



## iComfort® Residential Communicating Control System Equipment Interface Module (EIM)

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Supersedes November 2017

### RESIDENTIAL PRODUCT SPECIFICATIONS

The Equipment Interface Module (EIM) allows an iComfort® Thermostat to be used with most non-communicating HVAC systems.

The EIM allows most conventional, non-communicating furnaces or air handlers (up to 3 stages heating and 2 stages cooling) to emulate an iComfort® Communicating indoor unit (with reduced communication features).

**NOTE** - Most conventional outdoor/indoor unit and most iComfort® Communicating outdoor units can be used in the system.

**NOTE** - Not for use with XC25 or XP25 outdoor units.

See table on page 3 for available system configurations.

Additional conventional (not iComfort® Communicating) indoor air quality comfort products (PureAir™ Air Purification System, Healthy Climate® Humidifiers, Humiditrol® Enhanced Dehumidification Accessory, Healthy Climate® Energy/Heat Recovery Ventilators, Healthy Climate® Germicidal Lights) can be added for a complete total-comfort system.

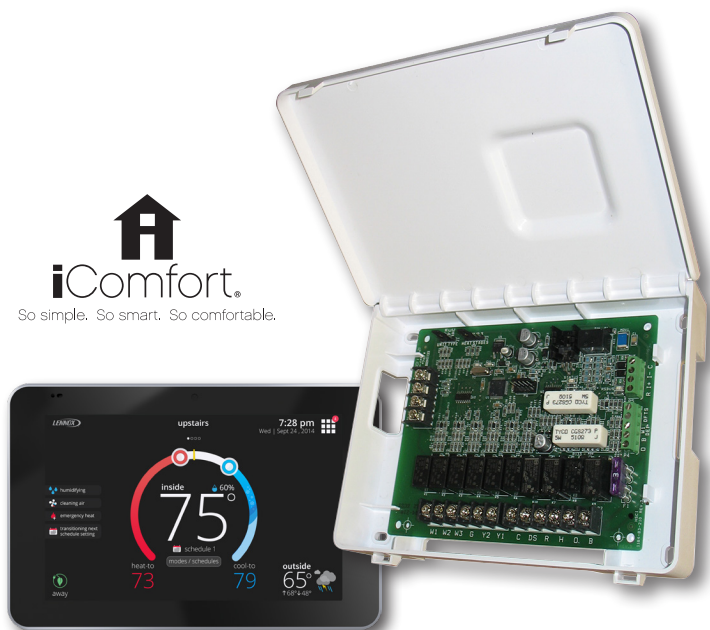
#### EIM MODULE

- Contains all necessary relays and controls to emulate an iComfort® Communicating indoor unit
- Module has two green LEDs
  - One indicates status and aids in troubleshooting, a second LED indicates RSBus communication
- Any system alerts/warnings are transmitted to the iComfort® Communicating Thermostat
- Serial communications bus (RSBus), with less wiring than a conventional heating/cooling system, allows system communication
- Uses 4-wire, 18-gauge standard thermostat wiring for connection to the iComfort® Communicating Thermostat
- Conventional thermostat wiring connects the EIM to the non-communicating indoor/outdoor unit equipment
- See System Components on page 2 for additional details

#### **Jumpers are furnished for the following settings:**

- Unit Type: IFC (furnace) or AHC (air handler), default setting is furnace
- Number of Heat Stages (0, 1, 2, 3), default setting is 1 stage
- Heat Pump Capacity (1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0). Default setting is 3.0

**NOTE** - For non-communicating heat pumps



#### Terminal Connections

- **Communicating RSBus** - To iComfort® thermostat:
    - R, I+, I-, C
  - **Non-Communicating** - To conventional indoor/outdoor unit:
    - W1, W2, W3, G, Y2, Y1, C, DS, R, H, O, B
  - **Dual-Fuel** - To non-communicating heat pump:
    - DFTS, w1-DEF, O, B
  - Connections are also furnished for an Outdoor Air Temperature Sensor and Discharge Air Sensor
- NOTE** - Sensors must be ordered separately.

**NOTE** - Outdoor Air Temperature Sensor is furnished as standard with iComfort® Communicating outdoor units.

- Blade-type 3 amp fuse protects module

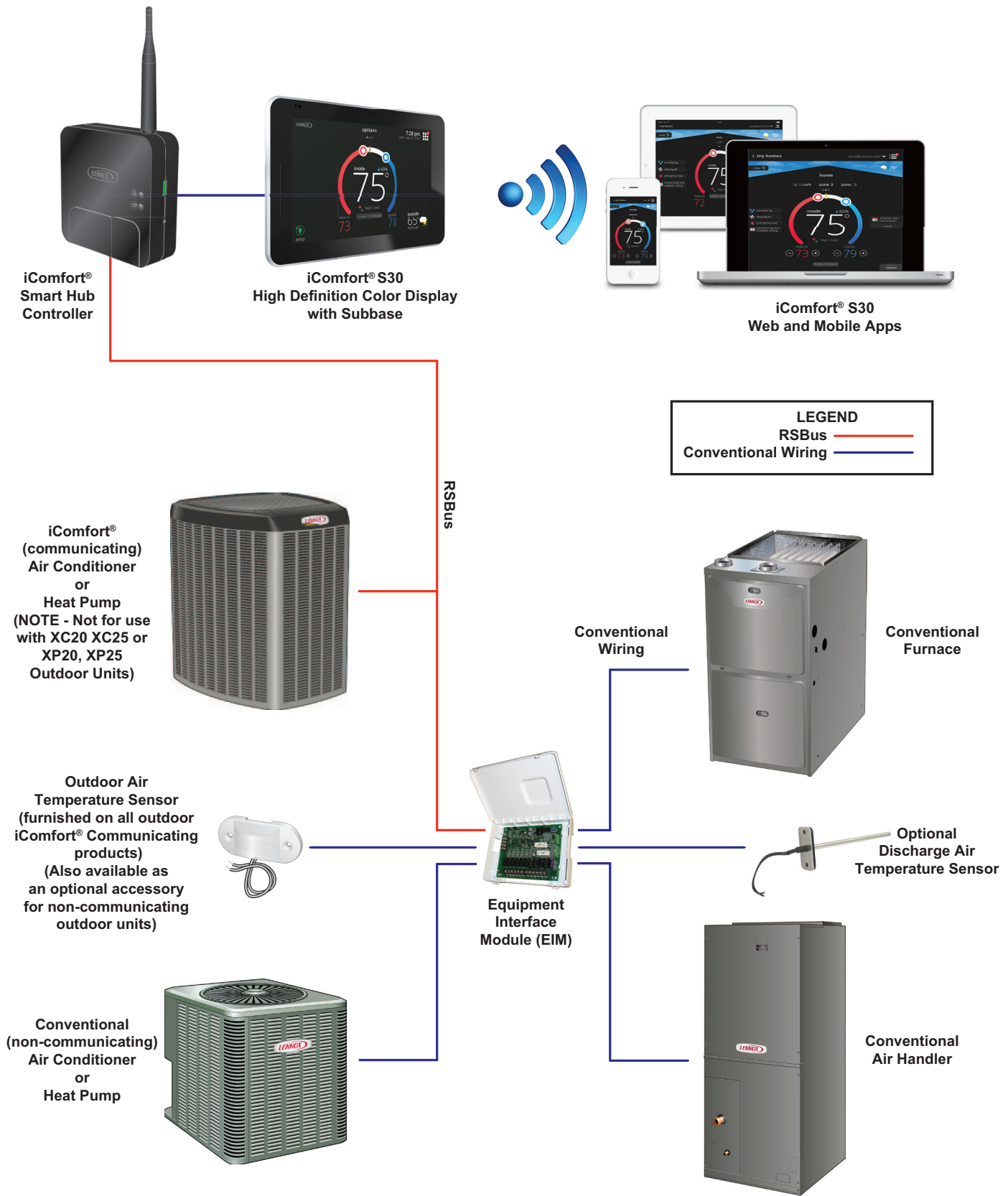
#### CASE

- Constructed of high impact ABS plastic
- Hinged cover with latching tabs prevents tampering
- Can be mounted on the side of the indoor unit or a nearby stud or wall
- Dimensions (H x W x D): 6-1/8 x 7-1/2 x 1-3/8 in. (156 x 191 x 35 mm)
- Weight: 1 lb.

#### EQUIPMENT WARRANTY

- Five years in residential installations and one year in non-residential installations
- Refer to Lennox Equipment Limited Warranty certificate included with unit for specific details

# SYSTEM COMPONENTS



**ATTENTION** - The Lennox iComfort® Communicating Thermostat with Equipment Interface Module (EIM) will work with most 24VAC furnaces, air conditioners, air handlers and heat pumps (up to 3 stages of heat and 2 stages of cooling), **EXCEPT** it will NOT work with any brand of communicating HVAC equipment other than LENNOX®.

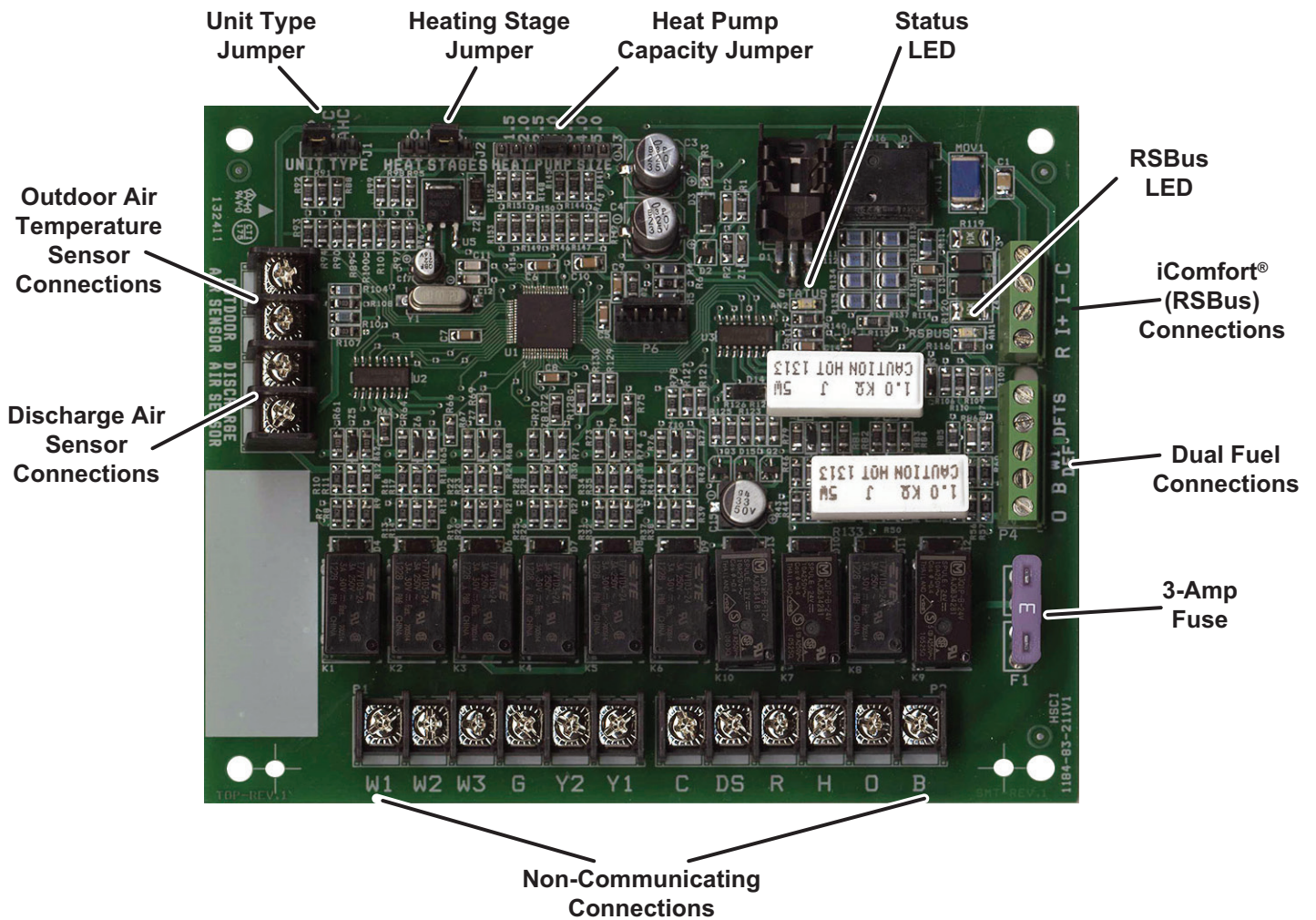
## EQUIPMENT INTERFACE MODULE (EIM) USAGE

<sup>1</sup> System Type	<sup>1</sup> Outdoor Unit Type (iComfort® Communicating or Non-Communicating)	Indoor Unit Type (Non-Communicating)	<sup>2</sup> EIM Required on Indoor Unit	iComfort® Thermostat (required)
Air Conditioner	Either type may be used	Most Furnaces	Yes	Yes
	Either type may be used	Most Air Handlers	Yes	Yes
Heat Pump	Either type may be used	Most Furnaces	Yes	Yes
	Either type may be used	Most Air Handlers	Yes	Yes

<sup>1</sup> NOTE - Not for use with XC25 or XP25 outdoor units.

<sup>1</sup> Indoor unit must contain the Equipment Interface Module (EIM). A non-communicating outdoor unit may be used (but some system features will be reduced).

## EIM CONNECTIONS





## REQUIRED COMPONENTS

### iComfort® S30 Ultra-Smart Wi-Fi Thermostat (part of the iComfort® Residential Communicating Control System)

- Recognizes and connects to all iComfort® Communicating products to automatically configure and control the heating/cooling system (based on user-specified settings) for the highest level of comfort, performance and efficiency
- Recognizes model and serial number information for iComfort® Communicating products to simplify system setup
- Wi-Fi remote temperature monitoring and adjustment through a home wireless network for desktop PCs, laptops and apps for smartphones or tablets
- Smart home automation compatible with Apple HomeKit™, Amazon Alexa®, Google Assistant and IFTTT
- Service alerts and reminders sent via text message or e-mail
- Service Dashboard features online real-time monitoring of installed iComfort® thermostats
- Simple easy-to-use touchscreen allows complete system configuration
- Scheduled maintenance alerts, system warnings and troubleshooting are also displayed on thermostat screen
- Easy to read 7 inch high definition color display (measured diagonally)
- Conventional outdoor units (not iComfort® Communicating) can easily be added and controlled by the iComfort® S30 Thermostat
- Installer setup screens allow quick and simple system configuration without a manual, Installer can also run tests on complete system or individual components for easy maintenance and troubleshooting
- Serial communications bus (RSBus), with less wiring than a conventional heating/cooling system, allows system communication
- Uses 4-wire, standard thermostat wiring
- High Definition Color Display with Subbase, Smart Hub Controller, wallplate (for retrofit installations) furnished for easy installation



### Remote Outdoor Temperature Sensor

- Used with the iComfort® Communicating thermostats
- When installed outdoors, sensor allows thermostat to display outdoor temperature
- Sensor is auto-detected when connected to thermostat



**NOTE** - Sensor is required for Humiditrol® applications.

**NOTE** - The outdoor sensor is furnished as standard with iComfort® Communicating outdoor units, optional for conventional units.

## ORDERING INFORMATION

Description	Catalog No.
Equipment Interface Module (EIM)	<b>10T50</b>
iComfort® S30 Thermostat	<b>19V30</b>
<sup>1</sup> Optional Outdoor Air Temperature Sensor	<b>X2658</b>
<sup>2</sup> Discharge Air Temperature Sensor	<b>88K38</b>

<sup>1</sup> Remote Outdoor Temperature Sensor is used with conventional (non-iComfort® Communicating) outdoor units (sensor is furnished with iComfort® Communicating outdoor units). Allows the thermostat to display outdoor temperature. Required in dual-fuel and Humiditrol® applications.

<sup>2</sup> Optional for indoor air service diagnostics.

**NOTE** - See the iComfort® S30 Thermostat Product Specifications bulletin in the Controls section for more information



## REVISIONS

Sections	Description of Change
Ordering Information	Updated catalog number for S30 thermostat.



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NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

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