ADJUSTABLE VACUUM ADVANCE KIT
For GM H.E.I. Distributors
PART #6010

INSTALLATION & OPERATION INSTRUCTIONS

Automotive ignition timing advance consists of three components:**Initial timing, centrifugal advance, and vacuum advance.**

INITIAL TIMING—Is the point where the distributor is set in the engine prior to start-up. This timing can be advanced or retarded by moving the distributor.

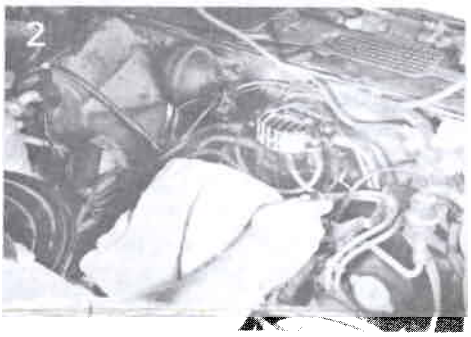
CENTRIFUGAL ADVANCE—Is a function of the engine R.P.M., and will increase as the engine's R.P.M. increases. The centrifugal advance is controlled by the weights and springs inside the distributor.

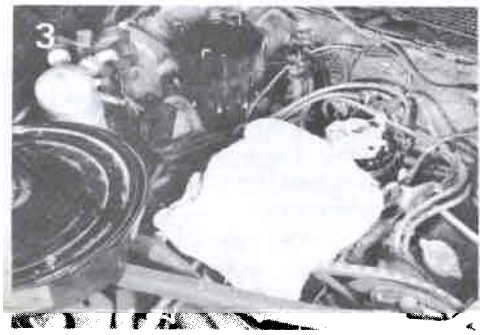
VACUUM ADVANCE—Is a function of the engine manifold vacuum. As the engine vacuum decreases, the vacuum advance will decrease. At full throttle, engine vacuum is zero and vacuum advance is zero.

TOTAL ADVANCE—Is the total of initial advance, centrifugal advance, and vacuum advance added together.

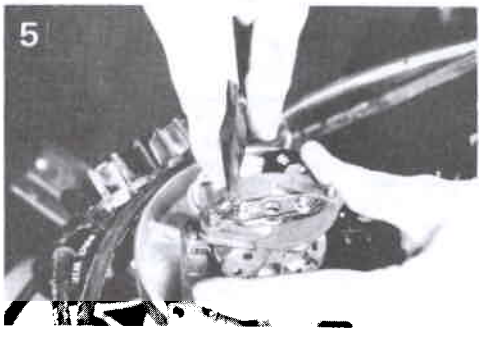
The following instructions are designed to allow you to recurve your distributor in the vehicle. This procedure may also be done on a disributor machine, if a predetermined curve is desired.

1. Remove the air cleaner assembly, cover the carburetor opening with a clean rag to keep small parts from dropping into the engine. (See Fig. 1).
2. Remove all distributor connections such as battery and tachometer leads from the distributor cap (See Fig. 2).
3. Remove the distributor cap by first unclipping the spark plug wire retainer ring. (See Fig. 3)





4. Remove the rotor and inspect its condition, replace if needed (See Fig. 4). At this time check all spark plugs, and replace as needed (See Fig. 4).
5. Remove the centrifugal advance springs (See Fig. 5) and inspect the weights and pins for rust, and extreme wears at the pivot points. Replace as needed. **NOTE: Lubricate all pivot points.**



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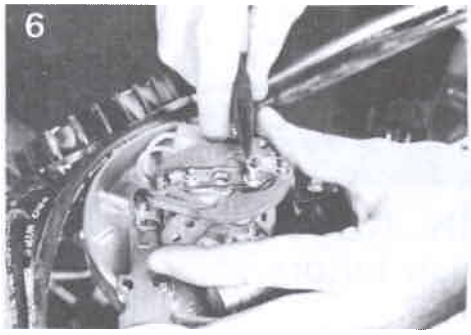
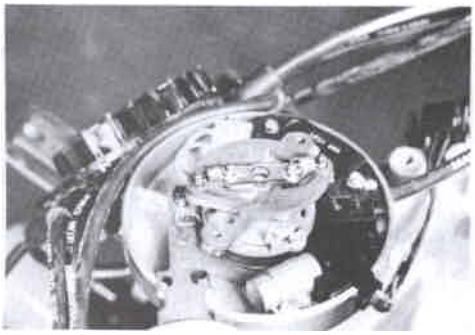
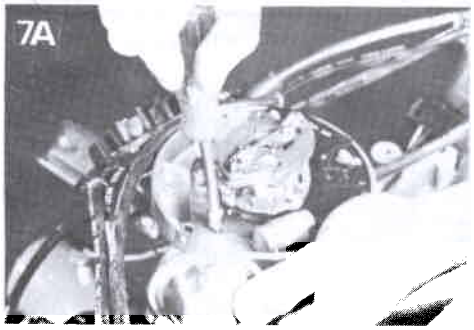
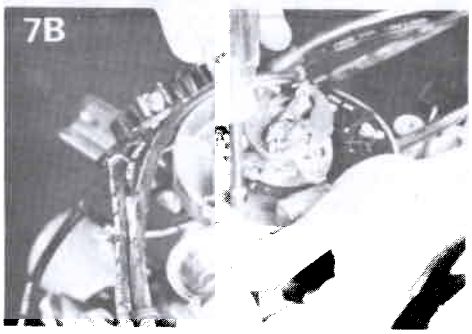
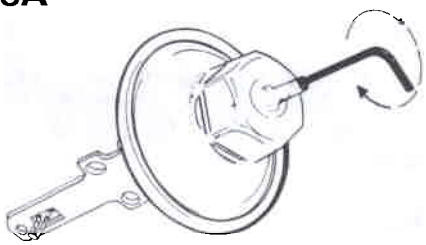




6. Install an orange (heavy) and yellow (medium) spring in the distributor in place of the stock springs (See Fig. 6). This spring combination is recommended for most applications as a starting point.
7. Replace the stock vacuum advance unit (See Fig. 7A), with the new Mr. Gasket Adjustable Vacuum Advance Unit reusing the same mounting screws (See Fig. 7 B). The Mr. Gasket Adjustable Vacuum Advance Unit will allow you to fine tune the vacuum advance curve to suit your performance applicaiton.
8. Using the 3/32" allen wrench (included with the kit), insert the wrench into the vacuum port and turn to maximum clockwise position (See Fig. 8A). Reinstall distributor rotor, cap, spark plug wire harness, and all other wires removed in step 2. (See Fig. 8B-8C). Leave the vacuum hose disconnected and plugged.

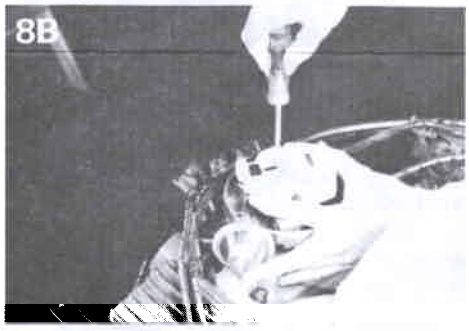


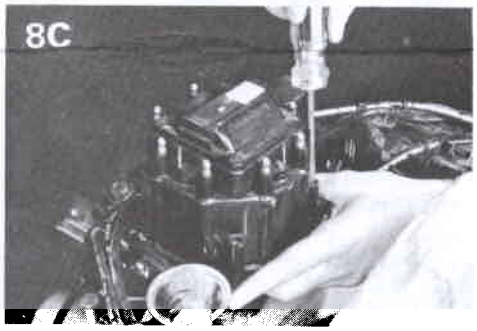




9. Set the initial iming at 2° advance from factory specifications and make full throttle acceleration runs, listening for audible spark knocks. If spark knock occurs, then retard the initial timing 2° and check for spark knock by making another full throttle acceleration run. If spark knock stops, you have the ideal centrifugal advance curve. If spark knock continues, then select the next heavier spring combination and repeat the test procedure. If no spark knock occurs on the first test, select the next lightest combination and repeat the test.
10. Connect the vacuum hose to the adjustable vacuum unit.
    NOTE: Check all vacuum hoses for cracks and replace as needed.
11. Test drive the vehicle in the city and on the highway while listening for audible spark knock under heavy load and part throttle. If spark knock occures under part throttle conditions, a change in the vacuuum advance cure is needed. This adjustment is made by inserting the 3/32" allen wrench into the vacuum advance unit and turning the adjuster counter clockwise two turns at a time, testing the vehicle after each change, until part throttle spark knock is eliminated.

The curve you have achieved is designed to give you the best economy and performance.





SPRING COMBINATIONS		
SPRING COMBINATION	START ADVANCE ENGINE RPM	FULL ADVANCE ENGINE RPM
Orange/Orange	800	3200
Orange/Green	800	2800
Orange/Yellow	800	2600
Green/Green	600	2200
Yellow/Green	500	1800
Yellow/Yellow	500	1600

In general, GM cars and trucks originally equipped with HEI distributors will be able to use a total advance of 45° to 55°. Some factors may limit the amount of total ignition timing your vehicle can use. These factors are increased compression, declining octane rating of gasoline, certain intake manifolds that will not tolerate increased ignition timing, lock-up torque converters, extrmely heavy loads, and lean fuel mixture.

NOTE: The GM HEI distributor has a centrifugal advance of 20 crank degrees with stock weights. Using advance weights other than stock may change the centrifugal advance curve and total advance.