, remove with driver
   - Unscrew cam and remove
   - Turn upper plate and remove spring, condenser, lower plate screws and lower plate
   - Remove oiler with dikes or pin driver
   - Use a nail, then 15/64" drill to clean crud from oiler hole
   - Soak base in parts cleaner, then bead blast
   - Use hack saw/pick to remove bushings

   Inspection/Painting
   - Look for cracks around bushings. Shaft (new) 0.4985, bushing 0.500. Use old screws, oiler, 3/8 pipe, masking tape etc. to ensure good ground
   - Use electrical wire in groove for upper plate, tape locating pin
   - Don't primer, just paint with black enamel

   Bushings
   - Chamfer leading edge of bushing
   - Lubricate housing/busing
   - Use bushing driver with hydraulic press
   - Push both bushings from bottom

- Ream or hone bushings to fit new shaft (.500") .001-.002 fit will allow for oil
- Do not use one piece shafts. Use shaft with top oil hole.

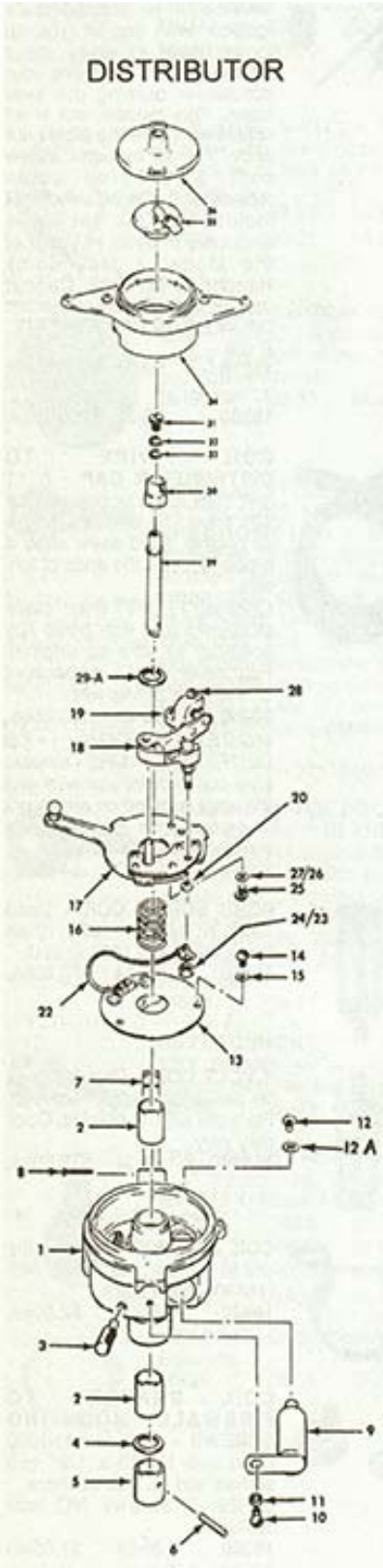
4. Assembly
   - Use super glue to attach fiber insulator to tab on lower plate
   - Good kits are available from Bratton's, Snyders, or others
   - Save old parts- many can be reused
   - Buy new "B" cam with longer dwell and even lobes
   - Assemble according to diagram in catalogue
   - Be sure wire connecting upper and lower plate has the connecting tab/lug (to the points) bent properly to avoid shorting out against the spring
   - Install/adjust point block for proper alignment of points
   - New plastic body/cap/rotor fit snugly with no slop. File contact for even gap of .025” - .035”
   - Look for cracks around bushings. Shaft (new) 0.4985, bushing 0.500. Use old screws, oiler, 3/8 pipe, masking tape etc. to ensure good ground
   - Use electrical wire in groove for upper plate, tape locating pin
   - Don't primer, just paint with black enamel
   - Insure that shaft has .015 steel washer at top, fiber washer on bottom. If too tight, grind sleeve, if too loose add another steel washer.
   - Using an extra, thin fiber washer under point stud is a good idea - may need to trim one edge.

5. Test - use a test light or ohm meter and put one probe on the bus bar just inside the threaded 3/8” hole and other probe on an unpainted area of the base. When the points are open, there should be no continuity. When points are closed there should be continuity.

6. Be Prepared
   - Carry a feeler gauge in your tool kit- set the points at .018 -.022
   - Have a spare distributor with lower shaft tested and timed to your car. It's quick and easy to change and get you back on the road.

7. Maintain: Each time you change the oil or at 1000 miles, remove distributor from car and:
   - Clean- wipe down outside and inside
   - Oil with 30w through oiler
   - Lube the cam with cam lube
   - Set the points to.18-.022
   - Tighten all screws
   - Set the timing

Thanks to Bratton's Antique Auto Parts for the following diagram:



Index #	Our Part #	Nomenclature
1	17000	Base Assembly
2	17200	Bushing
3	17220	Oiler
4	17400	Fiber Washer 1/2 (1/32 x 11/16)
5	17410	Shaft Sleeve
6	17420	Sleeve Pin 1/8 x 25/32 Plain Pin
7	17240	Base Clamp
8	17250	Clamp Rivet 1/8 x 15/16 Oval Head Split Rivet
		(Plain Steel, Cadmium, Nickel, or Brass)
9	17590	Condenser
10	17640	Condenser Round head Machine Screw
		8/32 x 1/4 Cad Plated
11	17640	Condenser Lock washer #8 Plain Finish
12	17620	Condenser Round head COPPER Plated
		10/32 x 7/32 Screw
		(Cad. Used 1928-29, Copper 1930-31)
12A	17620	Condenser Bus Bar Insulating Fabric Washer
13	17260	Lower Plate
14	17640	Lower Plate Round head Machine Screw
		8/32 x 1/4 Cad 2 req'd
15	17640	Lower Plate Lock washer #8 Plain Finish (2)
16	17230	Spring
17	17310	Upper Plate & Insulator Assembly
18	17460	Point Breaker Arm Assembly
19	17350	Contact Screw Bracket
20	17640	Steel Spacer
22	15230	Pigtail
23	17640	#8 Lock washer
24	17640	8/32 Hex Nut, Cadmium
25	17640	Round head Screw 8/32 x 5/16 Zinc Plate - 2 req'd
26	17640	Flat Washer (pivot side of point block)
27	17640	Lock washer #8 Plain Finish - 2 req'd
28	17640	Fillister Head Screw 8/32 x 7/16 cad
28A	17640	Lock washer #6 Plain Finish
29	17360	Shaft
29A	17390	Cam Shaft Thrust Washer
30	17480	Cam
31	17520	Cam Screw
32	17520	Cam Lock washer 5/16 plain finish
33	17520	Cam Flat Washer 5/16 (1/32 x 35/64)
34	17110	Dist. Body
35	17470	Dist. Rotor
36	17160	Dist. Cap