



Blueprint Point-Type Distributors

Installation Instructions

Accel Blueprint Distributors are direct, bolt-in replacements, but offer improved performance and fuel economy potential. Although installation is easy, reading these instructions **BEFORE STARTING THE INSTALLATION** will assure that you'll be able to take maximum advantage of all the performance your Accel Blueprint Distributor was designed to deliver.

Step 1 — After unpacking the distributor and checking it for any damage that might have occurred during shipping, remove the cap and rotor. On Ford and Chrysler and 6-Cylinder Chevrolet distributors, the rotor pulls off. On GM V-8 distributors, two attaching screws must be removed before the rotor can be lifted off.

Step 2 — On Ford, Chrysler and 6-cylinder Chevrolet distributors, slightly loosen the screws holding the point set to the mounting plate. The screws should be just loose enough to allow the point set to be moved smoothly when a screwdriver is inserted in the adjusting slot in the mounting plate.

Step 3 — Slowly rotate the distributor shaft until the points open to the widest gap. With a feeler gauge, adjust point gap according to specifications listed in the accompanying table. After the proper gap is established, tighten the attaching screws. Recheck the gap to make sure that the points didn't move when the screws were tightened.

Step 4 — On GM V-8 distributors, adjust point gap by inserting a $\frac{1}{8}$ " hex wrench in the adjusting screw. Increase point gap by rotating the hex wrench counter-clockwise; reduce point gap by rotating the wrench clockwise.

Step 5 — Reinstall the distributor rotor. Note that on GM V-8 distributors the rotor has one round and one square peg on its underside. These pegs must fit into the appropriate holes in the plate on top of the distributor shaft.

Step 6 — If the distributor to be replaced has not already been removed from the engine, pull the cap off. Do not remove the plug wires at this time. Crank the engine slowly until the rotor blade is pointed at a fixed point on the engine or firewall.

Step 7 — Locate the wire leading from the distributor to the negative terminal of the coil. Remove it from the coil being careful not to drop the attaching nut and lock washer.

Step 8 — Note the position of the vacuum advance canister. Put a reference mark on the engine or firewall so that the new distributor may be easily installed in the same position.

Step 9 — Loosen and remove the distributor hold-down bolt and clamp. Lift the distributor out of place. If the engine had been running within the past few minutes, the

distributor housing may be hot and coated with hot engine oil. Wrap a shop towel around the distributor to avoid burning your hands and dripping oil.

Step 10 — Lower the new distributor into position. The rotor should be pointing toward the same direction as the discarded distributor and the vacuum canister aligned with the reference mark. After the distributor has been lowered into place, you may find that it hasn't seated firmly against the support boss. This indicates that the lower end of the distributor shaft is not properly aligned with the oil pump drive rod. Do not attempt to force the distributor into position.

Step 11 — Reinstall the hold-down clamp and thread the bolt in just enough to exert a very slight pressure against the distributor. If the distributor is not firmly seated, rotate the engine until it drops down into place. It may be necessary to spin the engine over until the rotor is again aligned with the fixed point on the engine or firewall.

Step 12 — With the distributor properly seated, tighten the hold-down bolt just enough so that the distributor is held in place, but can still be rotated with a little effort. Again, make sure that the vacuum canister is aligned with the reference mark.

Step 13 — Remove the plug wires one at a time from the old cap and install them in the corresponding positions of the new one. Reinstall the distributor cap.

Step 14 — Attach the wire from the distributor body to the negative terminal of the coil.

Step 15 — Connect a timing light and dwell meter. Start the engine and allow it to warm up sufficiently to idle smoothly. It may be necessary to rotate the distributor (either clockwise or counter-clockwise) before a smooth idle can be achieved. If the engine will not idle smoothly, the firing order may be incorrect or the rotor may not have been properly aligned when the distributor was installed. Consult a service manual for corrective procedures.

Step 16 — Setting point gap with a feeler gauge is a means of getting dwell "in the ballpark". For optimum performance, dwell must be set to the specifications listed in the accompanying table. At this time it may be necessary to readjust gap in order to establish the desired dwell reading.

Step 17 — After proper dwell has been established, consult the appropriate service manual to determine the factory recommended initial timing and idle speed. Set initial spark timing with the vacuum advance line disconnected

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and plugged. Advancing timing two to four degrees from the factory setting will usually provide improved performance and fuel economy. However, timing advanced beyond factory specifications may result in detonation, which can cause engine damage. Listen carefully — if you hear the engine knocking or pinging, retard initial timing as required to eliminate it.

Step 18 — Insert the supplied 3/32" hex wrench in the vacuum canister nipple and rotate the adjusting screw counter-clockwise until it bottoms against its stop. Then turn four complete turns clockwise. This is approximately 7° dist. (14° eng.) at approximately 12" vacuum. This is a starting point for the vacuum advance adjustment. If surging or pinging is noticed at cruise RPM turn the adjustment counter-clockwise until condition is no longer noticed. If more advance is needed turn adjustment clockwise. **NOTE: Ford retard chamber is not applicable on Accel "Blueprint Distributors."**
Block unused port.

Factory Specifications for Point Gap and Dwell

| Engine | Point Gap | Dwell |
|---------------------------------|-----------|-------|
| Buick V-8 | .016" | 30° |
| Chevrolet V-8 | .019" | 30° |
| Chevrolet inline 6 | .019" | 32° |
| Oldsmobile V-8 | .016" | 30° |
| Pontiac V-8 | .019" | 30° |
| Ford V-8 (1971 & earlier) | .021" | 26° |
| Ford V-8 (1972) | .017" | 28° |
| Ford V-8 (1973 & later) | .017" | 27° |
| Ford inline 6 (all except 1971) | .027" | 37° |
| Ford inline 6 (1971) | .027" | 35° |
| Chrysler 361,383,400 | .0185" | 30° |
| Chrysler 273-360 | .0165" | 32° |

Tips for Increased Performance and Gas Mileage

Most distributors are equipped with two spark advance mechanisms. Centrifugal or mechanical advance is controlled by engine speed — as engine rpm increases, so does mechanical advance, up to a point. The total amount of mechanical spark lead (which varies according to the engine) is limited by a stop in the advance mechanism.

Vacuum advance is regulated by manifold vacuum which is a function of the load placed on the engine. Under light loads, such as when cruising at a steady speed on the highway, an engine can tolerate more spark advance than it can when under a heavy load such as when climbing a hill or accelerating at wide open throttle.

To optimize full throttle acceleration, a relatively rapid mechanical advance rate is required. This may be accomplished by replacing the existing springs with lighter ones. When experimenting with mechanical advance rates, first disconnect and plug the vacuum advance line. Then determine which combination of springs provides the quickest curve, yet allows full throttle acceleration in high gear without pinging or knocking. You may find it necessary to mix spring rates.

Once the optimum mechanical advance rate is established, vacuum advance rate may be adjusted. Again, the procedure is to run as much advance as the engine will tolerate without detonating. To increase the vacuum advance rate, insert the supplied 3/32" hex wrench in the canister nipple and rotate it clockwise. Road test the car by accelerating at different rates, using part throttle in high gear. (High gear is suggested because lacking the torque multiplication of the lower gears, engine load is highest.)

If the engine does not ping or surge, insert the hex wrench in the canister nipple and rotate the adjusting screw in the clockwise direction. Road test the car again. If detonation is still not evident, repeat the adjustment/road test procedure until it is. Then slow down the vacuum advance rate by rotating the adjusting screw counter-clockwise, one turn at a time, until evidence of surge disappears.

Your Accel Blueprint distributor is now calibrated to provide the optimum combination of performance and fuel economy.

Insist on Quality Accel Parts for all your starting, charging and ignition system needs.

For further information on installing and adjusting this distributor contact:

ACCEL Tech Services