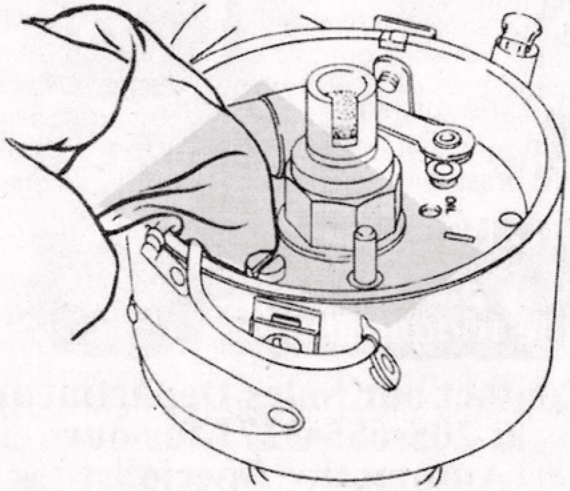
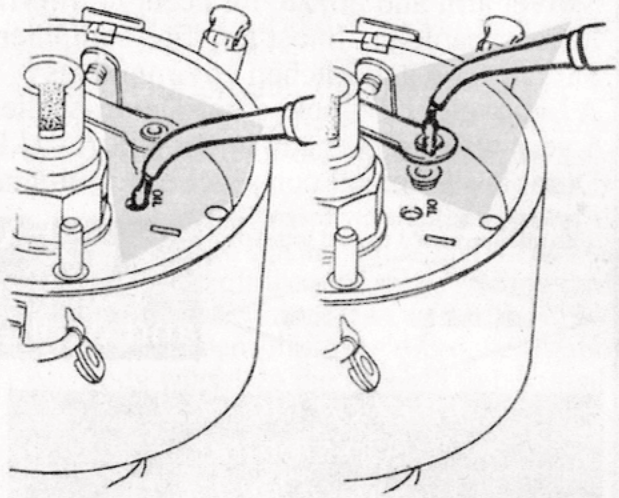
DELCO - REMY SERVICE TIPS

The Distributor
The Coil

Last month, from the Delco-Remy library, we began a feature on service tips on the Distributor. This month we continue with their information on cleaning and lubricating the distributor, adjusting point opening and cam angle and the ignition coil.



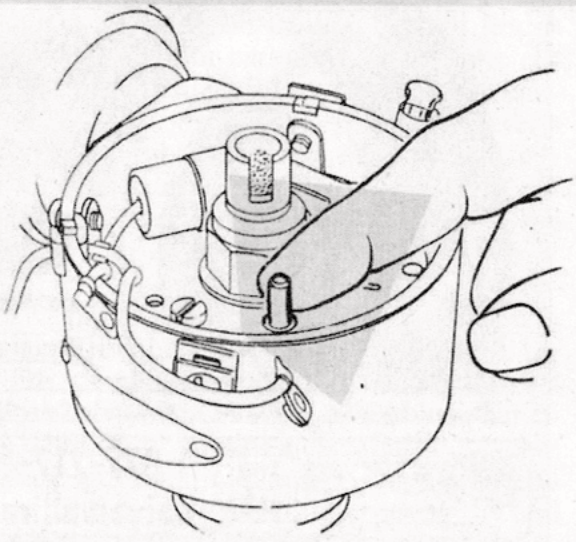


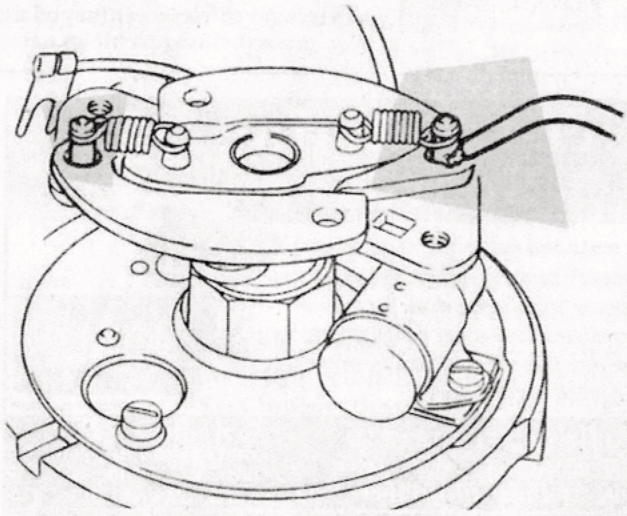
44. Before either a new point set or a new condenser is installed in the distributor, the breaker plate should be cleaned of any dirt, grease or foreign material.

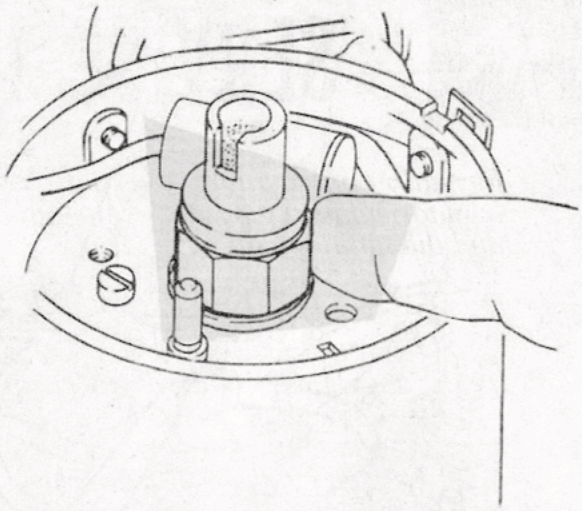
45. Breaker plates requiring lubrication and vacuum pivot arm posts should have a drop or two of light engine oil applied to insure freeness of movement. Do not over oil.

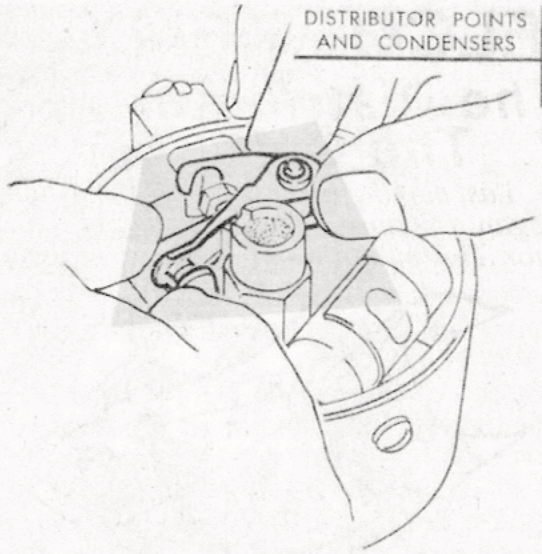
46. Also apply light engine oil around the contact point pivot post of all distributors before installing new points.

47. On distributors where the centrifugal weights are accessible, a drop of oil placed on each weight pivot post is desirable.







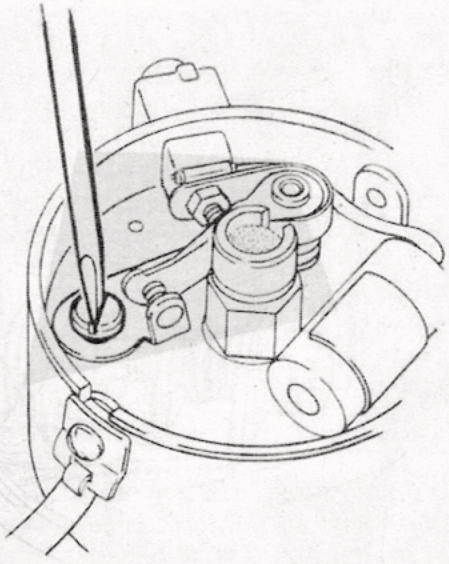


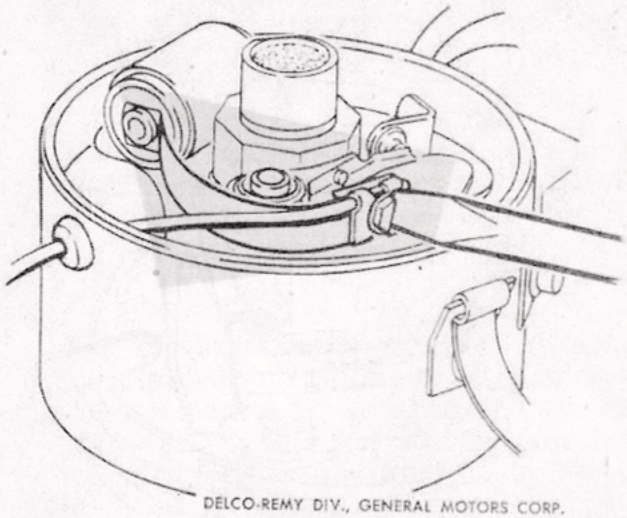
48. The breaker cam should have a light coating of high temperature grease applied to its surface prior to point installation. The amount of grease applied should be kept to a minimum to prevent the grease from being thrown off at high speeds and or at high temperatures.

49. Assembling new contact points and condensers is the reverse of the disassembly process. In general, for point installation, first place the point set over the pivot post.

50. Then insert the attaching screw or screws, holding the contact point base to the breaker plate base. Do not tighten securely until after cam angle setting is made.

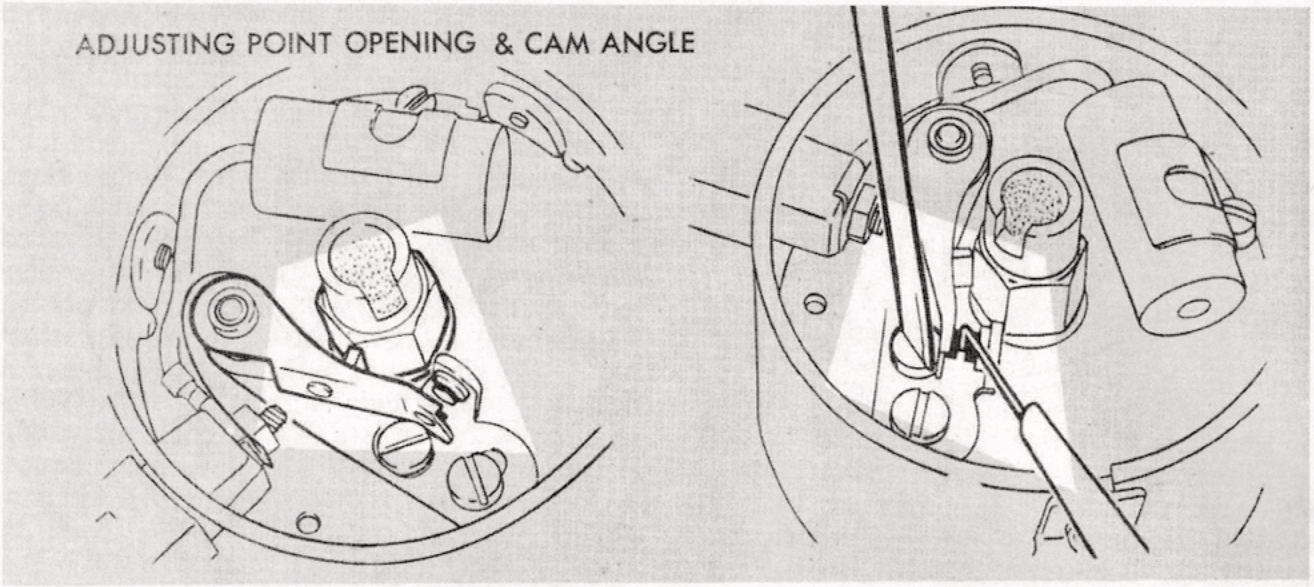
51. Carefully replace all condenser and primary leads as they were attached before disassembly so they will not be struck by the points or cam and will not restrict the movement of the breaker plate! The condenser should be located in its bracket so that it will not interfere with movement of breaker plate.





DELCO-REMY DIV., GENERAL MOTORS CORP.

ADJUSTING POINT OPENING & CAM ANGLE

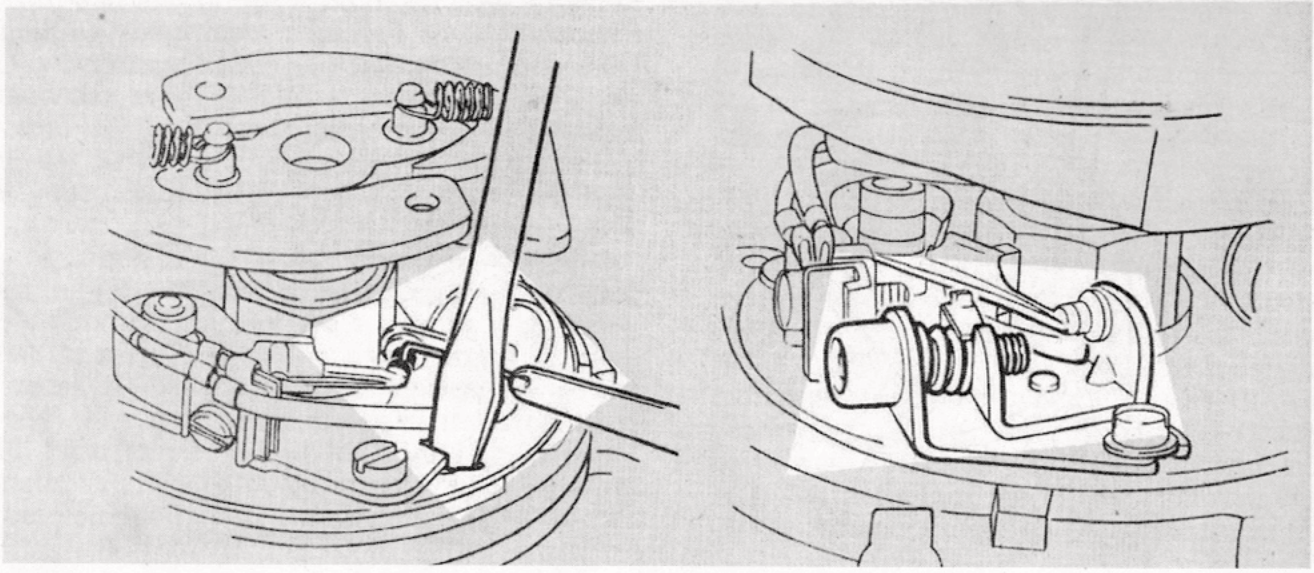


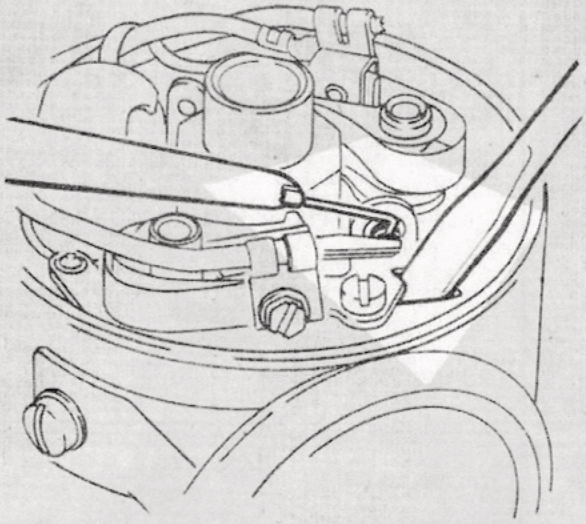
52. After installing a set of new points, it is necessary to adjust the point opening on most types of distributors. Crank the engine with the starting motor until the point rubbing block is on the peak of the cam lobe. This is the position of maximum point opening.

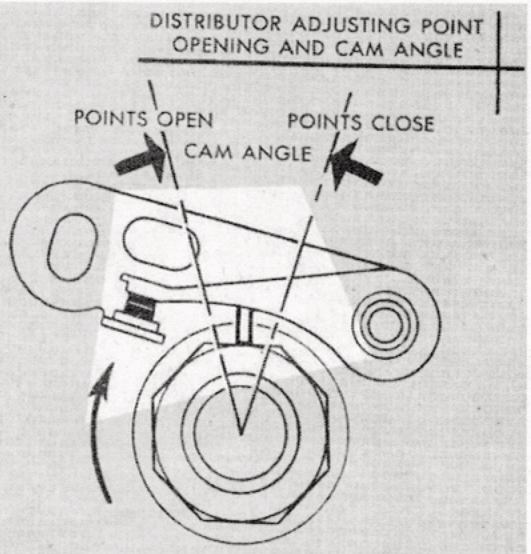
53. Point opening is then adjusted to the desired specifications by moving the stationary point. A feeler gauge of the correct thickness is inserted between the points to determine the correct setting. In this case, the eccentric screw is used to move the stationary point.

54. On other types of distributors, a screwdriver is used to pry the stationary point base in one direction or the other to change the point opening after the contact point base screws are loosened. The screws must be tightened securely after the correct point opening is obtained.

55. On the external adjustment type distributor, the point opening is pre-set at the time of manufacturing. Consequently, the point opening does not need to be re-set.





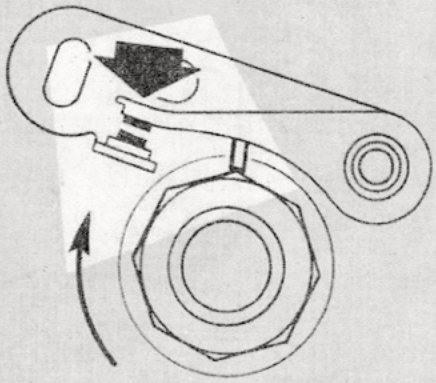


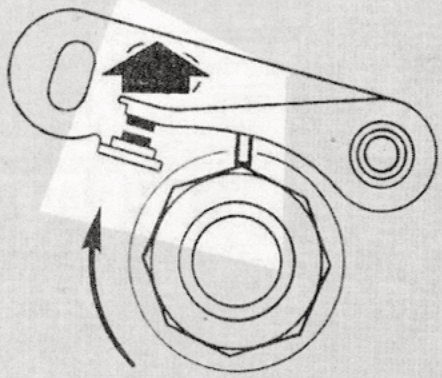
56. On distributors containing a dual set of points, the point opening of each individual set must be checked and set before the vehicle is ready for operation.

57. Cam angle or dwell is the time the points are closed, measured in degrees of cam rotation. Point opening, therefore, has a definite bearing on the cam angle. Both cam angle and point opening should be checked when new points are installed.

58. If the cam angle is too large, the stationary point should be moved in toward the cam. This will increase point opening and decrease the cam angle.

59. If the cam angle is too small, the stationary point should be moved away from the cam. This will decrease the point opening and increase the cam angle





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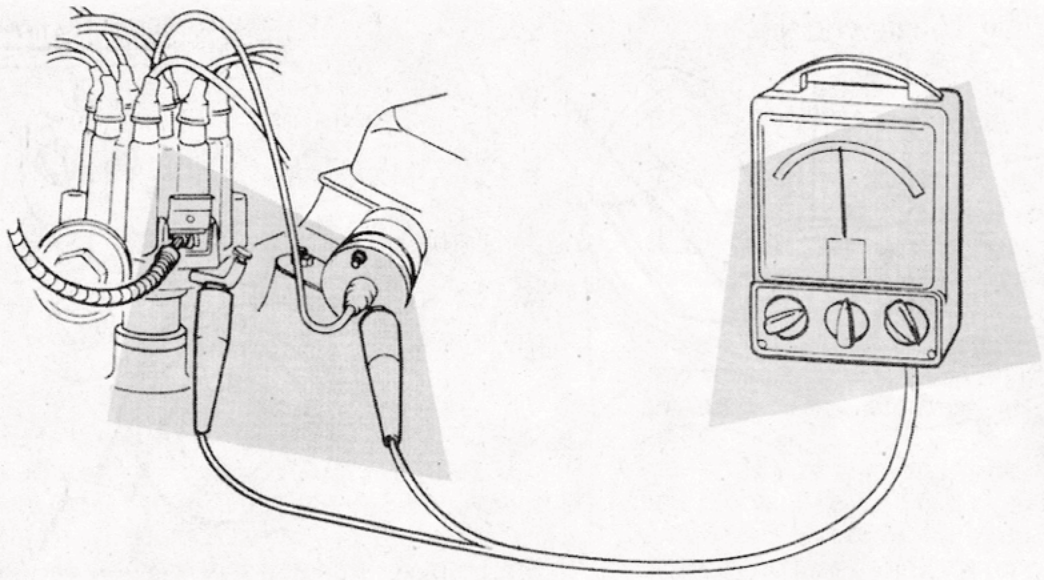
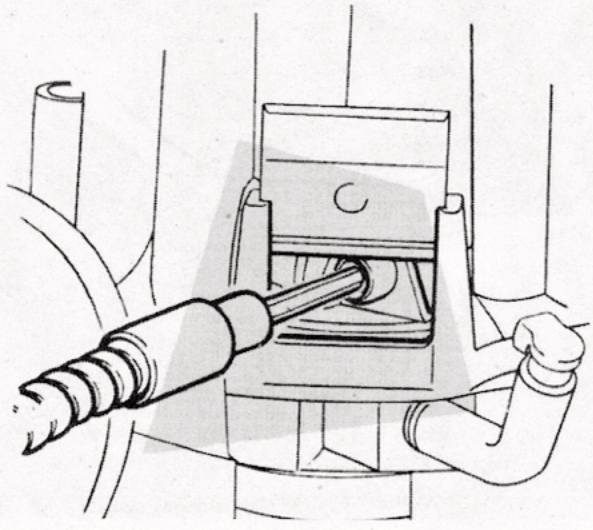


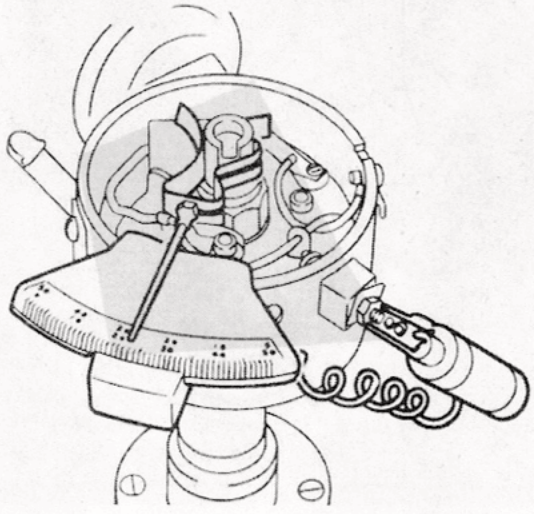
60. On the External Adjustment Distributor, the cam angle is changed by inserting a "Hex" type wrench into the adjusting screw. The screw can be turned in either direction depending upon the need to increase or decrease cam angle.

62. On the External Adjustment type distributor, the cam angle may be adjusted even though a cam angle meter is not available. First turn the adjusting screw clockwise until the engine begins to misfire, then turn the screw one-half turn in the opposite direction. This gives the approximate cam angle required.

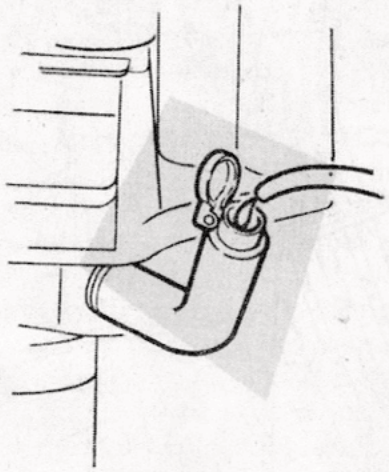
61. An illustration for connecting an electrical cam angle meter is shown. This meter measures the cam angle or dwell with the engine running. The reading indicates if specifications are being met. Compare the meter reading with the published specifications and adjust distributor if necessary.

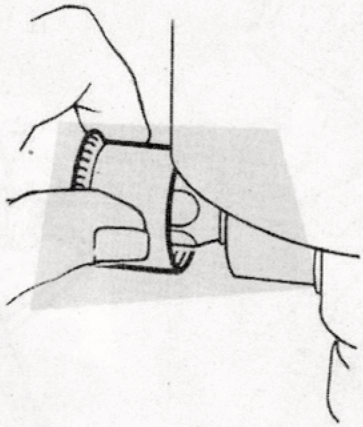
63. Mechanical types of cam angle meters are also available. When using this type of meter the instructions of the meter manufacturer should be followed. An example of this type is illustrated.

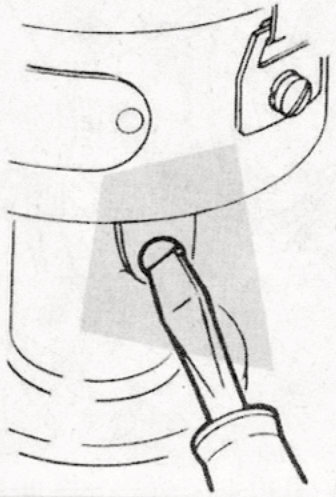




DISTRIBUTOR LUBRICATION







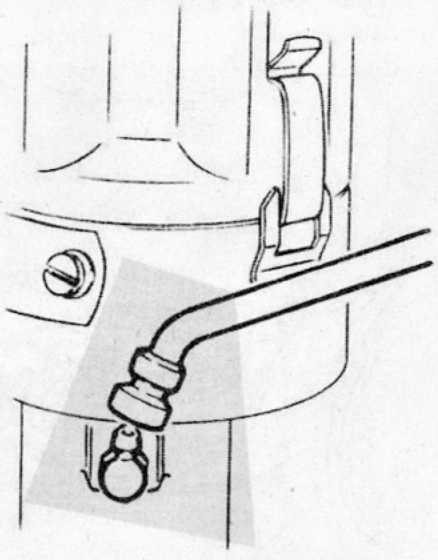
64. Most distributors should be oiled at each vehicle lubrication period. When an oil reservoir tube is present, it should be filled with a lightweight engine oil.

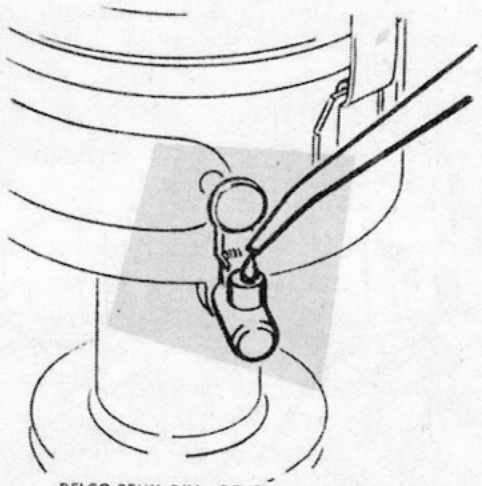
65. On distributors with a grease cup, the cup should be removed and checked to make sure it is packed with grease. No. 2 1/2 grease should be used. After replacing it, the screw cup should be tightened one or two turns.

66. Distributors with oil plugs should have their reservoirs filled with light weight engine oil until the oil level reaches the bottom of the plug hole.

67. Distributors with grease fittings as shown should be filled with No. 2 1/2 grease using a low pressure gun.

68. Other type distributors with oilers should be lubricated with a lightweight engine oil. Fill to top of oiler tube.





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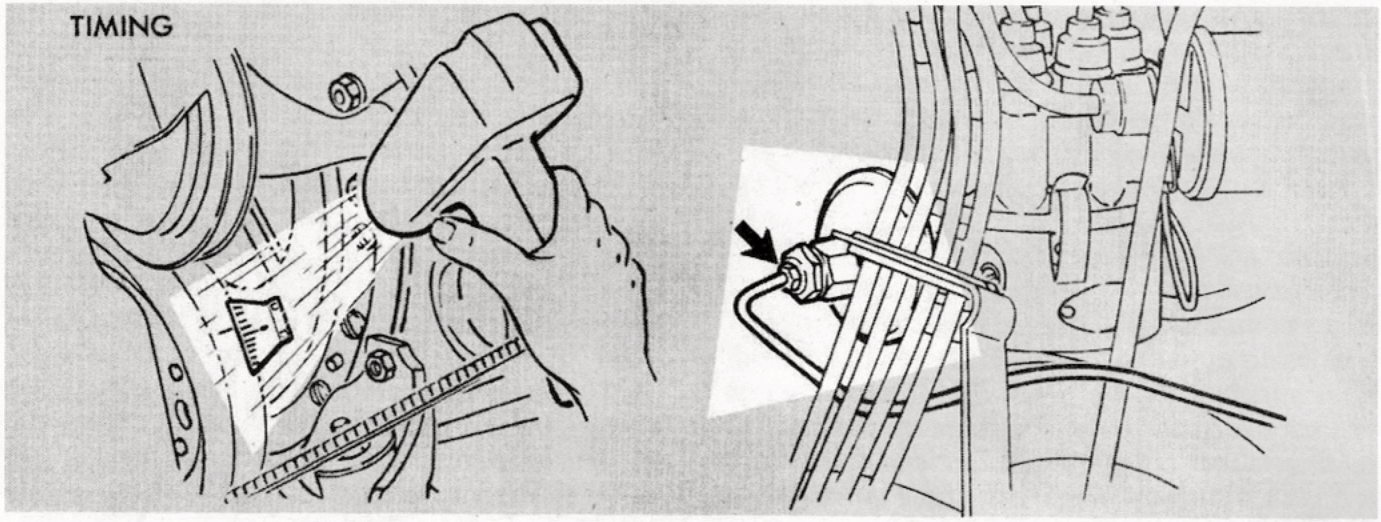
TIMING

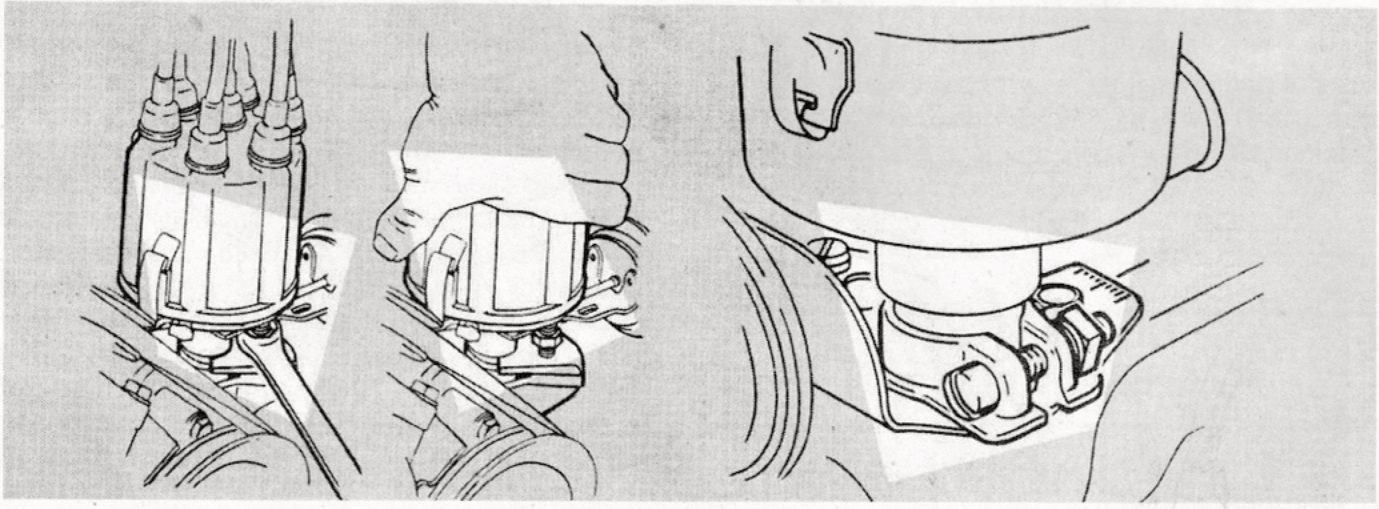


69. After new points have been installed, the timing should be checked and re-set if necessary. An example of a timing light and timing marks is shown. Follow vehicle manufacturer's specifications.

70. On some vehicles, the vacuum line must be disconnected from the distributor when the timing is being checked. Follow vehicle manufacturer specifications on this procedure.

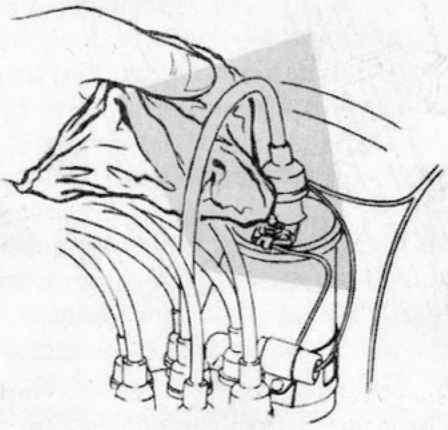
71. To change the timing, the clamp holding the distributor to the engine block must first be slightly loosened. The entire distributor is then turned in direction of rotation of the rotor to retard the timing. To advance the timing, turn distributor in direction opposite to the rotating rotor. Tighten hold-down clamp securely after adjustment is completed.

72. On distributors with a support arm mounted to the engine block, the mounting screw must be loosened before the distributor can be rotated to change the timing. Tighten mounting screw securely after adjustment is made. The octane selector scale should be set on zero before final setting is made.

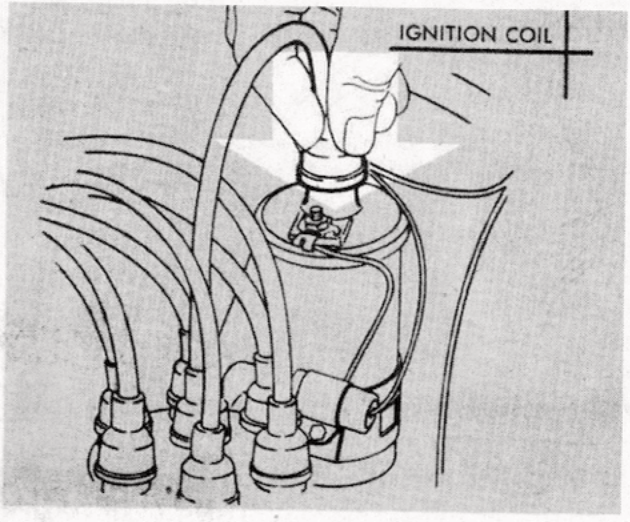


IGNITION COILS

The following contains tips on servicing the ignition coil which includes inspecting, removing and installing.



1. Check top of coil for carbon tracks or cracks either of which can cause current leakage resulting in poor performance. Clean top of coil with a clean rag and solvent. Coil replacement may be indicated.

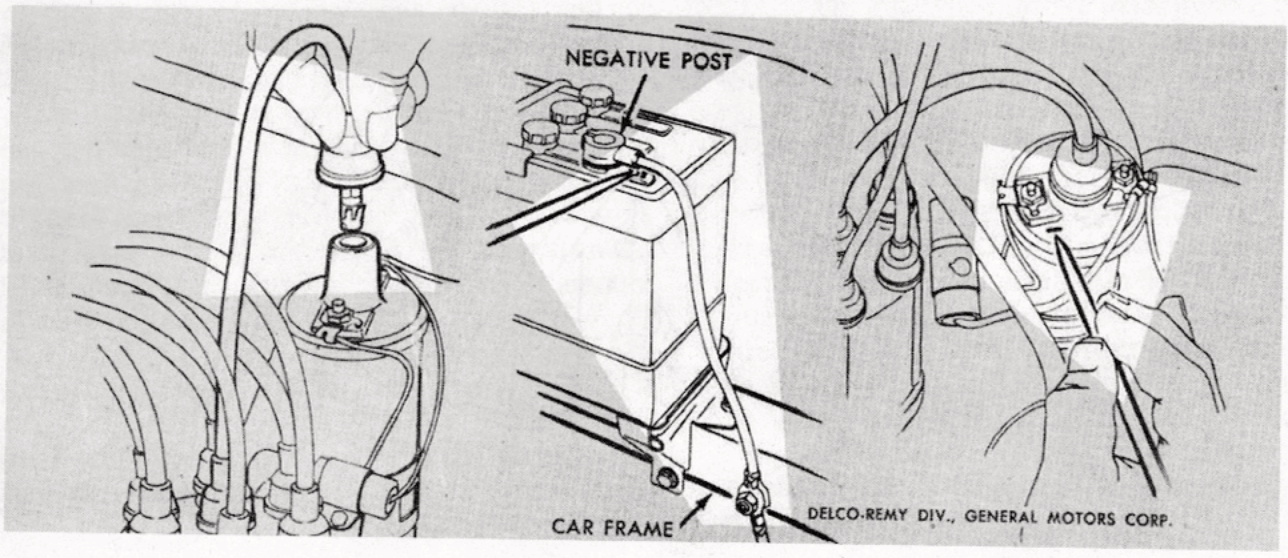


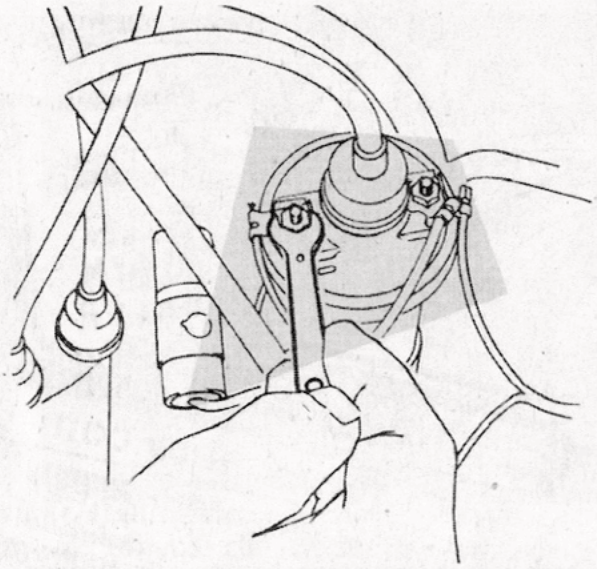
2. Check wire in tower to make sure it is all the way down and tight in its tower insert. Rubber boot should also be securely in place.

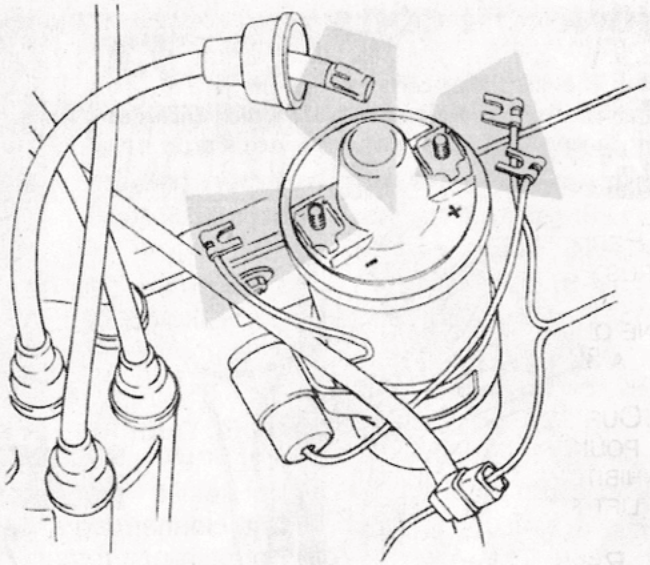
3. In the event the wire is loose or not fully bottomed in the insert, remove it and the boot for inspection. The tower should also be inspected to see that it has not been erroded by the poor connection. Wire or coil may require replacement.

4. To determine polarity of the electrical system of the vehicle, view the battery. The post that is connected to the frame or engine is the ground polarity of the entire vehicle. In the illustration shown, the vehicle has a negative grounded electrical system.

5. To determine if the coil is connected properly, check the wiring to the primary terminals of the coil. A negative grounded system should have the primary lead connected from the negative terminal of the coil to the distributor. The lead from the positive terminal should be connected to eith a resistor or to the ignition switch. On a positive grounded system, the connections are opposite of the above.





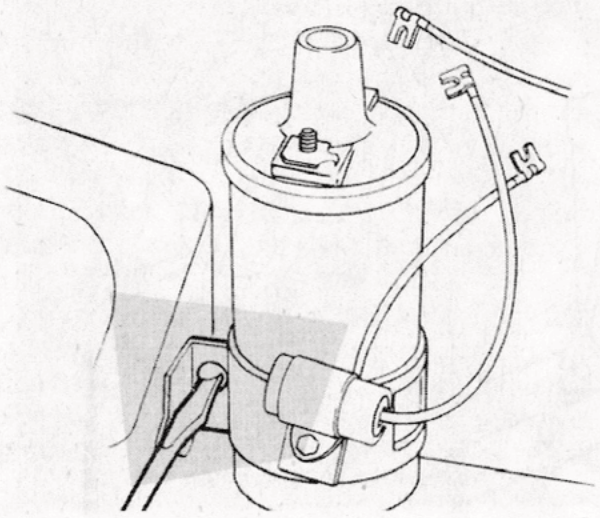


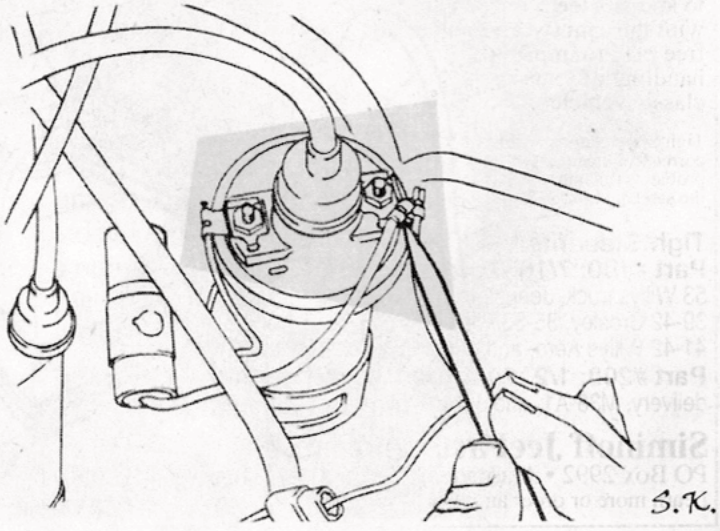
6. Connections for the primary leads should be checked to make sure they are tight at both the coil and the distributor or resistor or ignition switch depending on where it is attached. The insulation on all leads should be in good condition.

7. In the event the coil must be replaced, first remove all leads. Note the position of all leads in relation to the polarity of the coil. Arrangement of the condenser lead should also be noted.

8. Then loosen bracket screw which will allow the coil to be removed from this mounting.

9. To replace the coil first insert into bracket and tighten the bracket screw. Replace all leads and boots. Re-check the polarity of the coil to be sure the lead from the distributor is connected to the correct terminal.





S.K.