SER7300 Series

Installation Guide for HVAC FCU Applications

CONTENTS

Schneider Electric

INSTALLATION

- Remove security screw on bottom of Room Controller cover.
- Open unit by pulling on bottom side of Room Controller (Figure 1).
- Remove wiring terminals from sticker.
- Read FCC ID and IC label installed in the cover.

Location

1. Should not be installed on outside wall.
2. Must be installed away from any direct heat source.
3. Should not be installed near air discharge grill.
4. Should not be affected by direct sun radiation.
5. Nothing should restrict vertical air circulation to Room Controller.

Installation

1. Swing open Room Controller PCB to left by pressing PCB locking tabs (Figure 2).
2. Pull out cables 6” out from wall. Ensure wall surface is flat and clean.
4. Insert cable in central hole of base.
5. Align base and marklocation of two mounting holes on wall ensuring proper side of base is up.
6. Install anchors in wall.
7. Insert screws in mounting holes on each side of base (Figure 2).
8. Gently swing back circuit board on base and push until tabs lock.
9. Strip each wire 1/4 inch from end.
10. Insert each wire according to wiring diagram (next page).
11. Gently push excess wiring back into hole (Figure 3).
12. Re-Install wiring terminals in correct locations (Figure 3).
13. Re-install cover (top side first) and gently push extra wire length back into hole in wall.
14. Install security screw.

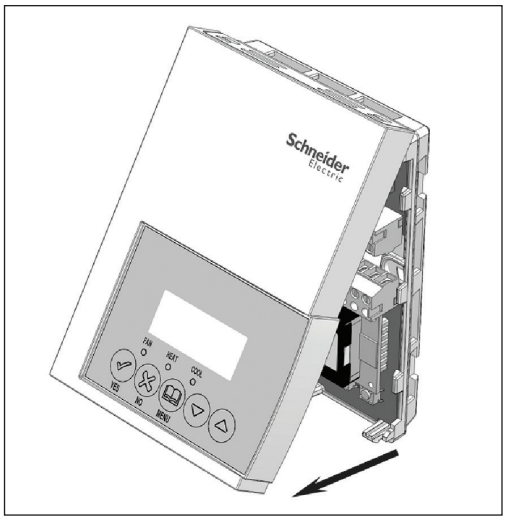


Figure-1 Opening the Cover

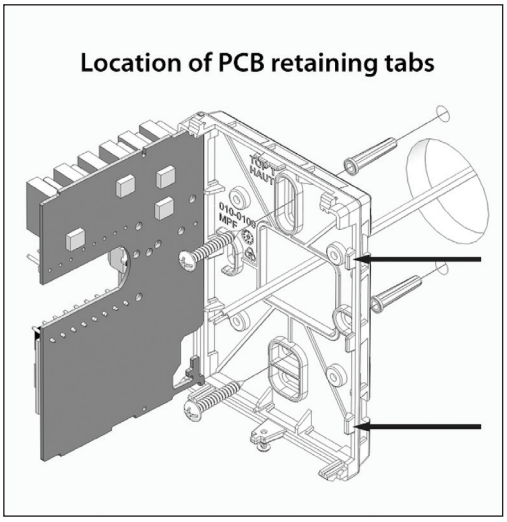


Figure-2 Opening the PCB

- If replacing an existing Line Voltage FCU Controller, label the wires before removal of the controller.
- Electronic controls are static sensitive devices. Discharge yourself properly before manipulating and installing the Room Controller.
- A short circuit or wrong wiring may permanently damage the Room Controller or the equipment.
- All SER7300 series controls 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 switch, thermal protections, etc…) and/or an alarm system to protect the entire system against such catastrophic failures. Tampering with the devices or unintended application of the devices will result in a void of warranty.

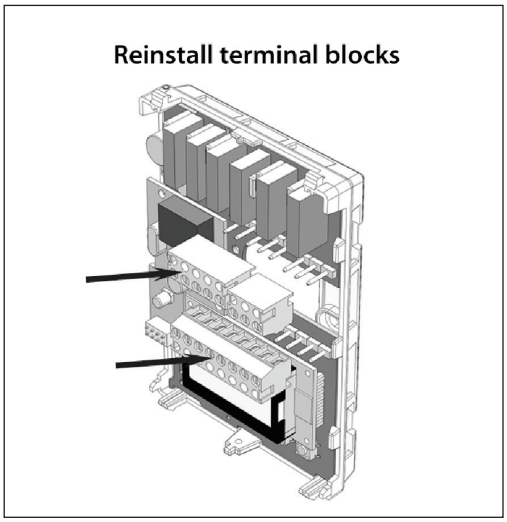
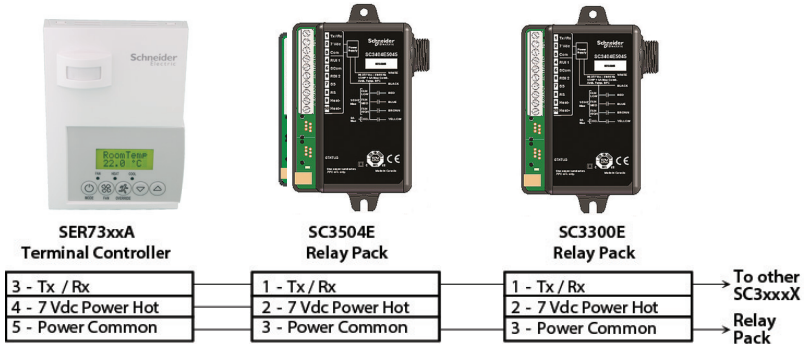


Figure-3 Terminal Block Reinstall

TERMINAL, IDENTIFICATION AND FUNCTION

Terminal Identification	All SER73XXA5X45(X) Room Controller
Terminal 3	Tx – Rx Communication
Terminal 4	Power Hot 7.0 VDC
Terminal 5	Power Common
Terminal 13	BI 1 (Configurable)
Terminal 14	Scom
Terminal 15	BI 2 (Configurable)

COMMUNICATION WIRING TO SC3XXXX RELAY PACK



Only ONE SC3xxxX Relay Pack with remote monitoring inputs can be used under a single SER73xxA Controller. All other slave units must be SC3xxxX Relay Pack(s) WITHOUT remote inputs. A maximum of 10 SC3xxxX Relay Packs can be used for a single SER73xxA Room Controller.

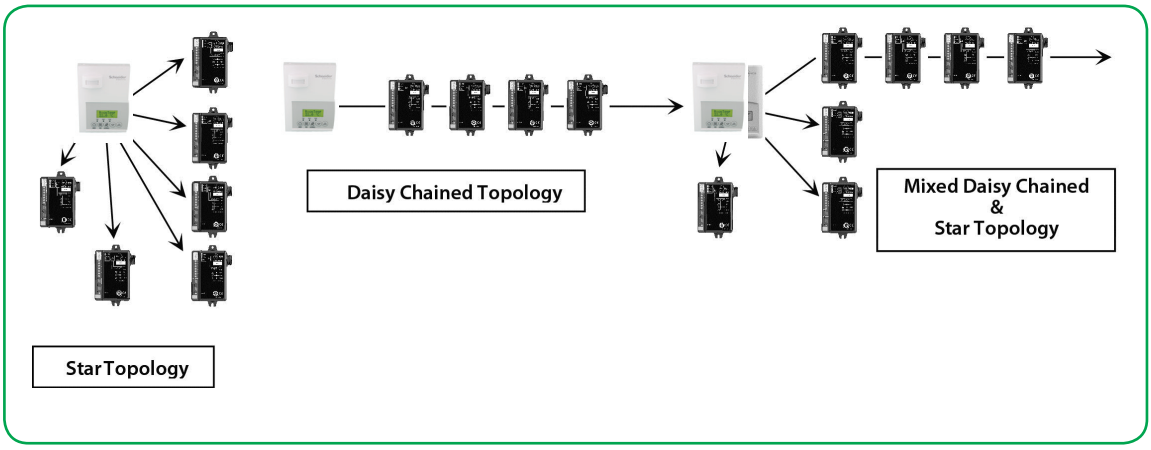
From the SER73xxA to the first SC3xxxX Relay Pack

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

From the first SC3xxxX to all other slave SC3xxxX 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 wires #1 Power Common and #2 Tx/Rx Communication

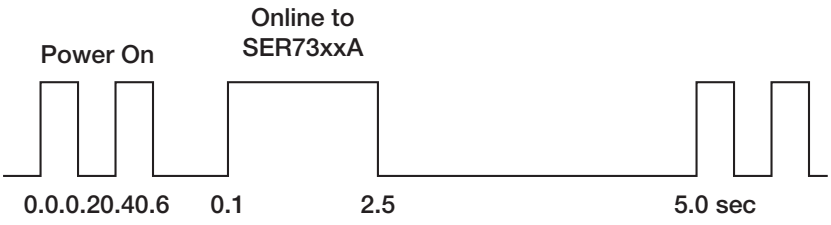
Network Wiring Topology



SC3XXX LED OPERATION

Condition of status LED	Cause	Solution
> 2 short blinks	No communication between the SER73xxA and the SC3xxxX relay pack. The SC3xxxX Relay Pack will resume its output “no communication active” status	Check communication wiring and or power cycle the controllers
> 2 short blinks and a longer blink	Normal communication between the SER73xxA and the SC3xxxX relay pack.	N/A

LED/Time Status Operation



Wiring of local inputs to SER73xxA Room Controller

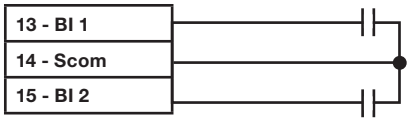
SER73xx
Terminal Controller

Local BI 1 Input by configuration

- None (monitoring only)
- Remote motion detector: Motion NO or Motion NC
- Remote Night Setback: RemNSB
- Window contact Window:

Local BI 2 Input by configuration:

- None (monitoring only)
- Door contact: DoorDry



CONFIGURING AND STATUS DISPLAY INSTRUCTIONS

Status display

The SER73xxA Room Controller features a two-line, eight-character display. There is a low-level backlight that is always active and can only be seen at night.

When left unattended, the Room Controller has an auto scrolling display that shows the status of the system. There is an option in the configuration menu to lockout the scrolling display and to only display the room temperature and conditional outdoor temperature to the user. With this option enabled, no local status of mode, occupancy and relative humidity is shown.

Each item scrolls individually with the back lighting in low level mode. Pressing any key will cause the back light to come on to high level. When left unattended for 10 seconds after changes are made, the display will resume automatic status display scrolling.

To activate the back light to high level, press any key on the front panel. The back light display will return to low level when the Room Controller is left unattended for 45 seconds.

To activate the back light to high level, press any key on the front panel. The back light display will return to low level when the Room Controller is left unattended for 45 seconds.

Sequence of auto-scroll status display:

Room & Humidity	System mode	Schedule status	Outdoor temp	Alarms
x.x °C or °F XX % RH	**Sys mode auto**	**Occupied**	Outdoor x.x °C or °F	**Service**
If humidity display enabled	**Sys mode cool**	**Stand-By**	Network value only	**Filter**
RoomTemp x.x °C or °F	**Sys mode heat**	**Unoccup**	n/a	**Window**
If humidity display is nor enabled	**Sys mode off**	**Override**	n/a	**Low Batt**

% RH display is conditional to:

(Humidity display is model and configuration dependent)

- Model with RH sensor built in
- Display function can be enabled with RH display parameter. Displayed range is 10 to 90 % RH

Outdoor air temperature

- Display is only enabled when outdoor air temperature network variable is received.

Occupancy status

- Occupied, Stand-By, Unoccupied and Override status are displayed on the scrolling display.

Alarms

- If alarms are detected, they will automatically be displayed at the end of the scrolling status display.
- When an alarm message is displayed, the backlit screen will illuminate at the same time as the message and shut off during the rest of the status display.
- A maximum of two alarms can appear at any given time. The priority for the alarms are as follows:

Service	Indicates that there is a service alarm as per one of the configurable binary inputs (BI2)
Filter	Indicates that the filters are dirty as per one of the configurable binary inputs (BI2)
Window	Indicates that the outside window or door is opened and that the Room Controller has cancelled any cooling or heating action (BI1)
Low Batt	Indicates that attached wireless switching devices (Door or window contact) have a low battery condition. (Only functional when used with a wireless communication adapter)

Three status LED's on the Room Controller cover are used to indicate the status of the fan (any speed), a call for heat, or a call for cooling.

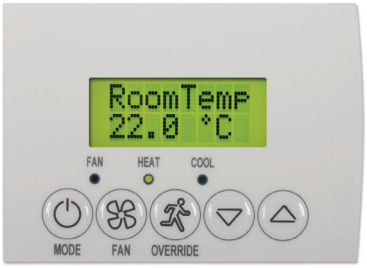
Fan coil models

	When any of the fan speeds are **ON**, the **FAN LED will illuminate.**
	When heating is **ON**, the **HEAT LED will illuminate.**
	When cooling is **ON,** the **COOL LED will illuminate.**

USER INTERFACE

Hotel/Lodging Models

Commercial Models



Unoccupied mode override

An Override can be made on commercial models during an unoccupied period. If the Override option is enabled in the lockout configuration, pressing the middle override button will resume occupied setpoints for a time specified by the parameter “ToccTime”.

Local Keypad Interface

	MODE Is used to toggle between the different system modes available as per sequence and menu selected. • Repetitively pressing the button will toggle between all the available modes. • Available menus are dependent on selected sequence of operation
	FAN Is used to toggle between the different fan modes available as per the sequence and menu selected • Repetitively pressing the button will toggle between all the available modes • Available menus are dependent on selected sequence of operation and menu selected for Fan
	Hotel and lodging applications. **Toggles the local user temperature scale between °F and °C**
	Commercial and institutional applications. Set a local unoccupied timed **OVERRIDE** to occupied mode
	• In cooling mode only the cooling setpoint is displayed, • In heating mode only the heating setpoint is displayed • In auto mode, (See below)
	• In cooling mode only the cooling setpoint is displayed, • In heating mode only the heating setpoint is displayed • In auto mode, (See below)

- Any setpoint change can be permanent or temporary based on configuration parameter (Setpoint Type)
- Any setpoint written through the network, will be permanent and cancel any active temporary setpoints
- Lockouts of access to certain functions is made with configuration parameter (lockout)

Dual occupied setpoints adjustment

(Local occupied setpoint adjustment when “Stp Func” = Dual *Stp*)

COOLING MODE	HEATING MODE	OFF MODE	AUTO MODE
			• Setpoint presented to user is the setpoint from the last action taken by the Room Controller or the one currently in use. • If the other setpoint is the one desired, then the MODE button is used to toggle between the current displayed one and the other.
Cool XX.X °F or °C	Heat XX.X °F or °C	No access to setpoint	Cool XX.X °F or °C or Heat XX.X °F or °C Toggle to (Heat or Cool) with MODE button

- Heat/Cool setpoint toggle with MODE button to be active only in AUTO mode.
- If cooling, heating or off mode is active, function is disabled.

Single occupied setpoints adjustment

(Local occupied setpoint adjustment when “Stp Func” = Attch *Stp*)

COOLING MODE	HEATING MODE	OFF MODE	AUTO MODE
			• Setpoint presented to user is the setpoint from the last action taken by the Room Controller or the one currently in use. • Both heating and cooling setpoints are changed simultaneously while respecting the minimum configured deadband • If the other setpoint is the one desired, then the MODE button is used to toggle between the current displayed one and the other.
Cool XX.X °F or °C	Heat XX.X °F or °C	No access to setpoint	Cool XX.X °F or °C and Heat XX.X °F or °C Both heating & cooling setpoints change simultaneously Toggle from (Heat or Cool) using the system MODE button

Technical Support

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

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ASIA PACIFIC

Contact Technical Support at https://ecobuilding.schneider-electric.com/support