



Warmth for the sole®



Nuheat Mat Installation Manual

Nuheat Electric Floor Heating System

Includes installation guidelines for installing the Nuheat Floor Heating Systems under tile, stone and laminate/engineered wood surfaces.

For French and Spanish installation instructions, visit www.nuheat.com



Nuheat Industries Limited

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Important Installation Guidelines

First time installers should contact Nuheat's First Time Installer Line for Nuheat Mat at 1 (800) 778-WARM(9276)

- THE INSTALLATION OF THIS HEATING PRODUCT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE PART 1 OR THE NATIONAL ELECTRICAL CODE (US) WHICHEVER IS APPLICABLE.
- THIS EQUIPMENT SHALL BE INSTALLED ONLY BY QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE APPARATUS AND RISKS INVOLVED.
- CAUTION SHOULD BE TAKEN TO GUARD AGAINST RISK OF ELECTRIC SHOCK, FIRE AND BODILY INJURY DURING THE INSTALLATION OF THIS EQUIPMENT.
- Nuheat Mat should be connected to a dedicated electrical circuit.
- It is mandatory to install a Class "A" GFCI or GFCI circuit breaker with each Nuheat Mat Installation.
NOTE: All Nuheat thermostats come equipped with a built-in Class "A" GFCI.
- DO NOT USE sharp tools or power tools to clean grout lines. Cleaning grout lines with sharp tools or power tools may damage the Nuheat Mat System and WILL VOID THE NUHEAT WARRANTY.
- Indicate on the electrical panel which circuit is used for the electric floor heating system.
- Subfloor must be prepared in accordance to ANSI specifications.
- Nuheat Mat cannot be overlapped, crossed, cut, shortened or modified.
- The ambient air temperature must be above 0°C or 32°F when the Nuheat Mat Floor Heating System is installed.



Heating Cable Series Type 1B and 2D Canada, Type C USA

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Nuheat[®]
Registered Installer
Nuheat Electric Floor Heating Systems
www.nuheat.com 1 (800) 778-WARM

THE NUHEAT REGISTERED INSTALLER PROGRAM

A Nuheat Floor Heating System promises a homeowner soothing comfort in any room. Delivering that comfort requires proper Nuheat installation from trained and experienced installers and electricians.

Our goal is to deliver a simple and hassle-free experience when purchasing and installing our floor heating system. Part of our superior service is our Nuheat Registered Installer Program. The Nuheat Registered Installer Program is a network of Nuheat trained individuals and companies across North America.

REFERRAL BUSINESS

Nuheat refers thousands of homeowners to only those on our master list of registered installers. Our installers are committed to quality installations in the residential construction industry. Nuheat referrals will only go to installers who are registered and who are customers of a Nuheat Authorized Distributor. Our website, www.nuheat.com, allows homeowners to find an installer in their local area.

PUBLICITY AND PROMOTIONS

Registered installers have use of the Nuheat logo on approved promotional materials and are eligible for seasonal promotions.

Nuheat Mat

Fast Facts

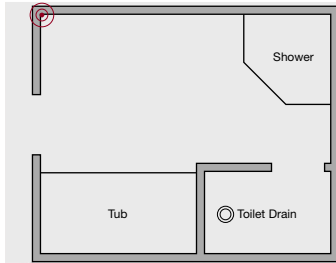
- Pre-built like an electric blanket, Nuheat Mat is an electric floor heating system that is only 1/8" thick and easy to install.
- Nuheat Mat draws 12 watts per square foot and produces 41 BTUs per square foot, providing even heat with no cold spots.
- Nuheat Mat typically reaches a temperature of 80° - 90°F (27° - 32° C).
- Nuheat Mats are available in 120V and 240V and in over 60 standard sizes (squares and rectangles).
- Nuheat also offers custom-sized mats for rooms with curves and angles.
- Floor temperature is controlled by a variety of programmable and non-programmable thermostat options (refer to Controls section).
- Nuheat carries a 25-year warranty.
- Nuheat must be installed on a dedicated 20 amp circuit.
- The maximum load the thermostat can handle is 15 amps; this translates to 150 square feet at 120V and 300 square feet at 240V.
- Subfloor must be prepared according to ANSI standards.
- Nuheat Mats are not warranted in exterior applications or shower pans.

Nuheat Mat

Measuring Instructions

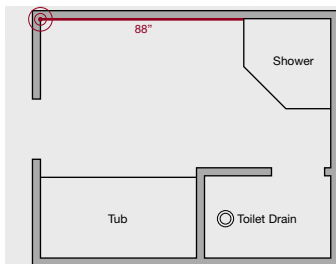
IMPORTANT: Measure tight to the perimeter for all your measurements. DO NOT make any allowances in your measurements.

An interactive online measuring tutorial is available at www.nuheat.com

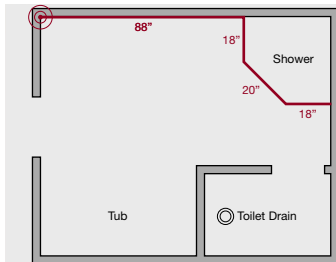


For assistance with measuring, you can speak to a Designer directly by calling our Design Direct line at 1 (800) 778-9276. Design Direct hours are Monday-Friday 5am-5pm PST.

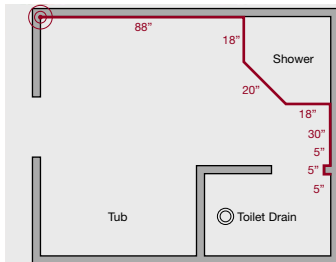
1. Pick a corner of the room and use that as the starting point for your measurements. Remember that you must return to this starting point at the end of your measurements.



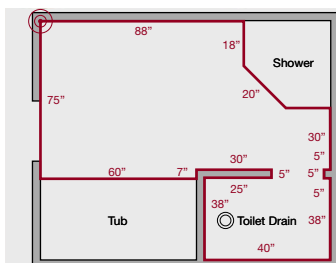
2. Measure and draw the walls of the room on grid paper and record the measurements.



- a. Each time the wall changes directions, record the measurement before continuing to measure the next wall. Measure around fixtures such as shower bases and tubs under which Nuheat would not be installed.

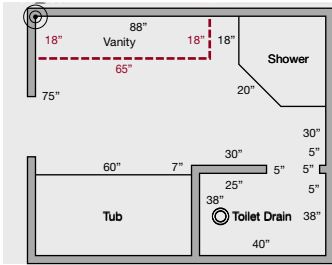


- b. Be sure to include any small dimensions such as framing walls for entryways into smaller rooms.

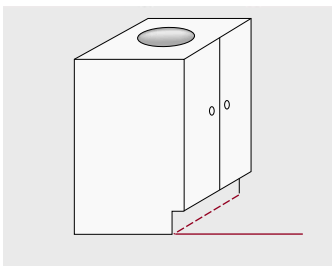


- c. Measure/Draw the room on the grid paper and record the measurements until you reach the starting point identified in Step 1.

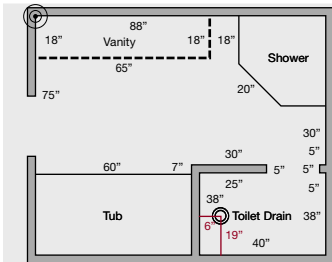
Nuheat Mat Measuring Instructions



3. Measure and draw the location of cabinets and vanities.

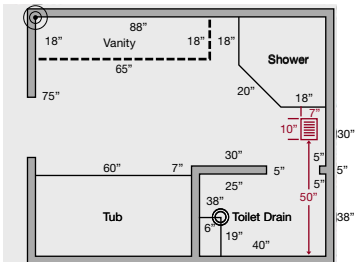


- a. For cabinets and vanities, make sure to take the measurement right up to the toe-kick.

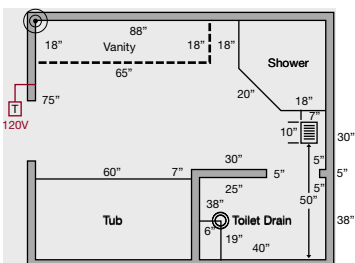


4. Measure and draw the location of floor features such as:

- a. Toilet drains
 - i. measure from the walls to the center of the toilet drain.



- b. Vents
- c. Other fixed floor features



5. Indicate thermostat location and voltage if known.

Getting Started

Installation Guidelines



BEFORE YOU START

A successful Nuheat application requires the following tools:

- Acrylic or latex modified thinset
- Duct tape
- 1/4" square notch trowel
- Small plastic bristled brush
- Margin trowel
- Grouting float
- Digital ohm/multimeter
- Sponge
- Bucket of water

AVOID THE FOLLOWING ACTIVITIES THAT MAY DAMAGE NUHEAT:

- Connecting the mat to power when folded
- Stapling
- Nailing
- Folding, bending or overlapping mats
- Do not use grout scrapers or utility knives to clean grout lines. Cleaning grout lines with sharp tools may damage the mat. Using these tools will void the Nuheat warranty.

TIP: Clean grout lines with a sponge as you go.

NOTE: The MatSense Pro electrical fault indicator should be attached to the mat at all times during installation. It **DOES NOT** replace the resistance testing. For information about the MatSense Pro, refer to page 18.

DO NOT CONNECT THE MAT TO POWER DURING TESTING.

INSULATION AND RESISTANCE TEST MUST BE PERFORMED BEFORE, DURING, AND AFTER THE INSTALLATION OF THE NUHEAT MATS TO VALIDATE THE WARRANTY.

Getting Started Testing Nuheat

INSULATION TEST

To ensure that the copper conductors are fully insulated:

- Acquire a digital ohm/multimeter with alligator clip attachments or equivalent testing device. Place one probe on the ground outer metallic braid and the other probe on the conductor wire inside the white lead.
- The mat(s) should be laid out flat.
- Do not hold probes or wires in your hands.
- Confirm that the reading is OL or infinity.
- Repeat this step to check the reading between the metallic braid and the conductor wire inside the black lead.

RESISTANCE TEST

To ensure continuity in your heating mat:

- Set the ohm meter to the appropriate setting. For 120V mats, place one of the probes on the conductor wire in the white lead and the other probe on the conductor wire in the black lead. For 240V mats, the leads are red and black.
- For testing mats with ohm readings over 200 the ohm meter will need to be set higher than 200Ω (i.e. 2000Ω) in order to get an accurate reading.
- Confirm that your ohm reading is within +10% or -5% of the factory reading listed on the mat tag. Record reading in the Mat Resistance Log, provided in the installation instructions included with each Nuheat Mat.
- After testing mats connect a MatSense Pro to the lead wires to simultaneously monitor continuous separation of conductor & braid (ground) with unbroken insulation and continuous continuity between conductors.
- Test sensor probe. Put resistance range to $20K\Omega$. Probe wires should read between 8K - 12K ohms.

Nuheat Mat Installation

Securing Nuheat Mat to the Subfloor



SUBFLOOR MUST BE PREPARED IN ACCORDANCE TO ANSI SPECIFICATIONS.

STEP 1

Ensure the subfloor is clean and free of debris. Dry fit the mats to ensure it fits the contours of the room and provides proper coverage. There is no “up” or “down” side to Nuheat Standard Mats. You can flip the mat in any direction to place the lead wires as close as possible to the junction box. Choose the side that is more convenient when running the cold lead to the thermostat location.

Mark the locations of the connecting cable and connection patch on the subfloor. Lay out the path of the cold lead to the junction box around the perimeter of the mat. If leads do not reach the Nuheat thermostat or designated junction box, please contact Nuheat Customer Care at 1 (800) 778-9276.

NOTE: Conduct insulation & resistance tests.

NOTE: Connect the MatSense Pro to the lead wires to monitor hot, neutral and ground wires during your Nuheat Mat Installation.

Nuheat Mat Installation

Securing Nuheat Mat to the Subfloor



STEP 2

Prepare the acrylic/latex modified thinset according to manufacturer's instructions.

Using at least a 1/4" x 1/4" square notch trowel, spread a coat of fresh acrylic/latex modified thinset over the area to be covered by Nuheat. If laying Nuheat in a large area make sure to work on one manageable section at a time.

Place the mat onto the fresh thinset. Press entire surface firmly with a rubber grout or similar tool. Create 100% contact between the heating mat, the thinset and the subfloor.

TIP: When using multiple mats, ensure that the outside wires of adjacent mats are within 2" of one another to keep the wire spacing and heat distribution consistent across the floor.

NOTE: Conduct insulation and resistance tests.

Nuheat Mat Installation

Install Flooring:

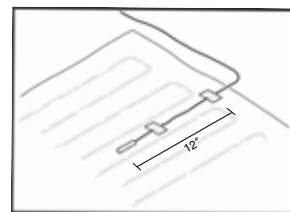
TILE AND STONE



STEP 1

Install Nuheat Mat as per the instructions on page 6 and 7.

If installing a floor-sensing thermostat with GFCI, ensure that the sensor is installed at this point. Install the probe on top of the mat a minimum of 12" in from the edge of the heated area. Tape the sensor probe in place between two heating wires.



STEP 2

Apply a coat of thinset according to the thickness required for your tile or stone and install flooring.

TIP: Clean excess thinset from grout lines with a sponge or small plastic brush and water as tile is being laid.

NOTE: Conduct insulation and resistance tests.

STEP 3

Apply grout. The use of grout scrapers or utility knives to clean grout joints may damage the mat and will void the Nuheat warranty.

Before activating the Nuheat System, allow the thinset and grout to cure according to the manufacturer's guidelines.

Nuheat Mat Installation

Install Flooring:

FLOATING LAMINATE AND ENGINEERED WOOD



STEP 1

Install Nuheat Mat as per the instructions on page 6 and 7.

Using the flat side of a trowel, apply a minimum 1/4" thick coat of thinset over the mat and supply leads. Ensure the thinset is level and smooth.

Allow thinset to cure as per manufacturer's guidelines.

NOTE: Conduct insulation and resistance tests.

Nuheat Mat Installation

Install Flooring:

FLOATING LAMINATE AND ENGINEERED WOOD

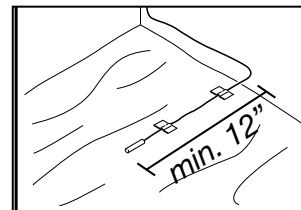


STEP 2

Install vapor barrier, if applicable, and underlay as per manufacturer's instructions.

STEP 3

Install the sensor probe on top of the underlay, a minimum of 12" in from the edge of the heated area. Tape the sensor probe in place and run the sensor wire up to the thermostat location. The thermostat sensor probe should be placed above the underlay to avoid compromising the performance of the Nuheat System.



Install laminate/engineered wood as per manufacturer's instructions. After installation, gradually increase the Nuheat Mat temperature over a period 72 hours to the maximum temperature or 82°F or 28°C.

Nuheat Mat Installation

Install Flooring:

GLUE DOWN LAMINATE AND ENGINEERED WOOD

STEP 1

Install Nuheat Mat as per the instructions on page 6 and 7.

Using the flat side of a trowel, apply a minimum 1/4" thick coat of thinset over the mat and supply leads. Ensure the thinset is level and smooth.

Allow thinset to cure as per manufacturer's guidelines.

STEP 2

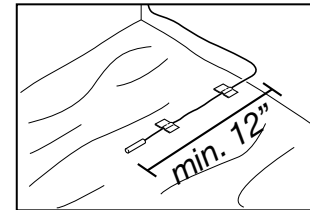
Install the sensor probe on top of the thinset layer, a minimum of 12" in from the edge of the heated area.

STEP 3

Using a notched trowel, apply a layer of adhesive following adhesive manufacturer's instructions.

Install laminate/engineered wood as per the manufacturer's instructions.

TIP: To ensure adequate bonding, apply weights to hold the floor on top of the sensor probe.



Nuheat Mat Installation

Connecting the Electrical

CONNECTIONS MUST BE MADE BY A CERTIFIED ELECTRICIAN TO VALIDATE WARRANTY.

ELECTRICAL INSTALLATION

All wiring must follow specifications set out in Part 1 of the Canadian Electrical Code, the US National Electrical Code and local electrical inspection regulations. All Nuheat Mats must be connected to the electrical service through a Ground Fault Circuit Interrupter (GFCI) which is built into all Nuheat controls.

STEP 1

Determine the number of circuits you require based on the amperage draw of the heating system (the amperage is located on the silver UL tag attached to the leads.) For special wiring instructions or diagrams please call Nuheat Customer Care at 1 (800) 778-9276.

STEP 2

Install the circuit(s) at the electrical panel.

NOTE: Conduct insulation & resistance tests.

STEP 3

Attach the connecting wires to the outlet box using CSA Certified/UL Listed cable fittings. Make the electrical connection only after the flooring is complete. Resistance test the mat(s) before setting tile.

TIP: When connecting multiple Nuheat Mats, it may be easier to connect the mat at a floor level junction box rather than directly to the thermostat.

Nuheat Mat Installation

Connecting the Electrical

STEP 3 (CONTINUED)

Final Connections (using a Nuheat Floor-Sensing Thermostat)

- Connect the black line wire to the black control wire (line side)
- Join the white line wire to the white control wire (line side)
- Fasten the black mat lead wire to the black control wire (load side)
- Connect the white mat lead wire to the white control wire (load side)

STEP 4

- Connect the braided ground wire to the grounded copper conductor (wire nut or ground screw)
- Fasten the thermostat probe wires to the sensor terminals at the back of the floor-sensing thermostat
(Note: Not applicable with the MatComfort Regulator)
- Place the wires and control into the junction box

Nuheat Mat Installation

Final Steps and Installation Tips

HELPFUL TIPS

- There is no “up” or “down” side to Nuheat Standard Mats. You can flip the mat in any direction to place the lead wires as close as possible to the thermostat or junction box.
- To test the bond between the mat and the subfloor, peel a portion of the mat back from the thinset you have adhered to the subfloor. At least 80% of the mat pulled from the floor should be covered with thinset.
- It is mandatory to install a Class A GFCI or GFCI circuit breaker when feeding mats through a relay with each Nuheat Mat installation. If using a Nuheat control, no additional GFCI is required.
- Discarding mat label voids the warranty.

TROUBLESHOOTING

Should you have any questions or difficulties installing or controlling your Nuheat Mat, please contact Nuheat directly at 1 (800) 778-9276.

AFTER THE NUHEAT MAT INSTALLATION

Allow thinset or adhesive to cure according to manufacturer specifications before activating the Nuheat Mat System.

Nuheat Controls

Programmable Floor-Sensing Thermostats

Harmony

Harmony Thermostat — *Flush-mounted, designer inspired*

The Harmony thermostat is exclusive to Nuheat. Blending style and function, the Harmony thermostat is the only flush mounted, designer inspired thermostat in the floor heating category. A seamless fit behind any double-gang face plate allows homeowners the ability to integrate both style and warmth into their room decor. It may also be mounted beside your other controls if you choose to use a face plate larger than two-gang.



* the Harmony thermostat requires a two gang deep box
** face plate not included

Harmony Benefits:

- Exclusively designed for Nuheat
- Programmable 7-day settings
- Available in 120V & 240V
- For tile, stone and laminate/engineered wood floors
- Backlit screen
- On/off switch
- Built-in Class A GFCI
- Manufacturer's limited three (3) year warranty

120 Volt Specifications

Model: HMY 110
Supply: 120 VAC
Load: 15 A max. (resistive load)
Power: 1800 W max. @ 120 VAC
GFCI: Class A (5 mA TRIP LEVEL)
Approvals: CSA / C, US
Display range: 32 to 140 ° F (0 to 60 ° C)
Setting range: 40 to 104 ° F (5 to 40 ° C)
Econo default setting: 64 ° F (18 ° C)
Storage: -4 to 120 ° F (-20 to 50 ° C)

240 Volt Specifications

Model: HMY 220
Supply: 240 VAC
Load: 15 A max. (resistive load)
Power: 3600 W max. @ 240 VAC
GFCI: Class A (5 mA TRIP LEVEL)
Approvals: CSA / C, US
Display range: 32 to 140 ° F (0 to 60 ° C)
Setting range: 40 to 82 ° F (5 to 40 ° C)
Econo default setting: 64 ° F (18 ° C)
Storage: -4 to 120 ° F (-20 to 50 ° C)



Nuheat Controls

Programmable Floor-Sensing Thermostats

SOLO

SOLO Thermostat — *Full-menu screen, ENERGY STAR qualified*

The SOLO Thermostat boasts an industry-first design, exclusive to Nuheat. Another example of ongoing innovation from the leader in electric radiant systems, Nuheat's new thermostat offers features such as a full menu screen, dual voltage (120V & 240V) applications, 7-day programmability and the ability to network multiple SOLO thermostats within the home.



SOLO Benefits:

- Dual voltage (120V & 240V)
- Programmable 7-day settings
- Full menu screen
- ENERGY STAR qualified
- Backlit screen
- For tile, stone and laminate/engineered wood floors
- Built-in Class A GFCI
- Manufacturer's limited three (3) year warranty

120 & 240 Volt Specifications

Model: SOLO
Supply: 120V/240V, 50/60 Hz
Load: 15 A max. (resistive load)
Power: 1800W @ 120V
3600W @ 240V
GFCI: Class A (5 mA TRIP LEVEL)
Approvals: CSA/C, US
Display range: 32°F to 140°F (0°C to 60°C)
Setting Range: 40°F to 82°F or 104°F (5°C to 28°C or 40°C)
Storage: -4°F to 120°F (-20°C to 50°C)



Nuheat Controls

Other Control Options

MatComfort (NTG) Benefits:

- Programmable 7-day settings
- For tile and stone
- ENERGY STAR qualified
- Available in 120V and 240V
- Built-in Class A GFCI
- Manufacturer's limited three (3) year warranty

120 Volt Specifications

MatComfort Model: NTG5110 (120 VAC)
 MatComfort Supply: 120 VAC, 50/60 Hz
 MatComfort 82F Model: 82F 120V
 MatComfort 82F Supply: 120 VAC

Load: 15 A max. (resistive load)
 Power: 1800 W max. @ 120 VAC
 GFCI: Class A (5 mA TRIP LEVEL)
 Approvals: CSA/C, US
 Display range: 32 to 140°F (0 to 60°C)
 Setting range: 40 to 104°F (5 to 40°C)
 Econo default setting: 64°F (18°C)
 Storage: -4 to 120°F (-20 to 50°C)

240 Volt Specifications

MatComfort Model: NTG5220 (240 VAC)
 MatComfort Supply: 240 VAC, 50/60Hz
 MatComfort 82F Model: 82F 240V
 MatComfort 82F Supply: 240 VAC

Load: 15 A max. (resistive load)
 Power: 3600 W max. @ 240 VAC
 GFCI: Class A (5 mA TRIP LEVEL)
 Approvals: CSA/C, US
 Display range: 32 to 140°F (0 to 60°C)
 Setting range: 40 to 104°F (5 to 40°C)
 Econo default setting: 64°F (18°C)
 Storage: -4 to 120°F (-20 to 50°C)



MatComfort 82F Benefits:

- Programmable 7-day settings
- For laminate/engineered wood floors
- Will not heat floors above 82°F to protect your laminate/engineered wood flooring investment

120 Volt Specifications

MatComfort Model: NTG5110 (120 VAC)
 MatComfort Supply: 120 VAC, 50/60 Hz
 MatComfort 82F Model: 82F 120V
 MatComfort 82F Supply: 120 VAC

Load: 15 A max. (resistive load)
 Power: 1800 W max. @ 120 VAC
 GFCI: Class A (5 mA TRIP LEVEL)
 Approvals: CSA/C, US
 Display range: 32 to 140°F (0 to 60°C)
 Setting range: 40 to 104°F (5 to 40°C)
 Econo default setting: 64°F (18°C)
 Storage: -4 to 120°F (-20 to 50°C)

240 Volt Specifications

MatComfort Model: NTG5220 (240 VAC)
 MatComfort Supply: 240 VAC, 50/60Hz
 MatComfort 82F Model: 82F 240V
 MatComfort 82F Supply: 240 VAC

Load: 15 A max. (resistive load)
 Power: 3600 W max. @ 240 VAC
 GFCI: Class A (5 mA TRIP LEVEL)
 Approvals: CSA/C, US
 Display range: 32 to 140°F (0 to 60°C)
 Setting range: 40 to 104°F (5 to 40°C)
 Econo default setting: 64°F (18°C)
 Storage: -4 to 120°F (-20 to 50°C)



Tempo Benefits:

- Non-programmable
- Suitable for tile and stone floors only
- Digital temperature display
- On/off switch
- Dual Voltage (120V & 240V)
- Built-in Class A GFCI
- Manufacturer's limited three (3) year warranty

120 & 240 Volt Specifications

Model: TEMPO
 Supply: 120V/240V, 50/60 Hz
 Load: 15 A max. (resistive load)
 Power: 1800W @ 120V
 3600W @ 240V
 GFCI: Class A (5 mA TRIP LEVEL)
 Approvals: CSA/C, US
 Display range: 32°F to 140°F (0°C to 60°C)
 Setting Range: 40°F to 82°F or 104°F (5°C to 28°C or 40°C)
 Storage: -4°F to 120°F (-20°C to 50°C)



Nuheat Accessories

MatSense Pro Electrical Fault Indicator

MatSense Pro

Our electrical fault indicator is a device that simultaneously monitors the hot, neutral and ground wires during your Nuheat installation. Use an electric fault indicator to ensure a correct Nuheat installation every time.



The MatSense Pro will set off a distinct alarm when:

- the sensor finds an open circuit
- the sensor detects a short circuit

The MatSense Pro is the installer's safeguard to ensure homeowners that their Nuheat Floor Heating System is installed correctly every time.

Simply connect the conductor wires and ground wires to the MatSense Pro and turn it on.

The MatSense Pro is available for sale at all Nuheat Authorized Distributor locations. For a location near you, please log onto www.nuheat.com and click "Where to buy" or simply call 1 (800) 778-9276.

Using the MatSense Pro DOES NOT replace the need to conduct insulation or resistance tests of Nuheat Mat prior, during and after the installation. For more information on installation please visit www.nuheat.com.

NOTE: Nuheat Mat is repairable if damaged. If Nuheat Mat is damaged, please contact Nuheat Customer Care at 1 (800) 778-9276.

Troubleshooting

Replacing a Broken Tile

REPLACING TILE OVER NUHEAT

To prevent damage to your Nuheat Floor Heating System while replacing a tile, please follow these instructions:

STEP 1

Turn off the power to Nuheat Mat at the main power box or have a certified electrician disconnect the wires from the relay or junction box.

STEP 2

Perform a continuous insulation test with your ohm/multimeter. Monitor the readings on your ohm/multimeter as you replace the tile to ensure that the mat has not been damaged.

STEP 3

Use a grout scraper to score the grout 1/8" deep around the tile to be removed, this must be done carefully by hand. Do not use a power tool.



STEP 4

Take a round-head hammer and carefully break up the tile starting from the center. Use only the force required to break the tile.

STEP 5

Position a cold chisel at a steep angle and begin removing the tile from the thinset. When you find a mat wire, move the chisel parallel to it remembering that wires are spaced apart by approximately 1 1/2" – never cross the wires directly with your chisel.



STEP 6

Use a round-head hammer to break up the remaining thinset over the mat. Remember to use only the force required to break the thinset.

Troubleshooting

Replacing a Broken Tile

STEP 7

Locate a wire in the mat. Position a cold chisel beside the wire. Run your chisel parallel to the wire line to remove the thinset – never cross the wires with your chisel. Carefully remove the remaining grout around the bare space with your cold chisel to ensure that the replacement tile fits properly.

STEP 8

Set your digital ohm/multimeter to the 200 ohms setting. Add alligator clips to the ohm/multimeter to make testing easier. Connect the black and white mat lead wires to the probes of the multimeter. Ensure that the resistance reading is within the range of +10% to -5% of the resistance rating listed on your mat tag. Document your test results.

STEP 9

To lay your replacement tile evenly to the surrounding tiles, try grinding down the back of the tile to remove some of the depth.

STEP 10

Apply a coat of thinset. Set the tile into place and ensure that it is level with the floor.

STEP 11

Test the mat.

STEP 12

Reconnect the Nuheat Mat system.



Nuheat Standard Mat Listing

120 Volt and 240 Volt

Nuheat Standard Mat Sizes (120V)

	Dimensions (inches)	Sq. Ft.	Ohms	Amps	Watts	Model Number
3.5ft Series	40 x 27	7.5	160	0.8	90	F1006
	40 x 32	8.9	135	0.9	107	F1008
	40 x 40	11.1	108	1.1	133	F1010
	40 x 48	13.3	90	1.3	160	F1012
4ft Series	48 x 24	8.0	150	0.8	96	F1206
	48 x 30	10.0	120	1.0	120	F1208
	48 x 36	12.0	100	1.2	144	F1209
5ft Series	48 x 48	13.3	75	1.6	192	F1212
	60 x 24	10.0	120	1.0	120	F1506
	60 x 30	12.5	96	1.3	150	F1508
	60 x 36	15.0	80	1.5	180	F1509
6ft Series	60 x 42	17.5	69	1.8	210	F1510
	60 x 48	20.0	60	2.0	240	F1512
	60 x 60	25.0	48	2.5	300	F1515
	72 x 24	12.0	100	1.2	144	F1806
	72 x 30	15.0	80	1.5	180	F1808
	72 x 36	18.0	67	1.8	216	F1809
7ft Series	72 x 42	21.0	57	2.1	252	F1810
	72 x 48	24.0	50	2.4	288	F1812
	72 x 60	30.0	40	3.0	360	F1815
	72 x 72	36.0	33	3.6	432	F1818
	84 x 24	14.0	86	1.4	168	F2106
	84 x 30	17.5	69	1.8	210	F2108
	84 x 36	21.0	57	2.1	252	F2109
	84 x 42	24.5	49	2.5	294	F2110
8ft Series	84 x 48	28.0	43	2.8	336	F2112
	84 x 60	35.0	34	3.5	420	F2115
	84 x 72	42.0	29	4.2	504	F2118
	84 x 84	49.0	25	4.9	588	F2121
	96 x 24	16.0	75	1.6	192	F2506
	96 x 30	20.0	60	2.0	240	F2508
	96 x 36	24.0	50	2.4	288	F2509
	96 x 42	28.0	43	2.8	336	F2510
	96 x 48	32.0	38	3.2	384	F2512
	96 x 60	40.0	30	4.0	480	F2515
9ft Series	96 x 72	48.0	25	4.8	576	F2518
	96 x 84	56.0	21	5.6	672	F2521
	96 x 96	64.0	19	6.4	768	F2525
	108 x 24	18.0	67	1.8	216	F2706
	108 x 30	22.5	53	2.3	270	F2708
	108 x 36	27.0	44	2.7	324	F2709
	108 x 42	31.5	38	3.2	378	F2710
	108 x 48	36.0	33	3.6	432	F2712
	108 x 60	45.0	27	4.5	540	F2715
	108 x 72	54.0	22	5.4	648	F2718
10ft Series	108 x 84	63.0	19	6.3	756	F2721
	108 x 96	72.0	17	7.2	864	F2725
	108 x 108	88.5	15	8.1	972	F2727
	118 x 24	19.7	61	2.0	236	F3006
	118 x 30	24.6	49	2.5	295	F3008
	118 x 36	29.5	41	3.0	354	F3009
	118 x 42	34.4	35	3.4	413	F3010
	118 x 48	39.3	31	3.9	472	F3012
	118 x 60	49.2	24	4.9	590	F3015
	118 x 72	59.0	20	5.9	708	F3018
	118 x 84	68.8	17	6.9	826	F3021
	118 x 96	78.7	15	7.9	944	F3025
	118 x 108	88.5	14	8.9	1062	F3027
	118 x 116	95.1	13	9.5	1141	F3030

Nuheat Standard Mat Sizes (240V)

	Dimensions (inches)	Sq. Ft.	Ohms	Amps	Watts	Model Number
5ft Series	60 x 36	15.0	320	0.8	180	G1509
	60 x 42	17.5	274	0.9	210	G1510
	60 x 48	20.0	240	1.0	240	G1512
	60 x 60	25.0	192	1.3	300	G1515
6ft Series	72 x 30	15.0	320	0.8	180	G1808
	72 x 36	18.0	267	0.9	216	G1809
	72 x 42	21.0	229	1.1	252	G1810
	72 x 48	24.0	200	1.2	288	G1812
	72 x 60	30.0	160	1.5	360	G1815
	72 x 72	36.0	133	1.8	432	G1818
7ft Series	84 x 24	14.0	343	0.7	168	G2106
	84 x 30	17.5	274	0.9	210	G2108
	84 x 36	21.0	229	1.1	252	G2109
	84 x 42	24.5	196	1.2	294	G2110
	84 x 48	28.0	171	1.4	336	G2112
	84 x 60	35.0	137	1.8	420	G2115
8ft Series	84 x 72	42.0	114	2.1	504	G2118
	84 x 84	49.0	98	2.5	588	G2121
	96 x 24	16.0	300	0.8	192	G2506
	96 x 30	20.0	240	1.0	240	G2508
	96 x 36	24.0	200	1.2	288	G2509
	96 x 42	28.0	171	1.4	336	G2510
	96 x 48	32.0	150	1.6	384	G2512
	96 x 60	40.0	120	2.0	480	G2515
9ft Series	96 x 72	48.0	100	2.4	576	G2518
	96 x 84	56.0	86	2.8	672	G2521
	96 x 96	64.0	75	3.2	768	G2525
	108 x 24	18.0	267	0.9	216	G2706
	108 x 30	22.5	213	1.1	270	G2708
	108 x 36	27.0	178	1.4	324	G2709
	108 x 42	31.5	152	1.6	378	G2710
	108 x 48	36.0	133	1.8	432	G2712
	108 x 60	45.0	107	2.3	540	G2715
	108 x 72	54.0	89	2.7	648	G2718
10ft Series	108 x 84	63.0	76	3.2	756	G2721
	108 x 96	72.0	67	3.6	864	G2725
	108 x 108	81.0	59	4.1	972	G2727
	118 x 24	19.7	244	1.0	236	G3006
	118 x 30	24.6	195	1.2	295	G3008
	118 x 36	29.5	163	1.5	354	G3009
	118 x 42	34.4	140	1.7	413	G3010
	118 x 48	39.3	122	2.0	472	G3012
	118 x 60	49.2	98	2.5	590	G3015
	118 x 72	59.0	81	3.0	708	G3018
	118 x 84	68.8	70	3.4	826	G3021
	118 x 96	78.7	61	3.9	944	G3025
	118 x 108	88.5	54	4.4	1062	G3027
	118 x 116	95.1	51	4.8	1141	G3030

Mat dimensions listed in inches.

Information subject to change at any time. For a complete list of up to date specifications please visit www.nuheat.com.



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