



LG

Life's Good



LG Environmental Control Manager

Advanced Comfort Control and Energy Management
for the Hospitality Industry

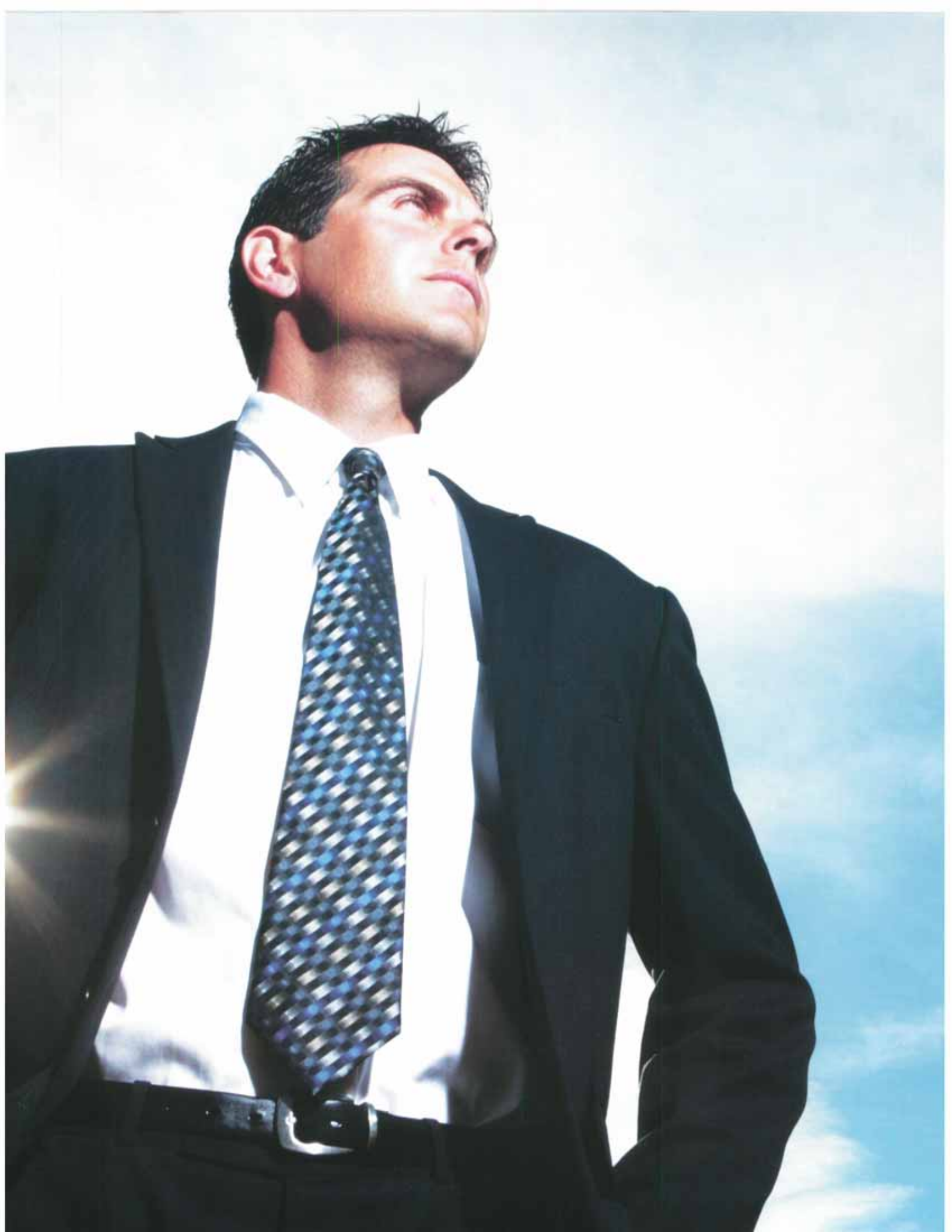


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The LG Environmental Control Manager (ECM), a revolutionary environment management controller specifically designed for the hospitality industry, delivers unprecedented energy savings – without compromising guest comfort.





Making Life Better by Understanding Your Business

Intelligence built in, because it has to think just the way you do. It knows that you need to dramatically reduce HVAC operating costs to remain not just competitive, but profitable too. To do that, LG has designed the ECM to anticipate your guests' comfort requirements. It never compromises guestroom comfort even as it minimizes your energy expenditures. Quick and effortless installation is also essential to your business model. The ECM knows that your guests and staff expect a thermostat to be simple to use. It is. Period. And more than anything else, it understands that your bottom line is... your bottom line.

Making Life Easier By Design

Designed specifically for the hospitality industry – not an off the shelf compromise.

Designed with an intuitive touch-screen that redefines both simplicity and capability.

Designed to seamlessly connect – either wired or wirelessly – with your existing HVAC infrastructure.

Designed for immediate deployment – installation of the ECM during high occupancy is no longer a problem.

Designed with an integrated occupancy sensor that provides 100% accurate occupancy detection.



Making Life Simpler Through Advanced Capabilities



Touch-Screen Interface

Large, ADA compliant, touch-screen with automatic backlight and virtual buttons makes it easy for anyone to control the temperature with a touch of a finger.

Weather Forecast

ECM conveniently displays daily weather forecast directly on the thermostat screen.

Innovative "INFO" Button

Industry first "INFO" button allows accessing up to 10 customizable pages of corporate-specific advertising, promotional or guest room information.

Occupancy Detection

Integrated occupancy sensor uses a combination of motion and thermal sensing technologies for 100% reliable occupancy detection.

Energy Savings

Accurate occupancy detection allows reducing HVAC energy consumption when rooms are not in use.

Wireless Networking

Built-in secure, wireless mesh-networking capability allows for rapid deployment, keeping installation costs to a minimum.

Remote Management

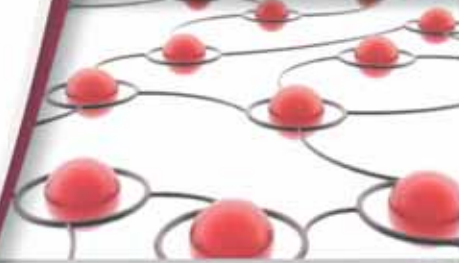
Web-based, remote management application allows remote monitoring, configuration and statistical reporting from any computer connected to the internet.

Universal Connectivity

Wired or wireless connectivity to the climate control unit makes the ECM an ideal choice for any property.

Full HVAC Compatibility

Comprehensive configuration options ensure full interoperability with virtually any hospitality HVAC system - existing or emerging.



A photograph showing a person's hands gently touching a vibrant, flowing red fabric. The fabric is draped and billows, set against a bright blue sky filled with soft, white clouds. The overall mood is serene and innovative.

**Making Life More Comfortable
Through Innovation**



Absolute Comfort Control

Precisely control room temperature and relative humidity.

±1° Temperature Accuracy

±1° temperature readout allows guests to control room temperature in precise, one-degree increments.

Instant °F or °C Temperature Display

°F / °C switch instantly changes temperature display between °F and °C degrees to accommodate guest preferences.

Automatic Temperature Control

“Automatic Changeover” automatically turns on heating or air conditioning to maintain the desired room temperature.

Humidity Control

“Humidity Control” always maintains a comfortable relative humidity in the room.

Occupancy Detection

100% reliable occupancy detection ensures that guest occupancy is detected at all times.

Night Occupancy

“Night Occupancy” mode ensures that the ECM controls room temperature according to guest-selected settings – even when guests are asleep.

Temperature Recovery

Configurable temperature recovery interval allows setting a maximum time interval for establishing a comfortable temperature when a guest enters the room.

Temperature Restore

“Temperature Restore” automatically turns on heating or cooling to restore the temperature set point when the room becomes occupied.

Forced Heating

“Stage Timer” configuration automatically energizes the heat strip if the compressor cannot keep up with demand for heating.

A modern office interior featuring a beige leather armchair on a white tiled floor. In the foreground, several potted plants with long, thin green leaves are arranged in a row. The background shows a large window with horizontal blinds, and a red decorative element is visible on the right side. A white banner with red text is overlaid on the image.

**Making Life More Manageable
with Intelligent Property Management**

Remote Management

Provides for both corporate and property specific analysis of daily operations and energy consumption from any computer connected to the internet.

Statistical Reporting

Extensive statistical reporting tools allows measuring efficiency of the ECM and tracking energy consumption of the HVAC system.

EMS Efficiency Reporting

An efficiency report compares energy consumption between a selection of rooms with the ECM's energy saving feature enabled and a selection of rooms with the ECM's energy saving feature disabled in order to measure the benefits of the ECM.

Energy Consumption Reporting

Energy consumption reporting monitors compressor and heating element use of all climate control units on the property.

Data Retrieval

Data collected from the property is securely stored on a web-server, allowing instantaneous access and retrieval of specific data for additional analysis.

User Management

User management allows managing various types of system users with different access permissions and alert notification settings.

Remote Configuration

Allows changing configuration options for individual rooms or for an entire property.

Room Monitoring

Uninterrupted network communications allows continuous property monitoring:

“Room Status” view displays the current status of all rooms on a property, making it easy to instantaneously identify any issues.

“Room Occupancy” view displays the current occupancy status of each room to allow personnel to schedule room visits.

“Room Efficiency” view monitors the relative efficiency of each climate control unit on a property, allowing personnel to rent the most energy efficient rooms first.

Individual room view displays detailed temperature and occupancy changes for each room in the hotel.

Alert Messaging

Built-in diagnostic tools allow sending e-mail notifications, providing property personnel with key information to ensure preventative maintenance.

Communication interruption alerts identify rooms with disabled climate control units.

Temperature alerts help identify malfunctioning equipment and provide advance notifications to prevent property damage caused by extreme temperatures.

“Low Battery” notifications inform the maintenance staff when to change the batteries in the ECM

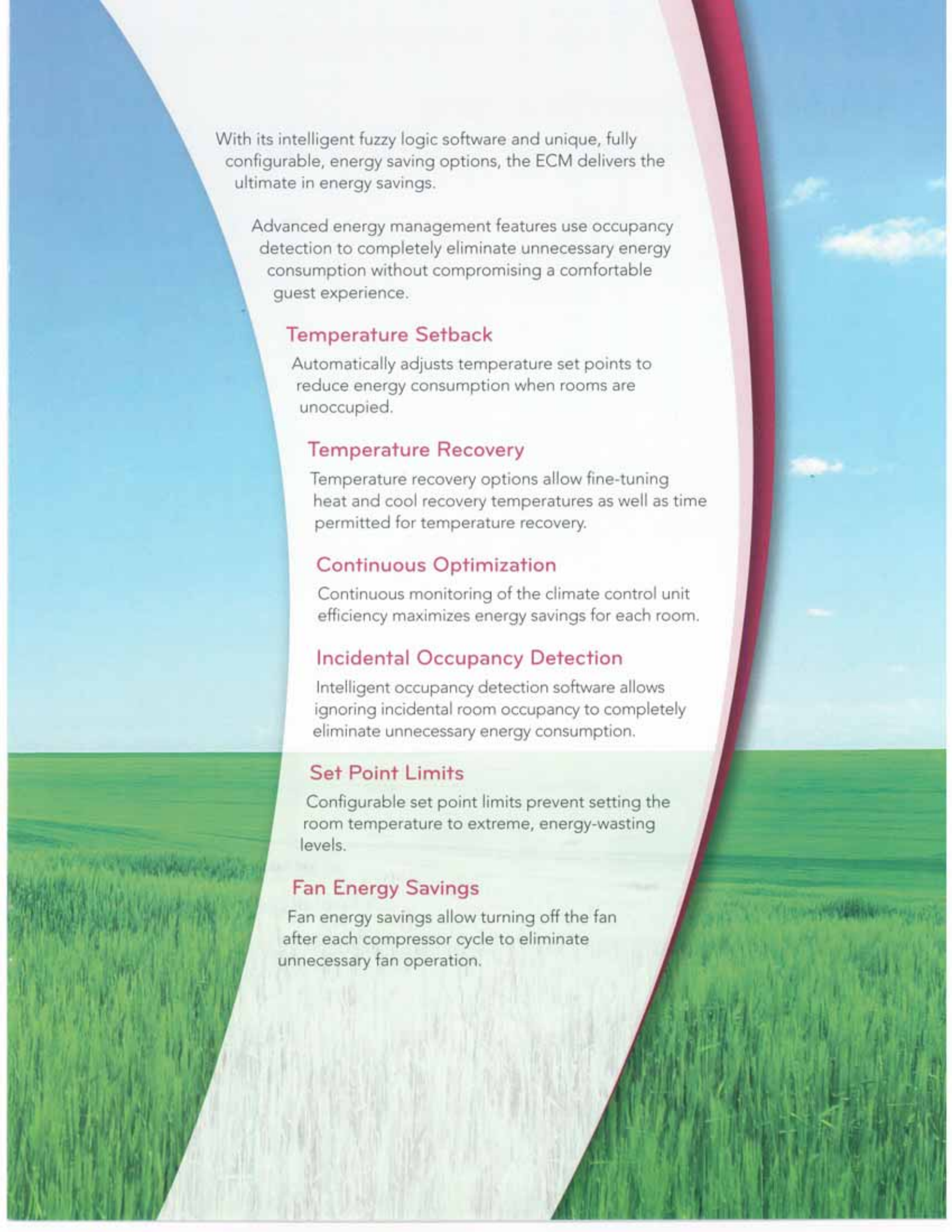




**Making Life More Predictable
with Around the Clock Monitoring**

Making Life Greener with Unmatched Energy Savings





With its intelligent fuzzy logic software and unique, fully configurable, energy saving options, the ECM delivers the ultimate in energy savings.

Advanced energy management features use occupancy detection to completely eliminate unnecessary energy consumption without compromising a comfortable guest experience.

Temperature Setback

Automatically adjusts temperature set points to reduce energy consumption when rooms are unoccupied.

Temperature Recovery

Temperature recovery options allow fine-tuning heat and cool recovery temperatures as well as time permitted for temperature recovery.

Continuous Optimization

Continuous monitoring of the climate control unit efficiency maximizes energy savings for each room.

Incidental Occupancy Detection

Intelligent occupancy detection software allows ignoring incidental room occupancy to completely eliminate unnecessary energy consumption.

Set Point Limits

Configurable set point limits prevent setting the room temperature to extreme, energy-wasting levels.

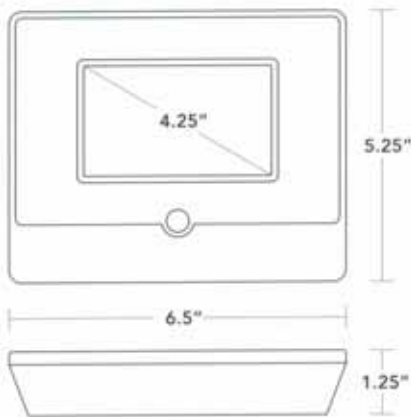
Fan Energy Savings

Fan energy savings allow turning off the fan after each compressor cycle to eliminate unnecessary fan operation.

Technical Specifications

Dimensions

Width:	6.5"	165mm
Height:	5.25"	133mm
Depth:	1.25"	32mm



Display

Scratch-resistant, monochrome LCD touch-screen with backlight.

128 x 64 pixel resolution.

Width:	3.625"
Height:	2.125"
Diagonal:	4.25"

Occupancy Sensor

Passive infra red sensor with motion and thermal sensing capabilities.

Beam Width 170° (±85°)

Networking

Built-in radio transceiver uses 915Mhz spread spectrum, frequency-hopping, proprietary wireless communication.

Accuracy

Temperature Display Accuracy	±1°F (±1°C)
Sensor Resolution	±0.02°F (±0.01°C)

Humidity Sensor Accuracy	±4.5% RH
Sensor Resolution	±0.05% RH

Control Outputs

Compressor	Y
Heat Pump	OB
Heat Strip	W2
Fan High	GH
Fan Low	GL

Power

Wireless ECM Control Card	2 "C" Cell Batteries 24V AC/DC
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ECM



Control Card



Network Server



Network Node



Programming Unit

MODEL	DESCRIPTION	COMPONENTS
PYRCUCC2A	Wireless ECM Kit	Wireless ECM Control Card
PYRCUCC1HA	Wireless ECM with Humidity Control Kit	Wireless ECM with Humidity Control Control Card
PYNTU0A	ECM Network Connection Kit	Network Server Network Node Programming Unit





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US Patents: RE40,437; 7,232,075; 7,185,825; 7,156,318; 7,152,806; 7,145,110; 7,058,477; 7,050,026; 7,028,912; 6,902,117; 6,789,739; 6,786,421; 6,619,555; 6,581,846; 6,578,770; Other patents pending.

LG Electronics reserves the right to make changes, without notice, in design or components as progress in engineering and manufacturing methods may warrant. Product appearance may vary.

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