Minuteman International

Component Testing Guide

740802 36 volt Brush Head Actuator
320166 36 volt Squeegee Actuator
320012 36 volt Squeegee Actuator

Where Used:

320 Automatic Scrubber Series

Purpose:

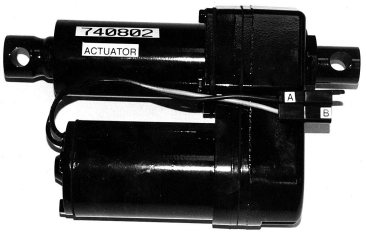
To raise and lower the brush head and squeegee assembly electrically.

How a Actuator Operates:

The actuator consists of a motor, transmission and an internally threaded ram. The Ram is moved out when power is supplied to the motor. The Ram stops moving when power stops flowing to the motor. The Ram retracts when power is supplied to the motor in reverse direction or when polarity is reversed by the control switch. The 740802 brush actuator will ratchet (click) when it hits the end of its travel. The 320166 and 320012 will shut down electrically when it reaches the end of its travel.

How to Test:

To test the actuators you will need 1). Jumper wires, 2). Volt Meter



1). Locate the wire connector to the actuator. Place your volt meter on a DC volts scale higher than 36 volts.

2). Put the red lead of your meter on the A terminal and the black wire of your meter on the B terminal. Do not disconnect any wires, simply probe the connector.

3). Activate the proper switch on the unit you are working on that controls the actuator and hold it in place. Note the voltage reading on your meter. System voltage must be present at the connector. If it is not, reverse to test leads on the connector and retest. If voltage still is not present, refer to the equipment wiring diagram to locate the problem. If voltage is present and actuator does not extend or retract, go to step 4.

4). Reverse the test leads from your volt meter on the connector to your actuator. Place the black wire of your meter on the A terminal and the red wire on the B terminal.

5). Activate the actuator switch again and note the voltage present. Reverse the test leads and retest. If voltage still is not present, refer to the equipment wiring diagram to locate the problem. If voltage is present and the actuator does not extend or retract, the actuator must be replaced.

NOTE: To verify your results, a set of jumper wires may be used to test the actuator independently. By supplying battery voltage directly to the actuator you can test the units operation. Be careful not to let the jumper wires touch.

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.