Instructions for Installation of Summit HEI Distributors
Equipped with an Adjustable Vacuum Advance Kit

1. Remove the air cleaner if necessary to gain access to the base of the distributor. It is a good idea to cover the carburetor with a shop rag or a piece of plastic to protect against the accidental dropping of any small parts into the engine.

2. Remove the distributor connections

3. Remove the spark plug wire retention ring (if so equipped) and the spark plug wires. If you are not replacing wires at this time, mark them as to position and order. Remove distributor cap and mark the location of the rotor and the vacuum advance canister, using a fixed point on the engine, a bracket or the firewall, so that you can install the new distributor in the same position.

4. Loosen distributor hold down clamp and lift distributor from engine.

5. Lower the new distributor into position. The rotor and vacuum advance canister should be aimed at the same fixed points as they were for the old distributor. After the new distributor has been lowered into place, you may find that it hasn’t seated firmly. This indicates that the lower end of the distributor shaft is not properly aligned with the oil pump drive shaft. Do not attempt to force the distributor into position. Use a long flatblade screwdriver to rotate the oil pump shaft to the required position so the distributor shaft slot engages the oil pump drive. Again, make sure the vacuum canister is aligned with the reference mark.

6. Install the distributor cap, the plug wires (in the corresponding original locations) and the spark plug wire retention ring if so equipped.

7. Reconnect the wire leading from the ignition switch to the distributor, and plug the pickup lead connector into the new distributor cap. A common problem with electronic installations has been that the system is not securely grounded. Make sure your engine is grounded to the chassis with a ground strap. Do not rely on engine or transmission mounts as they are most likely “rubber mounted” and therefore the engine is insulated from the chassis.

8. Using a small 3/32" Allen wrench, (wrench not included) insert the wrench through the vacuum line port on the vacuum canister (see diagram below) and adjust to maximum counter clockwise rotation Leave the vacuum hose disconnected and plugged with a small bolt or other device to eliminate a (potential) vacuum leak.
9. Connect a timing light. 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 aligned properly during installation. Consult a general service manual for corrective procedures.

10. Set initial spark timing advanced two to four degrees from the factory recommended setting. This will usually provide improved performance and fuel economy. However, timing advanced too far beyond factory specifications may result in detonation, which can cause engine damage. The distributor’s mechanical advance is 6° @ 900 RPM, 8° to 10° @ 1200 RPM and reaches a maximum of 10° to 11°@ 1500 RPM The vacuum advance provides 10° of advance.

11. Connect the vacuum hose to the vacuum advance canister. The vacuum line for the vacuum advance should be connected to a ported/timed vacuum source. To properly identify this port, you will need to have a vacuum gauge in hand and test any small (3/16) vacuum ports on the carburetor. The port that does not have vacuum at idle is the ported/timed source and is the correct port for the advance of the distributor to be connected to.

12. Test drive and listen for audible noise under load and at part throttle. If spark knock occurs under load, at full throttle, retard the initial timing as required to eliminate it. If spark knock occurs at part throttle an adjustment to the vacuum advance is necessary. This adjustment is made by inserting the Allen wrench into the vacuum advance canister port and turning it two turns clockwise. Test-drive the car and repeat the adjustment until the spark knock is eliminated.

If you are uncertain as to any process, to avoid possible engine damage contact your personal automotive repair person for their assistance or contact Summit Racing Technical Department @ 330-630-0240

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