SE8600 Series Installation Guide
Rooftop Unit, Heat Pump and Indoor Air Quality Controller

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INSTALLATION

Location
- Do not install on outside wall.
- Do not install in areas with direct heat source.
- Do no install near any air discharge grill.
- Do not install in areas exposed to direct sunlight.
- Ensure Room Controller has sufficient air circulation.
- Ensure wall surface is flat and clean.

Installation
1. Remove security screw (if any) on bottom of Room Controller cover.
2. Open unit by pulling on bottom side of Room Controller (Figure 1).
3. Read FCC ID and IC label installed in cover before installing any wireless product.
4. Ensure correct side of base faces up.
5. Pull cables 6in (15cm) out from wall.
6. Align base and mark location of two mounting holes on wall (Figure 2).
7. Install anchors in wall.
8. Insert cable in central hole of base.
9. Insert screws in mounting holes on each side of base.
10. Strip each wire 1/4in (0.6cm) from end.
11. Insert each wire and screw according to wiring chart.
12. Gently push excess wiring back into hole.
13. Gently align cover to top of base and snap in place from bottom (Figure 3).

- If replacing an existing device, label wires before removal of Room Controller.
- Electronic controls are static sensitive devices. Discharge yourself correctly before manipulating and installing Room Controller.
- A short circuit or wrong wiring may permanently damage Room Controller or equipment.
- All SE8600 series controls are designed for use as operating controls only and are not safety devices. Tampering with the devices or unintended application of the devices will result in a void of warranty.
- This device must be installed to provide a separation distance of at least 8in (20cm) from all persons and must not be located or operating in conjunction with any other antenna or transmitter.
## TERMINAL IDENTIFICATION AND FUNCTION

### Terminal identification

<table>
<thead>
<tr>
<th>SE86xxU Description / Application</th>
<th>Used in applications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Internal Temperature</strong></td>
<td>X</td>
</tr>
</tbody>
</table>

1- BO1  Aux
2- BO2  Y2
3- BO3  Y1
4- BO4  G
5- RC   RC (24 Vac)
6- C    Common
7- RH   RH
8- BO8  W1
9- UO9  W2 / OB
10- UO10 Econo (0-10 Vdc)
11- UO11 Heat (0-10 Vdc), set "Heat Stages" to 0 to enable
12- UO12 Dehumidification output (24 Vac On/Off)
13- RS485 + BACnet (+)
14- RS485 - BACnet (-)
15- RS485 Ref BACnet Ref. (do not sire shield in this terminal)
16- UI16 U116 (multifunction input)
17- UI17 U117 (multifunction input)
18 Scom Common
19- UI19 CO2 (0-10 Vdc input)
20- UI20 RS (Remote sensor input 10K, type 2 thermistor)
21 Scom Common
22- UI22 SS (Supply sensor input 10K, type 2 thermistor)
23- UI23 OS (Outside sensor input 10K, type 2 thermistor)
24- UI24 Airflow (0-10 Vdc input)
TYPICAL APPLICATIONS

SE8600  RTU: 2 Heating / 2 Cooling
SE8600  RTU: 2 Cooling / Modulating Heat
HPU: 2 Compressors, Auxiliary Heat and Economizer
### REMOTE SENSOR ACCESSORIES

<table>
<thead>
<tr>
<th>Model no.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S3010W1045</td>
<td>Wall mounted temperature sensor</td>
</tr>
<tr>
<td>S3020W1045</td>
<td>Wall mounted temperature sensor with override button and occupancy status LED</td>
</tr>
</tbody>
</table>

Note:
If one or multiple sensor(s) is/are connected into the RS terminal, the internal temperature sensor is automatically disabled. Disconnecting the sensor(s) in RS terminal will re-activate the internal sensor.

Remote mount temperature sensors inputs use 10K type 2 NTC thermistors.

Features:
- Each sensor can be configured for various averaging combinations. Refer to S3000 series remote sensors for more details.

#### Temperature vs. resistance chart for 10 Kohm NTC thermistor (R25°C = 10KΩ±3%, B25/85°C = 3975K±1.5%)

<table>
<thead>
<tr>
<th>°C</th>
<th>°F</th>
<th>Kohm</th>
<th>°C</th>
<th>°F</th>
<th>Kohm</th>
<th>°C</th>
<th>°F</th>
<th>Kohm</th>
<th>°C</th>
<th>°F</th>
<th>Kohm</th>
</tr>
</thead>
<tbody>
<tr>
<td>-40</td>
<td>-40</td>
<td>324.3197</td>
<td>-20</td>
<td>-4</td>
<td>94.5149</td>
<td>0</td>
<td>32</td>
<td>32.1910</td>
<td>20</td>
<td>68</td>
<td>12.4601</td>
</tr>
<tr>
<td>-35</td>
<td>-31</td>
<td>234.4009</td>
<td>-15</td>
<td>5</td>
<td>71.2430</td>
<td>5</td>
<td>41</td>
<td>25.1119</td>
<td>25</td>
<td>77</td>
<td>10.0000</td>
</tr>
<tr>
<td>-30</td>
<td>-22</td>
<td>171.3474</td>
<td>-10</td>
<td>14</td>
<td>54.1988</td>
<td>10</td>
<td>50</td>
<td>19.7390</td>
<td>30</td>
<td>86</td>
<td>8.0694</td>
</tr>
<tr>
<td>-25</td>
<td>-13</td>
<td>126.6109</td>
<td>-5</td>
<td>23</td>
<td>41.5956</td>
<td>15</td>
<td>59</td>
<td>15.6286</td>
<td>35</td>
<td>95</td>
<td>6.5499</td>
</tr>
</tbody>
</table>
HOME SCREEN DISPLAY

Typical Hospitality User Interface Shown

Note: User HMI is configurable and allows display functions such as Outdoor Temperature, Setpoint, and other buttons to be enabled or disabled by setting various parameters in the setup screens.
HOW TO ENTER SET-UP SCREEN

Touch and hold this point for 3 seconds to enter set-up mode.

**Note:** If a configuration/installer password is activated to prevent unauthorised access to the configuration menu parameters, a password entry prompt shows to prevent access to device configuration components.

SET-UP SCREEN DISPLAY

<table>
<thead>
<tr>
<th>1/2 Setup</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Network</strong></td>
<td>Enter BACnet® &amp; ZigBee® network settings</td>
</tr>
<tr>
<td><strong>Configuration</strong></td>
<td>Enter parameter configuration menu</td>
</tr>
<tr>
<td><strong>Setpoints - Display</strong></td>
<td>Enter setpoint &amp; display settings</td>
</tr>
<tr>
<td><strong>Service view</strong></td>
<td>Enter status and service view</td>
</tr>
<tr>
<td><strong>Test outputs</strong></td>
<td>Enter output testing mode</td>
</tr>
<tr>
<td><strong>Language selection</strong></td>
<td>Enter language selection</td>
</tr>
</tbody>
</table>

**Discover Mode** The Controller becomes discoverable on the wireless ZigBee® network for 1 minute (this button is hidden if ZigBee® settings are not configured).

**General Note:**

- [ ] Adjustable parameter
- [ ] Non-adjustable parameter

For more information on using and configuring the functions of the HMI, refer to **SE8600 User Interface Guide**.
APPENDIX A TERMINAL CORRESPONDENCE

The terminals of a SE8600 are identified differently and have a wider range of possible functions compared to those of any of the SE7000 series Room Controllers. Nonetheless, there is a direct correspondence of functions between the terminals of the SE7000 series and the SE8600 series. Consult the table below to verify the appropriate terminal when replacing a SE7000 Room Controller with a SE8600 Room Controller.

<table>
<thead>
<tr>
<th>SE7000 Terminal name</th>
<th>SE7000 Terminal ID</th>
<th>SE8600 Terminal name</th>
<th>SE8600 Terminal ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binary Input 1</td>
<td>BI1</td>
<td>Universal Input 16</td>
<td>UI16</td>
</tr>
<tr>
<td>Binary Input 2</td>
<td>BI2</td>
<td>Universal Input 17</td>
<td>UI17</td>
</tr>
<tr>
<td>Universal Input 3</td>
<td>UI3</td>
<td>Universal Input 19</td>
<td>UI19</td>
</tr>
<tr>
<td>Sensor Common</td>
<td>Scom</td>
<td>Terminal 18 Common</td>
<td>COM</td>
</tr>
<tr>
<td>Remote Sensor</td>
<td>RS</td>
<td>Universal Input 20</td>
<td>UI20 – RS</td>
</tr>
<tr>
<td>Sensor Common</td>
<td>Scom</td>
<td>Terminal 21 Common</td>
<td>COM</td>
</tr>
<tr>
<td>Mix/Supply Sensor</td>
<td>MS</td>
<td>Universal Input 22</td>
<td>UI22 – SS</td>
</tr>
</tbody>
</table>

APPENDIX B POWER OUTAGE CLOCK RESET

In the event of a power outage, SE8600 Room Controllers retain the correct time as long as the duration of the power outage is not prolonged. Depending on the duration of the power outage, the Room Controllers internal clock may need to be updated or reset completely. The following table gives an indication of the expected clock performance after a power outage of a given duration.

<table>
<thead>
<tr>
<th>Outage duration</th>
<th>Room Controller behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 24 hours</td>
<td>Clock functions are normal</td>
</tr>
<tr>
<td>24 - 36 hours</td>
<td>Clock accuracy not guaranteed, time may need to be adjusted</td>
</tr>
<tr>
<td>36 - 72 hours</td>
<td>Clock no longer increments and must be adjusted when power is restored.</td>
</tr>
<tr>
<td>72+ hours</td>
<td>Clock functions are fully reset, and must be reinitialized as per a new installation.</td>
</tr>
</tbody>
</table>
Technical Support

For any issues with SmartStruxure Solution or SmartStruxure Lite, contact Schneider Electric Technical Support according to your region.

Level 1
- In-country support via SE Branches or SI Partners
- CCC / SRC / CSS

Level 2 - For product support or to open ticket in BFO
- For SSL related issues*: PSS Advanced and Experts
- For SmartStruxure BMS issues: PSS Advanced

Level 2 - For solutions/application support
- Country Champion / Solution Architects / App Center

Level 3
- For SSL related issues*: SBS Support team
- For SmartStruxure BMS issues: PSS Experts

Level 4 - For solutions/application support
- For SSL related issues*: SBS Solutions, Offer Management and R&D
- For SmartStruxure BMS issues: Global Sustain Team

*Only for P1 issues (high impact, urgent and complex), country champion have the option of opening a ticket in Jira to escalate directly to Level 3

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