myRoom Palladiom FCU Controller Wired Temperature Sensor and Detached Configuration Instructions

This application note instructs how to wire and configure a temperature sensor to the fan coil unit (FCU) controller when using a myRoom system. Also included are instructions on how to set the FCU to Detached mode. Detached mode causes the FCU controller to continue running without the Palladiom thermostat. Note that a wired temperature sensor is required when in Detached mode.

**Wired Sensor Installation**

The FCU controller must have a wired thermistor connected to run without the thermostat. Use a thermistor type NTC, 10 kΩ at 25 °C, or a thermistor with an equivalent temperature-resistance curve.

<table>
<thead>
<tr>
<th>Temperature</th>
<th>°C</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>°F</td>
<td>41</td>
<td>50</td>
<td>59</td>
<td>68</td>
<td>77</td>
<td>86</td>
<td>95</td>
<td></td>
</tr>
<tr>
<td>Resistance (kΩ)</td>
<td>22.05</td>
<td>17.96</td>
<td>14.69</td>
<td>12.09</td>
<td>10.00</td>
<td>8.31</td>
<td>6.94</td>
<td></td>
</tr>
</tbody>
</table>

Wire the thermistor to the solid blue wire and either of the black wires of the FCU Controller’s 20-point wire harness. If using an older version of the wire harness, there may be two blue wires. If this is the case, still connect to the blue wire closest to the edge of the harness.
Wired Sensor and Standalone Configuration

To configure the FCU controller to use the wired temperature sensor and enter Detached mode (if required), please connect the thermostat to the controller for configuration purposes, then remove the thermostat (if required). Configuration is outlined in the Configuration Instructions Install (P/N 041563) at www.lutron.com and specific instructions are below:

1. Set the Basic Configuration.
   a. Follow the instructions for Basic Configuration according to the HVAC system on site. For example, a 4-pipe, relay control for fan and valves is configuration number “01”. Remember to power cycle the thermostat if it has been on for 15 minutes. Configuration mode ability times out after 15 minutes from being powered.

2. Set the Advanced configuration for using a wired sensor.
   a. Follow the instructions to enter Advanced Configuration Mode and set the following parameter values:
      i. Set Parameter 02 (Temperature sensor) to 00. This will set the controller to use the wired thermistor connected to it.

3. Set the Advanced configuration for Detached Mode (if required)
   a. Set the following advanced parameter values:
      i. Set Parameter 01 (Function Type) to 01. This will set the controller to work on its own without the thermostat.
      ii. Set Parameter 16 (Detached Setpoint) to the setpoint you would like the controller to maintain.
      iii. Optional: Set any other Detached parameters (17-20).

4. Exit advanced configuration mode by holding the mode button for 3 seconds on the thermostat. The display will flash and return to displaying the temperature.

5. Disconnect the thermostat.

Reconnecting the thermostat and using the thermostat’s sensor

When reconnecting the thermostat to run in normal operation, enter advanced configuration mode again and set the following parameters back to their original values:

1. Set Parameter 01 (Function Type) to 00. This will set the controller to accept the setpoint from the thermostat.
2. Set Parameter 02 (Temperature sensor) to 01. This will set the controller to use the thermostat’s embedded temperature sensor. The wired sensor may remain connected to the controller. It will not affect normal operation.
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