



## L CONNECTION® NETWORK

Commercial Controls

Advanced control for  
saving time and money



**LENNOX**  
*Innovation never felt so good.™*

# THE EFFICIENT WAY TO CONTROL HVAC AND BUILDING OPERATIONS

## L Connection® Network at a glance:

Controls a wide range of HVAC and building operations—such as heating and cooling equipment, lights, signs and exhaust fans—from a single point of contact

Supports constant-volume bypass and true variable-air-volume zoning applications with factory variable frequency drives

Works with Lennox® rooftop units and split systems, as well as electromechanically controlled third-party equipment

The Comfort Sensor combines the most common sensor types with zone control for simple installation with reduced labor and less clutter on the wall

An intuitive Comfort Sensor interface means you can easily adjust the temperature in your zone to maintain customized comfort

Advanced monitoring and control via a local Network Control Panel

Monitor and control remotely over an Ethernet network or phone line using a PC software interface

Save time and money and provide a higher level of control by commanding a wide range of functions from a single location. The L Connection® Network from Lennox makes it easy to manage HVAC, zoning and building operations from a single point of control, while minimizing energy and maintenance costs. It was designed to enhance the functionality and performance of rooftop units from Lennox. However, it is compatible with all Lennox® HVAC equipment, as well as electromechanically controlled third-party equipment. It's a smart, cost-effective way to minimize your building's energy use and better manage facility operations.

## Interface options to meet your needs

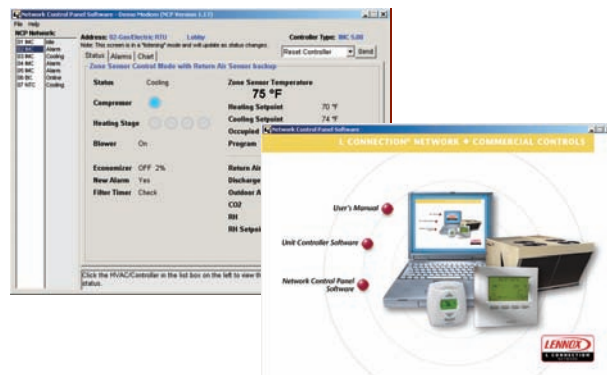
L Connection Network not only improves building efficiency and comfort, it also helps improve staff efficiency and productivity. Temperature setpoints can be adjusted quickly and intuitively at the Comfort Sensor. For more advanced control, facility managers can access and troubleshoot Lennox and electromechanically controlled third-party equipment along with the building's lights and signage using local or remote interfaces.

The Comfort Sensor combines relative humidity and carbon dioxide sensor options with a temperature sensor. Optional zone controller capabilities are also available when the Comfort Sensor is used in commercial zoning applications. This flexible offering not only means less wiring and fewer sensors to install separately, it also means more flexible comfort control with an optional LCD interface. This simple interface allows you to adjust the temperature with the touch of a button. The adjustable range can be configured to control energy use while optimizing comfort and productivity. The Comfort Sensor also means easier service for the zone controller in the zone, without having to climb a ladder for access.

The Network Control Panel allows a facility manager advanced monitoring and control capabilities for troubleshooting and configuration adjustments, including scheduling, temperature setpoint, humidity control and much more. Optional PC software provides access to a specific controller or the entire network locally, or remotely via a modem or the Internet.\* This flexibility gives a facility manager or owner advanced control of their building from virtually anywhere and at any time. It also allows a servicing contractor to diagnose and correct certain problems remotely without sending someone to the site.

## Control functions from a desktop, not the rooftop

Network information can be accessed from a local or remote PC, making monitoring and diagnostics available from virtually anywhere at any time.



## Warranty

**3-Year Limited Warranty** on the Integrated Modular Controller  
**1-Year Limited Warranty** on all other controls components

See actual warranty certificate for details.

\*Requires access to Ethernet local area network via the Internet.

# CREATE A SINGLE POINT OF CONTROL FOR HVAC SYSTEMS AND

The network manager provides a central point of advanced control

## Network Control Panel

located in facility manager's office

- Large screen and four-button control provide a user-friendly interface to HVAC equipment and building functions
- Customized settings with time-of-day scheduling, temperature, CO<sub>2</sub>, ventilation and humidity control
- Date and time-stamped alarm codes
- Auto-poll start-up feature greatly reduces installation time and expense
- Easily field-upgraded without losing programs or schedules
- Provides a written description of each controller's alarm codes



Controllers connect equipment to the network

## Building Controller

located in control room or mechanical room

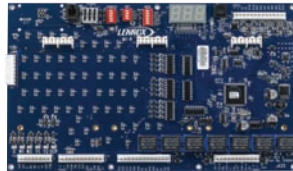
- Schedule basic building operations such as lights, signs and exhaust fans
- Built-in diagnostics and alarm codes speed troubleshooting



## Integrated Modular Controller

standard on Lennox' premium rooftop units

- Simplifies diagnostics and problem-solving
- Pre-programmed with more than 200 control parameters that are factory-set for typical applications
- Controls constant-volume bypass or single zone units, or variable-air-volume units with factory variable frequency drives
- Over 100 unit alarm codes
- Built specifically to provide optimum control of Lennox rooftop units



## Network Thermostat Controller

integrates electromechanically controlled HVAC equipment

- Monitors and controls Lennox split systems and rooftop units, as well as electromechanically controlled third-party equipment
- Up to two-heat, three-cool capability
- Can be combined with optional bypass controller for constant-volume bypass zoning applications
- Fused outputs and override switches simplify installation testing, setup, and provide added protection



Zone Controllers and Sensors provide basic control at each zone

## Zone Link

located in the rooftop unit or mechanical room

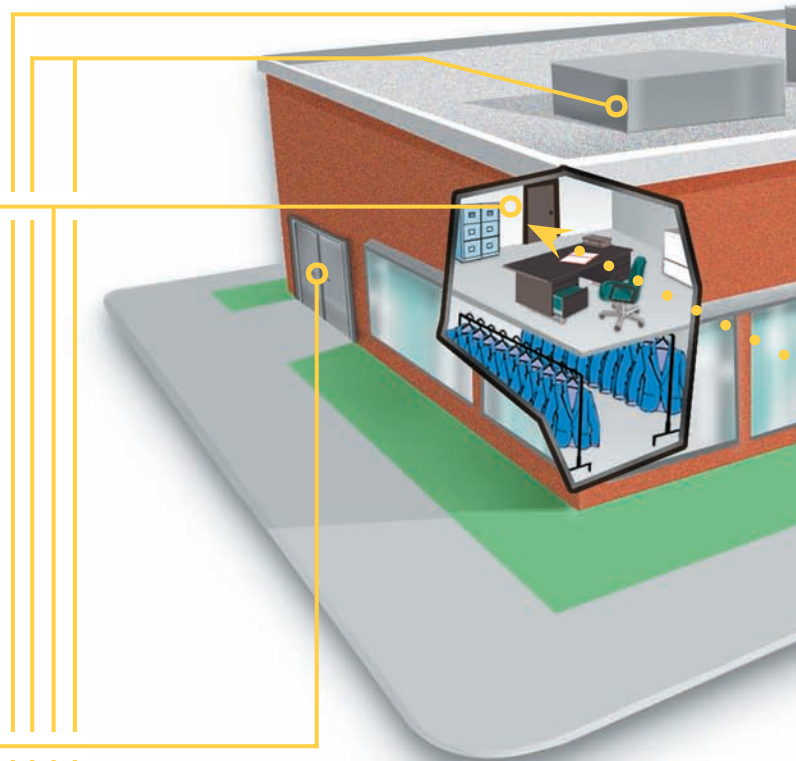
- Coordinates up to 31 Comfort Sensors connected to a zoned rooftop unit
- Counts heating and cooling votes from Comfort Sensors and signals the rooftop unit to change modes according to its configuration
- Can be used to expand L Connection Network to coordinate up to 93 unit controllers per network



## Comfort Sensor

located in each zone

- Temperature sensor with optional relative humidity and/or carbon dioxide sensing capabilities
- Controls zone damper or variable-air-volume terminal box in zoning applications to maintain space temperature and indoor air quality
- Optional LCD user interface with sensor readings and easy temperature adjustment



# BASIC BUILDING OPERATIONS



**Contractor's Management Office**



Interface software supplies information to a PC from the L Connection Network locally or remotely

**Unit Controller Software**

- Commission, monitor and control unit controllers, including Integrated Modular Controllers, Network Thermostat Controllers or Building Controllers
- Connects to the network locally, or remotely through a modem, via an Ethernet network or via the Internet\*



**Network Control Panel Software**

- Schedule, monitor and control the entire L Connection Network
- Configures alarms to automatically send e-mail, page, or text message notification to a facility manager or servicing contractor before problems get out of hand
- Records trends based on over 25 user-selectable data points that can be automatically graphed using Microsoft® Excel
- Generates, saves and prints a variety of reports
- Connects to the network locally, or remotely through a modem, via an Ethernet network or via the Internet\*



**L Connection Network Modem**

- Configured specifically for the L Connection Network
- Plug-and-play device requires no modification
- Use with L Connection Network software for access from a remote site



**L Connection Network Ethernet Converter**

- Configured specifically for the L Connection Network
- Allows users to monitor and control devices on the L Connection Network via their existing Ethernet local area network (LAN)
- Can be used to monitor and control devices on the L Connection Network remotely via the Internet\*
- Can be used with Unit Controller Software and/or Network Control Panel Software



\*Requires access to Ethernet local area network via the Internet.

## Take control with the easy-to-operate L Connection® Network

Get more control at your fingertips with the L Connection® Network, the simple way to consolidate HVAC and building operations and control them from a single point of contact. Simply connect constant- or variable-air-volume HVAC units, lights and signs with Lennox' plug-and-play control boards. Monitor system performance and diagnose problems on individual components from a Network Control Panel or software interface. The system provides an English language description of each alarm code, so instead of searching for the problem, you can focus on the solution.

For more basic, day-to-day control, the Comfort Sensor allows easy access. It allows occupants to customize their comfort with the touch of a button, within a range specified by the facility manager to control energy costs. Simple up and down buttons make for easy temperature changes while the large, easy-to-read digital display gives information from temperature and other sensors.

## Save time and money

Simple to use and easy to upgrade, the L Connection Network is designed to keep labor and energy costs low. Pre-programmed configuration parameters, easy field upgrades, a zone controller combined with modular sensors, an auto-poll start-up feature and a variety of user-friendly interfaces minimize installation and commissioning costs. Improved system control reduces operating costs, while intuitive software packages with trending and diagnostic

reports minimize labor to maintain the system and prolong the life of the equipment. These combined savings help minimize the life cycle cost of the entire comfort system.

## Make almost any HVAC system more capable

Integrate almost any split system or rooftop unit brand to the network to increase overall system performance. You'll have access to many of the benefits of the sophisticated IMC unit controller, a standard feature on all of Lennox' premium rooftop units, including simplified diagnostics and a variety of configuration options.

Save energy and provide improved comfort control with constant- or variable-volume zoning capabilities on Lennox equipment or electromechanically controlled, constant-volume third-party equipment.

The L Connection Network was built with Lennox equipment in mind, but it can also monitor and control many types of third-party equipment. Simply add a Network Thermostat Controller to the electromechanically controlled third-party unit to make it part of the L Connection Network. Once connected, you can monitor and control third-party and Lennox equipment, optimizing your commercial comfort system to improve comfort and minimize costs.

This unique, cost-effective system provides flexible control for a wide range of single-zone and multiple-zone applications. Adjustable configuration and integration options allow your comfort system to grow along with your facility, so you can maintain control of your building.



**ADVANCED CONTROL FOR  
SAVING TIME AND MONEY**

# SOLUTIONS FOR CUSTOMIZED COMFORT



Don't just choose a Lennox® product...choose a Lennox Commercial Comfort System. These complete packages of HVAC solutions provide tools to create a healthier and more comfortable environment.

## Packaged Units

- Strategos™ Rooftop Units
- S-Class™ Rooftop Units
- L Series® Rooftop Units
- Landmark™ Rooftop Units
- T-Class™ Rooftop Units

## Split Systems

- S-Class Air Conditioners/Heat Pumps
- T-Class Air Conditioners/Heat Pumps
- Air Handlers
- Indoor Coils

## Heating

- T-Class Unit Heaters
- Unit Heaters
- Duct Furnaces
- Furnaces

## Commercial Controls

- L Connection® Network
- Systems Integration Solutions
- Commercial Thermostats

## Indoor Air Quality

- Humiditrol® Dehumidification System
- Demand Control Ventilation
- Energy Recovery Ventilators/Systems
- Air Filters
- UVC Lamps



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