

Component Testing Guide

740242 Contactor

Where Used:

320, 26/32B Automatic Scrubbers and 2600 Battery Burnisher

Purpose:

To allow a small current to control a larger current.

How a Solenoid Operates:

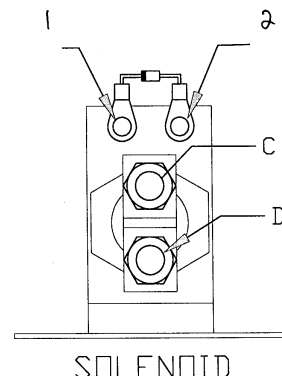
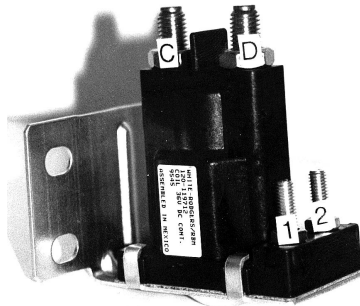
When system voltage, i.e.: 12, 24, or 36 volts is applied to the small terminals 1 & 2, an electromagnetic field is created. When the electromagnetic field is created, a metal disc is pushed or pulled up to make contact (a bridge) between terminals C & D. Current will then flow from C & D to turn on an electrical device, i.e.: a brush or vacuum motor. When the power to terminals 1 & 2 is removed, the magnetic field will collapse and the metal disc will open or pull away from terminals C & D. Current will then cease to flow to the electrical device the contactor is controlling, because the "bridge is no longer present".

To test the solenoid:

You will need the following tools: 1). Jumper Wires, 2). A volt/OHM Meter, 3). Continuity Tester.

1). Remove all wires from the solenoid, noting their location. Connect your continuity tester or OHM meter across terminals C & D. No continuity should be present. If continuity is shown with no power to terminals 1 & 2, the solenoid is defective and must be replaced. This would cause the electrical component that the solenoid was connected to, to run even with the switch in the off position.

2). With the OHM meter or continuity tester connected across terminals C & D, apply system voltage via your test leads to the small terminals 1 & 2. You should now read continuity across terminals C & D, if no continuity is present, the contactor is defective and must be replaced. This would cause a motor to not turn on when the switch is activated.



Diagnosis Summary:

1). If system voltage is present at terminals 1 & 2 you should have continuity between terminals C & D.

2). Without system voltage at terminals 1 & 2 you should not have continuity between terminals C & D.

CAUTION: These tests should only be performed by a qualified technician. Working with electricity can be dangerous. When using jumper wires to help diagnosis an electrical component, care must be exercised to prevent a short circuit from occurring. Do not allow the two test leads (jumpers) to touch or personal injury or damage to the equipment will result.