



Introduction

The NUHEAT floor-warming system is designed for easy installation under tile and stone floors. Our thin (1/8" thick) and durable mats are ideal for both renovation and new construction projects. Over 60 different standard sizes are in stock for rectangular and square shaped rooms. Our made-to-fit mats can be manufactured to fit spaces with angles and curves. No matter what shape your room is, NUHEAT can fit it precisely.

This manual covers the steps to guarantee that the layout, installation and operation of your NUHEAT system is a success.

NUHEAT Services

Customer Service — call our customer service team toll free with any questions about the NUHEAT floor-warming system, your installation or general information about radiant heating at 1-800-778-WARM (9276).

Design Services — our design team will look at the floor plan you provide and specify a floor-warming plan that works for your specific application(s).

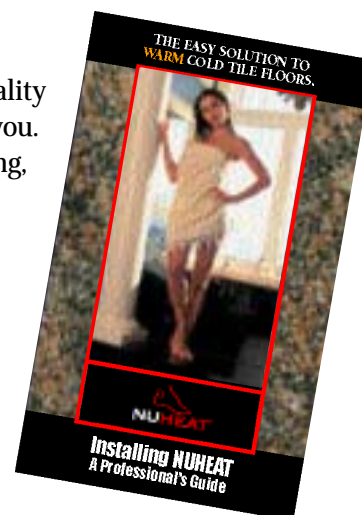
Certified Installers — NUHEAT can suggest trained and experienced *Certified Installers* to provide a quality installation of your floor-warming system.

Become a *Certified Installer!*

If you are committed to providing your customers with quality work and outstanding service, NUHEAT wants to hear from you. We provide a *Certified Installer Program* complete with training, certification and customer referrals (if requested).

Join the NUHEAT team of *Certified Installers* today!

NOTE: Contact your *Authorized Distributor* or NUHEAT to receive a comprehensive installation video.



A—Measuring for a NUHEAT Heated Tile/Stone Floor

Step 1A: Draw a clear sketch of the room

Use the entire worksheet supplied by your *Authorized Distributor* to draw a large clear sketch of the room. Sketch each individual room on a separate sheet.

Step 2A: Measure the perimeter at floor level (to the nearest 1/4")

- i) Begin measuring from one corner of the room and continue measuring clock-wise around the room until you return to the same starting point (Figure A)
- ii) Start each unit of measurement from the last point of the previous measurement
- iii) Measure and record the total length and width of the room (Figure B) — for measurements with more detail such as angles and curves (Page 4-6), sketch a separate diagram for clean and accurate recording

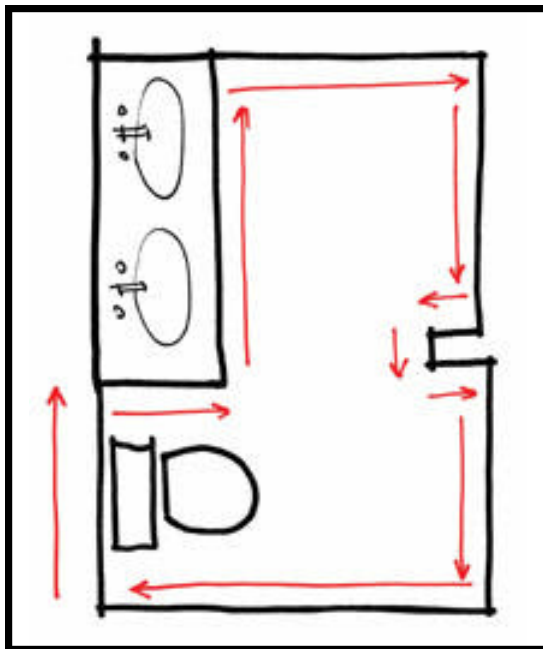


Figure A

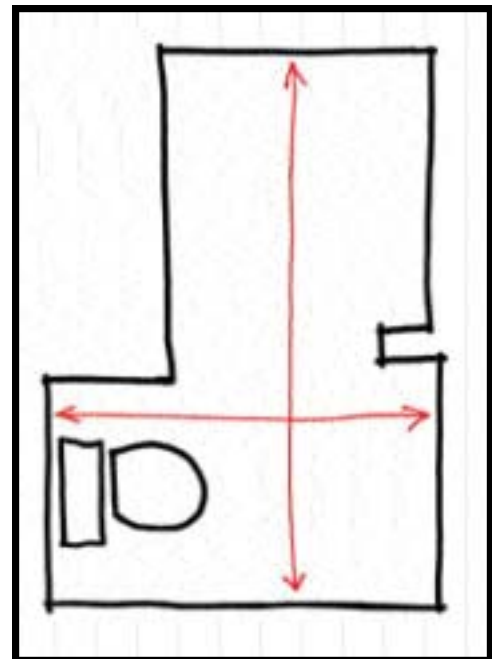


Figure B


NOTE: Do not make adjustments to your room dimensions based on your understanding of where the heat should be placed — the Design Team will provide space tolerance between mats, fixtures and walls based on your room specifics.

Step 3A: Check the accuracy of your room measurements

The sum of your individual room measurements should match to the total length and width of your room (Figure C).

Step 4A: Note room details

Locate and dimension power locations, fixtures, toilet flanges, doorways, cabinet kicks, heat vents, islands and all other floor obstructions accurately on your drawing (Figure D).

 **TIP** — Confirm the kick depth of your cabinets. If you are measuring your room before the cabinets are placed, make sure that you have accurate footprint (toe-kick) measurements from the manufacturer and record them on your drawing before faxing it in to NUHEAT.

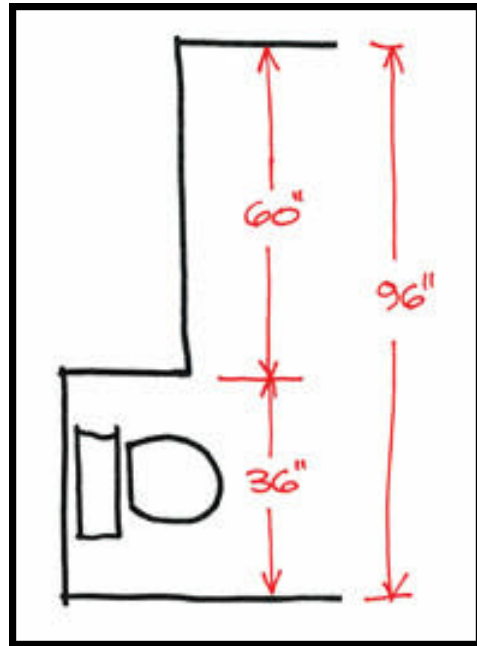


Figure C

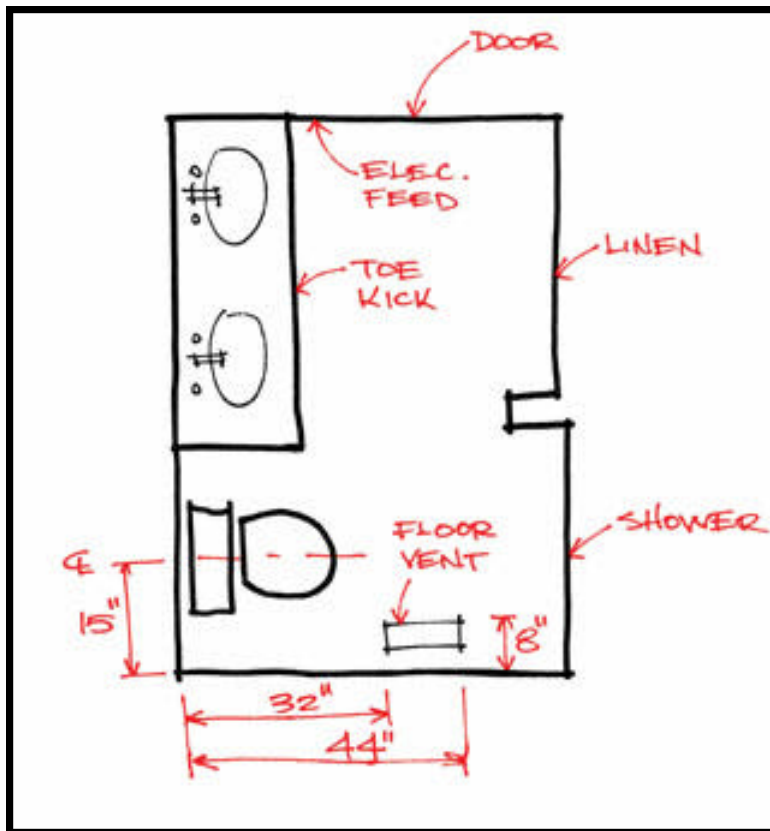


Figure D

Measuring Angles

Remember to follow steps 1A through 4A before proceeding with angle measurements.

Angle Type #1 — Only One Angle (other than 90 degrees)

In rooms where you have only one angle (Figure E), simply follow steps 1 through 4. The Design Team can calculate your angle based on the perimeter dimensions combined with the total length and width of your room.

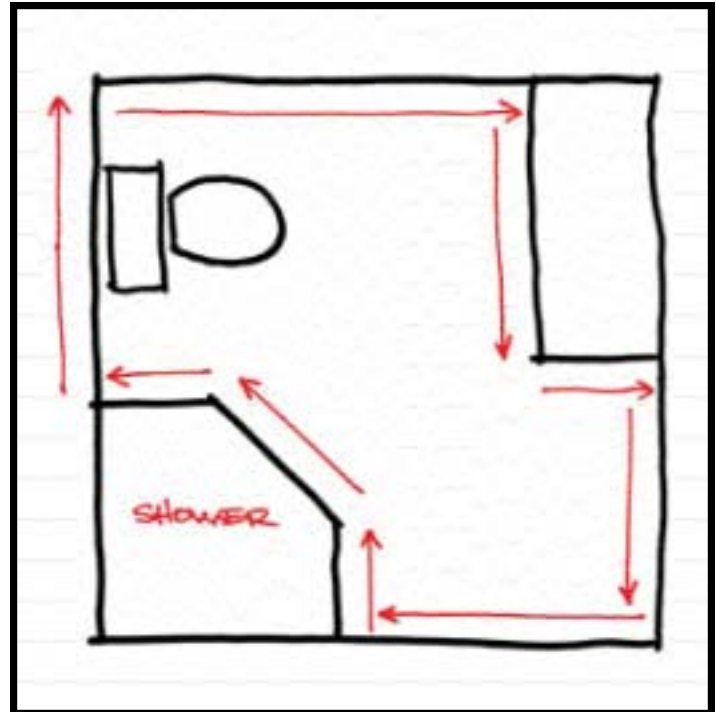


Figure E

Angle Type #2 — Multiple Angles

For rooms or fixtures with multiple angles, pick a reference point directly across (perpendicular) from an angle corner (Figure F) and measure the distance between these two points (this is an angle lock). This measurement combined with your perimeter dimensions will allow the Design Team to calculate the angles of your walls or fixtures.

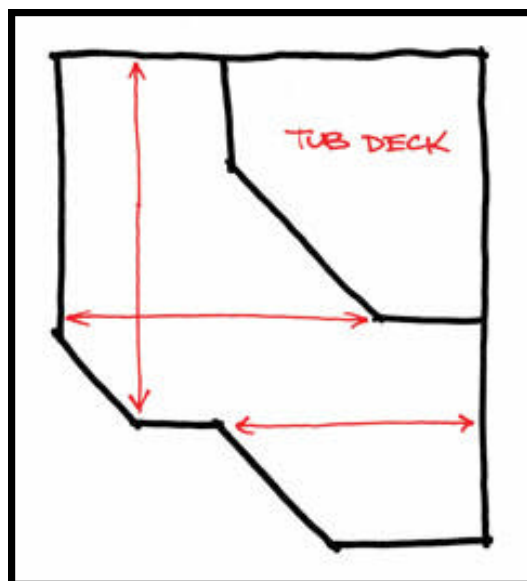


Figure F

Angle Type #3 – Compound Angles

Some spaces will not have 90 degree walls to reference angle locks from. These areas require a method called triangulation (Figure G).

- i) Pick a corner to use as a reference from where you can measure to each end point of an angle
- ii) Repeat this step for each angle

Remember to double check that you have recorded all required dimensions and information on the checklist to avoid multiple trips to the job site.

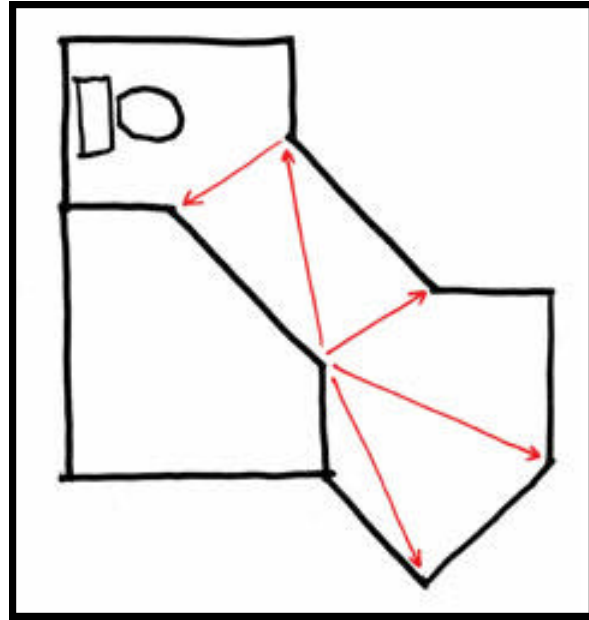


Figure G

Measuring Three Point Curves

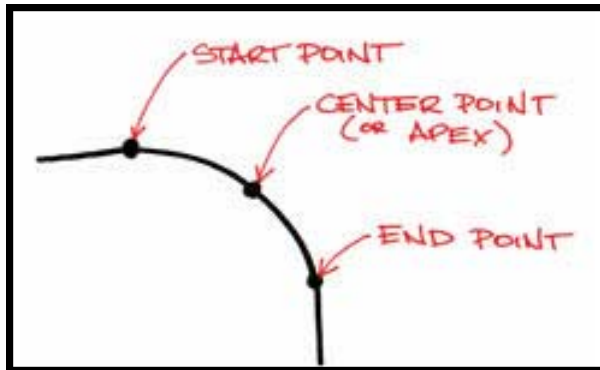


Figure H

Remember to follow steps 1A through 4A before proceeding with curve measurements.

- i) Mark the three points of your curve on the floor — the start point, center point (apex) and end point (Figure H)
- ii) Measure the distance from the start point and end point to the wall or cabinet (toe kick)
- iii) Determine your reference points based on one of these two curve types:

- a) **Curve Type #1 — Curve on a straight plane**
Pick a point directly across (perpendicular) from the center point or apex of the curve (Figure I) and measure the distance between the two points (this is a curve lock)

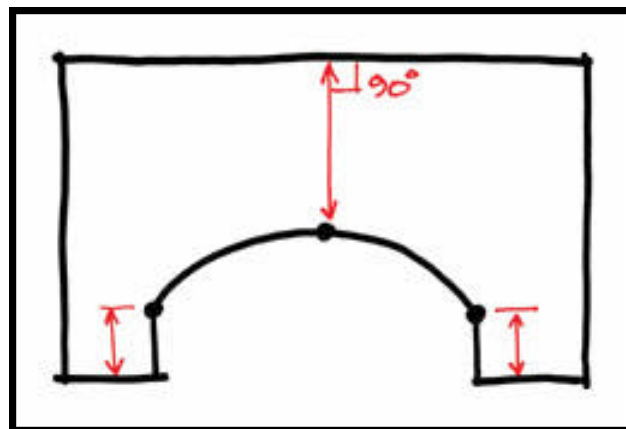


Figure I

- b) **Curve Type #2 —
Curve on a corner**
Measure from the center point or apex to two reference points (corners) in the room and record these measurements on your drawing (Figure J)

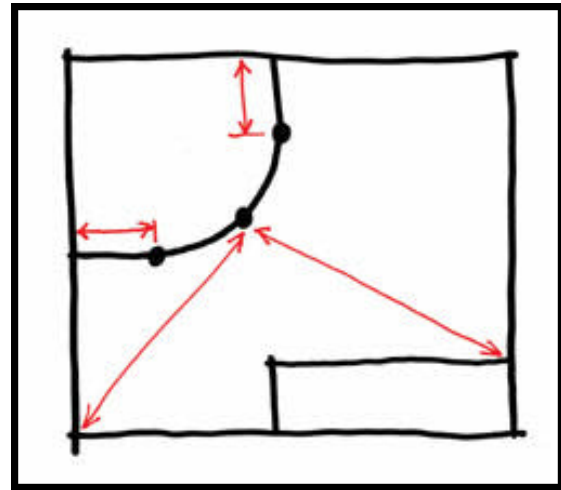


Figure J

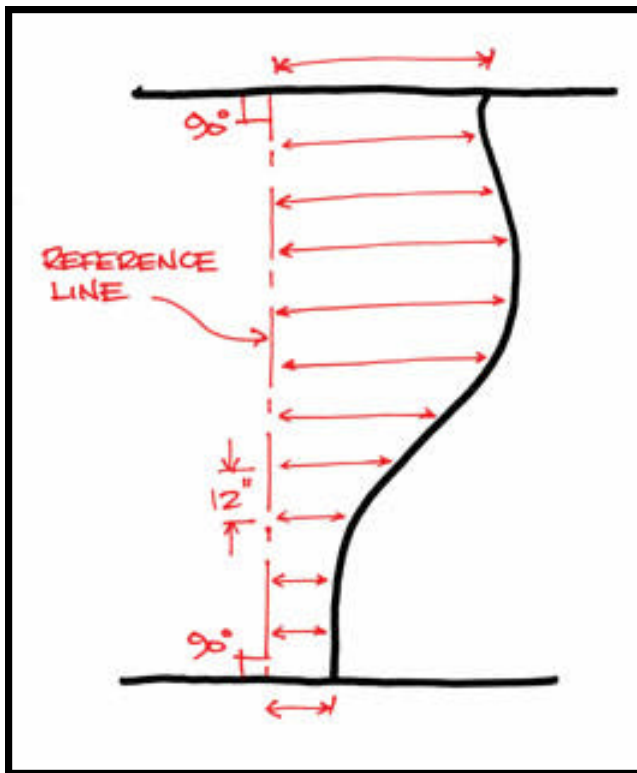


Figure K

Measuring Irregular Curves

Remember to follow steps 1A through 4A before proceeding with curve measurements.

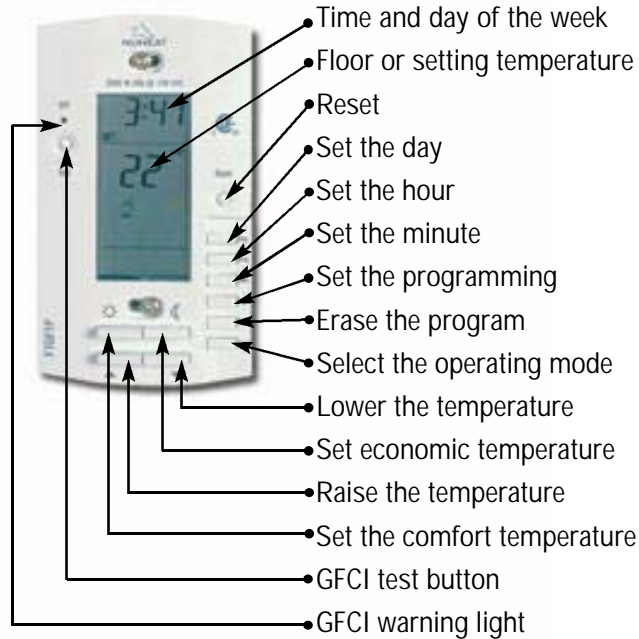
- i) Draw a 90 degree reference line from the top to the bottom of the curve — show the reference line on both the floor and your drawing (Figure K)
- ii) Measure and mark 12" increments along your reference line. Measure and record the distance from the reference line to the curve at each 12" increment

Call the NUHEAT Customer Service Department with any questions regarding measuring at 1-800-778-WARM (9276).

Operation of NUHEAT Controls

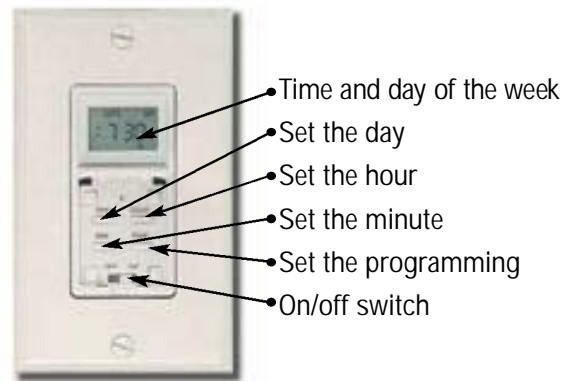
FLOOR-SENSING THERMOSTAT WITH BUILT-IN TIMER AND GFCI (FTGF1-P)

This control does it all! Set the temperature to your comfort level. Program specific days and times that you want your NUHEAT system on or off. This unit features one-touch set back “comfort” and “economic” settings and a built-in GFCI.



7-DAY PROGRAMMABLE TIMER

The 7-day programmable timer allows you to set your NUHEAT floor-warming system on and off at various times during the day.



DIMMER SWITCH

Adjust the level of warmth with a simple sliding switch, suitable for rooms under 50 square feet. Usually combined with a programmable timer.

Each NUHEAT system is installed with a GFCI to maximize safety. Also available.