

HEATIZON SYSTEMS

After Installation Element Test

WARNING: This test will not detect cuts in ZMesh, 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. It is important that the same source be used to energize the ZMesh, Tuff Cable and Floorizwarm Heating Element for all tests taken.

- Element Test #1— 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.
- Element Test #2 — is to be conducted following the covering of the heating element and immediately prior to installing the Control Unit.
- Element Test #3 — should be conducted immediately following the energizing of the system but prior to placing it in service.

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 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

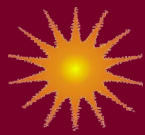
Part Number NI113

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 #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.
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 6 above.

Note: When hardwood or tile floor coverings are placed over ZMesh, the current may increase when the folds are compressed. As a result of this compression, the effective length of ZMesh can decrease as much as one foot per fold.

Note: For Tuff Cable snow melt applications, the temperature will change the current in the element. For example, the current will increase approximately 14% as the temperature drops from 80°F to 0°F.



HEATIZON SYSTEMS

After Installation Element Test Test #1

Complete a separate test for each Control Unit or zone

Date: _____

Current Time: _____

This test is for Zone Number _____ of _____ (Total Number of Control Units/Zones in this system)

Length of Cold Leads including Jumpers: _____ Feet on Side 1 _____ Feet on Side 2*

<u>Model</u>	<u>Serial Number</u>	<u>Length of Heating Element</u>	<u>Number of 90° Folds (ZMesh Only)</u>
<input type="checkbox"/> CBX6	_____	_____ Feet	_____
<input type="checkbox"/> CBX23	_____	_____ Feet on Side 1 and _____ Feet on Side 2*	_____
<input type="checkbox"/> CBX7	_____	_____ Feet	_____
<input type="checkbox"/> Radiant 8	_____	_____ Feet on Side 1 and _____ Feet on Side 2*	_____
<input type="checkbox"/> Floorizwarm	_____	_____ Floorizwarm Model Number	_____

Type of Heating Element: 9" ZMesh 12" ZMesh Tuff Cable Floorizwarm

Description of Area Covered by the Heating Element:

Step 1: Visually inspect the Cold Lead and Tuff Cable or ZMesh Heating Element and properly repair any and all nicks, cuts, tears, and/or other damage to the heating element or Cold Lead.

Step 2: Make certain that communication does not exist between the Cold Lead or Heating Element and any and all electrically conductive material including but not limited to drip edge, valley metal, door thresholds, flashing, metal roofing material, metal studs, rebar, etc. In other words, identify any and all shorts, eliminate them and properly repair any and all damage to the Cold Lead or Heating Element.

Step 3: Measure and record the Primary/Input Power Amps _____ Volts _____

Step 4: Measure and record the surface temperature of the area to be heated or snow melted: _____ degrees F.

Step 5: Measure and record the Secondary/Output Power being delivered by the Transformer:
Side 1: Amps _____ Volts _____ Side 2*: Amps _____ Volts _____

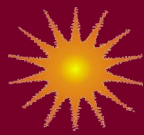
Step 6: Measure and record the surface temperature of the area to be heated or snow melted: _____ degrees F.

Step 7: Sign this form and have a witness sign this form in the appropriate space below.

Test Completed by: _____ Daytime Telephone # _____

Test Witnessed by: _____ Dated: _____, 20____

*For two-sided or "dual" systems only.



HEATIZON SYSTEMS

After Installation Element Test Test #2

Complete a separate test for each Control Unit or zone

Date: _____

Current Time: _____

This test is for Zone Number _____ of _____ (Total Number of Control Units/Zones in this system)

Length of Cold Leads including Jumpers: _____ Feet on Side 1 _____ Feet on Side 2*

<u>Model</u>	<u>Serial Number</u>	<u>Length of Heating Element</u>	<u>Number of 90° Folds (ZMesh Only)</u>
<input type="checkbox"/> CBX6	_____	_____ Feet	_____
<input type="checkbox"/> CBX23	_____	_____ Feet on Side 1 and _____ Feet on Side 2*	_____
<input type="checkbox"/> CBX7	_____	_____ Feet	_____
<input type="checkbox"/> Radiant 8	_____	_____ Feet on Side 1 and _____ Feet on Side 2*	_____
<input type="checkbox"/> Floorizwarm	_____	_____ Floorizwarm Model Number	_____

Type of Heating Element: 9" ZMesh 12" ZMesh Tuff Cable Floorizwarm

Description of Area Covered by the Heating Element:

Step 1: Visually inspect the Cold Lead and Tuff Cable or ZMesh Heating Element and properly repair any and all nicks, cuts, tears, and/or other damage to the heating element or Cold Lead.

Step 2: Make certain that communication does not exist between the Cold Lead or Heating Element and any and all electrically conductive material including but not limited to drip edge, valley metal, door thresholds, flashing, metal roofing material, metal studs, rebar, etc. In other words, identify any and all shorts, eliminate them and properly repair any and all damage to the Cold Lead or Heating Element.

Step 3: Measure and record the Primary/Input Power Amps _____ Volts _____

Step 4: Measure and record the surface temperature of the area to be heated or snow melted: _____ degrees F.

Step 5: Measure and record the Secondary/Output Power being delivered by the Transformer:
Side 1: Amps _____ Volts _____ Side 2*: Amps _____ Volts _____

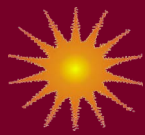
Step 6: Measure and record the surface temperature of the area to be heated or snow melted: _____ degrees F.

Step 7: Sign this form and have a witness sign this form in the appropriate space below.

Test Completed by: _____ Daytime Telephone # _____

Test Witnessed by: _____ Dated: _____, 20 ____

*For two-sided or "dual" systems only.



HEATIZON SYSTEMS

After Installation Element Test Test #3

Complete a separate test for each Control Unit or zone

Date: _____

Current Time: _____

This test is for Zone Number _____ of _____ (Total Number of Control Units/Zones in this system)

Length of Cold Leads including Jumpers: _____ Feet on Side 1 _____ Feet on Side 2*

<u>Model</u>	<u>Serial Number</u>	<u>Length of Heating Element</u>	<u>Number of 90° Folds (ZMesh Only)</u>
<input type="checkbox"/> CBX6	_____	_____ Feet	_____
<input type="checkbox"/> CBX23	_____	_____ Feet on Side 1 and _____ Feet on Side 2*	_____
<input type="checkbox"/> CBX7	_____	_____ Feet	_____
<input type="checkbox"/> Radiant 8	_____	_____ Feet on Side 1 and _____ Feet on Side 2*	_____
<input type="checkbox"/> Floorizwarm	_____	_____ Floorizwarm Model Number	_____

Type of Heating Element: 9" ZMesh 12" ZMesh Tuff Cable Floorizwarm

Description of Area Covered by the Heating Element:

Step 1: Visually inspect the Cold Lead and Tuff Cable or ZMesh Heating Element and properly repair any and all nicks, cuts, tears, and/or other damage to the heating element or Cold Lead.

Step 2: Make certain that communication does not exist between the Cold Lead or Heating Element and any and all electrically conductive material including but not limited to drip edge, valley metal, door thresholds, flashing, metal roofing material, metal studs, rebar, etc. In other words, identify any and all shorts, eliminate them and properly repair any and all damage to the Cold Lead or Heating Element.

Step 3: Measure and record the Primary/Input Power Amps _____ Volts _____

Step 4: Measure and record the surface temperature of the area to be heated or snow melted: _____ degrees F.

Step 5: Measure and record the Secondary/Output Power being delivered by the Transformer:
Side 1: Amps _____ Volts _____ Side 2*: Amps _____ Volts _____

Step 6: Measure and record the surface temperature of the area to be heated or snow melted: _____ degrees F.

Step 7: Sign this form and have a witness sign this form in the appropriate space below.

Test Completed by: _____ Daytime Telephone # _____

Test Witnessed by: _____ Dated: _____, 20____

*For two-sided or "dual" systems only.

