

# Heatizon Systems After Installation Element Test

**WARNING:** Danger of Fire. This test will not detect cuts in Z Mesh, Tuff Cable, or Floorizwarm Heating Element.

Attached please find three forms titled "Heatizon Systems After Installation Element Test." Heatizon Systems recommends that the measurements be taken and the attached forms be completed on all zones on three different occasions. The First Element Test should be conducted immediately after the Cold Lead and Z Mesh, Tuff Cable, or Floorizwarm Heating Element has been installed and before it has been covered up with floor covering, roofing material, concrete, etc. The Second Element Test is to be conducted following the covering of the heating element and immediately prior to installing the Control Box. The third Element Test should be conducted immediately following the energizing of the system. All of these tests may be conducted by using either the Control Box and Transformer provided as part of your Heatizon Systems Product, or by using Heatizon Systems Element Tester (Part Number NI113). It is important that the same source be used to energize the Z Mesh, Tuff Cable and Floorizwarm Heating Element for all tests taken.

It is Heatizon Systems recommendation that each test be completed by the party responsible for the installation and witnessed by a representative of the party which contracted for the installation. It is essential that all of the blanks on each "After Installation Element Test" form be completely filled out and that the form be signed by both the party completing the test and the party witnessing the test.

Conducting these tests will help insure that a third party or an unknown event has not adversely impacted the heating element. In addition the results of these tests may help you in any troubleshooting that must be performed on the system(s).

**Warning: In the event any of the measurements taken during the three After Installation Element Tests are different, a problem may exist. Do not energize your Heatizon Systems product, and call Heatizon systems Technical Support at (801) 293-1232 to discuss the options available.**

## Element Tester Instructions

Part Number NI113

1. Connect one of the welding cable leads from the Element Tester to one of the Cold Leads near the point where the Cold Leads will eventually connect to the transformer.  
(Note: Cold leads are the Number 2 wires extending from the heating element to the transformer).
2. Connect the other welding cable lead from the Element Tester to the other Cold Lead near the point where the Cold Leads will eventually connect to the transformer.
3. Plug the Element Tester power cord into a 120 VAC power source.
4. Turn the Tester to the "on" position.
5. Using an Amp meter, read the amperage (Amps) and Voltage (Volts) and record them on the form titled "Heatizon Systems After Installation Element Test." The voltage is to be read at the connection of one of the Cold Leads and the welding cable lead from the Element Tester. Amperage can be read anywhere along either Cold Lead.
5. Continue taking the amperage and voltage readings every five (5) minutes or until the readings remain the same. (Note: At the point where the readings remain the same, the temperature of the element should be stabilized.)
6. Read and record the temperature of the area where the heating element is located.
7. Using the numbers recorded on the form titled Heatizon Systems after Installation Element Test and the form titled Calculation of Element Length, the length of the heating element can be calculated or verified.

**Note: When using the Control Box and Transformer provided as part of your Heatizon product to conduct the "Heatizon Systems After Installation Element Tests," the entire product must be installed per this manual. Once installation is complete, conduct three Element Tests by following steps 4 through 7 above.**



## Heatizon Systems After Installation Element Test #2

Date: \_\_\_\_\_

Time Test Began: \_\_\_\_\_AM/PM

Time Test Ended: \_\_\_\_\_AM/PM

Zone Number:\_\_\_\_\_ Direction:\_\_\_\_\_ Area Covered: \_\_\_\_\_

Primary Input Power \_\_\_\_\_Amps \_\_\_\_\_ Volts

Length of Element: \_\_\_\_\_ Feet

Type of Element: - 12" Screen - 9"Screen - Tuff Cable - Floorizwarm

Total Length of Cold Leads Including Jumpers: \_\_\_\_\_ Feet

Surface Temperature of Heatizon Heated/Snowmelt Area at the Beginning of Test: \_\_\_\_\_ °F

At Beginning of Test: Amps \_\_\_\_\_ Volts \_\_\_\_\_

After 5 Minutes: Amps \_\_\_\_\_ Volts \_\_\_\_\_

After 10 Minutes: Amps \_\_\_\_\_ Volts \_\_\_\_\_

After 15 Minutes: Amps \_\_\_\_\_ Volts \_\_\_\_\_

After 20 Minutes: Amps \_\_\_\_\_ Volts \_\_\_\_\_

Surface Temperature of Heatizon Heated/Snowmelt Area at the End of Test: \_\_\_\_\_ °F

Communication tested with: - drip edge - valley metal - other metal

Other metal described: \_\_\_\_\_

Test Completed by: \_\_\_\_\_ Daytime Phone # \_\_\_\_\_  
(Please Print)

\_\_\_\_\_  
(Signature)

Test Witnessed by: \_\_\_\_\_, on this \_\_\_\_\_ Day of \_\_\_\_\_, 200\_\_\_\_  
(Please Print)

\_\_\_\_\_  
(Signature)

### Heatizon Systems After Installation Element Test #3

Date: \_\_\_\_\_

Time Test Began: \_\_\_\_\_AM/PM

Time Test Ended: \_\_\_\_\_AM/PM

Zone Number: \_\_\_\_\_ Direction: \_\_\_\_\_ Area Covered: \_\_\_\_\_

Primary Input Power \_\_\_\_\_Amps \_\_\_\_\_ Volts

Length of Element: \_\_\_\_\_ Feet

Type of Element:   ▪ 12" Screen   ▪ 9"Screen   ▪ Tuff Cable   ▪ Floorizwarm

Total Length of Cold Leads Including Jumpers: \_\_\_\_\_ Feet

Surface Temperature of Heatizon Heated/Snowmelt Area at the Beginning of Test: \_\_\_\_\_<sup>o</sup>F

At Beginning of Test:           Amps \_\_\_\_\_           Volts \_\_\_\_\_

After 5 Minutes:               Amps \_\_\_\_\_           Volts \_\_\_\_\_

After 10 Minutes:             Amps \_\_\_\_\_           Volts \_\_\_\_\_

After 15 Minutes:             Amps \_\_\_\_\_           Volts \_\_\_\_\_

After 20 Minutes:             Amps \_\_\_\_\_           Volts \_\_\_\_\_

Surface Temperature of Heatizon Heated/Snowmelt Area at the End of Test: \_\_\_\_\_<sup>o</sup>F

Communication tested with:   ▪ drip edge   ▪ valley metal   ▪ other metal

Other metal described: \_\_\_\_\_

Test Completed by: \_\_\_\_\_ Daytime Phone # \_\_\_\_\_  
(Please Print)

\_\_\_\_\_  
(Signature)

Test Witnessed by: \_\_\_\_\_, on this \_\_\_\_\_ Day of \_\_\_\_\_, 200\_\_\_\_  
(Please Print)

\_\_\_\_\_  
(Signature)

