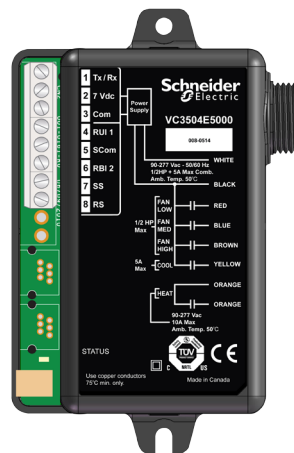


# SER8300 Series

## Line Voltage Room Controller with Optional PIR Sensor Installation Guide

Commercial and Hotel/Lodging HVAC Fan Coil Applications



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## DISCLAIMER

- The SER8300 series Room Controller is only to be used in conjunction with the SC3000 line voltage switching relay pack. Together they are used as operating controls for high voltage fan coil units.
- If replacing an existing Line Voltage FCU Controller, label the wires before removal of the Room Controller.
- Electronic controls are static sensitive devices. Discharge yourself correctly before manipulating and installing the Room Controller. A short circuit or wrong wiring may permanently damage the Room Controller or equipment.
- All SER8300 series Room Controllers are designed for use as operating controls only and are not safety devices. These instruments have undergone rigorous tests and verification prior to shipping to ensure proper and reliable operation in the field. Whenever a control failure could lead to personal injury and/or loss of property, it becomes the responsibility of the user/installer/electrical system designer to incorporate safety devices such as relays, flow switches, thermal protections, and/or an alarm system to protect the entire system against any catastrophic failures. Tampering with the devices or unintended application of the devices results in a void of warranty.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- These devices are not serviceable and must be returned to the supplier for any repair.
- A switch or circuit breaker must be installed. It must be suitably located, easily reached, and marked as the disconnecting device.
- Never apply more than 9VDC to the Room Controller.
- This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

## IMPORTANT SYMBOLS



Products marked with this symbol state that the manuals must be consulted in all cases to any hazards.



This product has been tested to the requirements of CAN/CAS-C22.2 No. 61010-1, second edition, including Amendment 1, or a later version of the same standard incorporating the same level of testing requirements.



Alternating Current



Direct Current



Equipment protected throughout by DOUBLE INSULATION or REINFORCED INSULATION



### CLEANING SER8300 ROOM CONTROLLER

- Use a soft, pre-moistened lint-free cloth for cleaning.
- Avoid getting moisture in openings.
- Do not spray anything directly on SE8000 Room Controller or use compressed air.
- Do not use caustic/corrosive products, ammonia, solvents or any cleaning product containing alcohol or grit.
- Never use tools directly on the touchscreen.
- Never use paint on SE8000 Room Controller.
- Do not drop or crush SE8000 Room Controller, or allow SE8000 Room Controller to come into contact with liquids.
- Do not use a damaged device (such as one with a cracked screen).
- Functionality guarantees are no longer valid if the glass on the screen is broken.

**Failure to comply with these recommendations will result in damage to the unit and void the manufacturer's warranty.**

## INSTALLATION

### Location

- Do not install on outside wall.
- Do not install in areas with direct heat source.
- Do not 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. Open unit by pulling on bottom side of Room Controller (Figure 1).
2. Read FCC ID and IC label installed in cover before installing any wireless product.
3. Ensure correct side of base faces up.
4. Pull cables 6in (15cm) out from wall.
5. Align base and mark location of two mounting holes on wall (Figure 2).
6. Install anchors in wall.
7. Insert cable in central hole of base.
8. Insert screws in mounting holes on each side of base.
9. Strip each wire 1/4in ( 0.6cm) from end.
10. Insert each wire according to wiring chart (next page).
11. Gently push excess wiring back into hole.
12. Gently align cover to top of base and snap in place from bottom (Figure 3).
13. Install security screw.



- If replacing an existing SER8300 Room Controller, label wires before removal of Controller.
- Electronic controls are static sensitive devices. Discharge yourself correctly before manipulating and installing Controller.
- A short circuit or wrong wiring may permanently damage Room Controller or equipment.
- All SER8300 series Room Controllers 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 transmitter must be installed to provide a separation distance of at least 4in (10cm) from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.
- If installing the CO<sub>2</sub> sensor module, ensure 24 volts or greater (up to 30 volts) is output at the input terminals of the Room Controller with CO<sub>2</sub> sensor module installed.

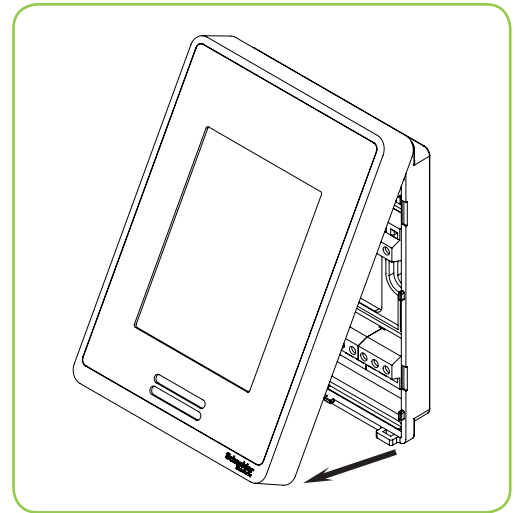


Figure-1 Open the cover

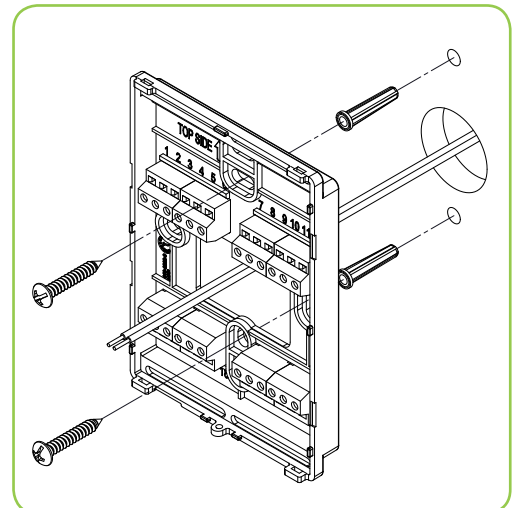


Figure-2 Install the base

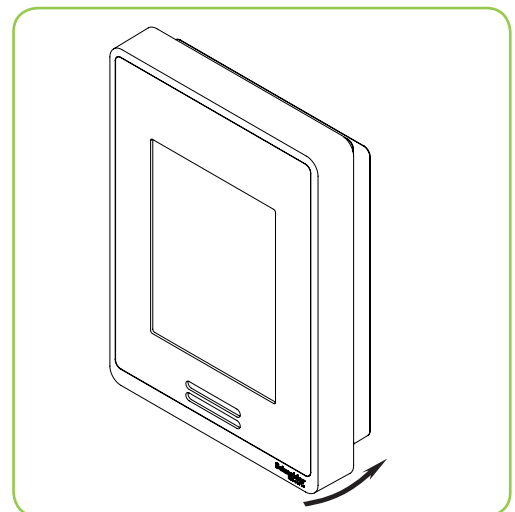


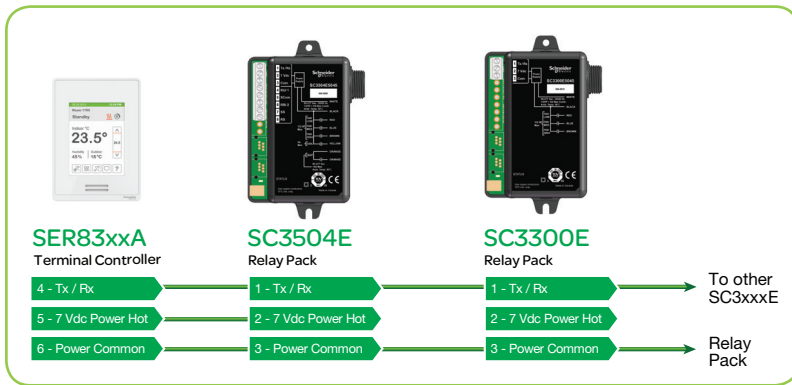
Figure-3 Reinstall cover

## TERMINAL IDENTIFICATION AND FUNCTION

Terminal Identification	All SER83xxA Terminal Equipment Controller
Terminal 4	Tx – Rx Communication
Terminal 5	Power Hot 7.0 VDC
Terminal 6	Power Common
Terminal 12	Modulating 0-10 VDC output. See note below.
Terminal 13	BACnet +
Terminal 14	BACnet -
Terminal 16	BI 1 ( Configurable )
Terminal 17	BI 2 ( Configurable )
Terminal 18	Scom

**NOTE:** never use any terminal on Room Controller not mentioned in above table.

## COMMUNICATION WIRING TO SC3XXXE RELAY PACK



Only ONE SC3xxxE Relay Pack with remote monitoring inputs can be used under a single SER83xxA Room Controller. All other slave units must be SC3xxxE Relay Pack(s) without remote inputs.

A maximum of 10 SC3xxxE Relay Packs can be used for a single SER83xxA Room Controller.

### From SER83xxA to First SC3xxxE Relay Pack

- Uses existing or new field wires.
- A minimum of 3 wires are required 14-22 Ga, Solid, or Stranded. Shield not necessary.

### From First SC3xxxE to all Other Slave SC3xxxE Relay Pack(s)

- Uses existing or new field wires.
- A minimum of 2 wires are required 14-22 Ga, Solid, or Stranded. Shield not necessary.
- Connect only two wires: Tx/Rx (1) and Power Common (3).

## BACnet® Communication Shielded Wiring (if required)



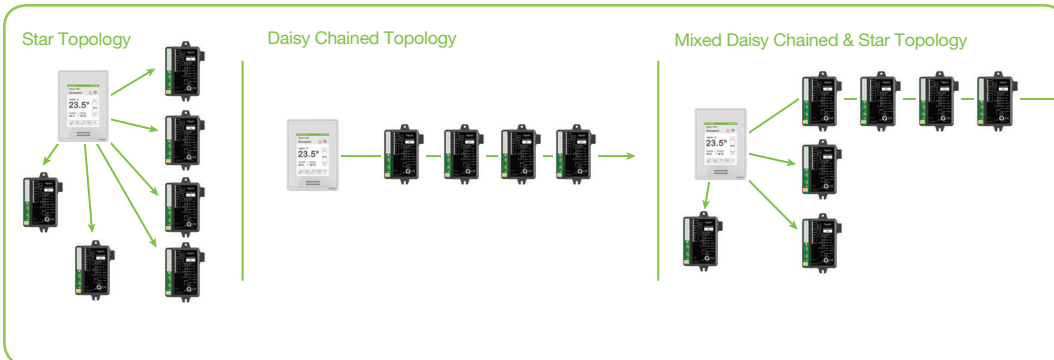
### Terminal 12 (UO12) - 0-10 VDC Modulating Output

This output is not used by the SER8300 internal control logic. A Lua4RC is required to use this terminal.

Example: UO12 (0 - 10 VDC) = PI\_Cool (%) /10 ME.AO124=ME.AO22/10

**NOTE:** See SER8300 BACnet® integration manual for more details

## Network Wiring Topology

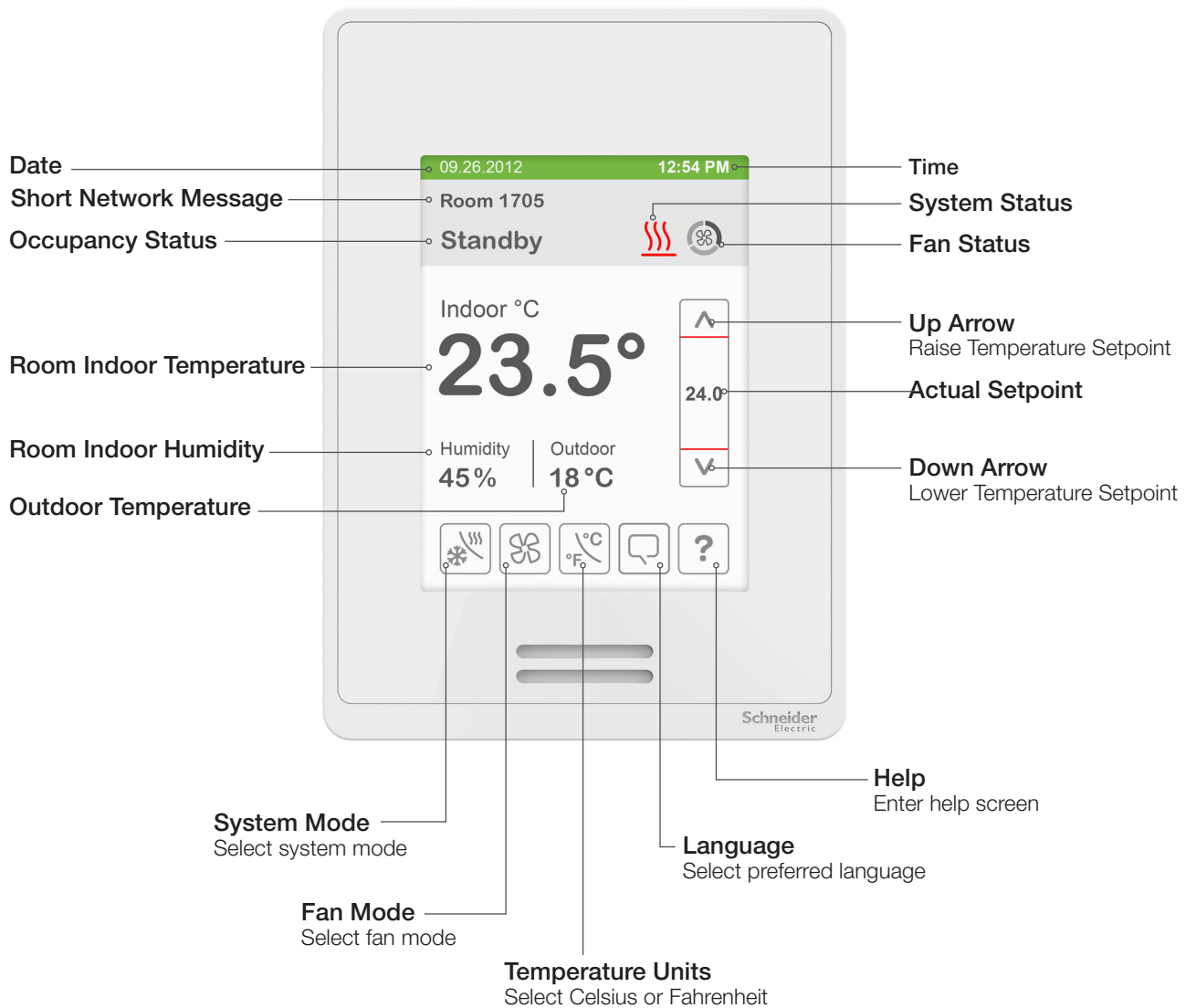


### Warning:

- only the following models can be Slave Relays: SC3500E5045, SC3400E5045, and SC3300E5045.
- Only one SC3x4X Relay Pack with monitoring input can be used for a single SER83xxA Room Controller.

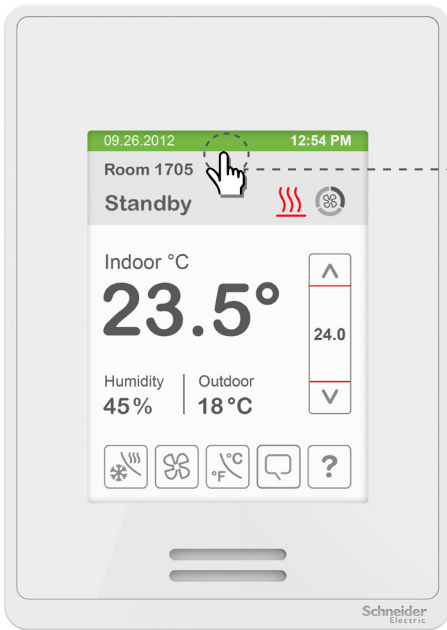
## HOME SCREEN DISPLAY

## Hospitality User Interface Shown



**Note:** User HMI is configurable and allows display functions such as Date, Time, Humidity, Outdoor Temperature, Setpoint, and others to be enabled or disabled by setting various parameters.

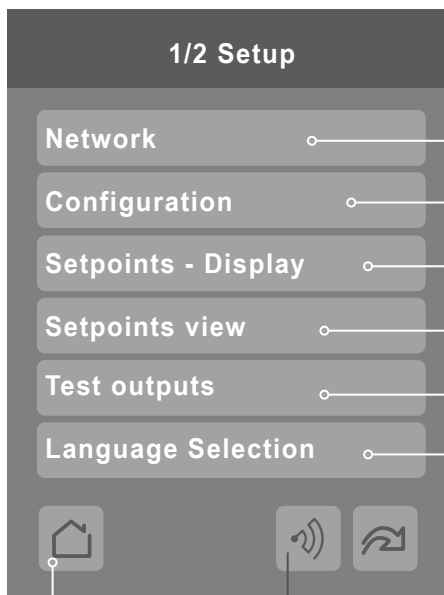
## ENTER SET-UP SCREEN



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



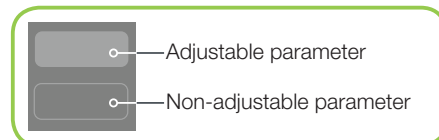
**Note:** The "Network" button does not show if no BACnet® or ZigBee® card is installed.

- Network  Enter BACnet® & ZigBee® network settings
- Configuration  Enter parameter configuration menu
- Setpoints - Display  Enter setpoint & display settings
- Setpoints view  Enter status and service view
- Test outputs  Enter output testing mode
- Language Selection  Enable selected language(s)\*

**Return to home screen**

**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:



\*only available in recent versions of firmware

# Technical Support

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

## North America (NAM) Product Support

### Building Management Systems

[productsupport.NAM-BMS@schneider-electric.com](mailto:productsupport.NAM-BMS@schneider-electric.com)

### Field Devices

[productsupport.NAM-HVAC@schneider-electric.com](mailto:productsupport.NAM-HVAC@schneider-electric.com)

## Global Product Support

### Building Management Systems

[productsupport.BMS@schneider-electric.com](mailto:productsupport.BMS@schneider-electric.com)

### Field Devices

[productsupport.HVAC@schneider-electric.com](mailto:productsupport.HVAC@schneider-electric.com)

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At Schneider Electric, we call this **Life Is On.**