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
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®.

**SYSTEM COMPONENTS**

- **iComfort® Smart Hub Controller**
- **iComfort® S30 High Definition Color Display with Subbase**
- **iComfort® (communicating) Air Conditioner or Heat Pump (NOTE - Not for use with XC20 XC25 or XP20, XP25 Outdoor Units)**
- **Outdoor Air Temperature Sensor (furnished on all outdoor iComfort® Communicating products) (Also available as an optional accessory for non-communicating outdoor units)**
- **Conventional (non-communicating) Air Conditioner or Heat Pump**
- **Conventional Furnace**
- **Conventional Air Handler**
- **Optional Discharge Air Temperature Sensor**

**LEGEND**
- RSBus
- Conventional Wiring

**iComfort® S30 Web and Mobile Apps**

**iComfort® S30**

**Smart Hub**

**High Definition Color Display**

**Equipment Interface Module (EIM)**

**RSBus**

**Conventional Wiring**

**Fabricated or conventional wiring is required for all outdoor units**

- *NOTE - Not for use with XC20 XC25 or XP20, XP25 Outdoor Units.***
## EQUIPMENT INTERFACE MODULE (EIM) USAGE

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

1 NOTE - Not for use with XC25 or XP25 outdoor units.
2 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

- **Unit Type Jumper**
- **Heating Stage Jumper**
- **Heat Pump Capacity Jumper**
- **Status LED**
- **Outdoor Air Temperature Sensor Connections**
- **Discharge Air Sensor Connections**
- **iComfort® (RSBus) Connections**
- **RSBus LED**
- **Dual Fuel Connections**
- **3-Amp Fuse**
- **Non-Communicating 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

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

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

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

1 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.
2 Optional for indoor air service diagnostics.
<table>
<thead>
<tr>
<th>Sections</th>
<th>Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordering Information</td>
<td>Updated catalog number for S30 thermostat.</td>
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