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.

**1** 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. 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. 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**

- **iComfort® Smart Hub Controller**
- **iComfort® S30 High Definition Color Display with Mag-Mount Mounting System**
- **iComfort® S30 Web and Mobile Apps**

**LEGEND**
- RSBus
- Conventional Wiring

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**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

<table>
<thead>
<tr>
<th>System Type</th>
<th>Outdoor Unit Type (iComfort&lt;sup&gt;®&lt;/sup&gt; Communicating or Non-Communicating)</th>
<th>Indoor Unit Type (Non-Communicating)</th>
<th>EIM Required on Indoor Unit</th>
<th>iComfort&lt;sup&gt;®&lt;/sup&gt; 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

![EIM Connections Diagram](image)

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

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

The iComfort® S30 Thermostat 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. Also 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. Also displays service alerts and reminders.

Dealer Dashboard features online real-time monitoring of installed iComfort® Communicating systems.

A 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 in. high definition color display (measured diagonally).

Works with Amazon® Alexa-enabled products.

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, 18-gauge standard thermostat wiring.

High Definition Color Display, Mag-Mount, Smart Hub Controller, wallplate (for retrofit installations) furnished for easy installation.

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

iComfort Wi-Fi® Thermostat (part of the iComfort® Residential Communicating Control System)

The iComfort Wi-Fi® Thermostat 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. Also 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. Also displays service alerts and reminders.

Dealer Dashboard features online real-time monitoring of installed iComfort® Communicating systems.

A 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 color screen (measured diagonally).

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, 18-gauge standard thermostat wiring.

See the iComfort Wi-Fi® 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.
<table>
<thead>
<tr>
<th>Description</th>
<th>Catalog No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment Interface Module (EIM)</td>
<td>10T50</td>
</tr>
<tr>
<td>iComfort® S30 Thermostat</td>
<td>12U67</td>
</tr>
<tr>
<td>iComfort Wi-Fi® Thermostat</td>
<td>10F81</td>
</tr>
<tr>
<td>1 Optional Outdoor Air Temperature Sensor</td>
<td>X2658</td>
</tr>
<tr>
<td>2 Discharge Air Temperature Sensor</td>
<td>88K38</td>
</tr>
</tbody>
</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>Document</td>
<td>Revised <em>iComfort</em>-enabled to <em>iComfort</em> Communicating. <em>iComfort</em>-enabled no longer means communicating with the advent of the E30 and M30 thermostats.</td>
</tr>
</tbody>
</table>