Minuteman International

Component Testing Guide

742201 Contactor 12 Volt, 74111 Contactor 24 Volt, 740243 Contactor 36 Volt

Where Used:

Automatic Scrubbers, Battery Burnishers, Automatic Carpet Scrubbers and Sweepers

Purpose:

To allow a small current to control a larger current.

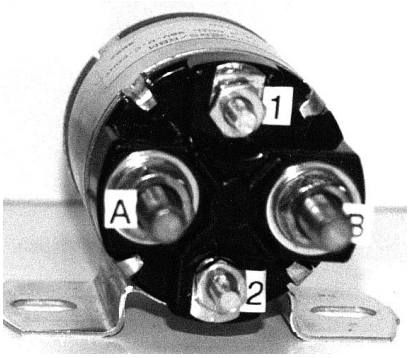
How a Solenoid Operates:

When system voltage, i.e. 12 , 24 or 36 volts is applied to the small terminals 1 & 2, and electromagnetic field is created. When that field is created, a metal disc is pushed or pulled up to make a bridge between terminals A & B so that the current can flow from A to B to turn on an electrical device, i.e. Brush or Vacuum Motor. When the power to terminals 1 & 2 is removed the magnetic field will break and the metal disc will open or pull away from terminals A & B. Current will then cease to flow to the brush or vacuum motors. 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 A & B. No continuity should be present. If continuity is shown with no power applied to the solenoid, it is defective and must be replaced. This would cause a brush motor or vacuum motor to run all the time.

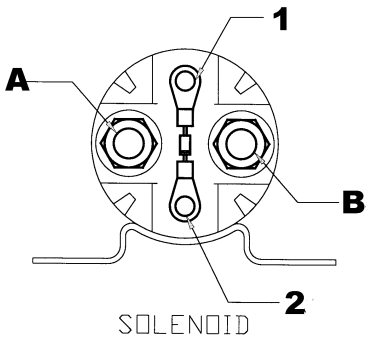


2). With the OHM meter or continuity tester connected across terminals A & B, apply system voltage via your test leads to the small terminals 1 & 2. You should now read continuity across terminals A & B. If no continuity is present, the contactor is defective and must be replaced. This would cause a 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 A & B.

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



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.