

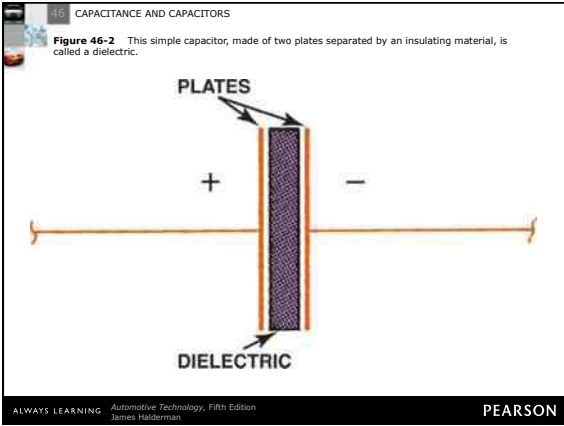
46 CAPACITANCE AND CAPACITORS

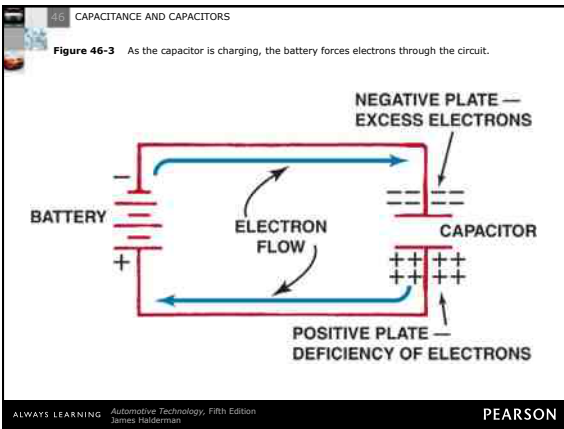
Chart 46-1 The higher the dielectric constant is, the better the insulating properties between the plates of the capacitor.

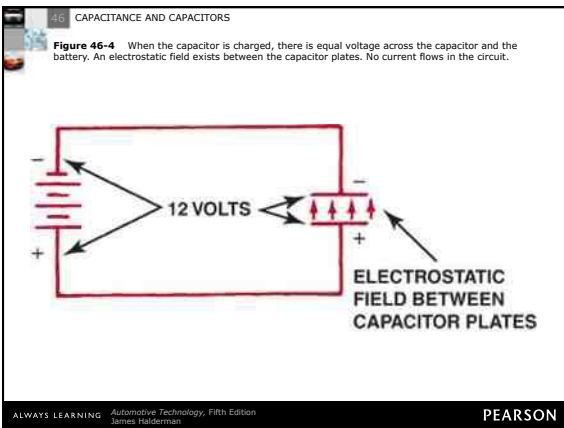
MATERIAL	DIELECTRIC CONSTANT
Vacuum	1
Air	1.00059
Polystyrene	2.5
Paper	3.5
Mica	5.4
Flint glass	9.9
Methyl alcohol	35
Glycerin	56.2
Pure water	81

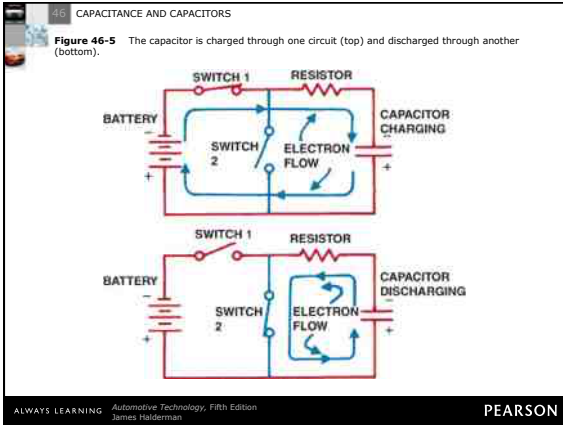
CHART 46-1

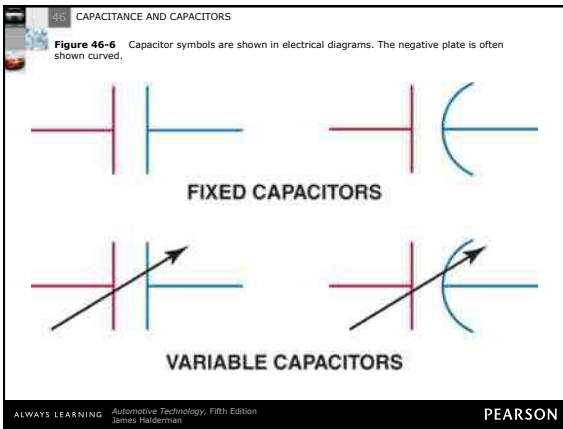
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46 CAPACITANCE AND CAPACITORS

FREQUENTLY ASKED QUESTION

What Are "Points and Condenser"?
 Points and condenser are used in point-type ignition systems.

Points. A set of points uses one stationary contact and a movable contact that is opened by a cam lobe inside the ignition distributor. When the points are closed, current flows through the primary windings of the ignition coil and creates a strong magnetic field. As the engine rotates, the distributor cam opens the contact points, which opens the circuit to the coil. The stored magnetic field in the coil collapses and generates a high-voltage arc from the secondary windings of the coil. It is this spark that is sent to the spark plugs that ignite the air-fuel mixture inside the engine.

Condenser. The condenser (capacitor) is attached to the points and the side of the condenser is grounded. When the points start to open, the charge built up in the primary windings of the coil would likely start to arc across the opening points. To prevent the points from arcing and to increase how rapidly the current is turned off, the condenser stores the current temporarily.

Points and condenser were used in vehicles and small gasoline engines until the mid-1970s. SEE FIGURE 46-7.

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