# INFLOOR®
## HEATING SYSTEMS

America's Authority on Radiant Heating Solutions for over 30 Years

*Love Your Floor Like Never Before*

Hydronic & Electric Radiant Heating Systems

Snowmelt • Solar Thermal • Components

Energy Management Systems • Designs

# Our Commitment to Quality

Infloor Heating Systems® is a pioneer in the radiant heating industry, designing and providing systems and solutions since 1984. We take great pride in offering premium systems and products that help people live more comfortably and healthy, giving them more control over their heating, and reducing energy use and costs. As a company, we have evolved with the industry and forged new frontiers with our unique, innovative designs and products. Infloor is committed to providing the best radiant heating options available. Authorized Infloor representatives can design a system to meet your home or business's specific heating needs, and provide custom installation support to assure your system is fine-tuned for maximum efficiency. We invite you to learn more about the products and services we offer in this brochure, and online at www.infloor.com. We love to talk radiant, and are happy to answer any questions you may have. We look forward to working with you soon.

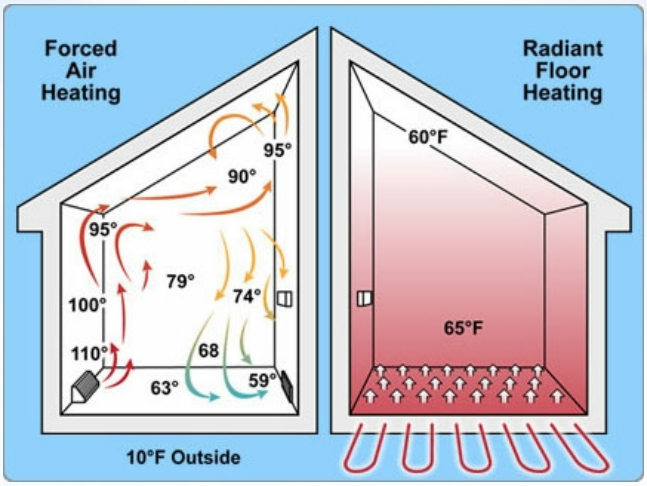
Contact us at: www.infloor.com • info@infloor.com • (800) 608-0562 • (719) 395-3400

## Learn More About Infloor Products and Services

# How Radiant Heating Works

Radiant heating is the most comfortable, natural-feeling, versatile, and energy-efficient heating method available. It works by transferring radiant energy, generated from hot water flowing through tubes or electric cables under the floor, heating the surface, objects, and air above. The feel of radiant heating is often compared to the sun. On a sunny day, if you step from the shade into the sun, you'll feel warmer even though the air temperature is basically the same. With radiant heating systems, the temperature throughout the room is more constant than with a standard forced-air system, where the air rises, cools and then falls to the floor.

Many people look for the savings benefits of radiant heating systems. They are more economical to operate, **cutting heating costs by 25 to 50 percent,** according to the U.S. Department of Energy. New homes are the best candidates for a whole-house radiant heating systems, but existing homes can also be successfully retrofitted with in-floor and under-floor systems. Single-room installations, such as a kitchen or bathroom, are also popular in existing homes.




## Radiant Benefits *That Go* Beyond

- ✓ The energy-efficient systems reduce energy bills
- ✓ Consistent even temps throughout the room
- ✓ Comfort of having warm floors to the touch
- ✓ Reduces airborne allergens, bacteria, and dust
- ✓ No air vents or returns; use of entire space
- ✓ Design flexibility to fit any project or size
- ✓ Numerous heat source options available
- ✓ Room-to-room temp. control with zoning
- ✓ Unlimited accessibility with Wi-Fi thermostats
- ✓ Tubing, cable, and components built to last
- ✓ Access to Infloor's LoopCAD design software
- ✓ Fast, reliable service from experienced Infloor representatives

# What our Customers have to say...

"I rate Infloor at a 10 (out of 10) on support. I can't wait to start another project with them." –Dennis • Fort Collins, CO

"Michael is very knowledgeable about high-efficiency heating systems and their options. He's very good at explaining things and acting as a consultant, which in turn empowered me to make the best decisions possible." –Chuck • Buena Vista, CO

"Infloor took the time to properly engineer the solution and made my idea work. They took extra care with the design, insulation, and installation. They took the time to do it right." –Steve • Buena Vista, CO


Discover superior comfort, energy savings, and design flexibility with Infloor's premium radiant heating solutions.
INFLOOR®
HEATING SYSTEMS

# Hydronic Radiant Heating

Hydronic radiant heating systems are liquid-based and work by running warm water through tubing in the floor, transferring heat through a thermal mass or heat transfer material, warming the floor, space, and people above. These systems use little electricity and run on low water temperatures, resulting in lower energy use and costs. Hydronic radiant heating systems can be powered by a variety of heat sources, including a boiler, water heater, solar thermal, or geothermal. Hydronic radiant heating is ideal for large areas, entire homes and buildings, and new construction, and works well with virtually any floor covering. They require little maintenance and are designed to last for decades. Proper insulation practices during construction are required for these systems to be most effective and energy-efficient.


Therma-Floor


Infloorboard

*"Infloorboard was easy to install and the hardwood floor goes right over it providing better heat transfer. It made my work a lot easier and was a great experience. I highly recommend it."*
*—Brad Cagle • Cagle Heating & Cooling, LLC, Carlisle, IN*

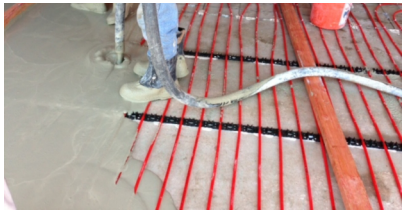
# Hydronic Installation Methods

## Infloorboard & Infloorboard III

Infloorboard is our premier thermal mass product for hydronic radiant heating applications, designed to be installed on top of a subfloor application, and with existing concrete slabs or where gypcrete (Therma-Floor) cannot be used. It's constructed of a dense composite board covered with aluminum that spreads the heat evenly and quickly. Infloorboard heats rapidly and is easy to control, providing quicker response times.

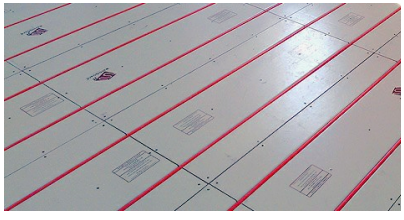
## Concrete

Embedding a radiant heating system into a concrete slab is one of the most cost effective installation methods, and is energy-efficient, being that concrete is a great thermal mass. This is the best choice for new construction and areas receiving new slabs. 2" polystyrene insulation is required under the slab, along with slab-edge insulation.



## Therma-Floor (Gypcrete)

One of the most common and effective installations. The gypsum underlayment is designed to pour over hot water tubes or electric heating cables, acting as the thermal mass for any radiant heating system. Therma-Floor is installed on top of subfloors and concrete slabs, whether existing or new, making it versatile for many different uses.



## Warmboard

Warmboard is a superior product that combines a structural subfloor and a thermodynamically sophisticated radiant panel into an elegantly simple system. The same labor used to install the subfloor, is a major portion of the radiant system, including the modular channel pattern for the tubing layout, which may require more time with other systems. 1/2" PEX-AL-PEX tubing easily snaps into the channels.

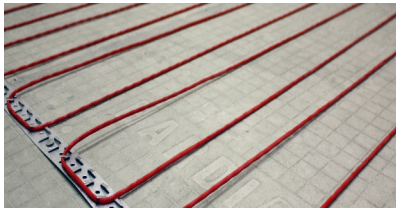
## Radiant Trak

Infloor Radiant Trak is the ultimate product for under-floor radiant heating applications. High quality extruded aluminum plates are installed between the joist spaces on the underside of the subfloor, providing a heat transfer between the plates and the subfloor, warming the entire plate, floor, and space above. Radiant Trak can be utilized for floor warming or for primary space heating, and is versatile enough to be used in most applications.

# Electric Cable Radiant Heating

Infloor electric cable radiant heating systems are easy to install, giving you an economical way to include radiant heating into any project. Electric cables in the floor provide a constant, even heat that can be designed to fit any sized room or outdoor area, and can be utilized as primary space heating or as simple floor warming. Warming unusual shapes in a floor plan, including 45° angles, is easily accomplished with Infloor electric cable. The pre-engineered heating units are ready to use and available in many sizes. The unique patented cable is designed to provide the ultimate safety for both dry and wet environments. Every element is thoroughly tested during production to ensure a quality, long lasting product you can count on for years to come. Additionally, we offer complete controls for electric radiant systems, new or existing.

## Cable Options - Available in 120 & 240 Volts



### Standard Electric Cable

Infloor's signature Standard Electric Cable is low-profile and can be easily sized for any project, making it a great choice for bathrooms, kitchens, small offices, and remodeling projects. The cable ranges from 10-15 watts a square foot, comes with a 25-year limited warranty, and is UL listed for both wet and dry indoor locations. We recommend using it under tile, laminate, marble, and stone floor coverings for the best results.

### Heavy-Duty Electric Cable

Infloor's premium Heavy-Duty Electric Cable is ideal for large areas, entire homes, buildings and offices, new construction, and outdoor areas. The thicker cable is manufactured by Nexan, includes a 30-year limited warranty, and is approved to be embedded into concrete (requires 5/8" embedment), and used in wet locations. It works well with all kinds of floor coverings including hardwood, carpet, tile, and laminates.

*"Infloor Heating Systems electric cable is easy to install with a very fast layout."*
*–Mike Green • Maxxon SE, Charlotte, NC*

# Snowmelt Systems

Never shovel snow again with our reliable Snowmelt systems, which easily install in concrete, asphalt, and under pavers to keep your outdoor areas free of snow and ice, giving you added peace of mind. These energy-efficient systems are available in hydronic (recommended for large areas), and heavy-duty electric cable (for smaller areas). The systems are very low maintenance, and can be effectively used in any exterior area including stairs, sidewalks, driveways, patios, parking lots, parking ramps, loading docks, building entrances, wheelchair access ramps, hospital emergency entrances, and even helipads on building tops. It is also ideal for steep inclines, and North facing areas that don't receive much sun. Almost any area that accumulates snow or ice can benefit from a Snowmelt system. They can also be used for floor warming any outdoor area, for added comfort on cool days and nights.

## Installation Methods

### Concrete

Infloor Snowmelt systems can be installed in a concrete slab, and can be insulated for on-demand systems or un-insulated for idling systems. Tubing is placed prior to the slab being poured, while the mechanical systems can be installed after the concrete is poured or later, allowing for expansion and easy installation of the rest of the system in the future.

### Asphalt

Infloor Snowmelt systems can be installed in the asphalt layer or in the sand bed under the asphalt. These types of systems require certain maximum temperatures for the asphalt as well as require water to be run through the tubing during installation. There are special considerations that need to be taken into account with an asphalt system, but it is a completely viable solution.

### Under Pavers

Infloor Snowmelt systems can be installed in the sand bed beneath pavers, making them easy to install and use. Their ease of installation and functionality make these systems very practical any time a paver system will be used.

# Solar Thermal Additions

Further reduce your environmental footprint by incorporating Solar Thermal into your radiant heating system, and let the power of the sun work for you. We work with you to design the best system to fit your needs. Solar thermal applications can significantly reduce domestic hot water heating costs by 50% to 75%. It diminishes harmful CO2 gasses, and increases the resale value of your home or business. We choose the highest grade components to ensure that your system not only performs, but endures both time and the outdoor elements to which they are exposed. These systems may also be eligible for a 30% tax credit.

# Solar Collector Options

## Evacuated Tube Collectors

We offer the best evacuated tube collectors in the industry, manufactured by Apricus, which absorb sunlight and convert it into usable energy as heat for radiant heating, domestic hot water, pool heating, and more. They are very efficient, even in climates that are cold and don't receive direct sunlight during the winter. A vacuum between the two glass layers insulates against heat loss.

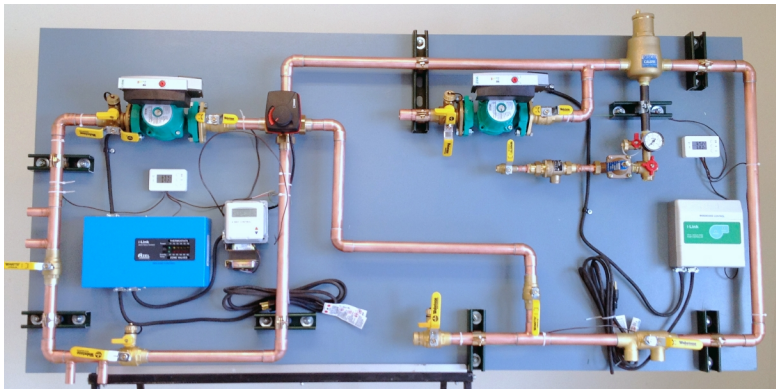
## Flat Plate Collectors

We offer the best flat plate collectors, manufactured by Caleffi Solar, suitable for residential or commercial solar water heating production. The collectors feature a low-profile design, which combined with ultra-lightweight melamine foam insulation, makes it one of the lightest flat plate panels on the market. The aluminum absorber sheet absorbs up to 95% of available sunlight converting in to usable heat. Roof or ground mount installations are available.

*"Michael is very knowledgeable about Infloor [radiant heating], particularly with tying a heating system with a solar hot water system." –Dr. Kettering • Infloor Customer, Buena Vista, CO*

# Components

We have all the components you need for radiant heating systems, and can guide you on the best choices to make based on your projects specifications. Contact us for a full list of the components we offer.



- Tubing and Cable
- Manifolds, Valves, and Fittings
- Indoor / Outdoor Reset Controls
- Digital Temperature Sensors
- Staple Guns (walking stick option)
- Magnetic Drive Pumps
- Pre-fabricated Mechanical Boards
- And Much More

Our *pre-fab* mechanical boards are *custom-made* and come *fully assembled.*

# Energy Management Systems

We incorporate energy management tools, including house controls, reset controls, Wi-Fi programmable thermostats, and more, into all of our radiant heating systems, increasing their energy efficiency and giving you more control and connectivity with your system, while you're home and away.


Stay connected with a Wi-Fi thermostat

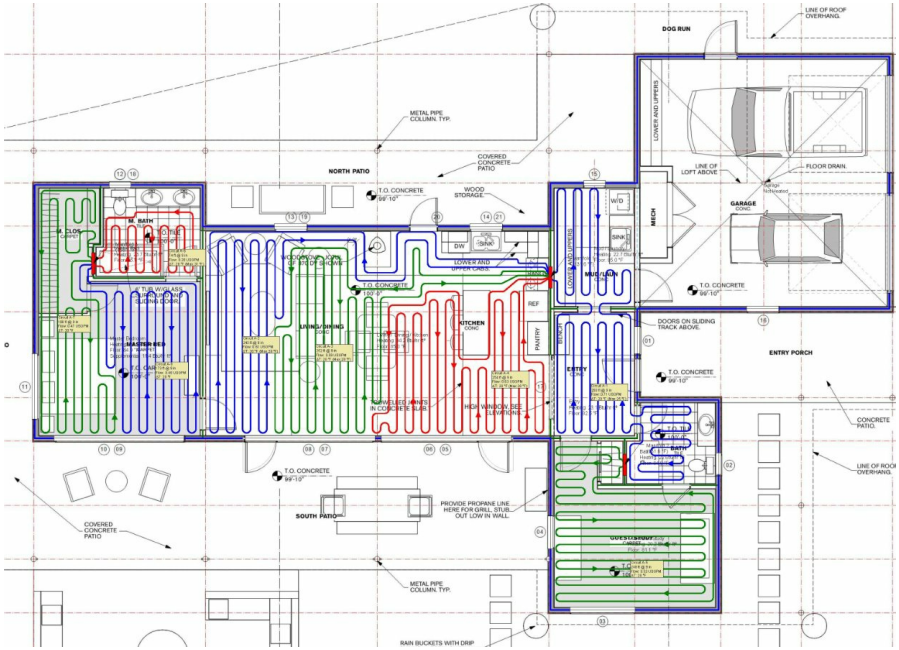

tekmar® house controls take the guess work out of running your system

# Infloor's Premier Design Program LoopCAD

LoopCAD is the premier software for the fast creation of professional-quality circuit layout drawings for radiant heating systems. It offers advanced design features, such as integrated heating and cooling load calculations, detailed hydronic calculations, snowmelt design, 3D CAD views, and compatibility with Infloor OEM design methods and materials. Infloor is happy to design your system for no extra charge.

Proper planning, preparation, and organization prior to installation can greatly reduce labor hours and overall costs. Every radiant heating system we sell includes a personalized LoopCAD blueprint, or you can download the program and create your own designs. Once you work with LoopCAD, you'll never want to install a radiant heating system without it again.

- LoopCAD works with the entire Infloor product line
- Automatically generates material list for the installation
- Individual loops are color coded for easy identification
- The design parameters are based on our Residential & Installation Guide
- Manual-J heating and cooling calculations option
- Purchase LoopCAD and do your own designs - Infloor will assist with designs and verify them for assured accuracy



# Project Support From Beginning to End

Did you know Infloor are experts at the installation process and can guide you on your project?

That's right, all the design and installation support you need for radiant heating systems is just a phone call or email away. We offer the complete package when it comes to radiant heating systems, including all the components, designs, know-how, and guidance to get the job done right the first time.

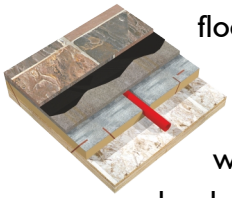
The Infloor team is ready to help you plan and purchase the best radiant heating systems available, to meet your specific project. We have over three decades of experience and knowledge, and are here to provide you with all you need to prepare, pitch, explain, and install radiant heating systems, and their heat sources.


Infloor Heating Systems can provide support for your entire radiant heating project, from beginning to end. We are also available to answer any of your questions or provide clarifications.

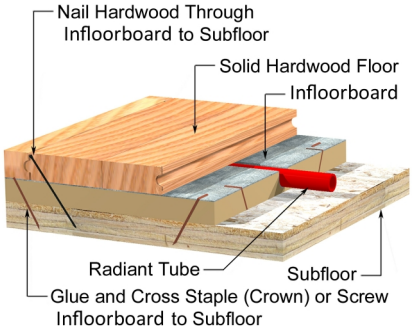
# Floor Coverings

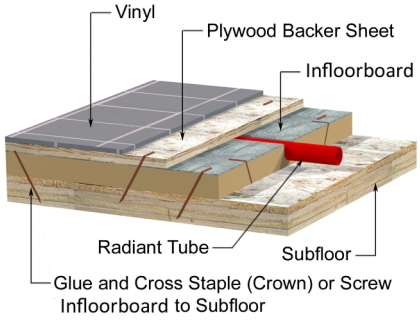
Infloor hydronic and electric radiant heating systems are compatible with virtually all floor coverings, including, ceramic, stone, marble, hardwood, vinyl, laminate, and carpet. It is important to let your contractor know what type of floor covering(s) you plan on installing to achieve the maximum benefits from your radiant heating system.

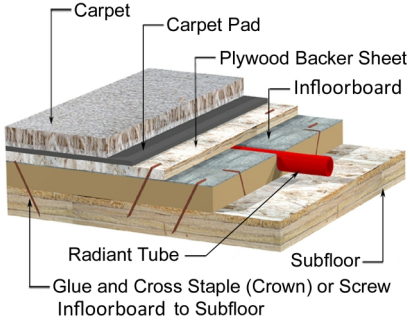

Infloorboard III with hardwood



Ceramic tile is the most common and effective floor covering for radiant floor heating, because it conducts heat well and adds thermal storage. Materials with thermal-conducting properties (stone, concrete, ceramic tile) conduct, transfer, and hold heat effectively while withstanding high temperatures. Common floor coverings like vinyl and linoleum, carpeting, or hardwood can also be used, but require certain considerations. Floor coverings that insulate the floor from the room could decrease system efficiency.



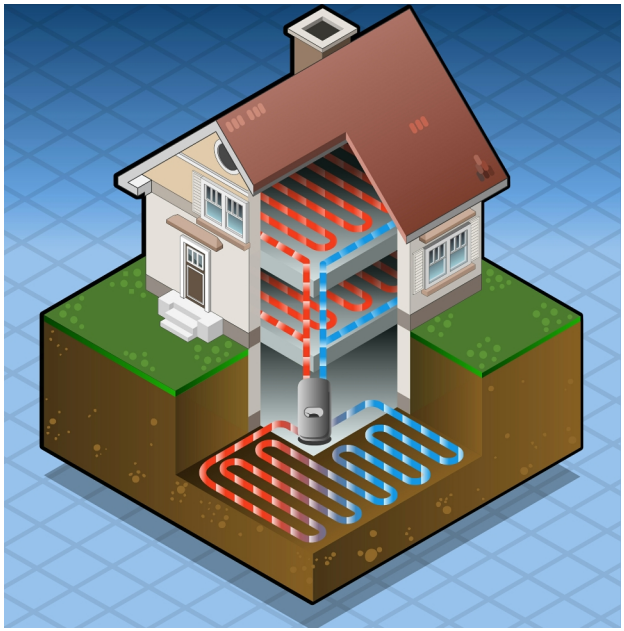



# Did You Know?

## Infloor Heating Systems Go Well With Geothermal

Geothermal heat pumps can be used with radiant heating systems, utilizing the constant temperature below the earth's surface to provide heating and cooling for your home, reaching efficiency rates of 300% to 600%, according to the U.S. Department of Energy.



## We Are Experts on Heat Sources Too

Hydronic radiant heating systems can use a variety of energy sources to heat water, including standard gas, electric, oil or wood-fired boilers, modulating condensing boilers, solar or geothermal, or a combination of these sources. We can help guide you on these options and their benefits.

# INFLOOR®
## HEATING SYSTEMS

*"They have provided the training, support, and supplies we need for the job. Their support has been among their greatest attributes. I owe so much of my experience to Infloor."*
*–David Mayo • Mayo Mechanical, Laguna Beach, CA*

503 Gregg Drive • P.O. Box 4945, Buena Vista, CO 81211
Phone: (719) 395-3400 Toll Free: (800) 608-0562 Fax: (719) 395-3555
www.infloor.com • info@infloor.com