PIR Application Guide for the for SE7xxxX5045(X) Series controllers

Product Overview

The SE-PIR Accessory covers with embedded Passive Infra-Red motion detection have been specifically designed to work with all compatible SE7000 series controllers. Controllers compatible with SE-PIR covers use the following part number assignments: SE7xxxxX5xxx(X). The 5 identifies the controller base controller has the necessary onboard polarized PIR connector and functionality added.

When equipped with a SE-PIR accessory cover or a remote PIR sensor attached to one of the remote inputs, a SE7000 series controller provides advanced active occupancy logic, which will automatically switch occupancy levels from Occupied to Stand-By and Unoccupied as required by local activity being present or not.

This advanced occupancy functionality provides advantageous energy savings during occupied hours without sacrificing occupant comfort.

The range of applications covered with the PIR occupancy logic can be segmented in 2 important categories in terms of functionality. Both use different settings and have different behaviours:

- Hotel and lodging applications.
- Standard commercial applications.

Typical applications that can be meet by the new PIR accessory covers range from:

- Network-Ready, lodging FCU applications.
- Networks lodging FCU applications fully integrated to a reservation system.
- Networked or Network-Ready conference rooms.
- Networked or Network-Ready classrooms units.
- Any commercial offices that have random occupancy schedules during occupied hours as dictated by the function of the tenant.
- Or any controlled piece of HVAC equipment that may yield energy savings with the introduction of a new automatic stand-by level of occupancy.

The following documentation is available on www.Schneider-Electric.com

SE- PIR Cover Models Available

Schneider-Electric PIR Cover Part Number	Description	Compatible with the Following Controllers
COV-PIR-FCU-C-5045	PIR cover with Commercial FCU interface	SE73x0X50xx(X)
COV-PIR-FCU-L-5045	PIR cover with Hotel/Lodging interface	SE73x5X50xx(X)
COV-PIR-HPUMP-5045	PIR cover for heat pump controllers	SE76xxH50xx(X)x
COV-PIR-RTU-5045	PIR cover for roof-top controllers	SE76xxX50xx(X)
COV-PIR-ZN-5045	PIR cover for zoning controllers	SE7200X50xx(X)

The following configuration parameters are standard on all SE7000 series controllers. They are associated with the advanced occupancy functionality provided with the addition of a PIR cover or a remote PIR sensor. These parameters will allow the installer to set the controller occupancy functions exactly as required by the application.

Their functionality only becomes active when a PIR accessory cover is connected or one of the binary or digital input is configured to use a remote PIR sensing device.

Configuration Parameter	Description of Configuration parameter
BI or DI input door setting Default: None for no function used	It is possible to configure some of the digital or binary inputs to use the advanced functions allowed by the installation of a door switch contact. This function is mostly used with fan coil units in lodging applications When a door contact is used and configured, the Stand-By timer is no longer active. The occupancy toggle between occupied and stand-by is now dictated by both the door contact and the PIR cover. • Movement detected by the PIR cover = Always occupied • Door opens or closes detected by the door switch = Stand-by mode
Stand-by Heating Set point: Default: 69 °F (20.5 °C)	This parameter sets the stand-by heating setpoint value. The set value of this parameter should reside between the occupied and unoccupied heating setpoints and assures that the difference between the stand-by and occupied value can be recovered in a timely fashion when movement is detected in the zone. Adjustable from 40 to 90 °F (4.5 to 32 °C) in 0.5 degree increments.
Stand-by Cooling Set point: Default: 78 °F (25.5 °C)	This parameter sets the stand-by cooling setpoint value. The set value of this parameter should reside between the occupied and unoccupied cooling setpoints and assures that the difference between the stand-by and occupied value can be recovered in a timely fashion when movement is detected in the zone. Adjustable from 54 to 100 °F (12.2 to 37.8 °C) in 0.5 degree increments.
Stand-by Time: Default 0.5 hours	This parameter sets the time delay between the moment where the PIR cover detected the last movement in the area and the time which the controller stand-by mode and setpoints become active. Adjustable from 0.5 to 24 hours in .5hr increments
Unoccupied Time: Default 0.0 hours	If no movements are detected in the area when in standby mode is stand-by. This parameter will then set the time delay between the moment where the controller toggles to stand-by mode and the time which the controller unoccupied mode and setpoints become active. The factory value of **0.0 hours:** Setting this parameter to its default value of 0.0 hours disables the unoccupied timer. This prevents the controller to drift from stand-by mode to unoccupied mode when PIR functions are used Adjustable from 0.0 to 24 hours in .5hr increments

When reviewing the following document and planning an application using a Schneider-Electric controller with PIR functionality, please remember the following important notes:

- **Configuration of PIR Functions:** All PIR applications related to configuration parameters are displayed in the configuration menu or available as objects in the network object list. However, the advanced occupancy functionality of a PIR attached to a controller is only enabled if either:
  - A Schneider-Electric SE-PIR cover is installed on the controller.
  - A remote input is configured as a remote PIR sensor (Motion **NO or Motion NC**).

- **PIR Cover Warm-Up Period:** When SE-PIR accessory cover is used and a controller is powered up; there will be a 1 minute warm up period before any local movements can being detected and acknowledged by the PIR sensing device. The local status LED's for the SE-PIR cover will not be active during that one minute period.

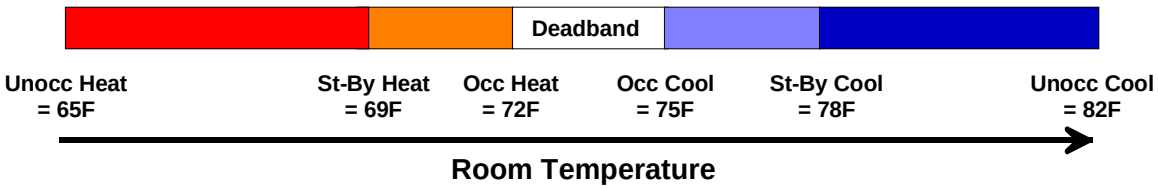
  Only after 1 minute has elapsed after initial power up of the controller will the PIR functionality and local movement status LED's be activated.

- **Setpoints:** The implemented stand-by setpoints have the same limitations and restrictions as the occupied and unoccupied ones. This means that:
  - They use exactly the same range:
    - Heating setpoints range are: 40 to 90 °F (4.5 to 32.0 °C)
    - Cooling setpoints range are: 54 to 100 °F (12.0 to 37.5 °C)
  - They are always limited by the applied minimum deadband configuration.
  - They will be limited by the Heat Maximum and Cool Minimum configuration parameters.

  All individual cooling setpoints and all individual heating setpoints can be set independently. However, a typical arrangement will always have the value of the stand-by parameters residing between the corresponding occupied and unoccupied setpoint values.

  The installer must make sure that the difference between the stand-by and occupied value can be recovered in a timely fashion when movement is detected in the zone and large enough to warrant maximum energy savings.

  Ex.:



- **Application Range:** The range of applications covered by the PIR occupancy logic can be segmented in 2 important categories in terms of functionality. Both use different settings and have different behaviours:
  - Hotel and lodging applications
  - Standard commercial applications

  Hotel and Lodging Applications can benefit the addition of an entry door switch wired to one of the appropriately configured remote input of a controller.

  When a door contact is used and configured, the Stand-By timer and its configuration are no longer active or used. The occupancy front toggle between occupied and stand-by is dictated by both the door contact and the PIR sensing device used.

  If movements are detected by the PIR cover, the room will always be in occupied mode. The switch back to stand-by mode will only happen if the door switch toggles between open andclosed. Please review attached lodging application examples in the document for more information.

  Standard Commercial Applications would not typically use a remote door switch contact attached to the controller.

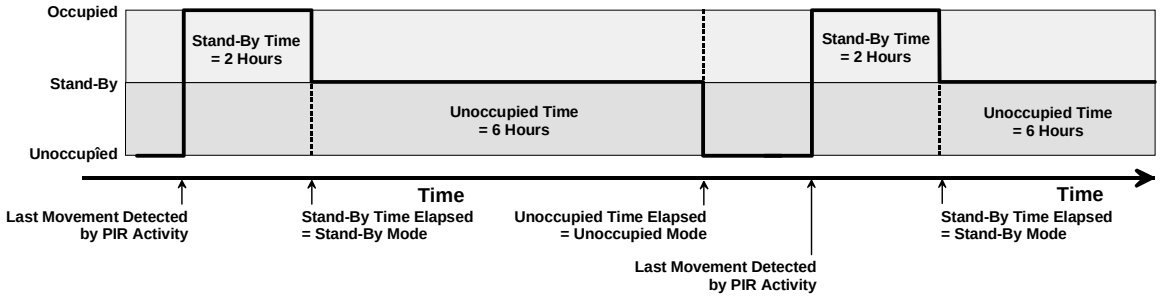
  PIR occupancy functionality is simply dictated by both the Stand-By Timer and Unoccupied Timer configuration value and movements being present or not in the area. Please review attached typical commercial application examples in

the document for more information.

- **Unoccupied Timer Disable:** In certain applications, it may be desired to never let the local area enter the unoccupied mode and stay at the stand-by occupancy level when no activity is present.

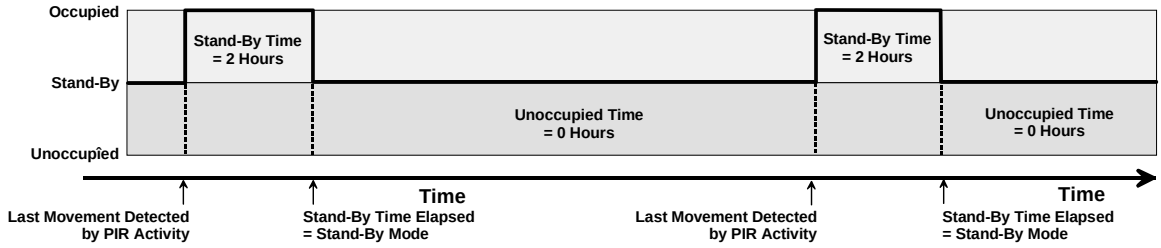
  This allows for advanced flexibility when used in conjunction with a network or in cases when areas always need to be on stand-by status ready to respond to demand at any point in time.

Unoccupied timer set 6 Hours and stand-by timer set to 2 hours



When the local PIR occupancy routine is active at the controller, the zone will drift into unoccupied mode when the unoccupied timer is set *above* its factory default value of 0.0 hours.

Unoccupied timer set 0 Hours and stand-by timer set to 2 hours



When the local PIR occupancy routine is active at the controller, the zone will never drift into unoccupied mode when the unoccupied timer is set to its factory default value of 0.0 hours.

- **Network Priority and Local Occupancy Routine:**

The internal PIR occupancy logic implementation in conjunction with network commands has been conceived to give the most flexibility while allowing for simple implementation and use.

Network Occupancy Commands: All SE7000 series controllers have 3 occupancy command levels. This is valid for all network variations available for the controllers: Echelon®, BACnet® MS-TP or Wireless ZigBee®.

The 3 levels occupancy state level commands are:

State Occupancy Command Levels	Function
Local occupancy	- Releases the controller to its own occupancy schemes - This may be a PIR sensing device, a local schedule or an occupancy routine done by one of the digital input - This state command level is used to effectively release the controller to use the PIR functions
Occupied	- Leaves the controller in occupied mode and cancels any local occupancy functions, including the PIR occupancy routine - This state command level is used to force the zone to be always occupied

Unoccupied	- Leaves the controller in unoccupied mode and cancels any local occupancy functions, including the PIR occupancy routine - This state command level is used to force the zone to be always unoccupied. - The only local possible command is a local override if the controller is equipped with such an option or if the local keypad lockout allows so

Stand-by is *never* a commandable level. It only exists as a feedback status level.

Network Occupancy Feedback Status: All SE7000 series controllers have 4 occupancy feedback levels. This is valid for all network variations available for the controllers: ECHELON®, BACnet®-MS-TP or Wireless ZigBee®.

State Occupancy Command Levels	Function
Override / By-Pass	Indicates that the zone is currently in local occupied override mode from the unoccupied state. This function will operate like a normal local override and its time value is as dictated by the ToccTime configuration parameter setting.
Occupied	Indicates that the zone is currently occupied. This effective feedback state may be driven by a local occupancy routine like a PIR sensor or by an occupied network command.
Stand-By	Indicates that the zone is currently in stand-by mode. This effective feedback state *can only* be driven by a local PIR occupancy routine.
Unoccupied	Indicates that the zone is currently unoccupied. This effective feedback state may be driven by a local occupancy routine like a PIR sensor or by an unoccupied network command.

1) BACnet® Object Used for Occupancy Commands and Feedback

Object Name	Object ID	BACnet® Index	Text
Occupancy Command	MV 13	1	Local Occupancy (PIR or Internal Schedule)
		2	Occupied
		3	Unoccupied
Effective Occupancy	MV 83	1	Occupied
		2	Unoccupied
		3	Temporary Occupied
		4	Stand-By

2) Echelon® Snivets Used for Occupancy Commands and Feedback

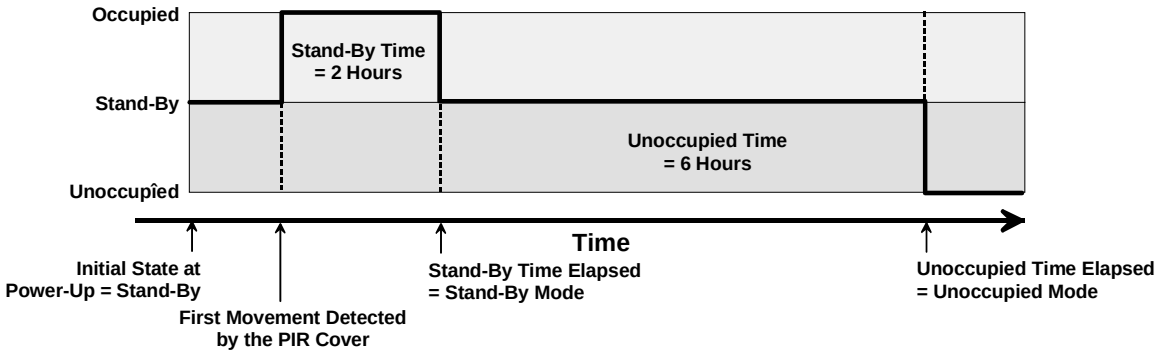
Snivet Name	Notes and Indexes
network input SNSE_occupancy **nviOccCmd**	➢ Default Null Value: OC_NUL = 0xFF Releases the controller to its internal Occupancy function: Internal scheduling, PIR, etc…. ➢ Valid Range:
	0 = OC_OCCUPIED
	1 = OC_UNOCCUPIED
	2 = OC_BYPASS – **Not Used**
	3 = OC_STANDY – **Not Used**
	0xFF = OC_NUL (Release to PIR or internal schedule)
network output SNSE_occupancy **nvoEffectOccup**	➢ This output network variable is used to indicate the actual occupancy mode of the unit. This information is typically reported to a supervisory controller or provided to another Space Comfort Controller to coordinate the operation of multiple units ➢ Valid Range:
	0 = OC_OCCUPIED
	1 = OC_UNOCCUPIED
	2 = OC_BYPASS[1]

	3 = OC_STANDBY Note 1: OC_BYPASS can be initiated by local override. NvoEffectOccup will only be in OC_BYPASS for the duration of the ToccTime (nciGenOpts), until reinitiated by either a transition of the local input or an update to nviOccManCmd.

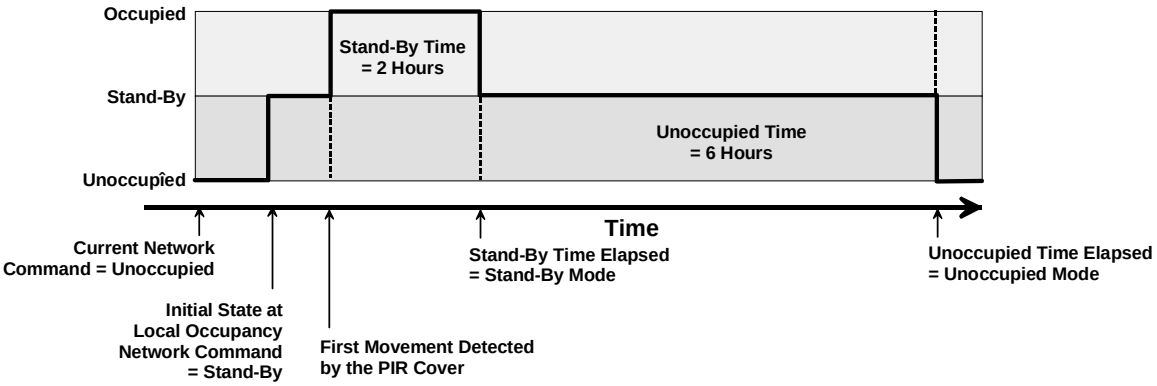
- **Initial State, PIR Occupancy Routine:** The initial effective occupancy state on power-up with either a PIR cover is present or one of the inputs is configured for a remote PIR sensor is always:
  - In Network-Ready applications at power-up: Local occupancy mode = Stand-by
  - From a previous network unoccupied command: Local occupancy mode = Stand-by
  - From a previous network occupied command: Local occupancy mode = Occupied.

When the network effectively releases a controller to its local PIR routine from a previous occupied or unoccupied network state, the resulting occupancy state is always *Stand-By mode*.

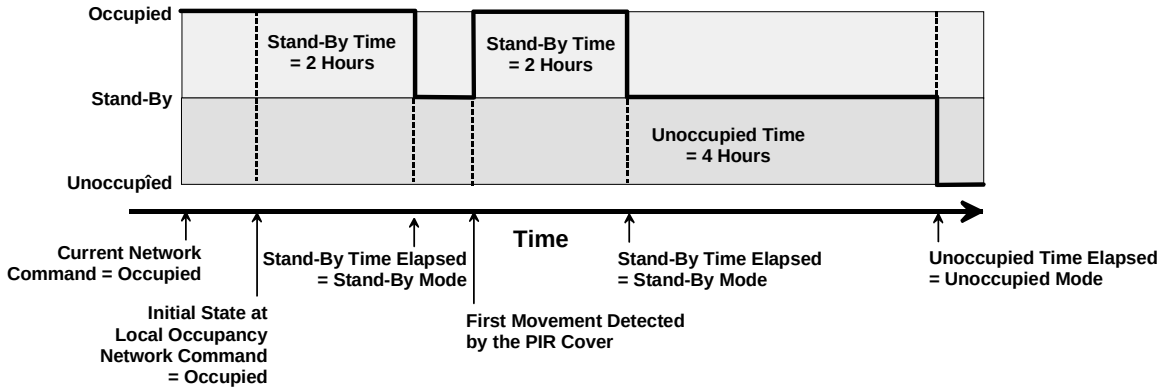
Initial Power-Up, Network-Ready or Networked



After Receiving the *Local Occupancy / PIR* Network Command from a Previous Unoccupied State



After Receiving the *Local Occupancy / PIR* Network Command from a Previous Occupied State



Commercial Applications

Application Number	PIR Levels of Occupancy	PIR Cover Used	Remote PIR used	Network interface
1	3	Yes	No	None, Network-Ready
2	2	Yes	No	None, Network-Ready
3	3	No	Yes	None, Network-Ready
4	2	No	Yes	None, Network-Ready
5	3	Yes	Yes	None, Network-Ready
6	2	Yes	Yes	None, Network-Ready
7	3	Yes	No	None, Network-Ready
8	2	Yes	No	None, Network-Ready
9	3	No	Yes	None, Network-Ready
10	2	No	Yes	None, Network-Ready
11	3	Yes	Yes	None, Network-Ready
12	2	Yes	Yes	None, Network-Ready

Lodging Applications

Application Number	PIR Levels of Occupancy	PIR Cover Used	Remote PIR used	Network interface
13	3	Yes	No	None, Network-Ready
14	2	Yes	No	None, Network-Ready
15	3	No	Yes	None, Network-Ready
16	2	No	Yes	None, Network-Ready
17	3	Yes	Yes	None, Network-Ready
18	2	Yes	Yes	None, Network-Ready
19	3	Yes	No	Yes, ECHELON® or BACnet®
20	2	Yes	No	Yes, ECHELON® or BACnet®
21	3	No	Yes	Yes, ECHELON® or BACnet®
22	2	No	Yes	Yes, ECHELON® or BACnet®
23	3	Yes	Yes	Yes, ECHELON® or BACnet®
24	2	Yes	Yes	Yes, ECHELON® or BACnet®

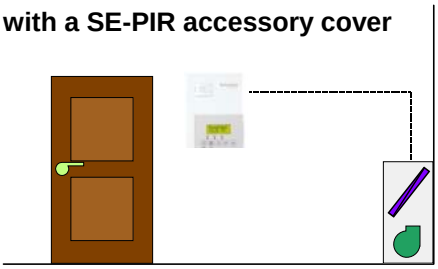
Advanced network interface can be obtained when controllers are fully integrated to the reservation system

In these cases, the occupancy network commands state enumerations text presented by a front end system can be expanded to better represent the nature of the application.

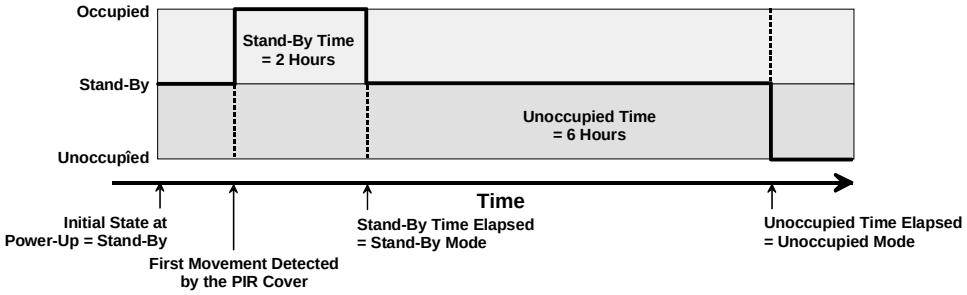
Occupancy network commands state	Front end system state text examples
Local Occupancy (PIR active)	Room rented PIR economy enabled
Occupied	Room rented high comfort assured
Unoccupied	Room not rented

- **1) SE7300 Network-Readyfan coil application using 3 levels of occupancy with a SE-PIR accessory cover**

Set-up and Configuration	
Controller used	SE73x0X5045 (commercial models)
PIR used	COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	None, no function
Stand-by timer value	2.0 hours
Unoccupied timer value	6.0 hours
Network interface used	None, stand-alonee



Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; the initial occupancy of the zone will be in stand-by mode if the PIR device does not detect any movement.

As soon as the PIR device detects a movement, the occupancy status switches to occupied and the occupied setpoints are used.

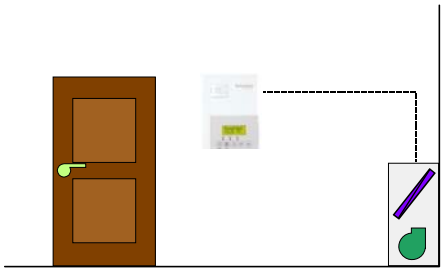
Anytime the PIR device detects local motion, the elapsed stand-by timer value will be reset. If no motion is detected in the zone for the entire stand-by timer duration, then the room switches to stand-by mode and the stand-by setpoints are used.

While in stand-by mode, if no motion is detected in the zone for the entire unoccupied timer duration, then the room switches to unoccupied mode and the unoccupied setpoints are used.

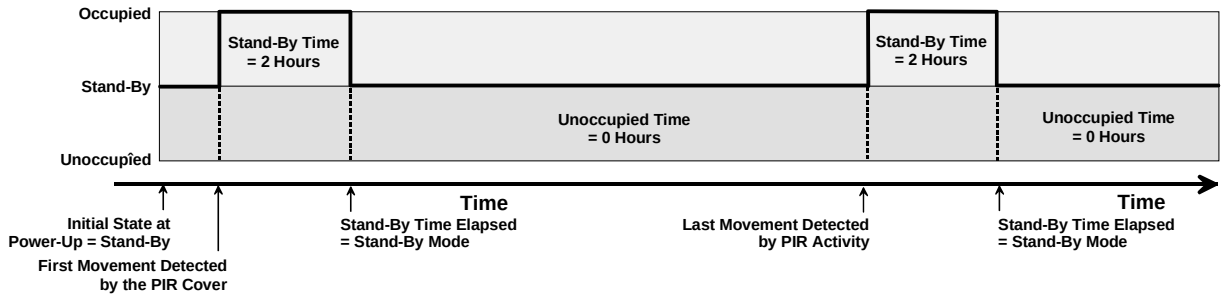
At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.

- **2) SE7300 Network-Ready fan coil application using 2 levels of occupancy with a SE-PIR accessory cover**

Set-up and Configuration	
Controller used	SE73x0X5045 (commercial models)
PIR used	COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	None, no function
Stand-by timer value	2.0 hours
Unoccupied timer value	0.0 hours
Network interface used	None, stand-alone



Sequence of operation:



At initial power-up, when the controller 24 Vac power supply is applied; the initial occupancy of the zone will be in stand-by mode if the PIR device does not detect any movement.

As soon as the PIR device detects a movement, the occupancy status switches to occupied and the occupied setpoints are used.

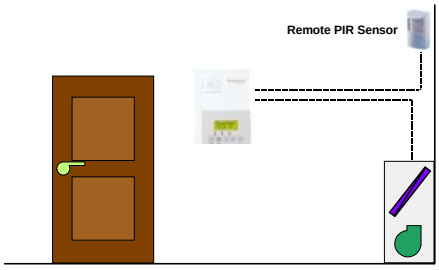
Anytime the PIR device detects local motion, the elapsed stand-by timer value will be reset. If no motion is detected in the zone for the entire stand-by timer duration, then the room switches to stand-by mode and the stand-by setpoints are used.

At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.

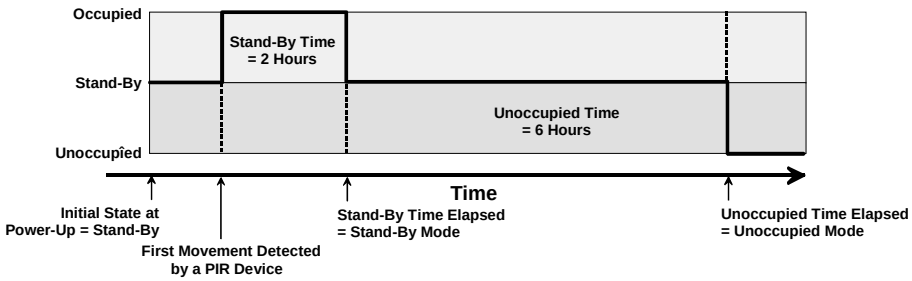
The local zone never goes into unoccupied mode and the unoccupied setpoints are never used.

- **3) SE7300 Network-Ready fan coil application using 3 levels of occupancy with a remote PIR sensor**

Set-up and Configuration	
Controller used	SE73x0X5045 (commercial models)
PIR used	BI1 configured for remote PIR sensor
BI2 Configuration	None, no function
Stand-by timer value	2.0 hours
Unoccupied timer value	6.0 hours
Network interface used	None, stand-alone



Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; the initial occupancy of the zone will be in stand-by mode if the PIR device does not detect any movement.

As soon as the PIR device detects a movement, the occupancy status switches to occupied mode and the occupied setpoints are used.

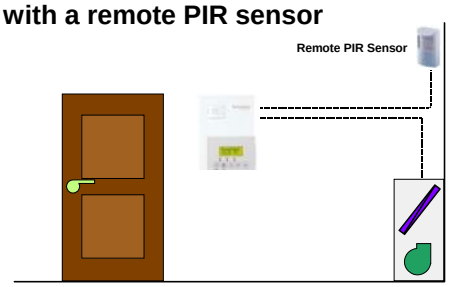
Anytime the PIR device detects local motion, the elapsed stand-by timer value will be reset. If no motion is detected in the zone for the entire stand-by timer duration, then the room switches to stand-by mode and the stand-by setpoints are used.

While in stand-by mode, if no motion is detected in the zone for the entire unoccupied timer duration, then the room switches to unoccupied mode and the unoccupied setpoints are used.

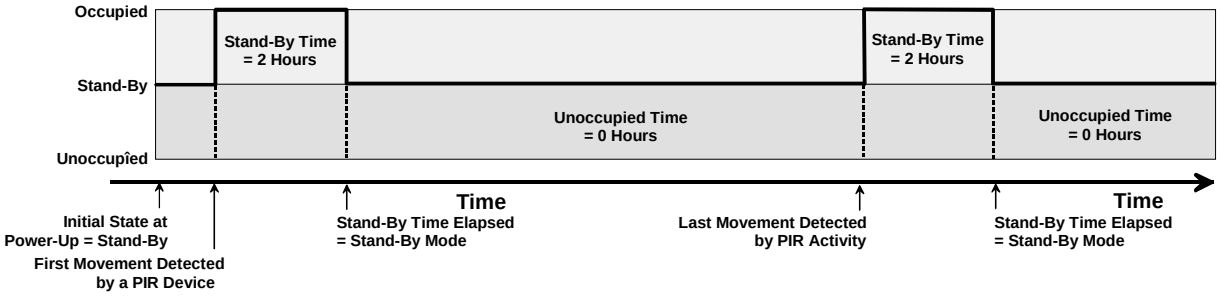
At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.

- **4) SE7300 Network-Ready fan coil application using 2 levels of occupancy with a remote PIR sensor**

Set-up and Configuration	
Controller used	SE73x0X5045 (commercial models)
PIR used	BI1 configured for remote PIR sensor
BI2 Configuration	None, no function
Stand-by timer value	2.0 hours
Unoccupied timer value	0.0 hours
Network interface used	None, stand-alone



Sequence of operation:



At initial power-up, when the controllers 24 Vac power supply is applied; the initial occupancy of the zone will be in stand-by mode if the PIR device does not detect any movement.

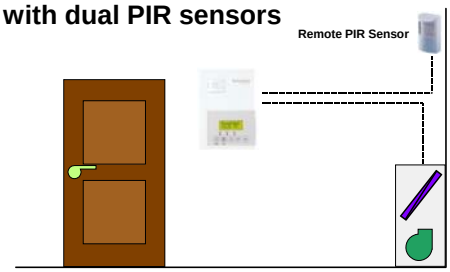
As soon as the PIR device detects a movement, the occupancy status switches to occupied and the occupied setpoints are used.

Anytime the PIR device detects local motion, the elapsed stand-by timer value will be reset. If no motion is detected in the zone for the entire stand-by timer duration, then the room switches to stand-by mode and the stand-by setpoints are used.

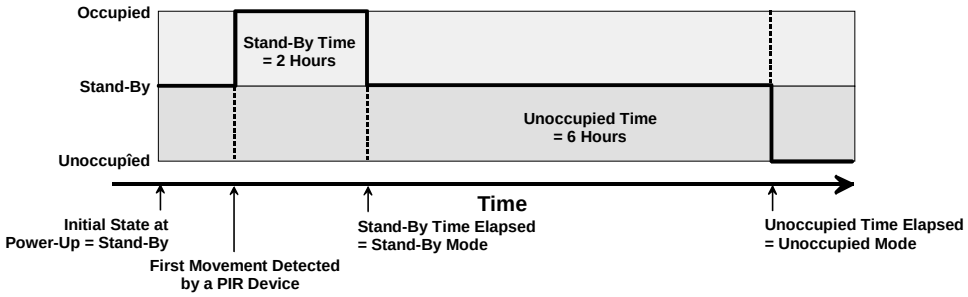
At anytime, if the PIR device detects local movement, the occupancy status switches to occupied and the occupied setpoints are used.The local zone never goes into unoccupied mode and the unoccupied setpoints are never used.

- **5) SE7300 Network-Ready fan coil application using 3 levels of occupancy with dual PIR sensors**

Set-up and Configuration	
Controller used	SE73x0X5045 (commercial models)
PIR used	BI1 configured for remote PIR sensor and COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	None, no function
Stand-by timer value	2.0 hours
Unoccupied timer value	6.0 hours
Network interface used	None, stand-alone



Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; the initial occupancy of the zone will be in stand-by mode If the PIR devices does not detect any movement.

As soon as any of the PIR devices detect a movement, the occupancy status switches to occupied and the occupied setpoints are used.

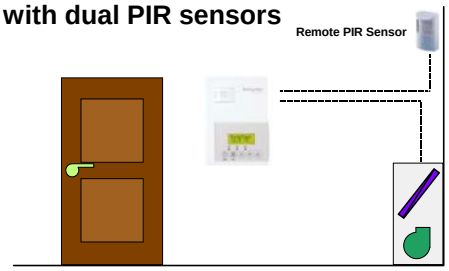
Anytime local motion is detected by one of the PIR devices, the elapsed stand-by timer value will be reset. If either PIR devices in the zone detects no motion for the entire stand-by timer duration, then the room switches to stand-by mode and the stand-by setpoints are used.

While in stand-by mode, if no motion is detected in the zone by either PIR devices for the entire unoccupied timer duration, then the room switches to unoccupied mode and the unoccupied setpoints are used.

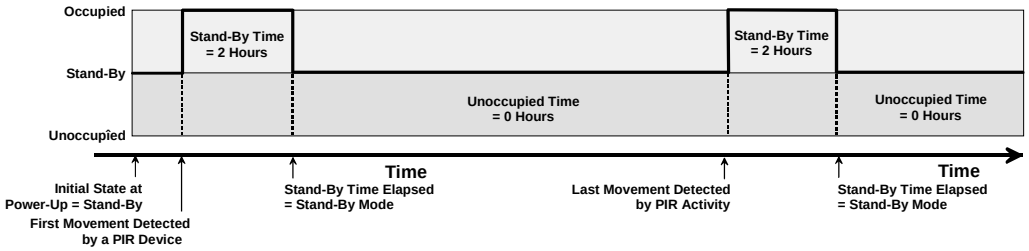
At anytime, if one of the PIR devices detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.

- **6) SE7300 Network-Ready fan coil application using 2 levels of occupancy with dual PIR sensors**

Set-up and Configuration	
Controller used	SE73x0X5045 (commercial models)
PIR used	BI1 configured for remote PIR sensor and COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	None, no function
Stand-by timer value	2.0 hours
Unoccupied timer value	0.0 hours
Network interface used	None, stand-alone



Sequence of operation:



At initial power-up, when the controller 24 Vac power supply is applied; the initial occupancy of the zone will be in stand-by mode If the PIR devices does not detect any movement.

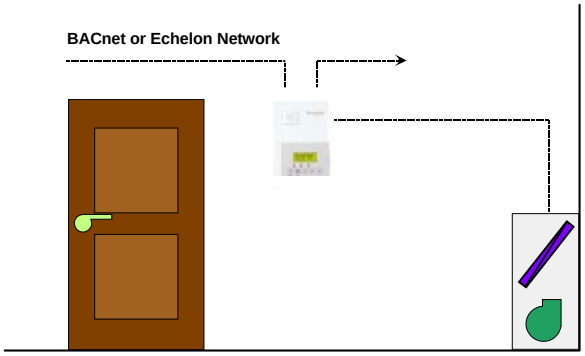
As soon as any of the PIR devices detect a movement, the occupancy status switches to occupied and the occupied setpoints are used.

Anytime local motion is detected by one of the PIR devices, the elapsed stand-by timer value will be reset. If either PIR devices in the zone detect no motion for the entire stand-by timer duration, then the room switches to stand-by mode and the stand-by setpoints are used.

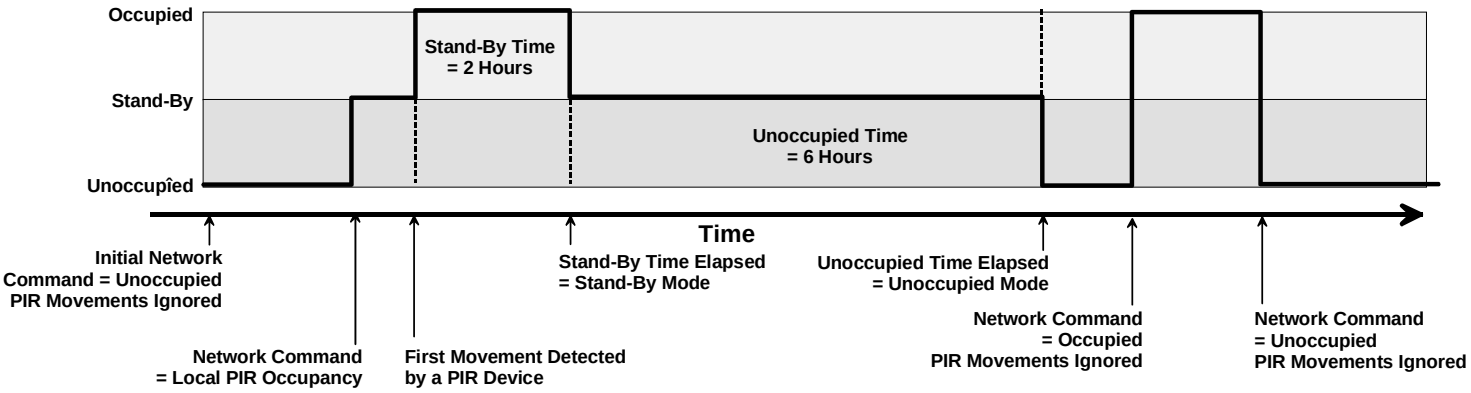
At anytime, if one of the PIR devices detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.The local zone never goes into unoccupied mode and the unoccupied setpoints are never used.

- **7) SE7300 Networked fan coil application using 3 levels of occupancy with a SE-PIR accessory cover**

Set-up and Configuration	
Controller used	SE73x0X5045(B or E) (commercial models)
PIR used	COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	None, no function
Stand-by timer value	2.0 hours
Unoccupied timer value	6.0 hours
Network interface used	Echelon® or BACnet® MS-TP



Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; if there is no occupancy network command received by the controller and if the PIR device do not detect any movement, the initial occupancy of the zone will be in stand-by mode.

Occupied state network command

At any time, an occupied network command will force the local zone to be in occupied mode and to use the occupied setpoints.

Unoccupied state network command

At any time, an unoccupied network command will always force the local zone to be in unoccupied mode and to use the unoccupied setpoints. If the controller's local override function is not locked out by configuration, the local user may initiate a temporary local override to occupied as dictated by the temporary occupancy time configuration parameter setting.

Local occupancy state network command

When in unoccupied mode when the controller receives a local occupancy state network command, the local PIR occupancy loop will now be enabled. If the PIR devices does not detect any movement, the occupancy of the zone will be in stand-by mode.

As soon as the PIR device detects a movement while in the local occupancy state network command, the occupancy status switches to occupied and the occupied setpoints are used.

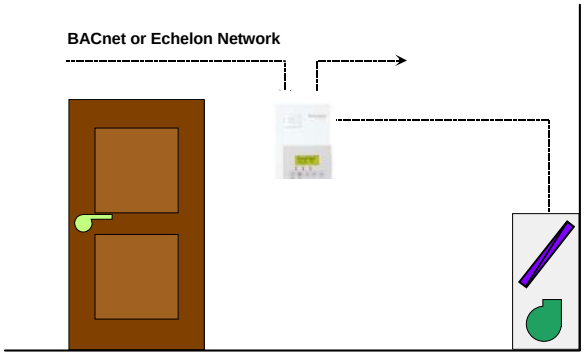
When the PIR device detects local motion, the elapsed stand-by timer value will be reset. If no motion is detected in the zone for the entire stand-by timer duration, then the room switches to stand-by mode and the stand-by setpoints are used.

While in stand-by mode, if no motion is detected in the zone for the entire unoccupied timer duration, then the room switches to unoccupied mode and the unoccupied setpoints are used.

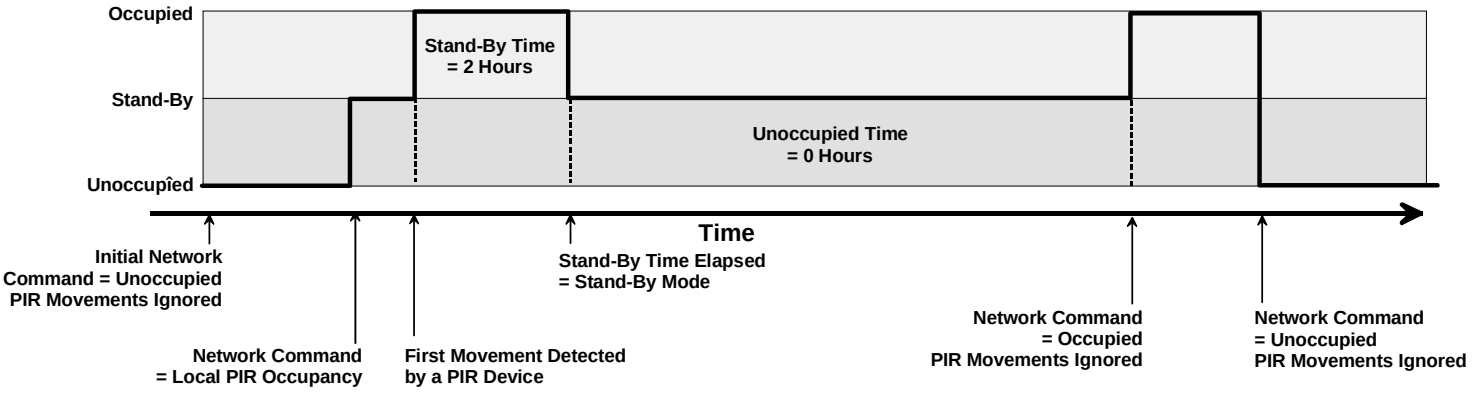
At anytime, if the PIR device detects a movement, the occupancy status switches to occupied and the occupied setpoints are used.

- **8) SE7300 Networked fain coil application using 2 levels of occupancy with a SE-PIR accessory cover**

Set-up and Configuration	
Controller used	SE73x0X5045 (B or E) (commercial models)
PIR used	COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	None, no function
Stand-by timer value	2.0 hours
Unoccupied timer value	0.0 hours
Network interface used	Echelon® or BACnet® MS-TP



Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; if there is no occupancy network command received by the controller and if the PIR device does not detect any movement, the initial occupancy of the zone will be in stand-by mode.

Occupied state network command

At any time, an occupied network command will always force the local zone to be in occupied mode and to use the occupied setpoints.

Unoccupied state network command

At any time, an unoccupied network command will always force the local zone to be in unoccupied mode and to use the unoccupied setpoints. If the controllers local override function is not locked out by configuration, the local user may initiate a temporary local override to occupied as dictated by the temporary occupancy time configuration parameter setting.

Local occupancy state network command

If previously in unoccupied mode when then the controller receives a local occupancy state network command, the local PIR occupancy loop will now be enabled. If the PIR devices does not then detect any movement, the occupancy of the zone will be in stand-by mode.

As soon as the PIR device detects a movement while in the local occupancy state network command, the occupancy status switches to occupied and the occupied setpoints are used.

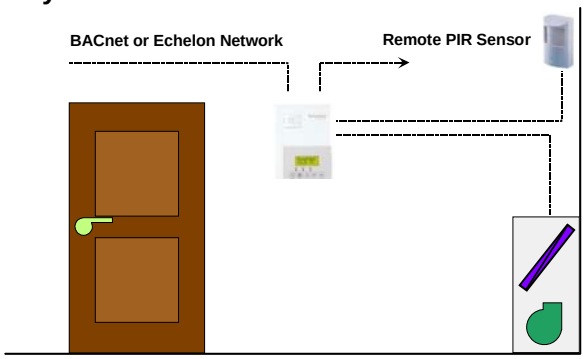
Anytime the PIR device detects local motion, the elapsed stand-by timer value will be reset. If no motion is detected in the zone for the entire stand-by timer duration, then the room switches to stand-by mode and the stand-by setpoints are used.

At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.

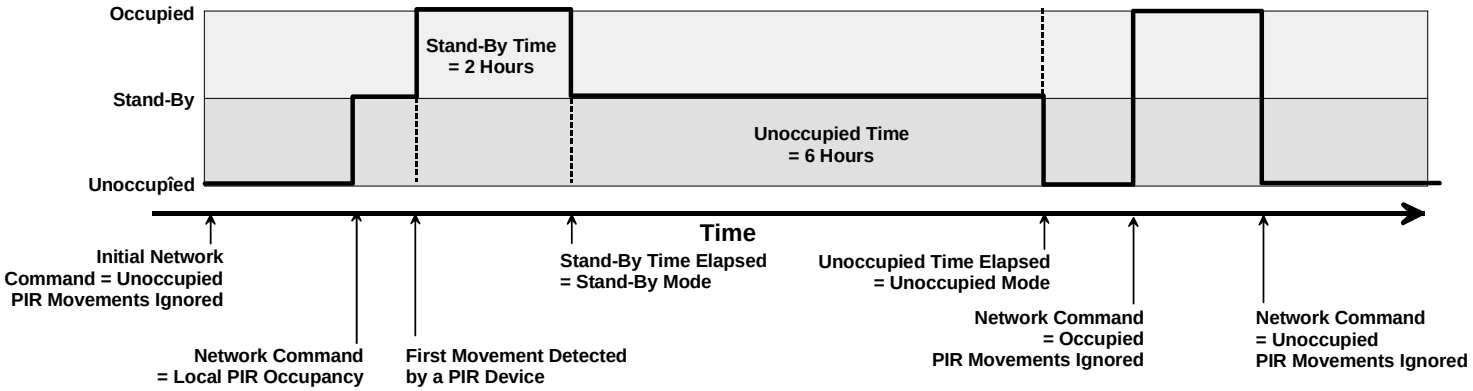
While in the local occupancy state network command, the local zone never goes into unoccupied mode and the unoccupied setpoints are never used.

- **9) SE7300 Networked fan coil application using 3 levels of occupancy with a remote PIR sensor**

Set-up and Configuration	
Controller used	SE73x0X5045(B or E) (commercial models)
PIR used	BI1 configured for remote PIR sensor
BI2 Configuration	None, no function
Stand-by timer value	2.0 hours
Unoccupied timer value	6.0 hours
Network interface used	Echelon® or BACnet® MS-TP



Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; if there is no occupancy network command received by the controller and if the PIR device do not detect any movement, the initial occupancy of the zone will be in stand-by mode.

Occupied state network command

At any time, an occupied network command will always force the local zone to be in occupied mode and to use the occupied setpoints.

Unoccupied state network command

At any time, an unoccupied network command will always force the local zone to be in unoccupied mode and to use the unoccupied setpoints. If the controller's local override function is not locked out by configuration, the local user may initiate a temporary local override to occupied as dictated by the temporary occupancy time configuration parameter setting.

Local occupancy state network command

If previously in unoccupied mode when the controller receives a local occupancy state network command, the local PIR occupancy loop will now be enabled. If the PIR devices does not then detect any movement, the occupancy of the zone will be in stand-by mode.

As soon as the PIR device detects a movement while in the local occupancy state network command, the occupancy status switches to occupied and the occupied setpoints are used.

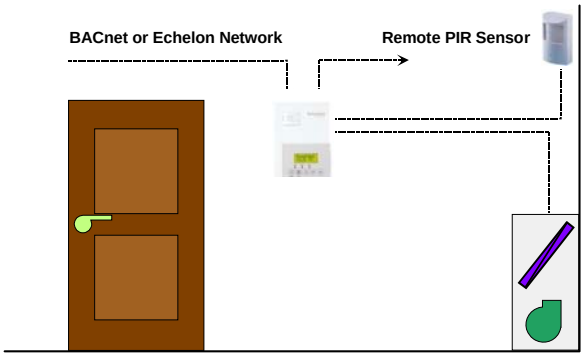
When the PIR device detects local motion, the elapsed stand-by timer value will be reset. If no motion is detected in the zone for the entire stand-by timer duration, then the room switches to stand-by mode and the stand-by setpoints are used.

While in stand-by mode, if no motion is detected in the zone for the entire unoccupied timer duration, then the room switches to unoccupied mode and the unoccupied setpoints are used.

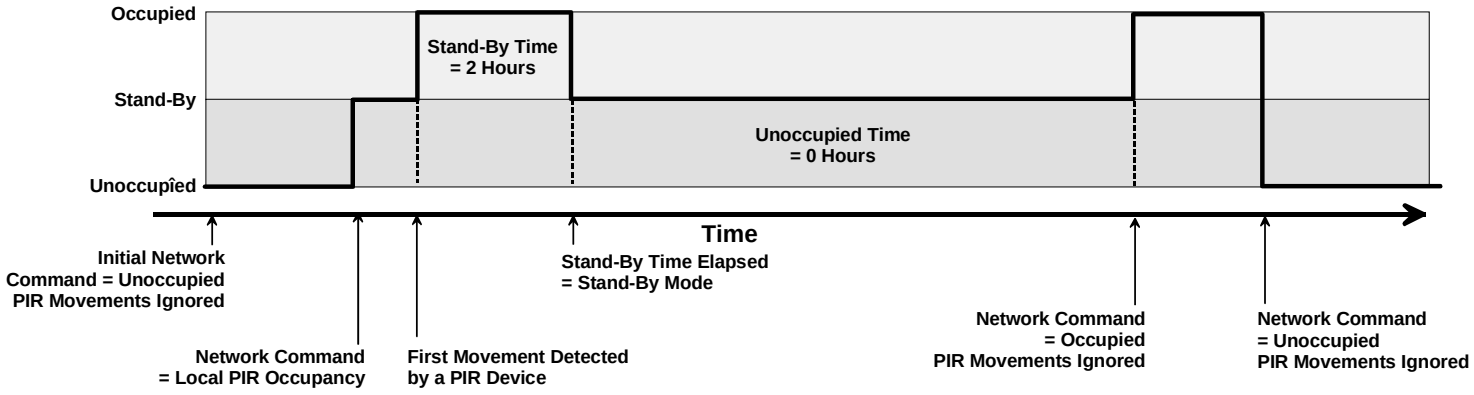
At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.

- **10) SE7300 Networked fan coil application using 2 levels of occupancy with a remote PIR sensor**

Set-up and Configuration	
Controller used	SE73x0X5045(B or E) (commercial models)
PIR used	BI1 configured for remote PIR sensor
BI2 Configuration	None, no function
Stand-by timer value	2.0 hours
Unoccupied timer value	0.0 hours
Network interface used	Echelon® or BACnet® MS-TP



Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; if there is no occupancy network command received by the controller and if the PIR device does not detect any movement, the initial occupancy of the zone will be in stand-by mode.

Occupied state network command

At any time, an occupied network command will always force the local zone to be in occupied mode and to use the occupied setpoints.

Unoccupied state network command

At any time, an unoccupied network command will always force the local zone to be in unoccupied mode and to use the unoccupied setpoints. If the controller's local override function is not locked out by configuration, the local user may initiate a temporary local override to occupied as dictated by the temporary occupancy time configuration parameter setting.

Local occupancy state network command

If previously in unoccupied mode when the controller receives a local occupancy state network command, the local PIR occupancy loop will now be enabled. If the PIR devices does not then detect any movement, the occupancy of the zone will be in stand-by mode.

As soon as the PIR device detects a movement while in the local occupancy state network command, the occupancy status switches to occupied and the occupied setpoints are used.

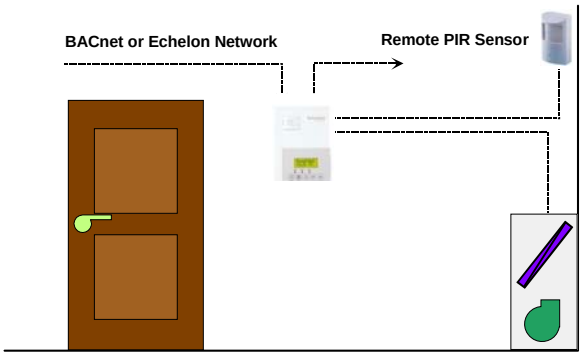
Anytime the PIR device detects local motion, the elapsed stand-by timer value will be reset. If no motion is detected in the zone for the entire stand-by timer duration, then the room switches to stand-by mode and the stand-by setpoints are used.

At anytime, if the PIR device detects local movement, the occupancy status switches to occupied and the occupied setpoints are used.

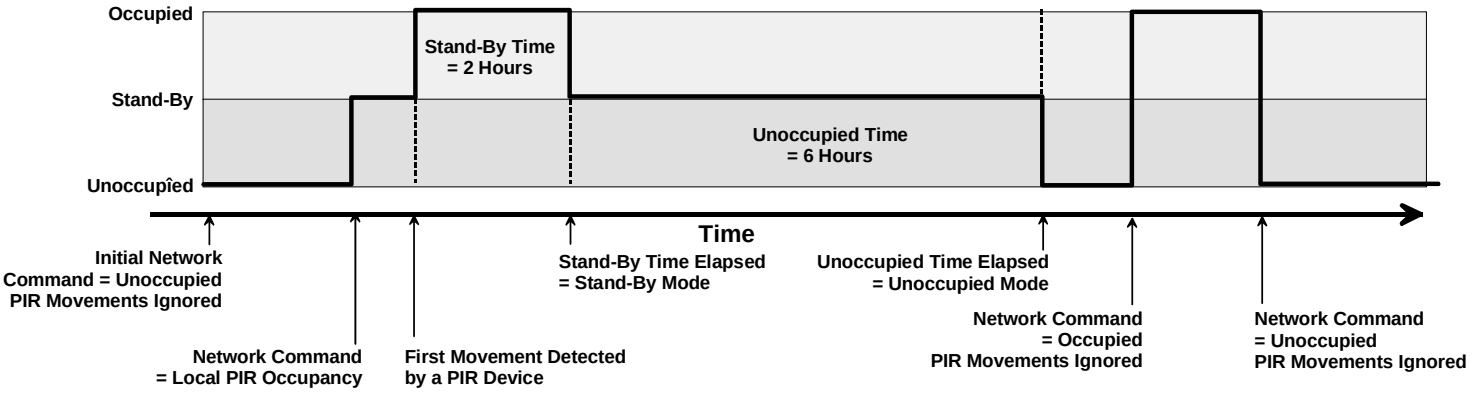
While in the local occupancy state network command, the local zone never goes into unoccupied mode and the unoccupied setpoints are never used.

- **11) SE7300 Networked fan coil application using 3 levels of occupancy with dual PIR sensors**

Set-up and Configuration	
Controller used	SE73x0X5045 (B or E) (commercial models)
PIR used	BI1 configured for remote PIR sensor and COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	None, no function
Stand-by timer value	2.0 hours
Unoccupied timer value	6.0 hours
Network interface used	Echelon® or BACnet® MS-TP



Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; if there is no occupancy network command received by the controller and if the PIR device do not detect any movement, the initial occupancy of the zone will be in stand-by mode.

Occupied state network command

At any time, an occupied network command will always force the local zone to be in occupied mode and to use the occupied setpoints.

Unoccupied state network command

At any time, an unoccupied network command will always force the local zone to be in unoccupied mode and to use the unoccupied setpoints. If the controller's local override function is not locked out by configuration, the local user may initiate a temporary local override to occupied as dictated by the temporary occupancy time configuration parameter setting.

Local occupancy state network command

If previously in unoccupied mode when the controller receives a local occupancy state network command, the local PIR occupancy loop will now be enabled. If the PIR devices does not then detect any movement, the occupancy of the zone will be in stand-by mode.

As soon as the PIR device detects a movement while in the local occupancy state network command, the occupancy status switches to occupied and the occupied setpoints are used.

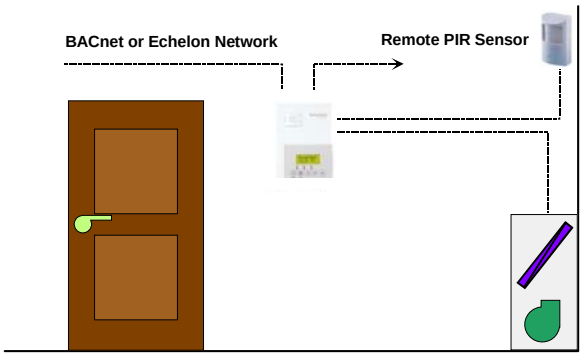
Anytime the PIR device detects local motion, the elapsed stand-by timer value will be reset. If no motion is detected in the zone for the entire stand-by timer duration, then the room switches to stand-by mode and the stand-by setpoints are used.

While in stand-by mode, if no motion is detected in the zone for the entire unoccupied timer duration, then the room switches to unoccupied mode and the unoccupied setpoints are used.

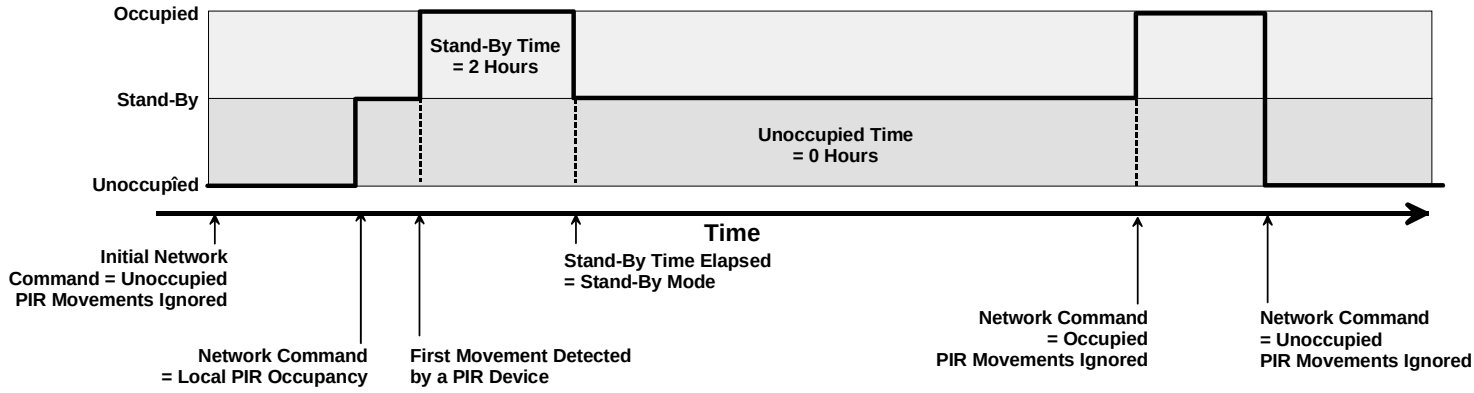
At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.

- **12) SE7300 Networked fan coil application using 2 levels of occupancy with dual PIR sensors**

Set-up and Configuration	
Controller used	SE73x0X5045 (B or E) (commercial models)
PIR used	BI1 configured for remote PIR sensor and COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	None, no function
Stand-by timer value	2.0 hours
Unoccupied timer value	0.0 hours
Network interface used	Echelon® or BACnet® MS-TP



Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; if there is no occupancy network command received by the controller and if the PIR device do not detect any movement, the initial occupancy of the zone will be in stand-by mode.

Occupied state network command

At any time, an occupied network command will always force the local zone to be in occupied mode and to use the occupied setpoints.

Unoccupied state network command

At any time, an unoccupied network command will always force the local zone to be in unoccupied mode and to use the unoccupied setpoints. If the controller's local override function is not locked out by configuration, the local user may initiate a temporary local override to occupied as dictated by the temporary occupancy time configuration parameter setting.

Local occupancy state network command

If previously in unoccupied mode when the controller receives a local occupancy state network command, the local PIR occupancy loop will now be enabled. If the PIR devices does not then detect any movement, the occupancy of the zone will be in stand-by mode.

As soon as the PIR device detects a movement while in the local occupancy state network command, the occupancy status switches to occupied and the occupied setpoints are used.

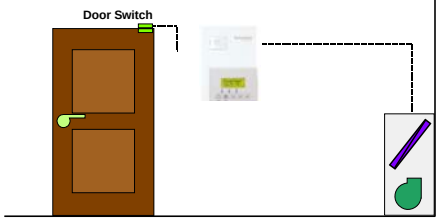
Anytime the PIR device detects local motion, the elapsed stand-by timer value will be reset. If no motion is detected in the zone for the entire stand-by timer duration, then the room switches to stand-by mode and the stand-by setpoints are used.

At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.

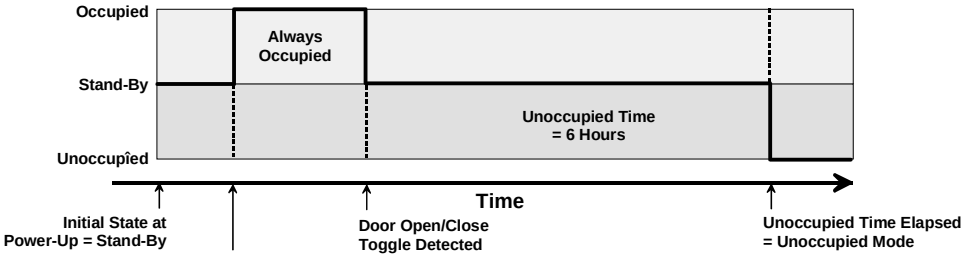
While in the local occupancy state network command, the local zone never goes into unoccupied mode and the unoccupied setpoints are never used

- **13) SE7300 Network-Ready fan coil application using 3 levels of occupancy with a SE-PIR accessory cover**

Set-up and Configuration	
Controller used	SE73x5X5045 (lodging models)
PIR used	COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	Door dry contact
Stand-by timer value	Not used
Unoccupied timer value	6.0 hours
Network interface used	None, stand-alone



Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; the initial occupancy of the zone will be in stand-by mode if the PIR device does not detect any movement.

As soon as the PIR device detects a movement, the occupancy status switches to occupied and the occupied setpoints are used. The room will then be in occupied mode until a door toggle is detected.

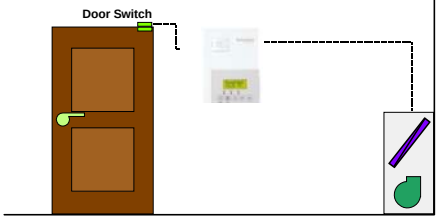
If a door toggle is detected, then the room switches to stand-by mode and the stand-by setpoints are used. If any occupants are left in the room, local movements must be seen to resume the occupied mode.

While in stand-by mode, if no motion is detected in the zone for the entire unoccupied timer duration, then the room switches to unoccupied mode and the unoccupied setpoints are used.

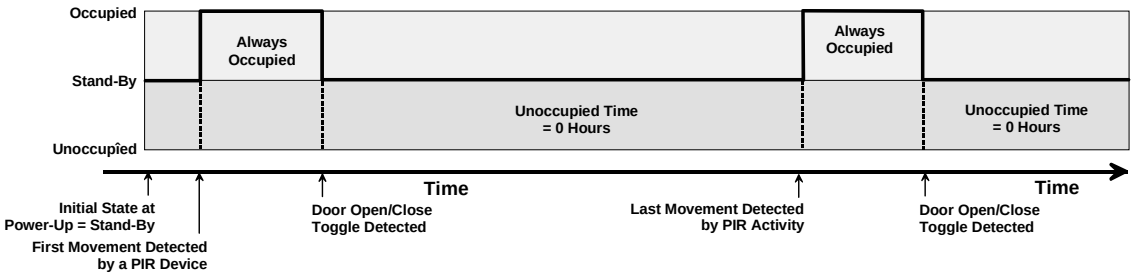
At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.

- **14) SE7300 Network-Ready fan coil application using 2 levels of occupancy with a SE-PIR accessory cover**

Set-up and Configuration	
Controller used	SE73x5X5045 (lodging models)
PIR used	COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	Door dry contact
Stand-by timer value	Not used
Unoccupied timer value	0.0 hours
Network interface used	None, stand-alone



Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; the initial occupancy of the zone will be in stand-by mode if the PIR device does not detect any movement.

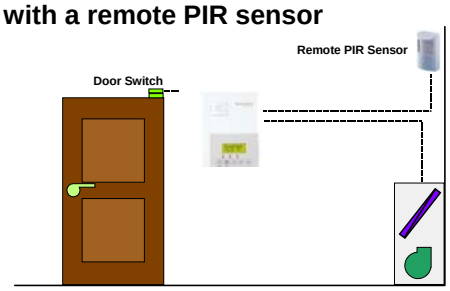
As soon as the PIR device detects a movement, the occupancy status switches to occupied and the occupied setpoints are used. The room will then be in occupied mode until a door toggle is detected.

If a door toggle is detected, then the room switches to stand-by mode and the stand-by setpoints are used. If any occupants are left in the room, local movements must be seen to resume the occupied mode.

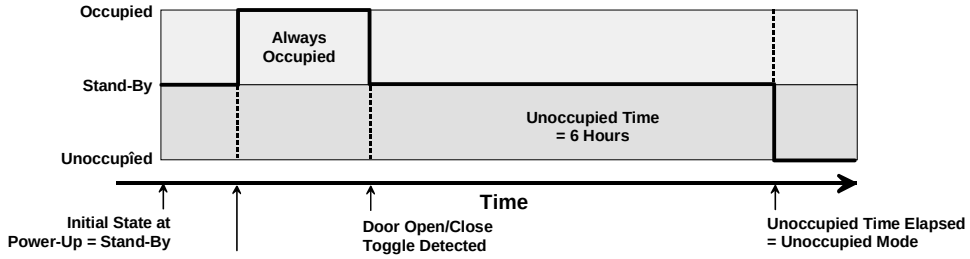
At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.The local zone never goes into unoccupied mode and the unoccupied setpoints are never used.

- **15) SE7300 Network-Ready fan coil application using 3 levels of occupancy with a remote PIR sensor**

Set-up and Configuration	
Controller used	SE73x5X5045 (lodging models)
PIR used	BI1 configured for remote PIR sensor
BI2 Configuration	Door dry contact
Stand-by timer value	Not used
Unoccupied timer value	6.0 hours
Network interface used	None, stand-alone



Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; the initial occupancy of the zone will be in stand-by mode if the PIR device does not detect any movement.

As soon as the PIR device detects a movement, the occupancy status switches to occupied and the occupied setpoints are used. The room will then be in occupied mode until a door toggle is detected.

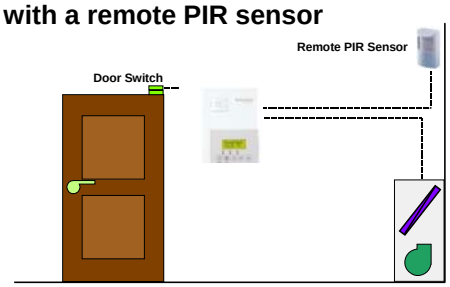
If a door toggle is detected, then the room switches to stand-by mode and the stand-by setpoints are used. If any occupants are left in the room, local movements must be seen to resume the occupied mode.

While in stand-by mode, if no motion is detected in the zone for the entire unoccupied timer duration, then the room switches to unoccupied mode and the unoccupied setpoints are used.

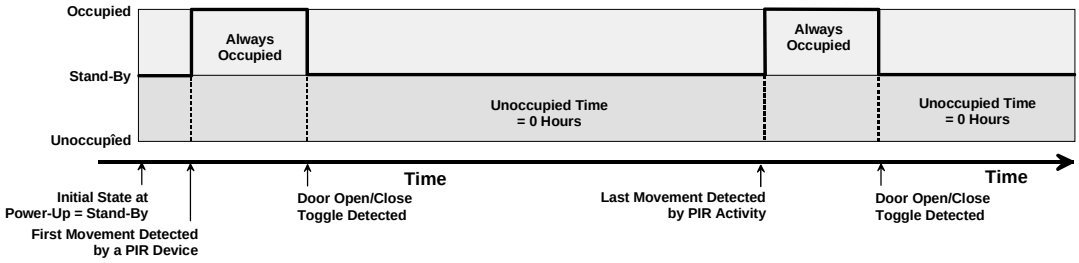
At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.

- **16) SE7300 Network-Ready fan coil application using 2 levels of occupancy with a remote PIR sensor**

Set-up and Configuration	
Controller used	SE73x5X5045 (lodging models)
PIR used	BI1 configured for remote PIR sensor
BI2 Configuration	Door dry contact
Stand-by timer value	Not used
Unoccupied timer value	0.0 hours
Network interface used	None, stand-alone



Sequence of operation:



t initial power-up, when the controller's 24 Vac power supply is applied; the initial occupancy of the zone will be in stand-by mode if the PIR device do not detect any movement.

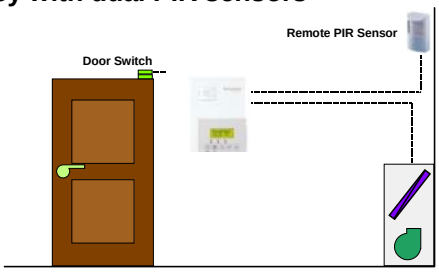
As soon as the PIR device detects a movement, the occupancy status switches to occupied and the occupied setpoints are used. The room will then be in occupied mode until a door toggle is detected.

If a door toggle is detected, then the room switches to stand-by mode and the stand-by setpoints are used. If any occupants are left in the room, local movements must be seen to resume the occupied mode.

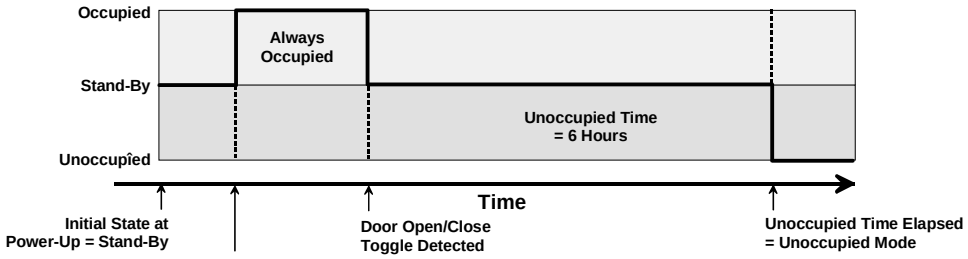
At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.The local zone never goes into unoccupied mode and the unoccupied setpoints are never used.

- **17) SE7300 Network-Ready fan coil application using 3 levels of occupancy with dual PIR sensors**

Set-up and Configuration	
Controller used	SE73x5X5045 (lodging models)
PIR used	BI1 configured for remote PIR sensor and COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	Door dry contact
Stand-by timer value	2.0 hours
Unoccupied timer value	6.0 hours
Network interface used	None, stand-alone



Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; the initial occupancy of the zone will be in stand-by mode if the PIR device does not detect any movement.

As soon as the PIR device detects a movement, the occupancy status switches to occupied and the occupied setpoints are used. The room will then be in occupied mode until a door toggle is detected.

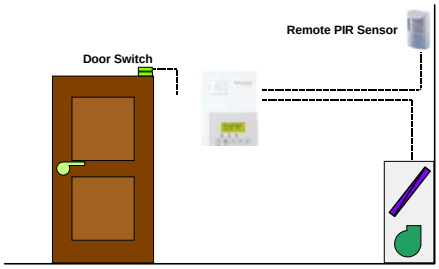
If a door toggle is detected, then the room switches to stand-by mode and the stand-by setpoints are used. If any occupants are left in the room, local movements must be seen to resume the occupied mode.

While in stand-by mode, if no motion is detected in the zone for the entire unoccupied timer duration, then the room switches to unoccupied mode and the unoccupied setpoints are used.

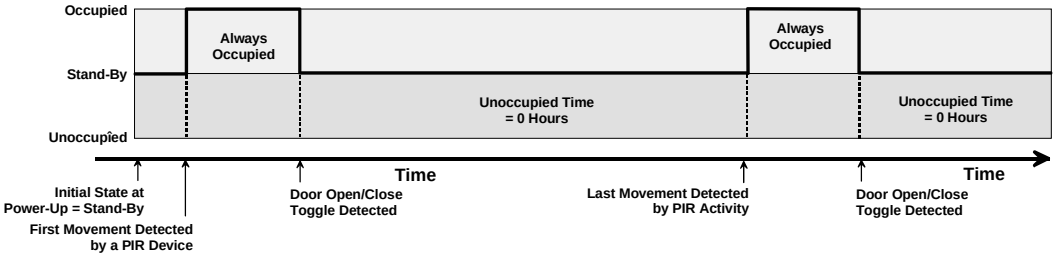
At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.

- **18) SE7300 Network-Ready fan coil application using 2 levels of occupancy with dual PIR sensors**

Set-up and Configuration	
Controller used	SE73x5X5045 (lodging models)
PIR used	BI1 configured for remote PIR sensor and COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	Door dry contact
Stand-by timer value	Not used
Unoccupied timer value	0.0 hours
Network interface used	None, stand-alone



Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; the initial occupancy of the zone will be in stand-by mode if the PIR device does not detect any movement.

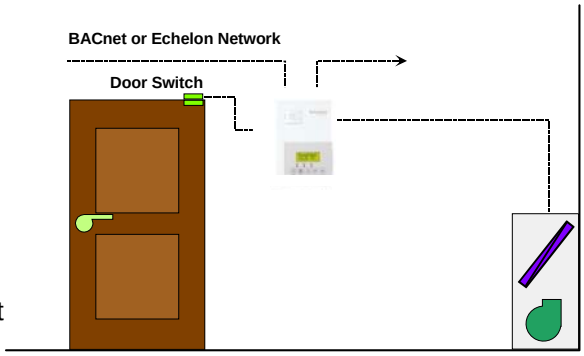
As soon as the PIR device detects a movement, the occupancy status switches to occupied and the occupied setpoints are used. The room will then be in occupied mode until a door toggle is detected.

If a door toggle is detected, then the room switches to stand-by mode and the stand-by setpoints are used. If any occupants are left in the room, local movements must be seen to resume the occupied mode.

At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.The local zone never goes into unoccupied mode and the unoccupied setpoints are never used.

- **19) SE7300 Networked fan coil application using 3 levels of occupancy with a SE-PIR accessory cover**

Set-up and Configuration	
Controller used	SE73x5X5045(B or E)…(lodging models)
PIR used	COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	Door dry contact
Stand-by timer value	Not used
Unoccupied timer value	6.0 hours
Network interface used	Echelon® or BACnet® MS-TP

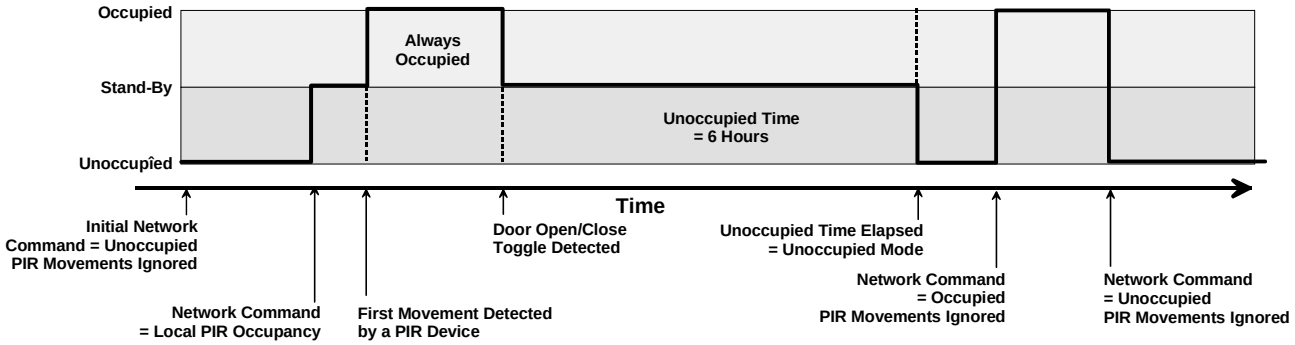


Advanced network interface can be obtained when controllers are fully integrated to the reservation system.

In these cases, the occupancy network commands state enumerations text presented by a front end system can be expanded to better represent the nature of the application.

Occupancy network commands state	Front end system state text examples
Local Occupancy (PIR active)	Room rented PIR economy enabled
Occupied	Room rented high comfort assured
Unoccupied	Room not rented

Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; if there is no occupancy network command received by the controller and if the PIR device do not detect any movement, the initial occupancy of the zone will be in stand-by mode.

Occupied state network command

At any time, an occupied network command will always force the local zone to be in occupied mode and to use the occupied setpoints.

Unoccupied state network command

At any time, an unoccupied network command will always force the local zone to be in unoccupied mode and to use the unoccupied setpoints. If the controller's local override function is not locked out by configuration, the local user may initiate a temporary local override to occupied as dictated by the temporary occupancy time configuration parameter setting.

Local occupancy state network command

If previously in unoccupied mode when the controller receives a local occupancy state network command, the local PIR occupancy loop will now be enabled. If the PIR devices does not then detect any movement, the occupancy of the zone will be in stand-by mode.

As soon as the PIR device detects a movement, the occupancy status switches to occupied and the occupied setpoints are used. The room will then be in occupied mode until a door toggle is detected.

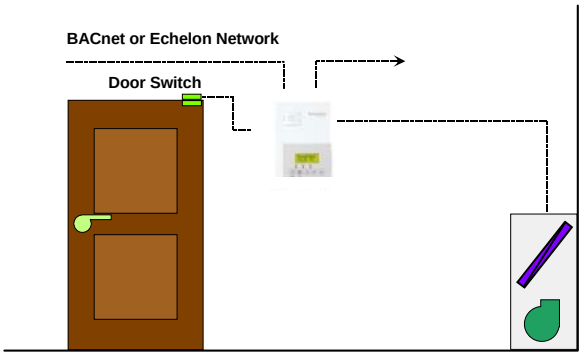
If a door toggle is detected, then the room switches to stand-by mode and the stand-by setpoints are used. If any occupants are left in the room, local movements must be seen to resume the occupied mode.

While in stand-by mode, if no motion is detected in the zone for the entire unoccupied timer duration, then the room switches to unoccupied mode and the unoccupied setpoints are used.

At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.

- **20) SE7300 Networked fain coil application using 2 levels of occupancy with a SE-PIR accessory cover**

Set-up and Configuration	
Controller used	SE73x5X5045(B or E)…(lodging models)
PIR used	COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	Door dry contact
Stand-by timer value	Not used
Unoccupied timer value	0.0 hours
Network interface used	Echelon® or BACnet® MS-TP

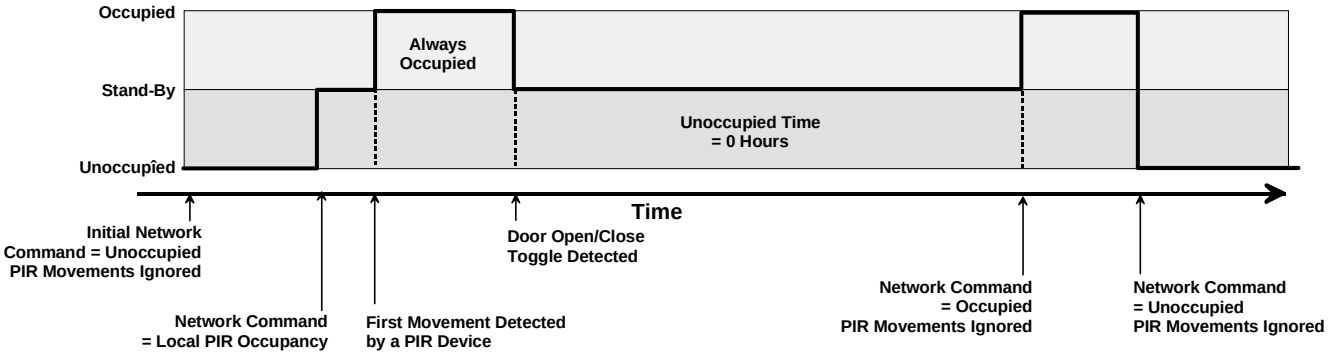


Advanced network interface can be obtained when controllers are fully integrated to the reservation system

In these cases, the occupancy network commands state enumerations text presented by a front end system can be expanded to better represent the nature of the application.

Occupancy network commands state	Front end system state text examples
Local Occupancy (PIR active)	Room rented PIR economy enabled
Occupied	Room rented high comfort assured
Unoccupied	Room not rented

Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; if there is no occupancy network command received by the controller and if the PIR device do not detect any movement, the initial occupancy of the zone will be in stand-by mode.

Occupied state network command

At any time, an occupied network command will always force the local zone to be in occupied mode and to use the occupied setpoints.

Unoccupied state network command

At any time, an unoccupied network command will always force the local zone to be in unoccupied mode and to use the unoccupied setpoints. If the controller's local override function is not locked out by configuration, the local user may initiate a temporary local override to occupied as dictated by the temporary occupancy time configuration parameter setting.

Local occupancy state network command

If previously in unoccupied mode when the controller receives a local occupancy state network command, the local PIR occupancy loop will now be enabled. If the PIR devices does not then detect any movement, the occupancy of the zone will be in stand-by mode.

As soon as the PIR device detects a movement, the occupancy status switches to occupied and the occupied setpoints are used. The room will then be in occupied mode until a door toggle is detected.

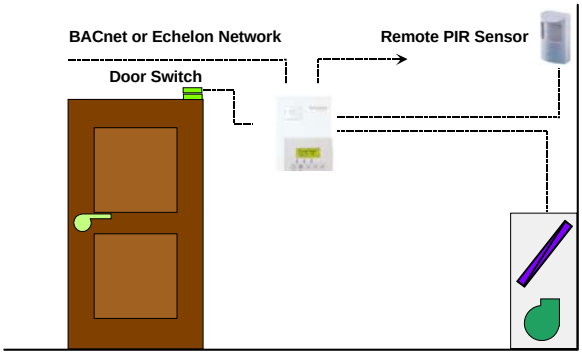
If a door toggle is detected, then the room switches to stand-by mode and the stand-by setpoints are used. If any occupants are left in the room, local movements must be seen to resume the occupied mode.

At anytime, if the PIR device detects a local movement, the occupancy status switches to occupied and the occupied setpoints are used.

The local zone never goes into unoccupied mode and the unoccupied setpoints are never used.

- **21 SE7300 Networked fan coil application using 3 levels of occupancy with a remote PIR sensor**

Set-up and Configuration	
Controller used	SE73x5X5045(B or E)…(lodging models)
PIR used	BI1 configured for remote PIR sensor
BI2 Configuration	Door dry contact
Stand-by timer value	Not used
Unoccupied timer value	6.0 hours
Network interface used	Echelon® or BACnet® MS-TP

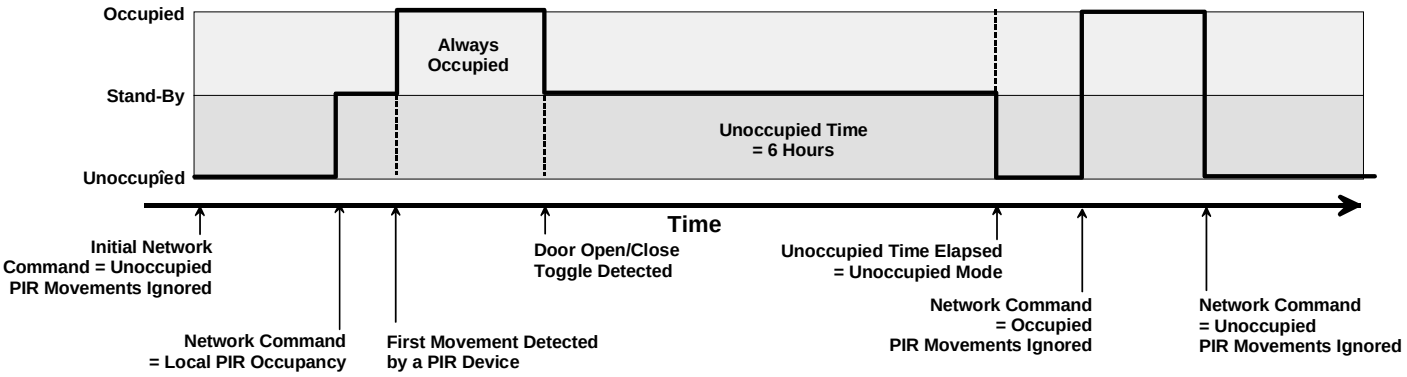


Advanced network interface can be obtained when controllers are fully integrated to the reservation system

In these cases, the occupancy network commands state enumerations text presented by a front end system can be expanded to better represent the nature of the application.

Occupancy network commands state	Front end system state text examples
Local Occupancy (PIR active)	Room rented PIR economy enabled
Occupied	Room rented high comfort assured
Unoccupied	Room not rented

Sequence of operation:



At initial power-up, when the controller's 24 Vac power supply is applied; if there is no occupancy network command received by the controller and if the PIR device do not detect any movement, the initial occupancy of the zone will be in stand-by mode.

Occupied state network command

At any time, an occupied network command will always force the local zone to be in occupied mode and to use the occupied setpoints.

Unoccupied state network command

At any time, an unoccupied network command will always force the local zone to be in unoccupied mode and to use the unoccupied setpoints. If the controller's local override function is not locked out by configuration, the local user may initiate a temporary local override to occupied as dictated by the temporary occupancy time configuration parameter setting.

Local occupancy state network command

If previously in unoccupied mode when the controller receives a local occupancy state network command, the local PIR occupancy loop will now be enabled. If the PIR devices does not then detect any movement, the occupancy of the zone will be in stand-by mode.

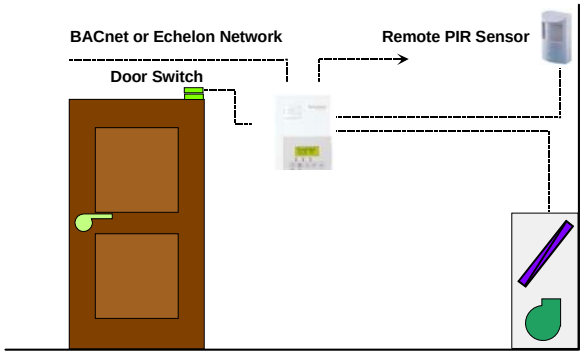
As soon as the PIR device detects a movement, the occupancy status switches to occupied and the occupied setpoints are used. The room will then be in occupied mode until a door toggle is detected.

If a door toggle is detected, then the room switches to stand-by mode and the stand-by setpoints are used. If any occupants are left in the room, local movements must be seen to resume the occupied mode.

While in stand-by mode, if no motion is detected in the zone for the entire unoccupied timer duration, then the room switches to unoccupied mode and the unoccupied setpoints are used.At anytime, if the PIR device detects a local movement or motion, the occupancy status switches to occupied and the occupied setpoints are used.

- **22) SE7300 Networked fan coil application using 2 levels of occupancy with a remote PIR sensor**

Set-up and Configuration	
Controller used	SE73x5X5045(B or E)…(lodging models)
PIR used	BI1 configured for remote PIR sensor
BI2 Configuration	Door dry contact
Stand-by timer value	Not used
Unoccupied timer value	0.0 hours
Network interface used	Echelon® or BACnet® MS-TP

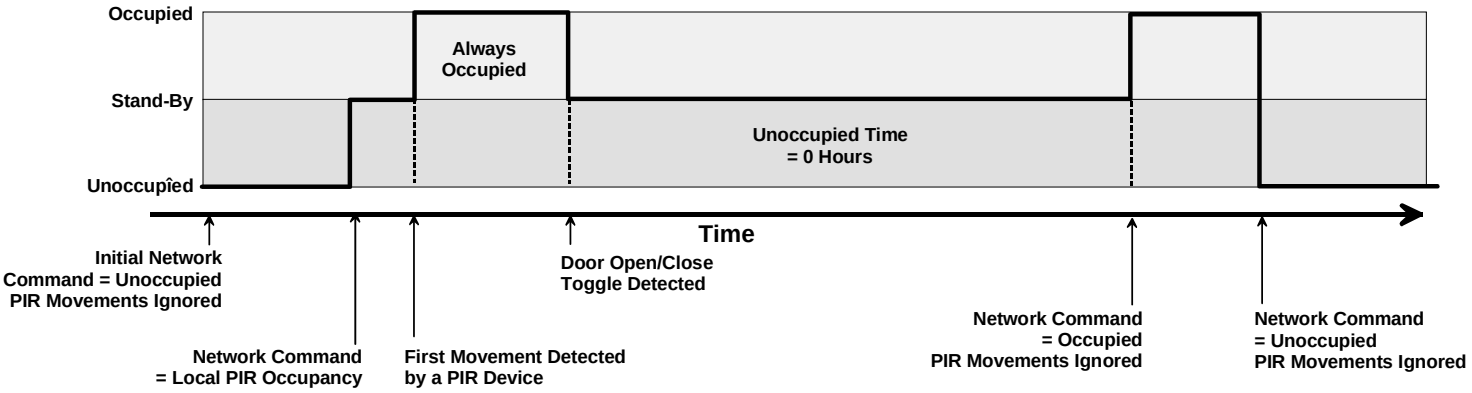


Advanced network interface can be obtained when controllers are fully integrated to the reservation system

In these cases, the occupancy network commands state enumerations text presented by a front end system can be expanded to better represent the nature of the application.

Occupancy network commands state	Front end system state text examples
Local Occupancy (PIR active)	Room rented PIR economy enabled
Occupied	Room rented high comfort assured
Unoccupied	Room not rented

Sequence of operation:



At initial power-up, when the controller 24 Vac power supply is applied; if there is no occupancy network command received by the controller and if the PIR device do not detect any movement, the initial occupancy of the zone will be in stand-by mode.

Occupied state network command

At any time, an occupied network command will always force the local zone to be in occupied mode and to use the occupied setpoints.

Unoccupied state network command

At any time, an unoccupied network command will always force the local zone to be in unoccupied mode and to use the unoccupied setpoints. If the controller's local override function is not locked out by configuration, the local user may initiate a temporary local override to occupied as dictated by the temporary occupancy time configuration parameter setting.

Local occupancy state network command

If previously in unoccupied mode when the controller receives a local occupancy state network command, the local PIR occupancy loop will now be enabled. If the PIR devices does not then detect any movement, the occupancy of the zone will be in stand-by mode.

As soon as the PIR device detects a movement or motion, the occupancy status switches to occupied and the occupied setpoints are used. The room will then be in occupied mode until a door toggle is detected.

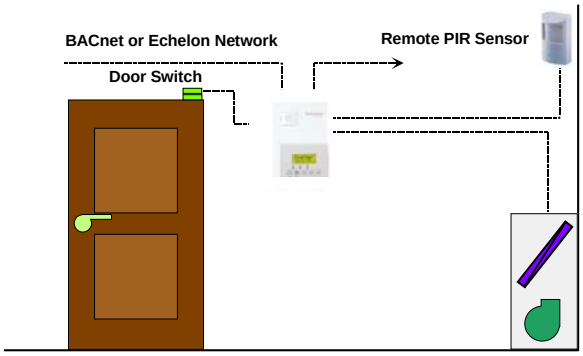
If a door toggle is detected, then the room switches to stand-by mode and the stand-by setpoints are used. If any occupants are left in the room, local movements must be seen to resume the occupied mode.

At anytime, if the PIR device detects a local movement or motion, the occupancy status switches to occupied and the occupied setpoints are used.

The local zone never goes into unoccupied mode and the unoccupied setpoints are never used.

- **23) SE7300 Networked fan coil application using 3 levels of occupancy with dual PIR sensors**

Set-up and Configuration	
Controller used	SE73x5X5045(B or E)…(lodging models)
PIR used	BI1 configured for remote PIR sensor and COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	Door dry contact
Stand-by timer value	Not used
Unoccupied timer value	6.0 hours
Network interface used	Echelon® or BACnet® MS-TP

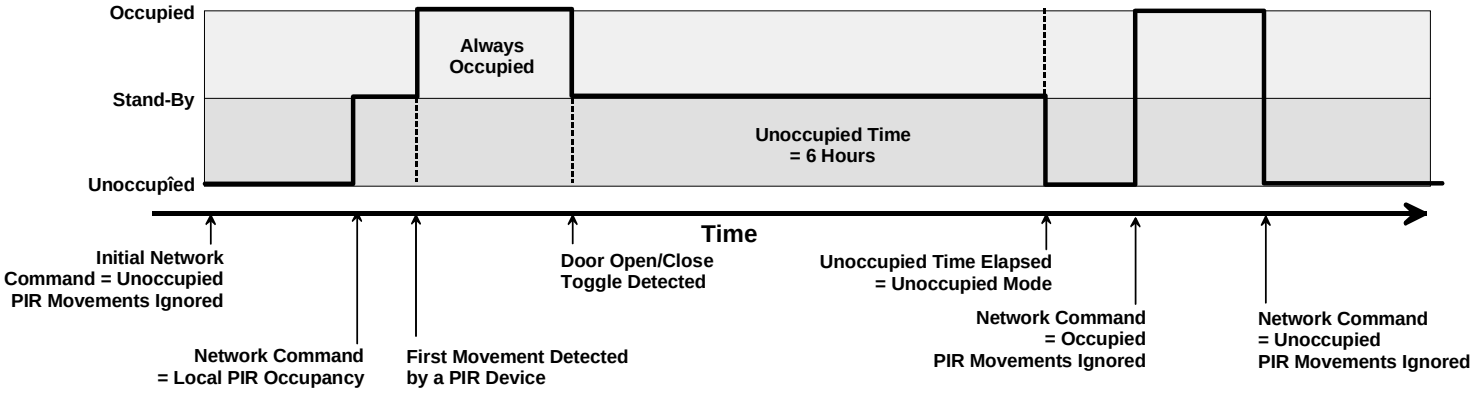


Advanced network interface can be obtained when controllers are fully integrated to the reservation system

In these cases, the occupancy network commands state enumerations text presented by a front end system can be expanded to better represent the nature of the application.

Occupancy network commands state	Front end system state text examples
Local Occupancy (PIR active)	Room rented PIR economy enabled
Occupied	Room rented high comfort assured
Unoccupied	Room not rented

Sequence of operation:



At initial power-up, when the controller 24 Vac power supply is applied; if there is no occupancy network command received by the controller and if the PIR device do not detect any movement, the initial occupancy of the zone will be in stand-by mode.

Occupied state network command

At any time, an occupied network command will always force the local zone to be in occupied mode and to use the occupied setpoints.

Unoccupied state network command

At any time, an unoccupied network command will always force the local zone to be in unoccupied mode and to use the unoccupied setpoints. If the controller's local override function is not locked out by configuration, the local user may initiate a temporary local override to occupied as dictated by the temporary occupancy time configuration parameter setting.

Local occupancy state network command

If previously in unoccupied mode when the controller receives a local occupancy state network command, the local PIR occupancy loop will now be enabled. If the PIR devices does not then detect any movement, the occupancy of the zone will be in stand-by mode.

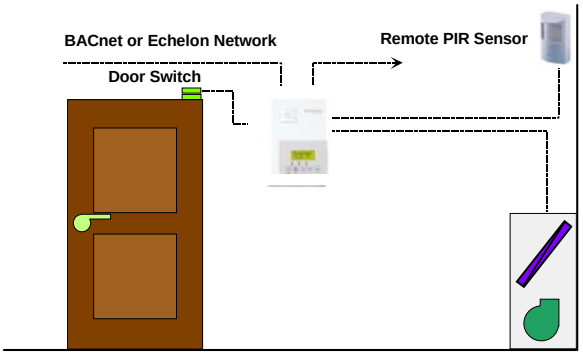
As soon as the PIR device detects a movement or motion, the occupancy status switches to occupied and the occupied setpoints are used. The room will then be in occupied mode until a door toggle is detected.

If a door toggle is detected, then the room switches to stand-by mode and the stand-by setpoints are used. If any occupants are left in the room, local movements must be seen to resume the occupied mode.

While in stand-by mode, if no motion is detected in the zone for the entire unoccupied timer duration, then the room switches to unoccupied mode and the unoccupied setpoints are used.At anytime, if the PIR device detects a local movement or motion, the occupancy status switches to occupied and the occupied setpoints are used.

- **24) SE7300 Networked fan coil application using 2 levels of occupancy with dual PIR sensors**

Set-up and Configuration	
Controller used	SE73x5X5045(B or E)…(lodging models)
PIR used	BI1 configured for remote PIR sensor and COV-PIR-FCU-C-5045 accessory cover
BI2 Configuration	Door dry contact
Stand-by timer value	Not used
Unoccupied timer value	0.0 hours
Network interface used	Echelon® or BACnet® MS-TP

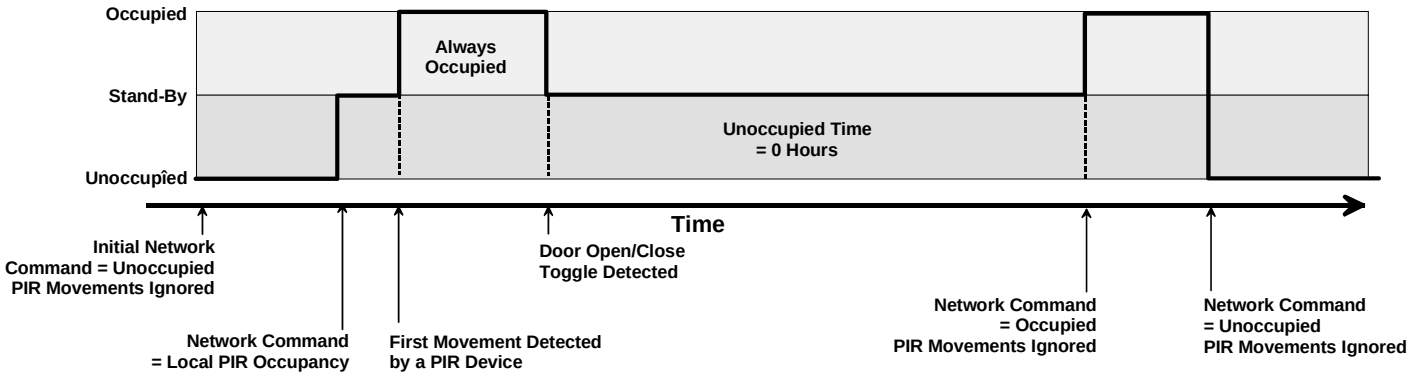


Advanced network interface can be obtained when controllers are fully integrated to the reservation system

In these cases, the occupancy network commands state enumerations text presented by a front end system can be expanded to better represent the nature of the application.

Occupancy network commands state	Front end system state text examples
Local Occupancy (PIR active)	Room rented PIR economy enabled
Occupied	Room rented high comfort assured
Unoccupied	Room not rented

Sequence of operation:



At initial power-up, when the controller 24 Vac power supply is applied; if there is no occupancy network command received by the controller and if the PIR device do not detect any movement, the initial occupancy of the zone will be in stand-by mode.

Occupied state network command

At any time, an occupied network command will always force the local zone to be in occupied mode and to use the occupied setpoints.

Unoccupied state network command

At any time, an unoccupied network command will always force the local zone to be in unoccupied mode and to use the unoccupied setpoints. If the controller's local override function is not locked out by configuration, the local user may initiate a temporary local override to occupied as dictated by the temporary occupancy time configuration parameter setting.

Local occupancy state network command

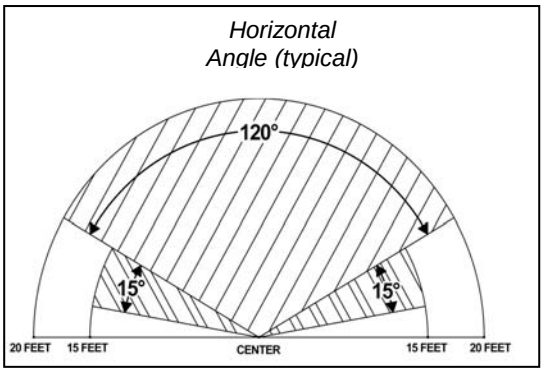
If previously in unoccupied mode when the controller receives a local occupancy state network command, the local PIR occupancy loop will now be enabled. If the PIR devices does not then detect any movement, the occupancy of the zone will be in stand-by mode.

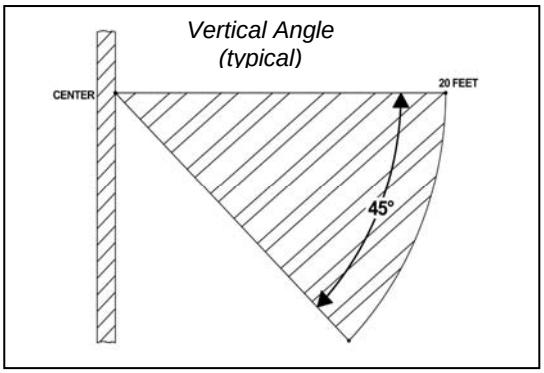
As soon as the PIR device detects a movement or motion, the occupancy status switches to occupied and the occupied setpoints are used. The room will then be in occupied mode until a door toggle is detected.

If a door toggle is detected, then the room switches to stand-by mode and the stand-by setpoints are used. If any occupants are left in the room, local movements must be seen to resume the occupied mode.

At anytime, if the PIR device detects a local movement or motion, the occupancy status switches to occupied and the occupied setpoints are used.The local zone never goes into unoccupied mode and the unoccupied setpoints are never used.

Typical Detection Pattern for SE-PIR Lens

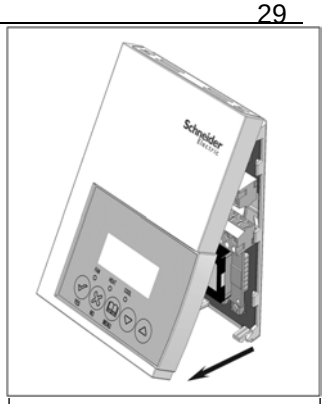




Installation Tips

Tip Type	Area Of Interest	Explanation
General Installation	PIR Connector	Polarized connector is located at bottom left hand corner of SE7000 series controller
	Security Screw	A security screw has been provided in the controller box. This screw should be carefully installed in the intended mounting position located bottom center of controller cover.
Tip Type	**Area Of Interest**	**Explanation**
Initial Power Up & Commissioning	PIR Warm up period	PIR sensor may take up-to 60 seconds after initial warm up period to detect movement consistent with typical detection pattern.
	Visual indication (Status of PIR)	Visual indication of PIR activity for commissioning has been provided via a blinking LED's located on the controller cover under the PIR lens. LED's will be active while occupant is in field of detection pattern for a period of 30 minutes after initial power up.

SE-PIR Cover Installation



- Remove security screw on the bottom of the current controller cover.
- Open up by pulling on the bottom side of controller.

A) Identify current controller model type:

- Use appropriate cover accessory part number as identified on the first page by referring to the controller model number.
- The male polarized PIR connector is located at bottom left corner of controller

B) Installation:

- Hinge new PIR controller cover into position.
- Insert polarized connector into PIR female connector located on controller base
- Snap PIR controller cover into place and re-install the security screw.
- Make appropriate parameter settings related to your application within the configuration menu as identified in the controller installation.

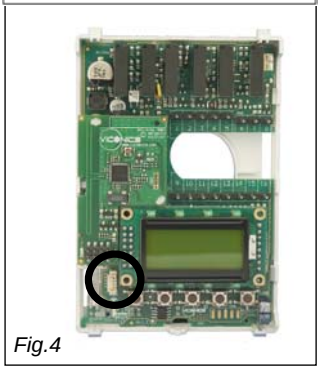
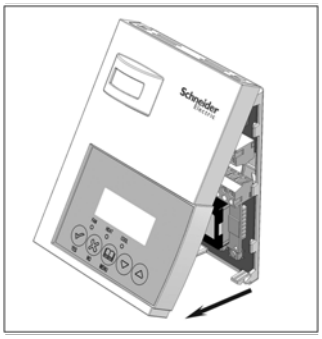


Fig.4

- Electronic controls are static sensitive devices. Discharge yourself properly before manipulation and installing the controller and its accessories.
- Short circuit or wrong wiring may permanently damage the controller or the equipment.
- All SE7000 series controllers are to be used only as operating controls. Whenever a control failure could lead to personal injury and/or loss of property, it becomes the responsibility of the user to add safety devices and/or alarm system to protect against such catastrophic failures.



Specifications

PIR cover power requirements:	5 Vdc Max current draw of 7mA
Operating conditions:	0 °C to 50 °C (32 °F to 122 °F) 0% to 95% R.H. non-condensing
Storage conditions:	-30 °C to 50 °C (-22 °F to 122 °F) 0% to 95% R.H. non-condensing
Sensor:	Local Passive Infra Red Sensor
Dimensions with Controller:	4.94” x 3.38” x 1.13”
Approximate shipping weight with Controller:	0.75 lb (0.34 kg)
Agency Approvals:	
UL	UL 873 (US) and CSA C22.2 No. 24 (Canada), File E27734 with CCN XAPX (US) and XAPX7 (Canada)
FCC	Compliant to CFR 47, Part 15, Subpart B, Class A (US)
Industry Canada	ICES-003 (Canada)
CE	EMC Directive 89/336/EEC (Europe Union)
C-Tick	AS/NZS CISPR 22 Compliant (Australia / New Zealand) Supplier Code Number N10696

Drawing & Dimensions