DELCO - REMY SERVICE TIPS

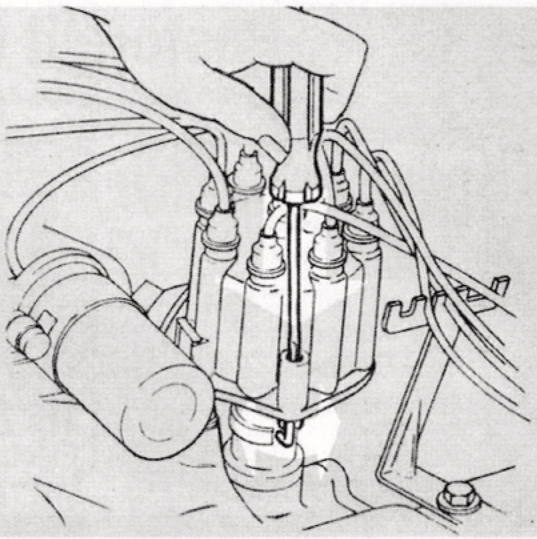
The Distributor

Continuing with information directly from the Delco-Remy library, their service tips on the Distributor, Ignition Points and the Coil begin below. Because of the length of the original D-R article, we will split the information into two subsequent issues.

DISTRIBUTORS

The following contains tips on servicing the ignition distributor. It is assumed that the distributor is to be left on the engine whenever possible to avoid the danger of improperly re-installing the distributor to the engine.

The component parts of the distributor covered are the cap, rotor, points and condenser.

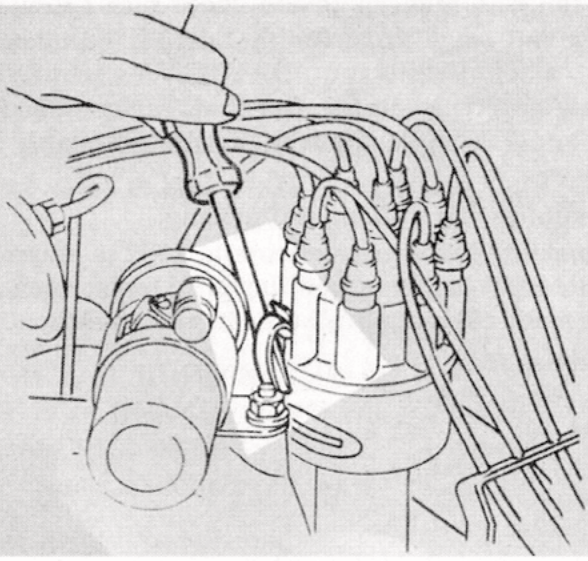


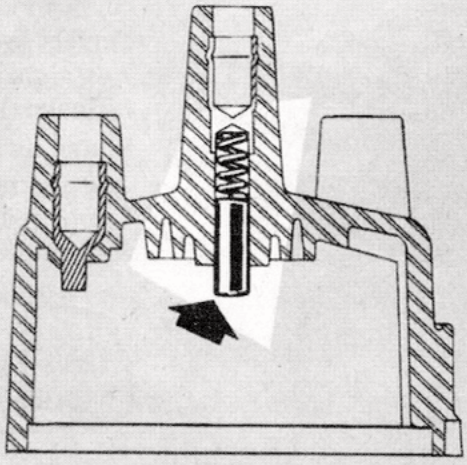
PROCEDURE FOR REMOVING, INSPECTING AND INSTALLING DISTRIBUTOR CAPS:

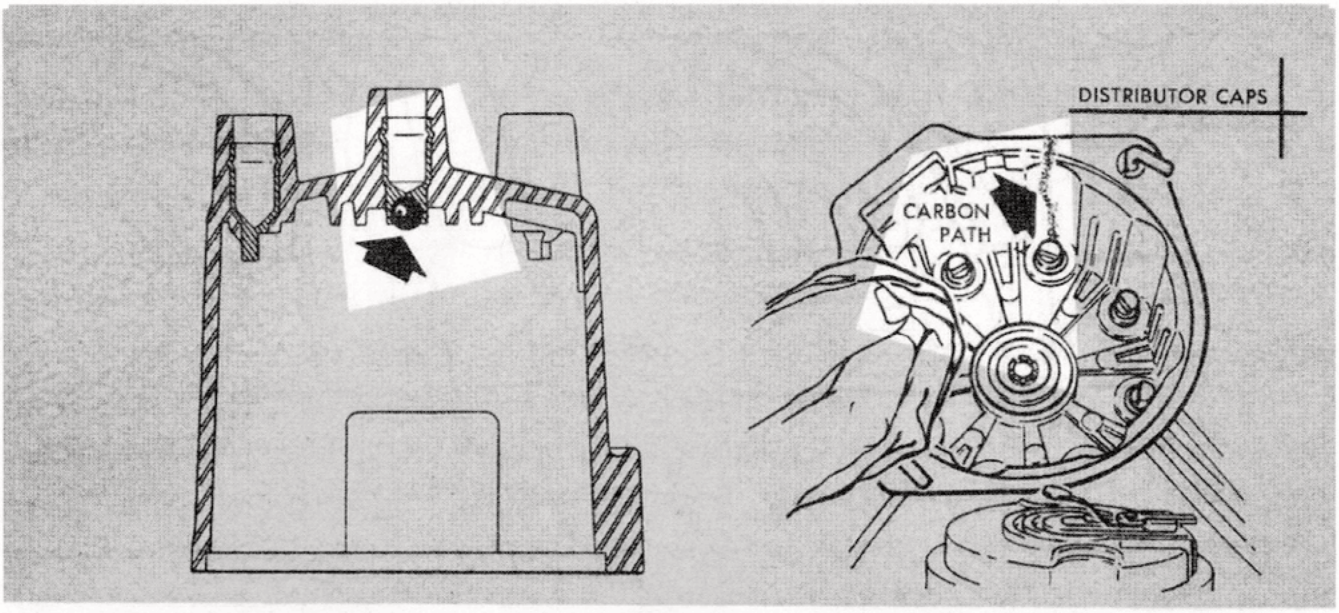
1. To remove the cap from a distributor containing spring loaded screw clamps, press down on the screw and turn in either direction to release clamp from the distributor housing so cap can be removed.

2. To remove the cap from a distributor containing spring clips, place a screwdriver between the spring clip and distributor housing and pry outward. Do not apply screwdriver pressure to the cap itself as this might crack the cap.

3. Inspect caps having a spring loaded rotor button for freeness of movement of the button. Excessive wear of the button should also be noted, and the cap replaced, if necessary, as discussed in later pages.





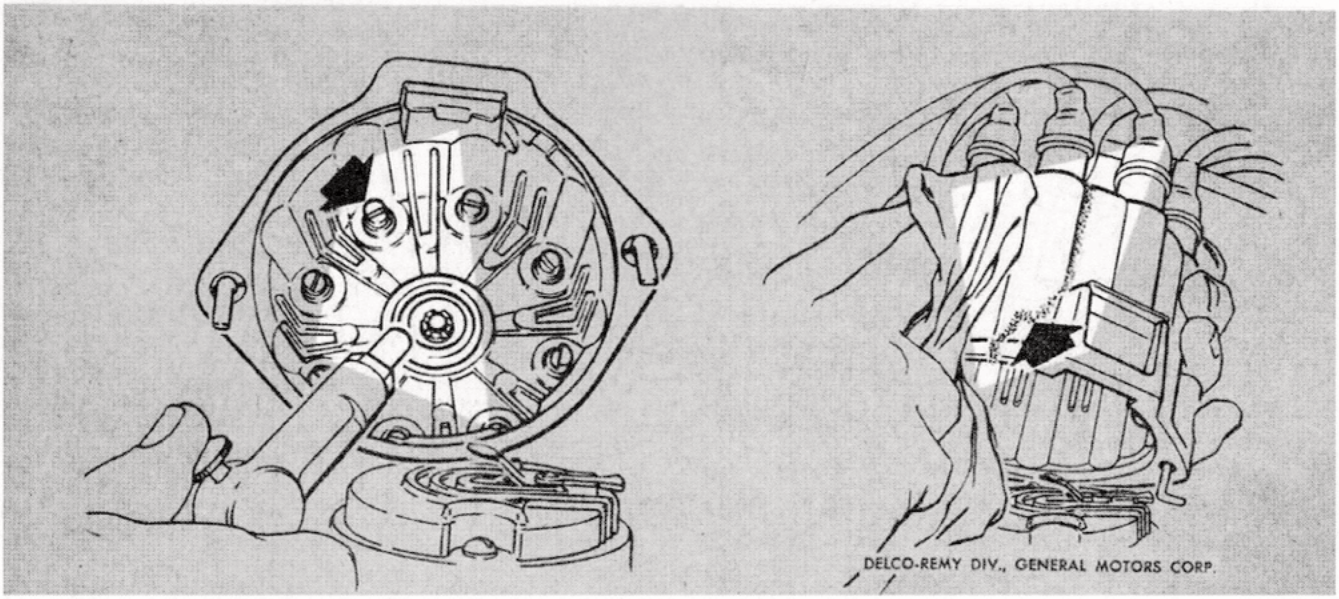


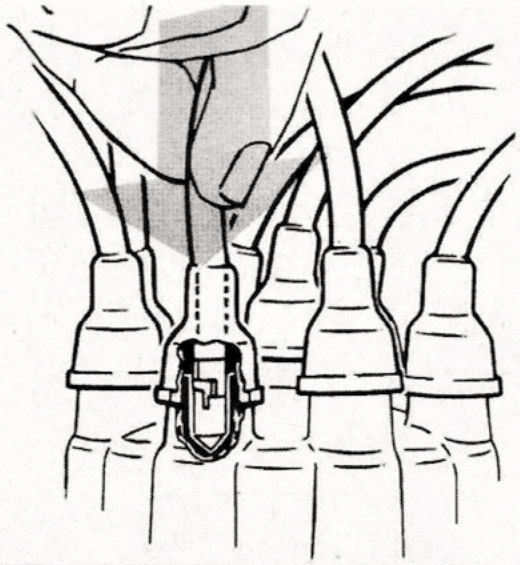
4. Caps having a solid rotor button should be examined for excessive wear of the button, chips or cracks. If these defects are found, replace cap as discussed in later pages.

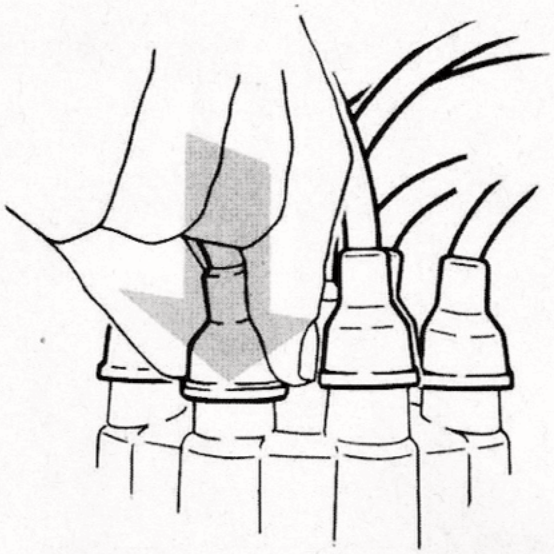
5. Wipe the inside of distributor cap with a clean cloth dampened in solvent and inspect cap for carbonized paths, which will allow high tension leakage to ground, and for chips and cracks. Such defects require replacement of the cap which will be discussed later.

6. Dry inside of cap with an air hose. Check for badly burned or eroded inserts and replace cap if necessary. Corroded inserts should be scraped clean to maintain a low resistance path for current flow.

7. Clean exterior of cap with a clean rag and solvent. Check for chips, cracks and carbonized paths. Such defects indicate the need for cap replacement.





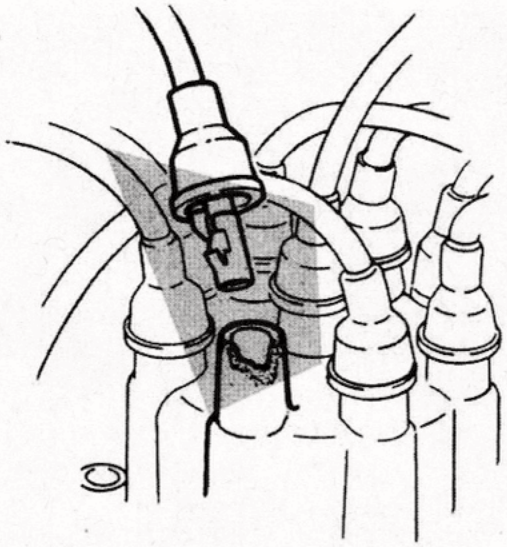


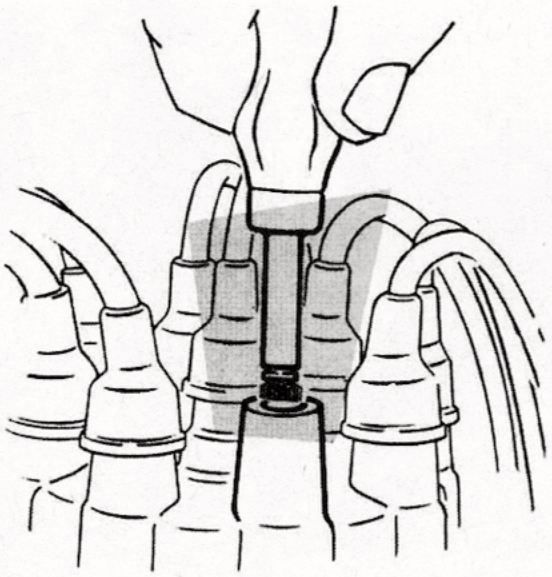
8. Press down firmly on each lead to make sure it is all the way down in the tower. All leads should be tight and snug when properly placed in their tower.

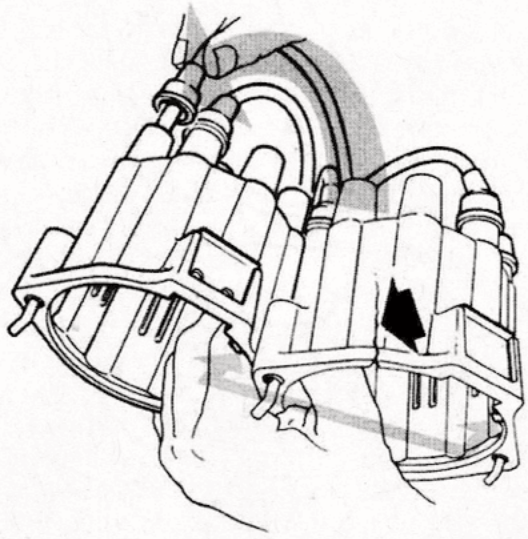
9. Check rubber boots to make sure they are down and tight around each tower. An improperly positioned boot may push lead up in tower and result in a poor electrical connection.

10. If any leads are loose in their tower, remove them one at a time to determine if metal clip is securely fastened to end of lead or if tower is eroded. Lead or cap replacement may be required.

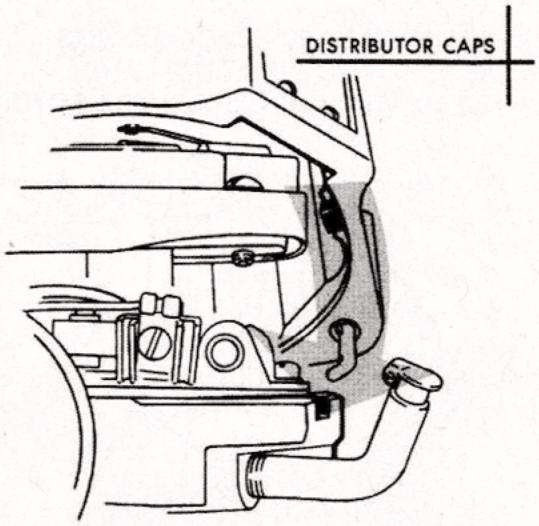
11. If a tower with a loose lead appears to be in good condition except for minor corrosion, the tower insert may be cleaned with a wire brush or by some other suitable means. Removing the corrosion may uncover a major defect that may indicate the need for a cap replacement.







DISTRIBUTOR CAPS

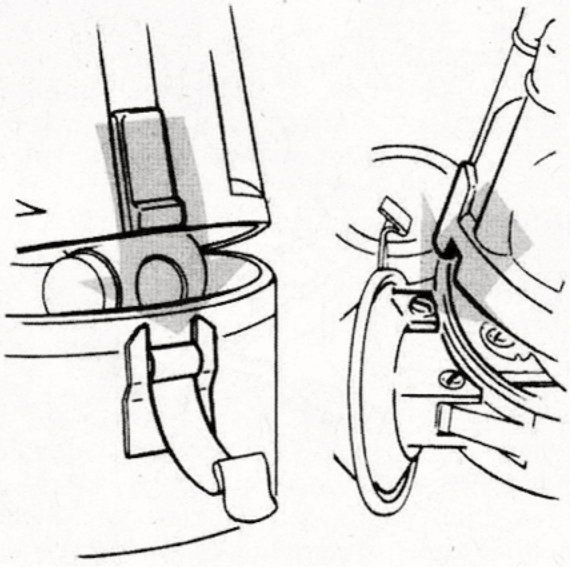


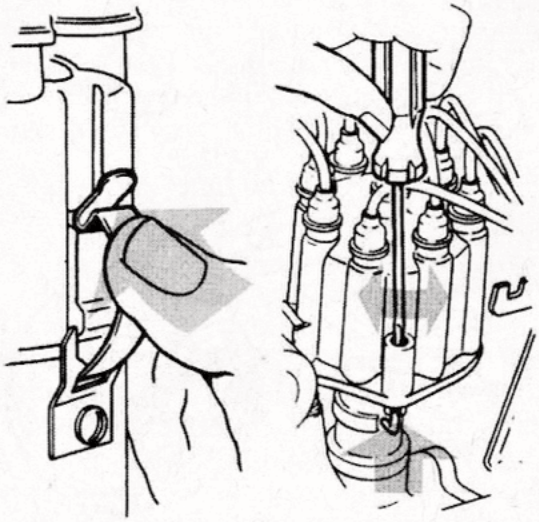
12. To replace a defective cap, place old and new caps side by side in same relative position noting locating lugs or slots. Remove one lead at a time from the old cap, placing it in the same relative tower on the new cap. Lead must first be pushed to bottom of tower and then the rubber boot replaced securely.

13. To properly locate cap on distributor bowl, some types of distributors have a locating lug on the cap that matches a corresponding slot in the distributor housing when the cap is reinstalled.

14. Other types of distributors have either: a locating lug that fits into a slot in the cap spring hanger ------ or a groove or slot in the cap that fits over a boss on the distributor housing.

15. After replacing the cap, with the locators in place, fasten it to the housing by either: pressing on center of cap spring forcing spring over mounting lugs on cap ----- or by pressing down on screw and turning until clamp is under slot on bottom of housing.





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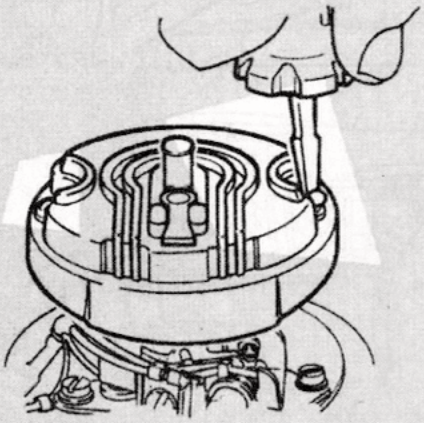
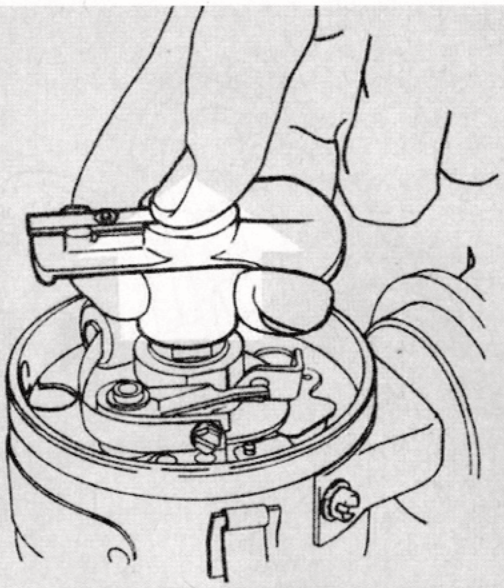
THE FOLLOWING SECTION COVERS THE REMOVAL, INSPECTION AND INSTALLATION OF DISTRIBUTOR ROTORS.



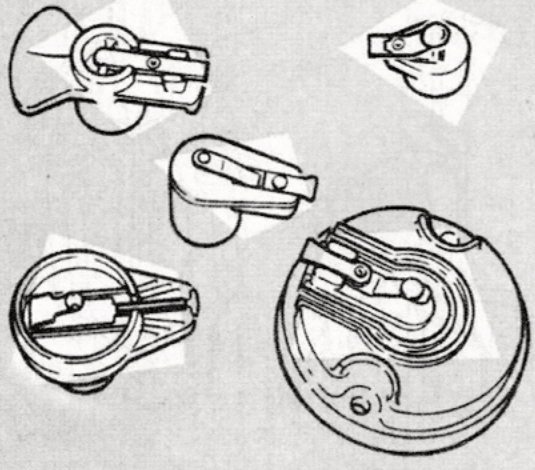


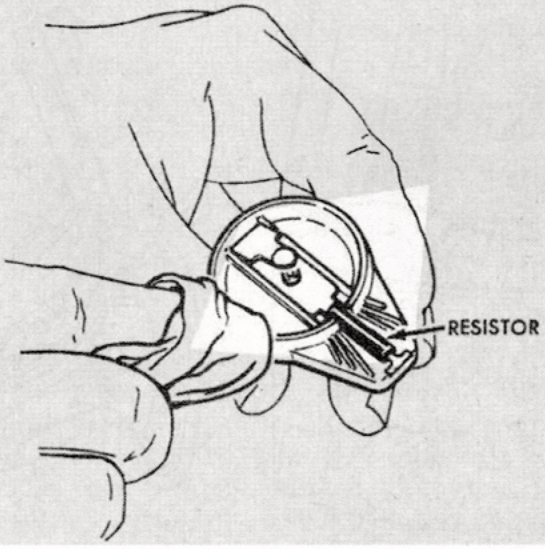
16. On the type distributor shown, the rotor is released by removing the screws.

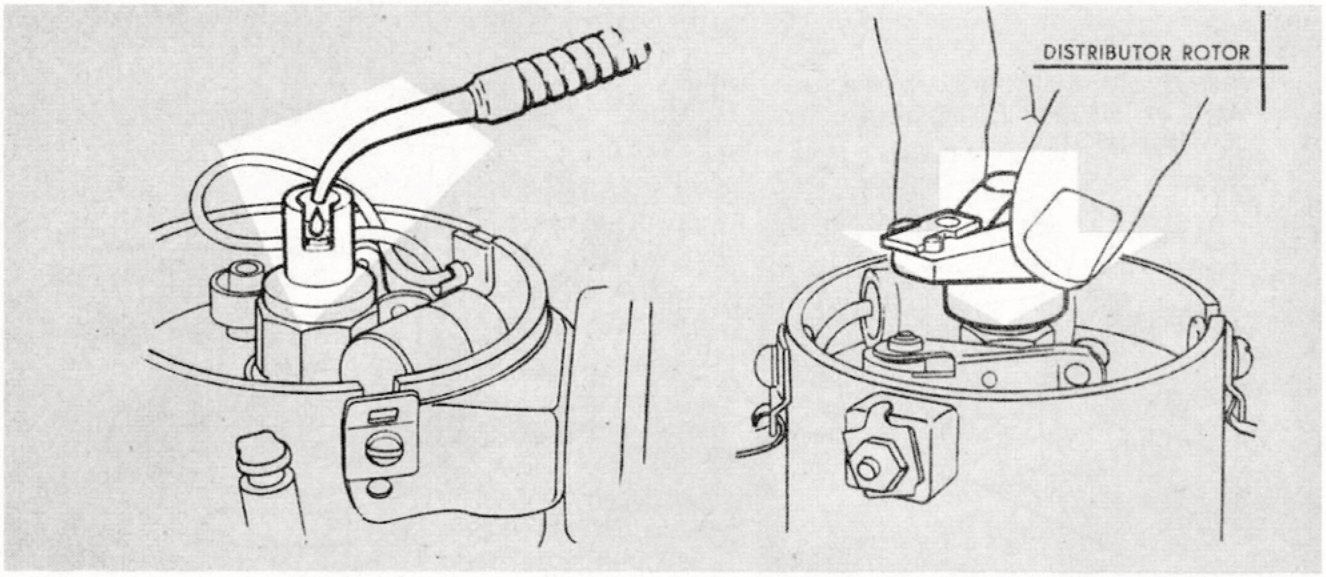
17. Removal of other types of rotors is accomplished by pulling up.

18. This illustration shows some of the different types of rotors that may be encountered when servicing different types of distributors.

19. To clean the rotor, wipe off dirt using a clean rag dampened in solvent. Then examine rotor for cracks or chips and inspect rotor tip for excessive burning. If rotor tip is badly corroded, scrape it clean. Check spring on rotor for sufficient tension to insure good contact with carbon button in center of distributor cap.
The carbon resistor, if present, should be examined for cracks. Rotor replacement may be indicated.





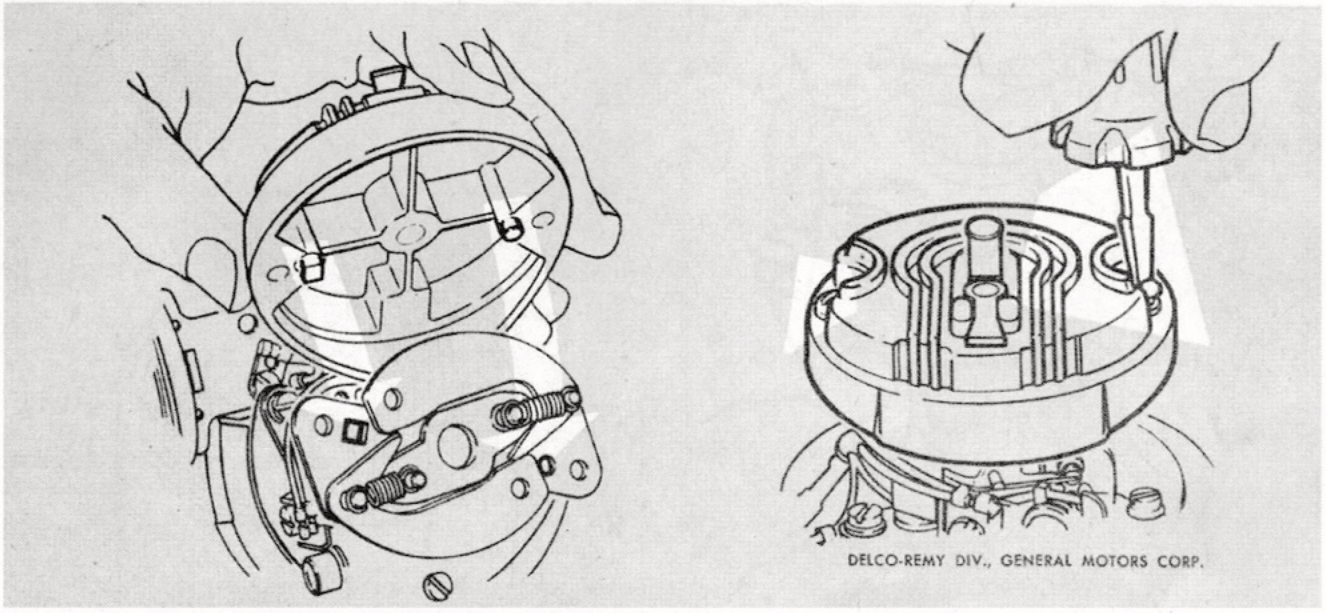


20. Place a few drops of light engine oil on the wick in the shaft under the rotor, if a wick is present. Do not over oil!

21. To install the type rotor shown push it down over the distributor shaft. Do not press on rotor spring, if present. Make sure rotor is pushed all the way down to shaft shoulder.

22. Note the locators on some types of rotors that correspond to the locating holes in the distributor weight base. When reassembling rotor of this type the locators must match holes in the weight base for proper fit and for rotor tip location.

23. When replacing this type of rotor, the screws must be tightened securely to hold the rotor in place.



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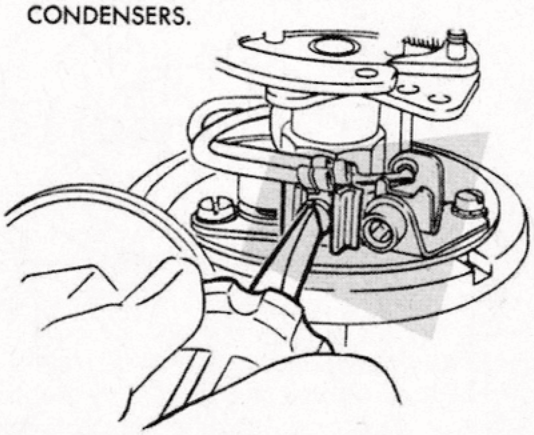
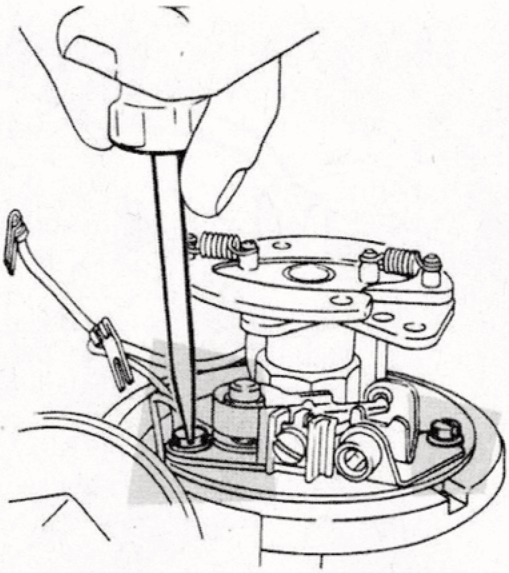
REMOVING, INSPECTING AND INSTALLING DISTRIBUTOR POINTS AND CONDENSERS.



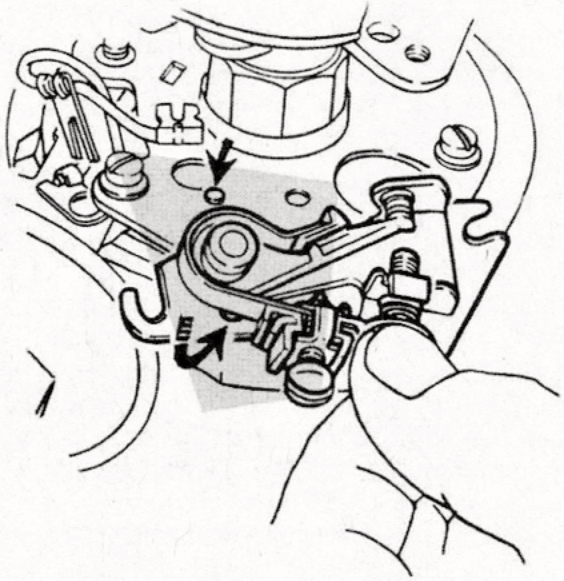


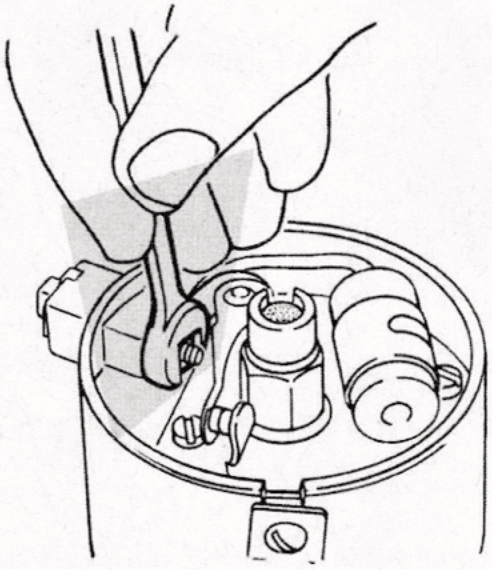
24. To remove the contact point set on the "External Adjustment" type distributor, first note the lead arrangements in order that replacement may be properly made without interference with the cam, points or rotor. Then loosen screw and remove leads from terminal as shown.

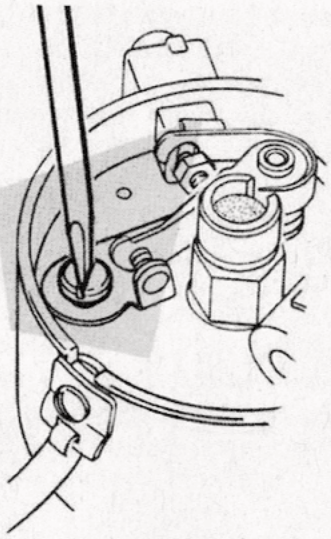
25. Loosen screws that hold contact point assembly to breaker plate. It is not necessary to completely remove the screws.

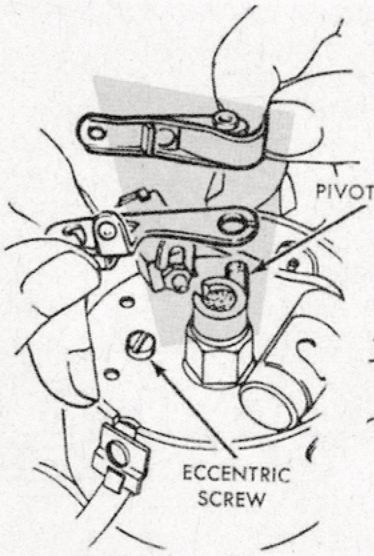
26. Then remove points. Note locating hole in base of contact point set that fits over locating protrusion on breaker plate.

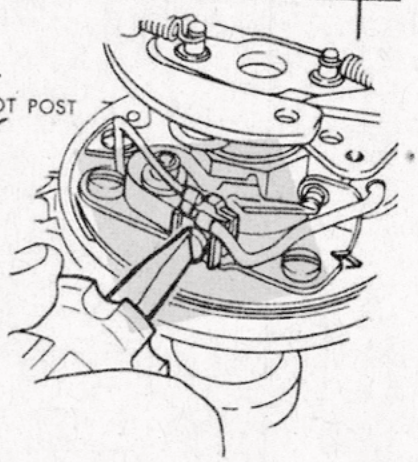
27. On other types of distributors, the nut on the primary terminal must be loosened to release the contact spring and the current carrying member before removing the contact points. Here again the lead arrangement must be noted.











28. Then remove the one screw that holds the base of the contact point set to breaker plate.

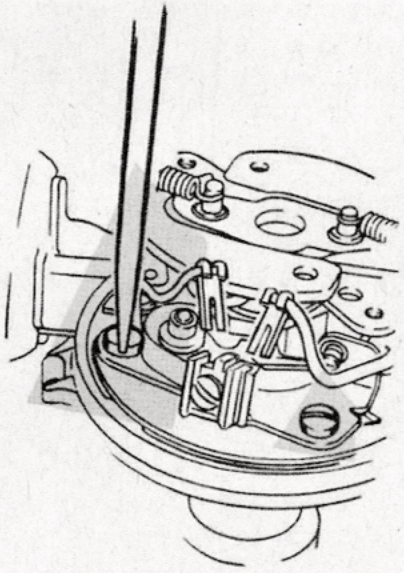
29. Lift up on the point set to remove it from the eccentric adjusting screw and pivot post.

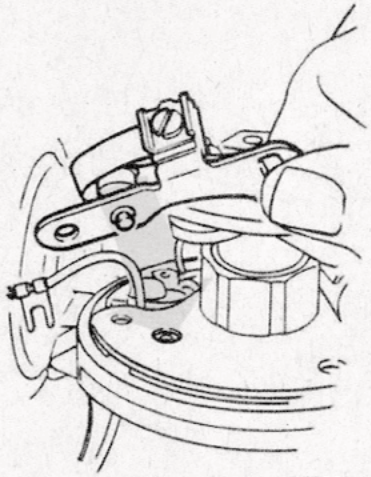
30. On the other types of distributors, the leads must be loosened from the contact point set as shown. Leads should be removed from the terminal after noting their relative positions.

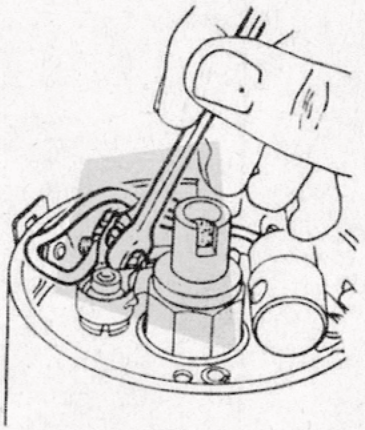
31. Then remove the two screws holding the base of point set to the breaker plate.

32. Remove point set from distributor breaker plate. Note locating extrusion on plate base that fits into locating hole of the breaker plate.

33. Still another type distributor has its leads attached as shown. These must be removed by loosening the nut at the primary terminal.







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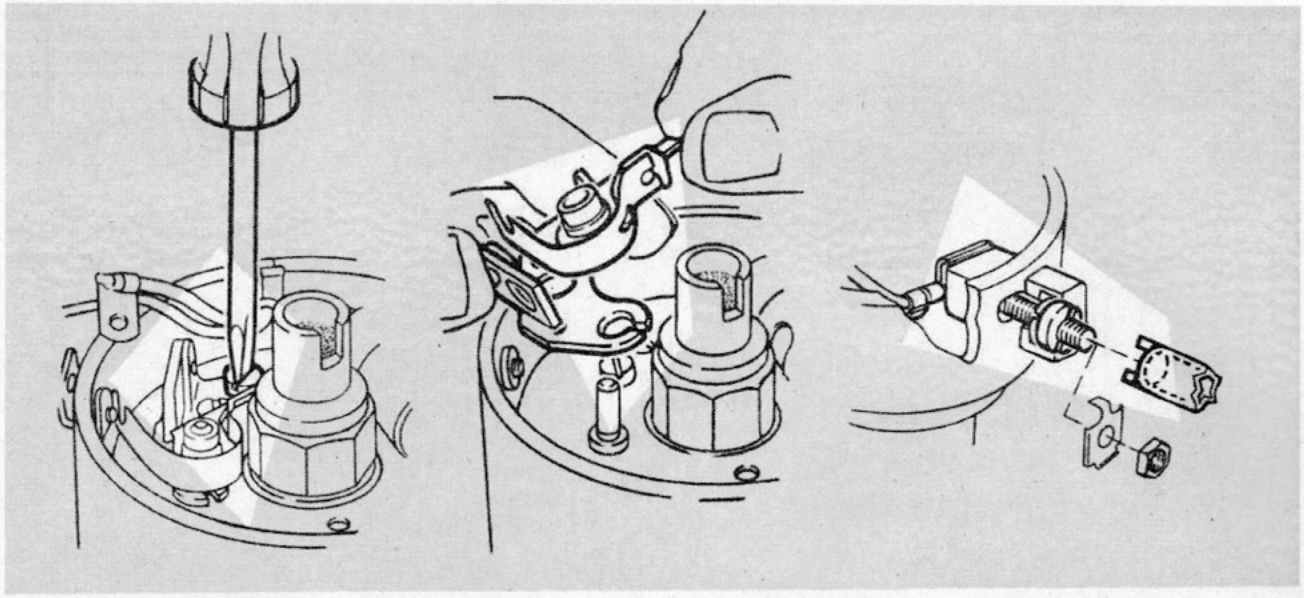


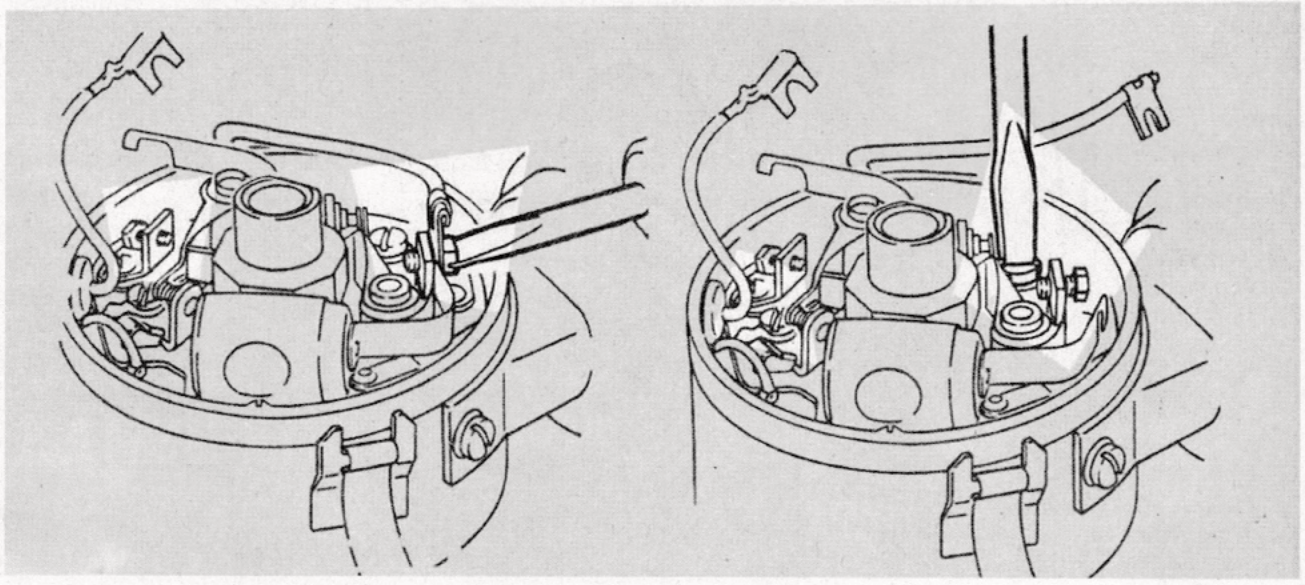
34. Remove the base hold-down screw from the breaker plate.

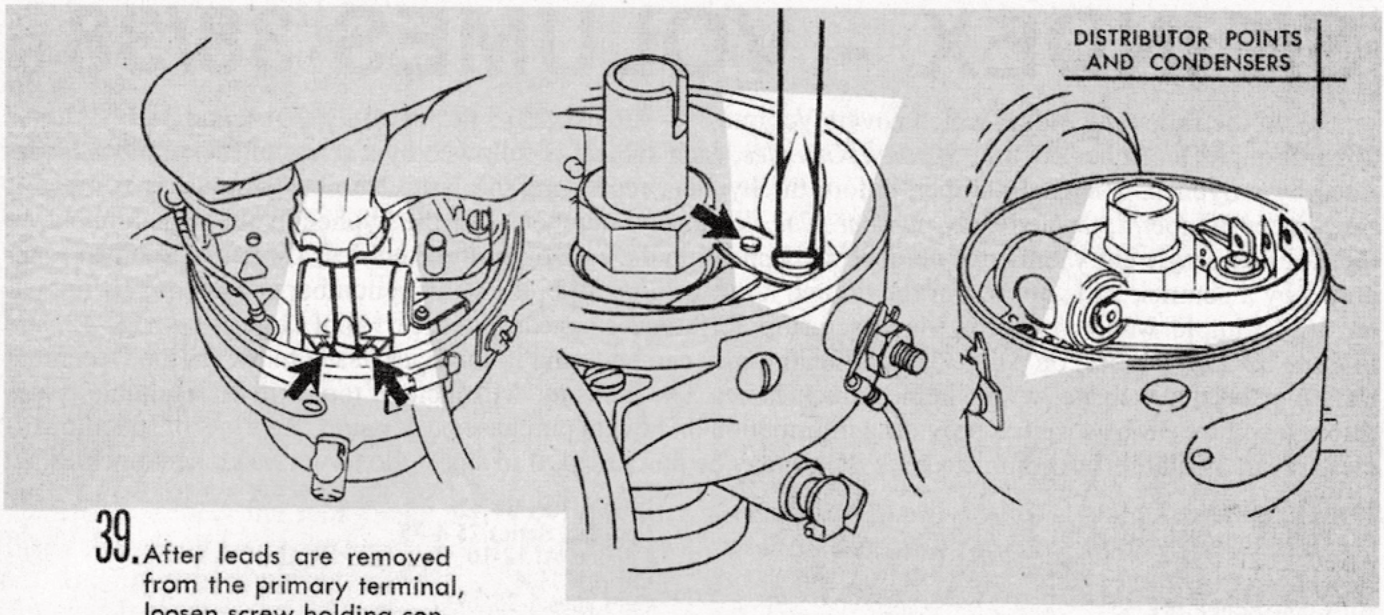
35. Then pull up to remove contact point set from eccentric adjusting screw and pivot post.

36. Another arrangement of the primary terminal is illustrated. To release the contact point spring and leads, a special tool must be used to remove the primary terminal nut.

37. On those distributors containing two sets of breaker points, note lead arrangements and loosen primary terminal leads from each set.

38. Then remove all hold-down screws from contact point set base. Lift out to remove points from distributor.



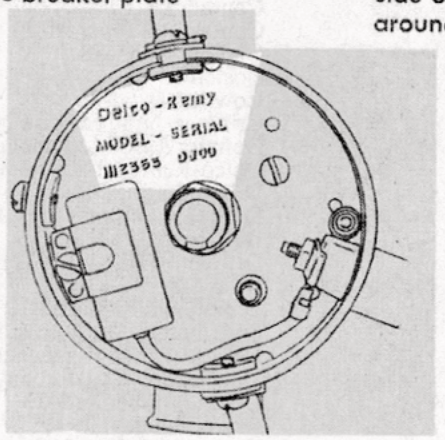


39. After leads are removed from the primary terminal, loosen screw holding condenser bracket to breaker plate to remove condenser. Note the two locating tangs in the bracket which are used for properly locating the condenser.

40. Other types of condensers have only one locating hole in the mounting bracket.

41. Some types of condensers are connected to the primary terminal by a copper strap which must be released before the condenser can be removed.

42. To aid in obtaining proper replacement parts refer to the distributor model number which is located on the breaker plate of some distributors.



43. On other distributors, the model number may be found either on the tag on the side of the housing or on a band fastened around the housing.

We will continue with Delco-Remy's Service Tips *on the Distributor, Ignition Points and Coil next month. Next month will feature how to properly adjust points on both the traditional breaker point set and on the external adjustment distributor, and the proper lubrication of the distributor. And then the ignition coil. Next month's issue will be an 'electrical issue.' Besides the continuation of the Delso-Remy series, we will discuss troubleshooting an ignition system, review using test meters, and more.*

Our thanks to both Delco-Remy and to General Motors for making this detailed and very useful information available to us. I am sure that when first written, it was not foreseen that in fifty+ years we would still be relying on their expertise.

S.K.