



The difference between heat and comfort.

RADIANT CEILING SYSTEMS

Features & Benefits

1. Superior heating comfort
Gentle even temperature from ceiling to floor
2. 100% energy efficient
3. Energy Savings -
Lower operating costs vs. traditional convection systems
4. Maintenance free and easy to install
5. Invisible, silent, motionless
No pumps, fans or hoses
6. Aesthetically pleasing -
Completely concealed for unlimited decorating freedom. (No Baseboards, Vents or Radiators)
7. Healthy - Greatly reduces airborne contaminants and dust
8. Precisely controlled in each room.
9. Less pressurization and ex-filtration of air
10. Warms people and objects First.
11. Increases property and resale values
12. Creates more livable space
Warm comfortable rooms even in the lower levels
13. Safe & Clean -
No combustible materials or dangerous emissions

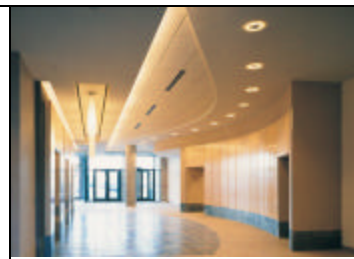
“Why would you want to put the heat in the ceiling, because hot air rises”. - That’s the most common response to the idea of an efficient and comfortable heating system in the ceiling. It is true, hot air does indeed rise, but the fact is - a radiant ceiling system works exactly like the sun as it warms the earth. Radiant rays travel in straight lines warming every object, surface and person in the room. A radiant ceiling system is like walking into a room with the sun shining - gently warming the entire room.

For over twenty years, Therma-Ray has been manufacturing Radiant Ceiling Systems with unparalleled success. The **SmartRooms** Radiant Ceiling Systems consist of a Tefzel insulated conductor wire embedded in one of three ways: In a Gypsum Board, Acoustical Ceiling Tile or in a Metal Housing. The ceiling panels can be installed above sheetrock, in suspended ceiling framework, surface mounted or hung with cables from the ceiling for warehouses and manufacturing areas.

SmartRooms radiant ceiling systems are available in 120v, 240v, 208v and 277v models.



Residential



Commercial / Industrial



Garages & Shops

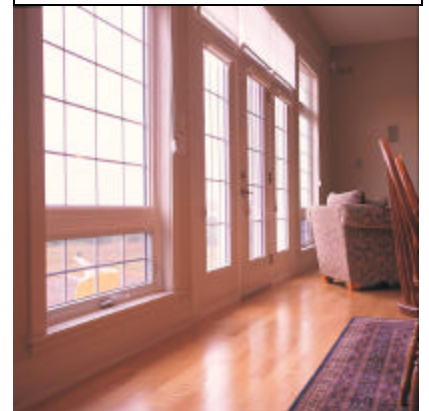
Perfect for: Homes, Garages, Sunrooms, Condominiums, Churches, Schools, Apartments, Malls, Commercial / Industrial Buildings, Hotels, Restaurants, Retail Buildings - And Many More

HOW RADIANT HEAT WORKS

As sure as the sun shines, radiant heat is something with which we are all familiar. Think of the way the world is warmed - a direct transference of heat from object to object, without fans, pumps or hoses - silent, invisible and motionless.

A **SmartRooms** environment works exactly the same way. Unlike conventional heating, our system automatically warms people and objects first, not the air. Just as the sun does, and that’s what makes **SmartRooms** so smart. Radiant rays, like light rays travel in straight lines and radiant rays travel naturally from warmer objects to cooler objects. The cooler surfaces act like magnets to the warmth. **SmartRooms** Ceiling Systems generate this type of heat and comfort. Warmth is gently radiated to the objects in the room like the walls, floor, furniture and most importantly - “You”.

SmartRooms combines the most natural form of heating known to mankind with the latest in comfort technology.






RADIANT CEILING SYSTEMS



The difference between heat and comfort.

SmartRooms™
Thermal Comfort System
By Therma-Ray

INSTALLATION PROCESS

<p>Gypsum Ceiling Panels</p> 	<p>Wiring & Testing</p> 	<p>Connection Enclosure</p> 	<p>Ready for Sheetrock</p> 	<p>Comfort & Efficiency</p> 
<p>Plastic strapping is placed along the bottom of the trusses or joists to hold the panels in place. The gypsum ceiling panels come in a variety of wattages and sizes for working around obstructions such as can lights, ceiling fans, etc...</p>	<p>The heating panels are wired in parallel with 12 Ga. wire and 3M-567 connectors. Wiring should be done by a certified electrician and in accordance with NEC code requirements. A resistance test is done to verify that all the panels are wired correctly.</p>	<p>PC-1 Endcaps are used to cover the connections per NEC code requirements. The circuits are wired directly to line voltage thermostats or they can also be wired to a SmartRooms relay control box in conjunction with low voltage thermostats.</p>	<p>A heat loss should be done to determine the amount of panels needed for each room. A plastic barrier can be placed according to local building codes and then sheetrock added to the ceiling to complete the radiant ceiling system.</p>	<p>The radiant ceiling system is completely concealed creating an invisible, silent and most importantly comfortable and affordable heating system.</p> <p>Each room can be precisely controlled for even greater savings and individual comfort.</p>
<p>Architectural Series (AS)</p> 	<p>Wiring</p> 	<p>Install Options</p> 	<p>Thermostats & Controls</p> 	<p>Comfort & Efficiency</p> 
<p>The AS frames are mounted to the ceiling and then the heaters are placed in the framework. The framework consists of two side channels and two end channels. The Architectural Series (AS) heaters are available in 2' x 2' and 2' x 4' sizes.</p>	<p>Wiring should be done by a certified electrician and in accordance with NEC code The AS heaters are wired in series on a circuit using 12 gauge wire. Models available are: 120v, 240v, 208v, and 277v voltages (250 - 750 Watts)</p>	<p>The framework is 4 inches in height creating a very low profile and slim design. The AS Heaters can also be suspended from the ceiling with cables or chains in high ceiling applications such as in warehouses or manufacturing plants.</p>	<p>The circuits are wired to the SmartRooms relay control box and then to the service panel. Line voltage thermostats can also be used depending on the load for each area. For even greater savings & comfort, each area or room can be controlled separately.</p>	<p>The Architectural Series Heaters create a clean, quiet, safe and comfortable working environment. The AS Heaters are energy efficient and very affordable to operate, especially when comparing to a standard forced-air convection m.</p>
<p>Commercial - AS Heaters</p> 	<p>Commercial - Acoustical</p> 	<p>Manufactured By:</p>		
<p>AS Heaters are high output heaters designed for high heat loss areas. They can be installed in flush-mount T-Bar framework, providing greater design freedom and comfort. Very energy efficient for primary heating and also for controlling ice & condensation.</p>		<p>Therma-Ray, Inc. 670 Wilsey Road - Fredericton, New Brunswick Canada E3B 7K4 1-866-457-4600 / (506) 457-4699 - Fax www.thermaray.com</p>		<p>Distributed By:</p>
<p>Acoustical (Suspended Ceiling) panels are low wattage heaters that are also installed in flush-mount T-Bar applications. Suspended Ceiling Panels are perfect for offices, schools, basements, etc. providing unsurpassed comfort and freedom of design.</p>				