USING A MEGA-OHMMETER (MEGGER) TO TEST THE INSULATION RESISTANCE OF YOUR HEATING SYSTEM

WHAT IT DOES
The megger is used as a quality control measure to test the insulation resistance, to detect any fault in the heater cable jacket. Such leaks cannot be spotted with a regular ohmmeter and help spot any damage to the cable and cable jacket.

HOW IT WORKS
The megger sends voltage through the cable to calculate the amount of current flowing through the circuit, for an accurate indication of insulation integrity. Higher resistance means good insulation.

HOW TO USE IT

1. Make sure no power is running to the heating system you are testing.
2. Insert the test probes into the V and COM input terminals as shown in picture.
3. Turn the dial to the 500V setting (if testing 240V system) or 250V (if testing a 120V system).
4. Clip the black probe to the black wire coming from the heater cold tail lead.
5. Hold or clip the red probe to the ground wire.
6. The display should show “- - - -” until the TEST button is pressed.
7. If the high voltage symbol appears along with >30 V, disconnect probes and disconnect power to heater before proceeding further.
8. If the high voltage symbol does not appear, push and hold the TEST button to begin the test.

Please note: The number in the bottom right of the display screen shows the voltage being applied to the circuit. The resistance will show in the middle of the screen in MΩ or GΩ. The TEST icon will appear in the bottom right corner until the test is complete. If the resistance is higher than the maximum display range, the megger will display the > symbol on the left side of the screen. Higher resistance means good insulation. The minimum and maximum IR (Insulation Resistance) values can be found in the megger manual.

9. Keep the probes connected and release the TEST button.
10. Remove both probes and repeat test by clipping the black probe to the red (if testing a 240V system) or solid yellow (if testing 120V system) and repeat steps 5-9.
11. Your reading should be higher than 1 mA. Anything lower, please call Warmup: +1 (888)927-6333