LEXIN®

FAR INFRARED HEATING SYSTEMS

powered by stimulated emission

THE LEXIN DIFFERENCE

Simply better!

The most important fact about Lexin's patented technology is that Lexin is not an electric heater. It does not use primary electrical power to produce energy (heat) Lexin invented a new technology that is able to produce "stimulated emission" in a microscopically thin "blackbody" substrate at very low temperatures.

The stimulated emission only needs a minimal amount of energy to elevate the blackbody's film to where the emission is triggered. As long as the film temperature stays within the critical window, the stimulated emission will continue to produce energy. In theory this is forever, but because of naturally occurring losses, from time to time, some energy is required to "boost" the substrates temperature as needed.

This new technology employs crystals that tightly control the panel's wavelength. Lexin produces a wavelength only in the safe 10 micrometer band also known as "Far Infrared" These waves travel relatively long distances which are reflected by some surfaces and are absorbed by others; this creates a balanced multidirectional warmth. This warmth is absorbed by people and animals where it stimulates the blood circulation; this in turn warms the body.

The energy generated is "independently produced" through the phenomenon of "stimulated emission"

NO ELECTRICITY IS USED TO HEAT THE SPACE!!!

Lexin's revolutionary heat generating substrate, with a system management controller and one or more room thermostats, provide for exceptional energy savings.

The installed power requirement is: 1000 Watt for 215 to 265 square feet or between 3.8 and 3.7 Watts per square foot. To maintain its optimum operating efficiency, the system controller modulates the input to the panels independent of the room thermostat. The system will only require energy for a portion of the day but will still produce heat for an entire day. Infrared radiant heat gives you a greater feeling of warmth, enabling you to lower the temperature and consume even less energy.

It can be used to overcome heat-balance problems in existing structures and stabilize AC zones in large commercial buildings.

Lexin produces ultra-flat radiant heating systems that may be installed recessed or on the surface; because of their very low operating temperatures, these are considered "zero clearance" products by UL.

Lexin's heating technology has been used successfully around the world to provide a pleasing and healthy warmth.

INTRODUCING A NEW TECHNOLOGY

Employees and students stay more alert.

Lexin heating panels create a comfortable and productive environment, no hot air to make people drowsy. Reducing the circulation of airborne particles means a reduction in missed days at the office orschool.

The Lexin heater radiates in an Omni-directional pattern (170 degrees). Existing-technology Infrared heaters typically radiate at (narrow) 90 degree patterns making these unsuitable as a primary heat-source.

They can be incorporated into ceilings or can hang on the wall like the painting shown below. (UL requires 6' above the floor for wall mounting)

MOLD AND MOISTURE CONTROL

The Lexin panels can be used to kill mold and bacteria in warm or air-conditioned spaces. The Lexin panel may be used at a low setting to fight or prevent mold while the air-conditioning system cools the room to a comfortable level. Lexin dries the walls and (if properly installed), prevents mold from forming.

Lexin can economically balance the temperatures in HVAC systems that cool an entire floor with only one thermostat. If you already have an existing heating system, and have areas that are difficult to heat such as a reception area, bathroom, employee lounge, cafeteria, open breezeways or high ceilings where heat loss has been a problem.

SEEK NO FURTHER, LEXIN HAS THE SOLUTION!

MOISTURE CONTROL

Effects of "far" infrared on the Animal Environment

One of the benefits of far infrared is that it has a "disinfecting" ability, this manifests itself as the ability to kill infectious germs.

Lexin's infrared radiates in a uniform pattern, it works on the animals as well as the structure and hence, facilitates a complete cleansing of the environment (walls, cages etc..) while it homogeneously heats the entire space. (25°C throughout the space).

The animal industry also faces concerns of fungicidal and bacterial control issues as a result of humid climate or excessive ground moisture, that is inherent with animal housing.

The Lexin flat-screen heater is being used as the solution for this problem and has achieved excellent results; these applications have decreased bacteria counts significantly.

This has also proven beneficial in grain/hay storage sheds, Lexin keeps the moisture and temperature balanced to prevent the formation of mold and bacteria that is transferred to the animals during feeding.

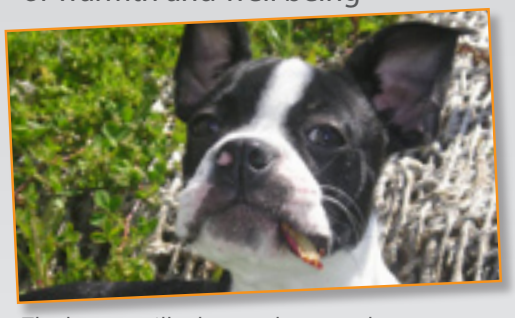
By heating objects as well as the ground, the Lexin heater stimulates a natural balance in the enclosed environment thereby greatly reducing the need for medicines, antibacterial solutions and hence, your overall maintenance costs.

With a properly programmed control system, it is possible to enjoy significant energy savings. In cold or humid regions, the thermostat /controller may be programmed to maintain a minimum temperature to aid in the prevention of mold.

In the future Lexin will release remote monitoring operating systems whereby, you could check the temperatures and adjust from your computer via the internet.

ANIMAL COMFORT

Lexin screens produce a sense of warmth and well being



The heater will adequately cover the average size stall or kennel. We heat the area in a 360 by 170 degree pattern. Ceiling suspended panels use the least amount of energy. Making them the ideal solution for barns or stables with open breezeways or high ceilings where heat loss has been a problem.

COST SAVING CALCULATION

for residential/commercial offices

Conditions: Residential / Office building with standard ceiling height (8.5 feet typical)

Accepted norm: **1 kWh = 3412 BTU**

According to the US government, the typical energy usage in average US homes is 45 BTU/hr per square foot. Translated into kWh, this is: 0,013188746 kWh per square foot

Room or building size **1.600 Square Feet**

Projected daily energy usage for this size structure using traditional heating : **432.000,00 BT U**

Projected daily energy usage for this size structure using traditional heating : **126,61 kWh**

Average cost of electricity **8 Cents/kWh**

Traditional heating, projected total cost per year:* **$ 1.544,67**

Typical energy usage in average US homes using Lexin: 0.00372 kWh/per square foot

„Daily usage; the same structure fitted with Lexin' Far Infrared Stimulated Emission:" **42,85 kWh**

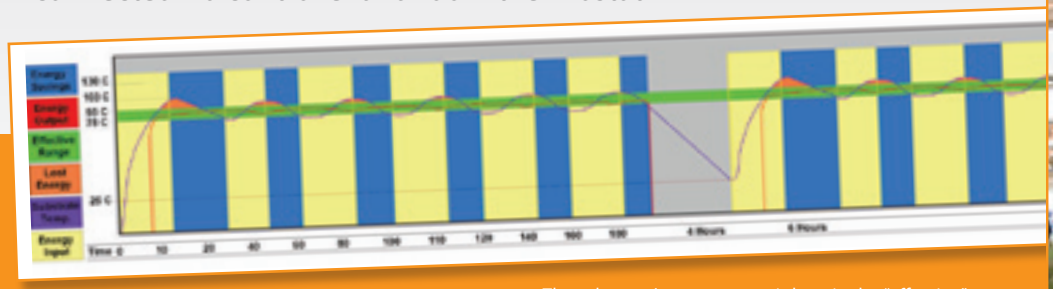
Lexin's Stimulated Emission Heating, projected total cost per year*: **$ 522,82**

Projected Annual Energy Savings using Lexin* **$ 1.021,84**

*** Note 1:** The following assumptions were made: 1) Yearly cost based on a heating season of 5 months. 2) The BTU cost for the fuel presently used is comparable to the cost of electricity (3412 BTU costs the same as 1 kWh). 3) The traditional heater typically runs 30% of the time, if t runs more, the „"Lexin"" savings are greater". 4) The Lexin heater also typically runs 30% of the time, but uses much less energy per square foot. 5) The system features a properly installed, regulated system using a Lexin controller and thermostat. *** Note 2:** If the cost of fuel presently used is less than the cost of electricity, the actual savings may be lower. If the ceiling or roof is higher, the savings can be significantly higher too (Lexin does heat the air)

FULLY REGULATED HEATER

connected via controller and room thermostat



The substrate's temperature is kept in the "effective" area shown in Green. (The stimulated emission keeps producing heat when the AC is cycled). Blue shows energy savings; future products are expected to offer savings of up to 50 - 75%.

FEATURES
of the LEXIN Comfort Heating

TIGHTLY CONTROLLED WAVELENGTH
kept in the therapeutic range, no risk of burning

CUSTOM COMFORT ZONES
one room can have multiple temperature zones

EASILY HEATS TRI-LEVEL HOMES
solves heating problems for lower levels of tri-level homes

REDUCES OR ELIMINATES MOLD
prevents moisture from building up

OPTIMAL HEAT DISTRIBUTION
by utilizing Lexin's 170 degree radiant heat pattern

LOW ENERGY CONSUMPTION
more economical than conventional heating

OPTIMIZATION OF AVAILABLE SPACE
no pipes/radiators or air-ducts;

EASY INSTALLATION
as easy as installing a light fixture - saving time & costs

MAINTENANCE FREE
long-lasting (no filter, boiler, gas-burner maintenance

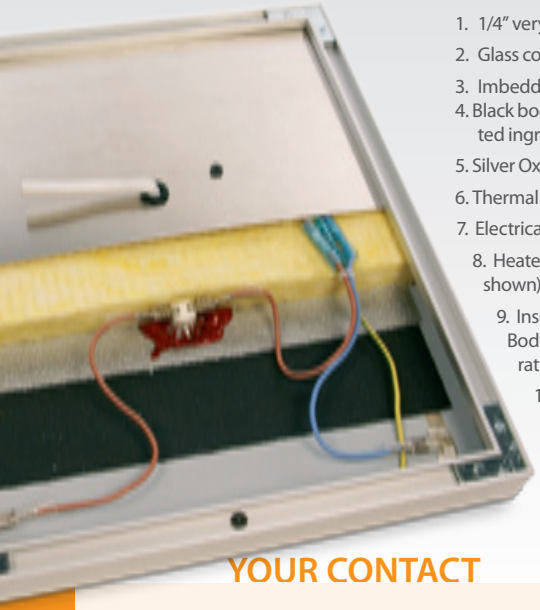
LONG LIFE EXPECTANCY
long term savings

STABLE ATMOSPHERIC HUMIDITY
healthy and pleasant climate for both people and animals

NO DUST CIRCULATION
radiant heat does not cause convection or air movement

1200302 • 11/06 • Design by www.schreibergrimm.com

PANEL CUT AWAY
View & Construction



1. 1/4" very pure hardened safety glass
2. Glass coloring, black and white standard
3. Imbedded silver conductors
4. Black body substrate containing patented ingredients
5. Silver Oxide mirror/insulator
6. Thermal safety switches
7. Electrical Contacts
8. Heater frame (only left and right side shown)
9. Insulation, used to keep the Black Body film at is optimum temperature
10. Aluminum back plate
11. Heater-frame's mounting channel

INSTALLATION
(Optional Panel Mounting System)

Lexin Comfort Heating is ingeniously simple - just a few wires is all it takes to install. There are no pipes, ductwork, radiators, boilers, heating coils, etc. - it is maintenance free. Professionally installed systems carry a *5 year warranty.
Of course, if the local code allows this, you can choose to do the installation **yourself.

*5 year warranty on the screens installed by a LEXIN recognized installer/1 year on the thermostats and the control systems.

**3 year warranty on the screens for do-it-yourself installations/1 year on the thermostats and the control systems.

YOUR CONTACT

Stamp

LEXIN ENERGY SYSTEMS, INC
11856 Balbao Blvd. #300
Granada Hills, CA 91344
Tel. 001-8055321464
info@lexinusa.com