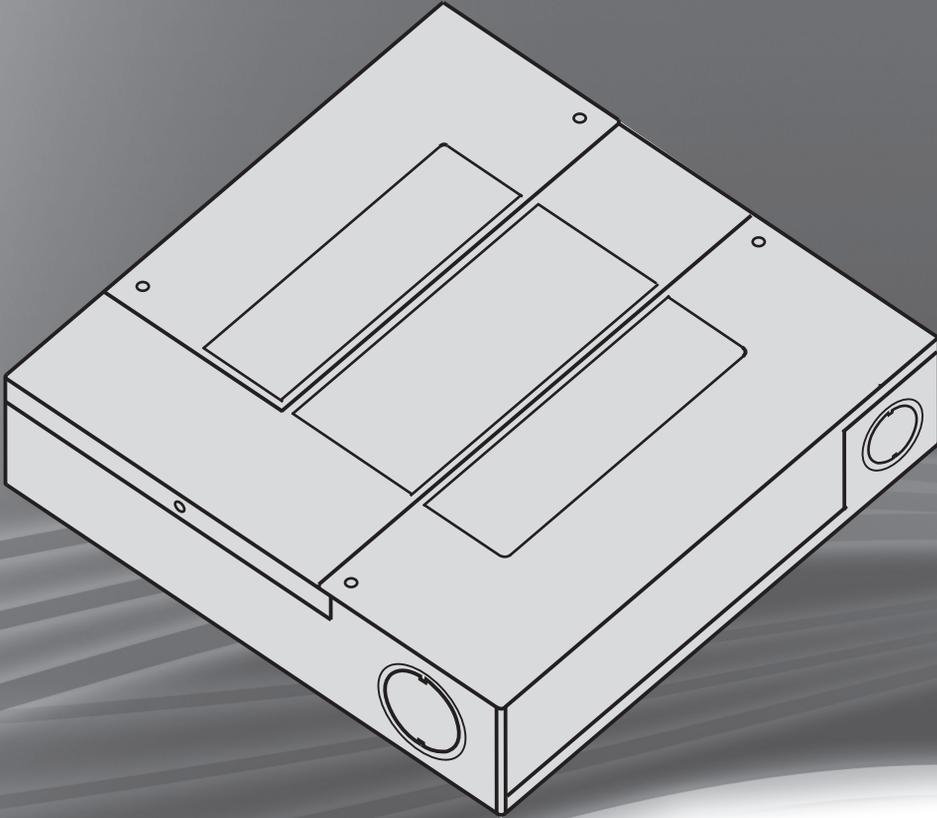


CLIPSAL[®]

by Schneider Electric



C-Bus[®] Occupancy Controller
5752PP/xR/xD Series

Standalone Occupancy Controller
752PP/xR Series



Installation Instructions

Released for Manufacturing
Printed on 2018/06/22

Contents

1	Introduction	3
1.1	Product Range	3
1.2	Compatible Motion Detectors	4
1.3	Compatible Lighting Loads	5
1.4	Factory Device Settings	5
1.5	Additional Product Information	6
2	Safety	7
2.1	Electrical Shock Hazards	7
2.2	Mechanical Safety	8
3	Installing the Controller	8
3.1	Choosing a Location	8
3.2	Items Required	8
3.3	Access to Internal Parts	10
3.4	Mounting the Controller	11
3.5	Providing Strain Relief for Cables	13
4	Wiring Connections	13
4.1	Mains Power	13
4.2	Relay Connections	15
4.3	Auxiliary Switch Connections	16
4.4	Motion Detector Connections	16
4.5	C-Bus Connections (5752PP Series only)	17
4.6	Remote Override (optional)	18
5	Setup and Programming	19
5.1	Standalone Mode for C-Bus Controllers	19
5.2	Setup Tasks	20
6	Specifications	24
7	Standards Complied	25
8	Two-Year Warranty	27

The information in this manual is provided in good faith. Schneider Electric endeavours to ensure the relevance and accuracy of the information. However, it assumes no responsibility for any loss incurred as a result of its use. Schneider Electric does not warrant that the information is fit for any particular purpose, nor does it endorse its use in applications that are critical to the health or life of any human being. Schneider Electric reserves the right to update the information at any time without notice.

June 2010

1 Introduction

The 5752PP Series C-Bus Occupancy Controller and the 752PP Series Standalone Occupancy Controller have one or two lighting control relays. A motion detector, an auxiliary input switch with timer and a relay fail-safe mode switch are associated with each relay. The 5752PP series units include a C-Bus interface.

The occupancy controllers operate over a wide range of input voltages (100 - 277 VAC). The LV wiring (for mains input, relay, and dimmer) is accessible beneath a metal cover on the left side of the chassis. The SELV/Class 2 level connection points for switches, motion detectors and C-Bus (if present) are located under a metal cover on the right side of the chassis. This feature keeps signal and control cabling separated from the power input and distribution cabling. All connections use screw-type terminals.

The installer performs the physical installation using the *Setup Sheet* that is packed with the product. The *Installation Instructions* provide additional information needed during setup and commissioning.

1.1 Product Range

All units have the following features:

- Input voltage range: 100 – 277 VAC 50/60 Hz
- One motion detector input terminal for each relay
- 24 V d.c. power supply for the motion detectors
- One auxiliary input switch terminal and timer for each relay
- One relay fail-safe mode switch for each relay
- Remote override on/off capability

The product range is shown in Table 1.

Catalogue Number	Description
5752PP/1R	C-Bus Occupancy Controller with 1 relay rated at 16 amps
5752PP/2R	C-Bus Occupancy Controller with 2 relays rated at 16 amps each
5752PP/2R/2D	C-Bus Occupancy Controller with 2 relays rated at 16 amps each and 2 dimmer outputs: DSI/DALI/0-10 V (see Note)
752PP/1R	Standalone Occupancy Controller with 1 relay rated at 16 amps.
752PP/2R	Standalone Occupancy Controller with 2 relays rated at 16 amps each

Note: Check with your local Clipsal or Schneider Electric sales representative for availability of the units with dimmer capabilities.

Table 1. Catalogue numbers and descriptions

1.2 Compatible Motion Detectors

The table below shows the single- and dual-technology detectors that are compatible with the occupancy controller. A 1-relay controller (see Figure 1) accommodates from one to three motion detectors and a 2-relay controller accommodates from one to three motion detectors (connected to the Ctrl 1 or Ctrl 2 plug), for a maximum of six detectors.

Catalogue number	Description
752/CP SLSCPS1000	Ceiling mount PIR motion detector, 360° detection pattern, isolated relay (to match the 752/CD motion detector)
752/CU SLSCUS2000	Ceiling mount Ultrasonic motion detector, 360° detection pattern, isolated relay
752/CD SLSCDS2000	Ceiling mount Dual-technology (PIR and Ultrasonic) motion detector, 360° detection pattern, isolated relay
752/CU180 SLSCDU800	Ceiling mount Ultrasonic motion detector, 180° detection pattern, isolated relay
752/CD180 SLSCDS800	Ceiling mount Dual-technology (PIR and Ultrasonic) motion detector, 180° detection pattern, isolated relay
752/WP SLSWPS1500	Wall mount PIR motion detector, 110° detection pattern, isolated relay (to match the 752/WU motion detector)
752/WU SLSWUS1500	Wall mount Ultrasonic motion detector, isolated relay
752/WD SLSWDS1500	Wall mount Dual-technology; PIR and ultrasonic motion detector, 110° detection pattern, isolated relay

Table 2. Compatible motion detectors

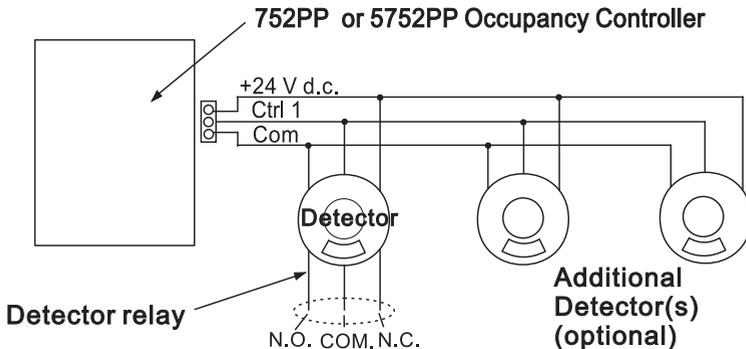


Figure 1. Occupancy controller with multiple detectors

1.3 Compatible Lighting Loads

Depending on the power requirements of the lighting loads attached to a single relay, it might be advisable to provide a separate main input line and circuit breaker for each relay in the occupancy controller. Refer to the wiring diagrams in the *Setup Sheet*. Do not exceed the load ratings of the relays (Table 3).

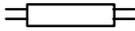
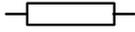
Load Type	Maximum Rating per relay	Symbol
Fluorescent (IEC 60669-2-1, capacitive)	16 AX at 277 V a.c.	
Resistive	16 A at 277 V a.c.	
Incandescent/ Tungsten	12 A at 277 V a.c.	
Fluorescent (UL) Standard ballast (inductive 0.4 – 0.5 pf)	10 A at 277 V a.c.	

Table 3. Compatible lighting loads for each relay

On applicable units, you can connect dimming loads up to the maximum ratings (Table 4).

Dimmer Ballast Type	Rating for each line
Analogue	200 mA at 0 – 10 V d.c.
DSI	200 mA at 0 – 12 V d.c.
DALI	250 mA at 0 – 12 V d.c.

Table 4. Dimmer output ratings

1.4 Factory Device Settings

The power supply and control unit is ready to use in standalone mode. You can change the settings as needed to suit the installation and to match the requirements of the devices connected to the unit. The factory sets the relay fail-safe mode switches so that the relays are normally open if control power fails. You can change this as needed.

Relay	Switch Setting			
	SW1		SW2	
	OFF	ON	OFF	ON
Relay 1	N/O *	N/C	--	--
Relay 2	--	--	N/O *	N/C

* Factory default setting

Table 5. Relay fail-safe mode switch settings

Relay 1 is mapped to the input from CTRL1. This allows the motion detector to directly control the relay. By using a switch connected to the Aux-In 1A and Aux-In 1B terminals you gain an additional control point for Relay 1. Timer 1 is associated with Aux-In 1.

If your occupancy controller has two relays, Relay 2 is mapped to CTRL 2 from the motion detector and also Aux-In 2A and 2B terminals and Timer 2.

The timers are usually set at the factory for approximately 20 minutes duration. Note that the timers' ranges are non-linear; refer to the diagram on the circuit board shown in Figure 2. Normally, you use the timers on the motion detectors and then use the timers in the occupancy controller for those instances when an on/off switch is connected to the Aux-In terminal.

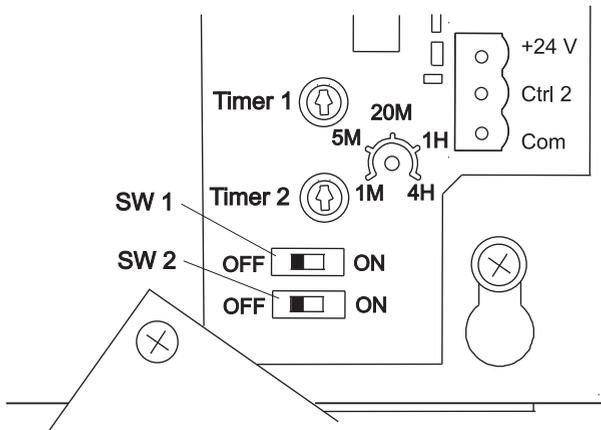


Figure 2. Initial factory settings

1.5 Additional Product Information

If you have technical questions about the installation or programming of the unit, contact the nearest Clipsal Integrated Systems or Schneider Electric customer care centre. The contact information is on the back cover of this document.

Related Documents

The *C-Bus Occupancy Controller and Standalone Occupancy Controller Setup Sheet* contains instructions for the mechanical phase of the installation.

When using C-Bus Toolkit™ configuration software and other Clipsal software products, be sure to access the Help files for technical questions.

At the Clipsal Integrated Systems (CIS) Portal you can access software downloads and literature. Visit the following Internet location:

<http://www.clipsal.com/cis/portal/> Select the 'Technical' area.

2 Safety

This section contains important safety precautions that must be followed before attempting to install, program, or maintain the equipment. If you have any questions related to product safety and handling, please contact Technical Support. Refer to the back cover of this document.

2.1 Electrical Shock Hazards

Pay close attention to all warning labels on the equipment.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- This equipment must be installed and serviced by qualified electrical personnel.
- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices that apply in your location.
- Turn off all electrical power supplying this equipment before working on or inside the equipment.
- Always use a properly rated voltage sensing device to confirm that power is off.
- Replace all devices, doors, and covers before turning on power to this equipment.

Failure to follow these instructions will result in death or serious injury.

The Occupancy Controller is a mains-connected device and the LV portion of the unit must never be accessed while mains power is present. **There may be more than one mains circuit connected to the occupancy controller.**

The following safety precautions apply to this product.

- Lockout and tag ALL connected building power circuit breakers before opening the metal power input (LV side) cover on the left-hand side of the unit. The metal cover must be in place whenever power is applied to the unit.
- The input power wiring must include a properly earthed (grounded) conductor. Do not tie the neutral and earth connections together at the unit.
- Provide proper cable strain relief. Make sure that all power connections are tight and that no wire strands are exposed at the connection points.
- Do not disassemble the unit or make any modification or alterations except under the direction of Clipsal or Schneider Electric Technical Support personnel.
- The unit is for indoor use only. The unit can be installed in a plenum. Do not allow liquids to spill or drip onto the unit.

2.2 Mechanical Safety

Improper installation and handling of the occupancy controller may result in serious personal injury. Follow the guidelines below:

- The unit must be firmly attached to a solid surface for wiring and operation. There are three attachment points for the chassis. Do not remove the centre metal cover during installation or operation.
- Cables and wires must be held firmly in place by appropriate hardware. Be sure to route the cables so that they are not damaged by normal business activity in the location where the equipment is installed.
- To prevent injury, you must keep the metal covers closed during normal operation. The SELV/Class 2 wiring cover may be open to allow adjustment of the timers. Then the cover should be closed and secured with the machine screws.
- There may be sharp edges on the chassis parts or covers. Take due care to avoid minor cuts when installing and maintaining the equipment. Do not leave the equipment unattended when covers are open.

3 Installing the Controller

Refer to the *Occupancy Controller Setup Sheet* for illustrations and information during the installation process.

3.1 Choosing a Location

The occupancy controller should be installed in a service panel enclosure, plenum, ceiling space, or other location where it is protected from moisture, excessive heat or tampering. The controller is approved for use in air handling spaces (plenums).

The chosen location should be convenient for connecting the motion detector wiring, auxiliary switches and C-Bus network (on applicable units). There may be more than one mains circuit connected to the occupancy controller and this should be kept in mind.

The location you choose must provide a means of segregating the network cables from the mains cabling and any sources of electrical interference. Electromotive Force (EMF), electrical and magnetic field noise can cause erratic behaviour of networks and control signals.

3.2 Items Required

You do not need any special tools or supplies to install the occupancy controller. The following items will be needed to complete the installation:

Mounting screws or anchors -- 3 mounting screws are required to secure the occupancy controller to a solid surface, such as a solid wall or service panel enclosure. The three mounting keyholes can accommodate screws up to 5 mm in diameter.

Strain relief fittings -- You must use hardware that holds the wires securely or you can run the wires inside conduit. Refer to the Knockout Size chart in the *Setup Sheet* that was provided with the equipment. The inner knockout is 21.8 mm in diameter and the outer knockout is 27.8 mm in diameter.

Items included with the Occupancy Controller -- The items listed in the table are found in the carton or are attached to the circuit board. The terminal plugs can be removed to make the wiring connections.

Item	Use
<i>Occupancy Controller Setup Sheet</i>	The <i>Setup Sheet</i> shows you how to perform the basic installation steps that need to be done before you configure and program the controller.
Motion Detector connector (1 or 2)	3-screw terminal plug for connecting power and signal wires from the motion detector(s). Single relay units have one connector and Dual relay units have two. You can connect up to three motion detectors to each active detector input on the occupancy controller circuit board (Ctrl 1 and Ctrl 2).
Auxiliary input connector (1 or 2)	2-screw terminal plug for connecting a switch, photocell or pushbutton. Single relay units have one Aux-In connector and dual relay units have two Aux-In connectors on the occupancy controller circuit board.
C-Bus network connector (5752PP Series only)	4-screw terminal plug with two C-Bus + connections and two C-Bus - connections. This configuration allows you to daisy chain C-Bus units on the network.
Remote Override On/Off connector	4-screw terminal plug for connection of the optional Remote Override On/Off function.
Standalone Power Jumper (5752PP Series only)	This small circuit board with three connectors allows you to operate the 5752PP series occupancy controller as a standalone unit when it is not connected to an active C-Bus network. Remove the jumper when connecting the controller to the C-Bus network.

Note: The 4-screw terminal blocks for mains cable connection and relay connection are not removable.

Table 6. Items required for unit installation

3.3 Access to Internal Parts

During installation and setup you can access the terminals, switches and timer controls by opening the two metal side covers. Do not remove the covers from the unit. Do not remove the middle cover plate. There are no user serviceable parts beneath it.

Opening the Left Side (LV) Metal Cover Plate

Make sure that there are no active power connections to the controller before opening the LV wiring cover. There might be more than one mains circuit connected to the unit.

1. Using a Phillips screwdriver, loosen the top and bottom screws. Do not unscrew them all the way.
2. Pull the top of the cover away from the chassis until it is clear of the top screw.
3. Rotate the cover counter clockwise; it pivots on the bottom screw.
4. To close the cover, rotate it clockwise to its original position and tighten the two retainer screws.

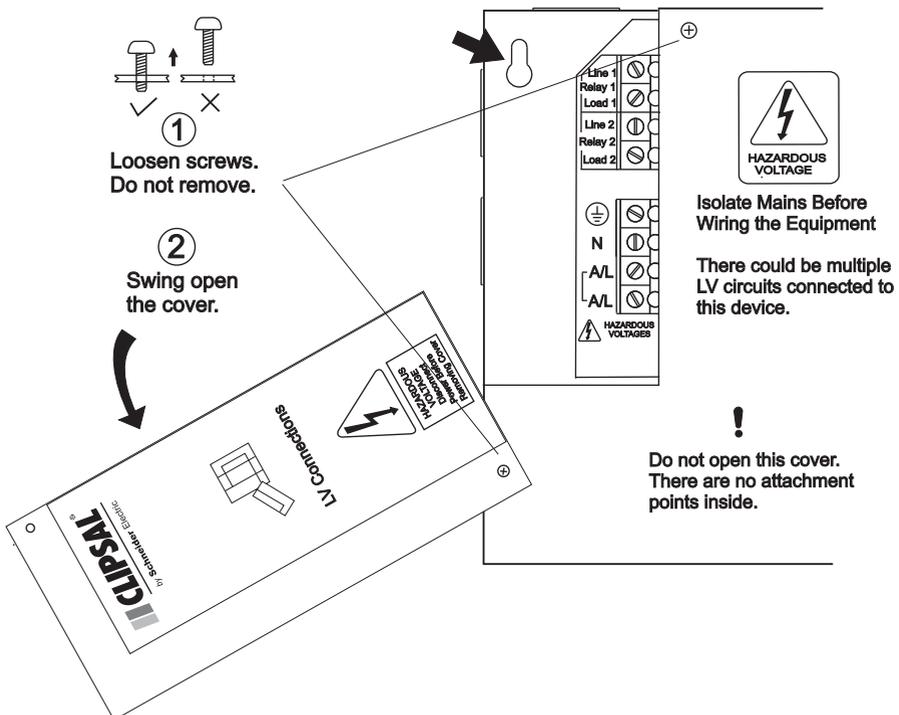


Figure 3. Opening the left side metal cover

Opening the Right Side (SELV/Class 2) Metal Cover Plate

When the unit is powered on, the components on the right hand side of the controller operate at SELV/Class 2 levels. It is highly recommended that you disconnect mains power from the occupancy controller before accessing the SELV/Class 2 side of the controller. There may be more than one mains circuit connected to the unit.

If it is necessary to access the SELV/Class 2 wiring area while power is on, do not use any metal tools or allow any objects to touch the components inside the chassis.

1. Using a Phillips screwdriver, loosen the top and bottom screws. Do not unscrew them all the way.
2. Slide the cover upward and pull the top of the cover away from the chassis until it is clear of the top screw.
3. Rotate the cover clockwise; it pivots on the bottom screw.
4. To close the cover, rotate it in a counter clockwise direction to its original position. And then tighten the two retainer screws.

3.4 Mounting the Controller

The information in this section supplements the steps shown in the *Occupancy Controller Setup Sheet* that is provided with the unit.

Before you begin to make wire connections to the unit, it must be securely attached to a wall or other solid surface. Select the type and size mounting hardware (screw or anchor) that is appropriate for the backing material.

When the left and right covers are open, you can see the three mounting holes that are keyhole shaped. The easiest way to locate the unit on a solid surface is to hold it in place with one hand and mark the three hole locations with a pencil as shown in the Setup Sheet.

If there is not adequate space to use the unit as a guide, use the template drawing on the next page for the location of the mounting holes. Allow adequate space around the occupancy controller for cables and strain relief.

Set the occupancy controller aside as you drill the three holes. DO NOT drill inside the chassis. You could damage the unit or cause dust and debris to fall on the circuit board and cause the unit to fail. Refer to the drawings in the Setup Sheet.

Hint: You might prefer to remove knockouts as required before mounting the occupancy controller on the solid surface. If you are installing strain relief hardware, you may prefer to do this at the bench.

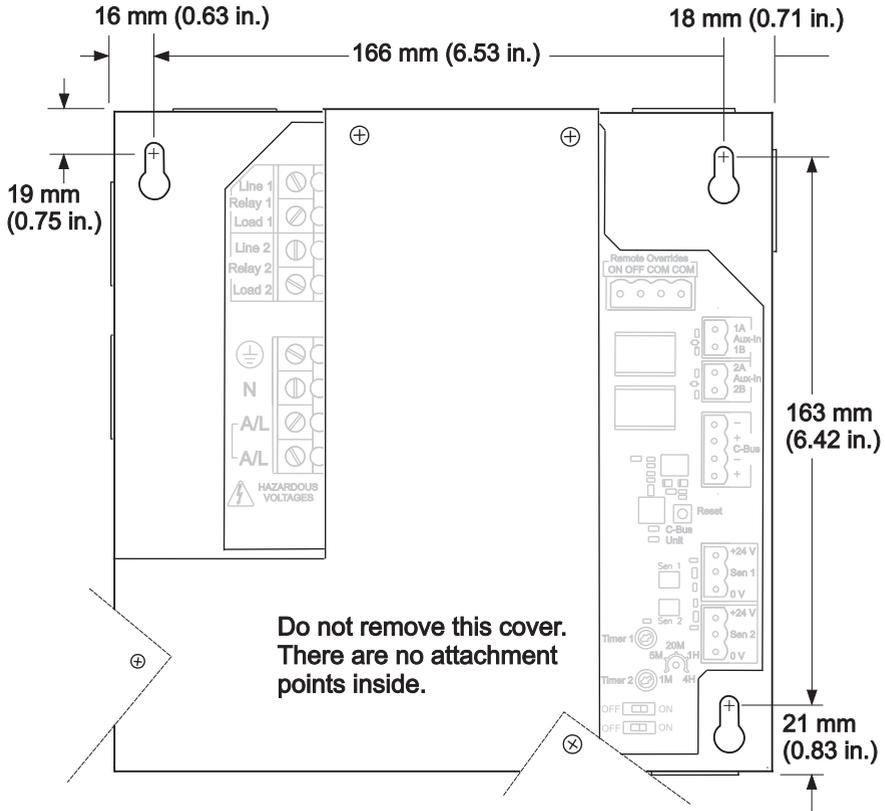


Figure 4. Mounting hole locations

3.5 Providing Strain Relief for Cables

Use a cable strain relief method that meets site requirements and local wiring regulations. Two possible methods are illustrated below.

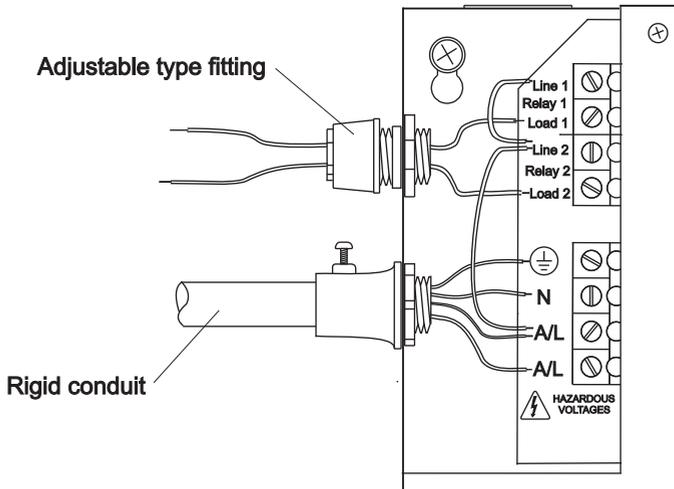


Figure 5. Examples of cable strain relief hardware

4 Wiring Connections

Refer to safety information that is found in the *Setup Sheet* and in Section 2 in the *Installation Instructions*.

4.1 Mains Power

Follow all safety labels on the occupancy controller when making connections. A qualified electrician must install the occupancy controller.

The occupancy controller operates over a range from 100 V a.c. to 277 V a.c. The input connection must have a protection device. Input power should be free from transient voltage spikes and surges. For voltage protection devices, please contact your local Clipsal or Schneider Electric sales office.

The occupancy controller may have one or two relays. When installing a two-relay controller using a single mains input connection, you must use a 25A, or smaller, circuit breaker (see Figure 6).

Mains and relay wires must have proper strain relief. Do not use rubber grommets to secure the cables.

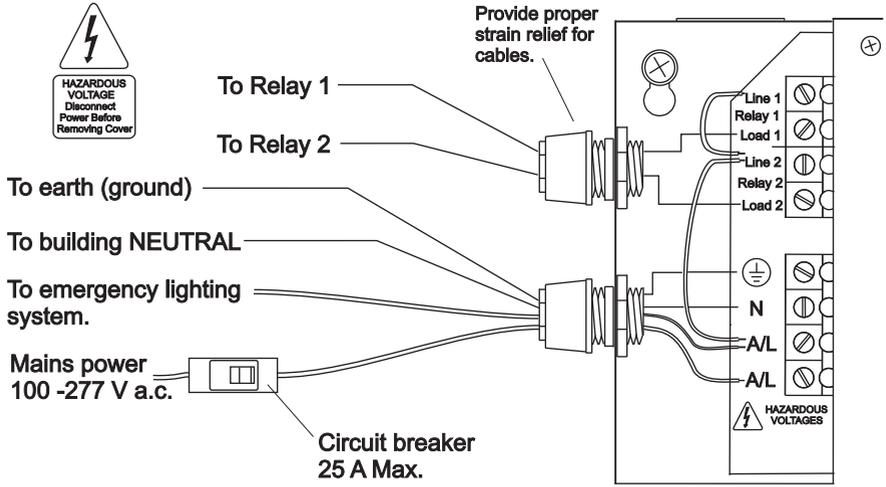


Figure 6. Wiring diagram using a single mains input circuit breaker

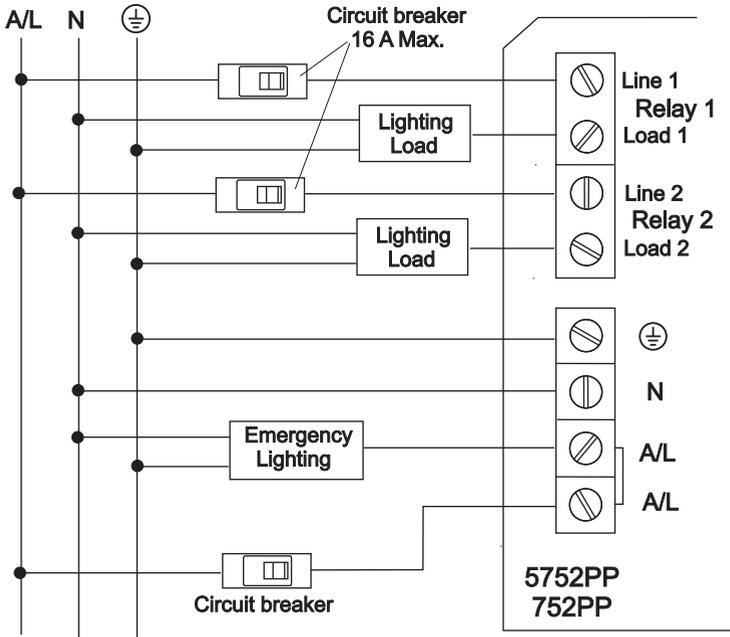


Figure 7. Wiring diagram using a separate circuit breaker for each relay

Follow these guidelines when installing the mains wiring:

- Isolate and lock out the mains circuit before wiring the unit.
- The LV metal cover plate must be closed when power is applied to the unit.
- Use one of the A/L line terminals to connect the emergency lighting circuit. The A/L terminals are not under relay control.
- The unit must have a proper earth (ground) connection.

4.2 Relay Connections

Isolate power from the unit before wiring the relays. Lock out and tag the power input circuit(s) before accessing the LV wiring. **There may be more than one active line input connected to the occupancy controller.**

Never assume that the Relay 1, Load 1 or Relay 2, Load 2 terminals are turned off. There are several modes of operation that can energise the relays. Do not rely on equipment indicator lamps when working on the lighting loads.

WARNING

Hazardous Voltage exists at the relay terminals. Avoid the possibility of death or serious injury by isolating the equipment from mains before opening the metal access cover

Relay Operation

On the loss of 24V d.c. power, the relays in a 752PP series standalone occupancy controller will default to the fail-safe mode switch settings, refer to Section 1.4. This is an important factor if the power for the relay loads is supplied from a different circuit than the occupancy controller.

The 5752PP Series C-Bus occupancy controller behaves in a slightly different manner on the loss of 24 V d.c. Assuming that the remote override is not active, the controller will default to the fail-safe switch settings. Subsequent C-Bus signals will control the relays.

During normal operation, the priority of relay state control is shown in the following table.

Control Mode	Priority	Function
Remote OFF	1 highest	All relays OFF
Remote ON	2	All relays ON
C-Bus Network commands	3	Toggle the specified relay and provide programming control
Aux-In switch	4	Activates the associated relay and enables the onboard timer
Motion detector signal	5	Activates the associated relay and enables motion detector timer

Table 7. Priority of relay control modes

4.3 Auxiliary Switch Connections

WARNING

Connect the Aux-In terminals to SELV devices only. To prevent electrical shock and personal injury, do not connect the unit to telephony devices that may operate at higher voltages.

The Aux-In connectors are the input location for switches, pushbuttons or photocells. There is one Aux-In terminal for each installed relay in your occupancy controller. An Aux-In connector does not provide power for the attached device.

Pressing the switch normally energises the relay and turns the lighting load on and takes precedence over the motion detector timer circuit. The switch also works in conjunction with the onboard timer located in the occupancy controller. When you use a toggle type switch, if you leave the switch in the on position, the onboard timer determines when the lighting load turns off. Refer to Section 5 for timer set up and programming information.

4.4 Motion Detector Connections

Refer to the instructions provided with the motion detectors you are installing. The instructions provide information about placement, mounting, wiring and detection areas.

At most sites the Ctrl 1 and Ctrl 2 connections in the occupancy controller provide the +24 V d.c. power for the attached detectors. The power connections for the motion detectors are polarity sensitive, so make sure to follow the colour code information found in the motion detector's installation instructions. Note that some motion detectors require a short warm up time after power on.

The occupancy signal from the motion detector (the middle terminal of the Ctrl 1 and Ctrl 2 connectors) is one of the signals that control the associated relay in the occupancy controller.

When a detector sends an occupancy signal to the controller, the small LED lights on the controller's circuit board near the Ctrl 1/2 terminal plug. This allows you to monitor detector activity at the controller's location if the SELV cover is open.

Hint: To avoid confusion, use the indicator lights on the motion detector to do the set up and walk test in the detection area. Adjust the timer in the motion detectors to their minimum (walk testing) settings. Later, you can set up the occupancy controller to allow a wider range of control and timing functions. Refer to Section 5.

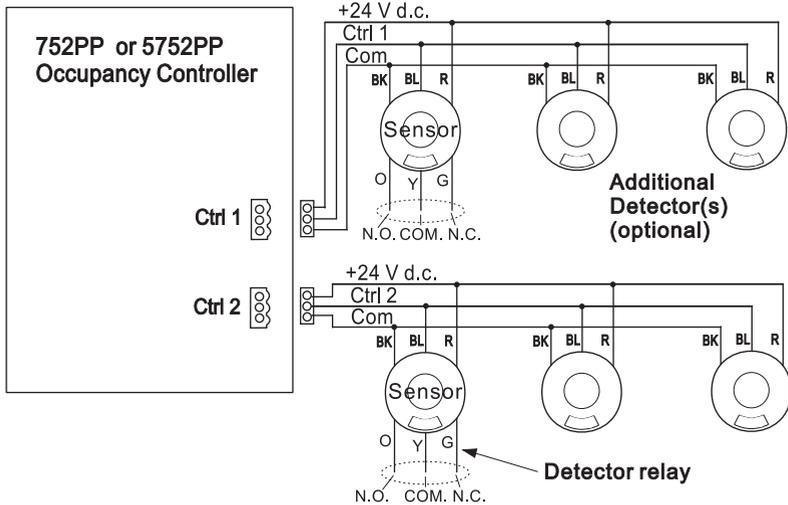


Figure 8. Motion detectors wiring details

Single Motion Detector configuration

If you connect a single motion detector to the Ctrl 1 or Ctrl 2 terminal, you can use the detector to signal occupancy and motion.

Multiple Motion Detectors wired in parallel

The Ctrl 1 and Ctrl 2 connections can each support up to three motion detectors wired in parallel. This is desirable when a large detection area, such as a long corridor, needs coverage. The selection of motion detectors for this type of application is beyond the scope of this installation instruction. Contact the technical support organisation for help.

When wiring multiple detectors to the same point, pay close attention to colour codes and polarity.

4.5 C-Bus Connections (5752PP Series only)

The occupancy controller uses a 4-terminal screw type connector for C-Bus. You can connect the occupancy controller to the network and daisy chain to other C-Bus devices. Use Cat.5e, unshielded twisted pair (UTP) network cable for C-Bus networks. The catalogue number for pink Cat.5e C-Bus network cable is 5005C305B (solid) and 5005C305BST (stranded).

The C-Bus circuitry inside the 5752PP Series Occupancy Controller is powered from an active C-Bus network. If an active network connection is not available, you must use the standalone power jumper that is provided with the unit. Refer to Section 5 for 5752PP series standalone setup.

The 5752PP Series C-Bus occupancy controller sinks 25 mA from the C-Bus network at an operating voltage range of 15 to 36 V d.c. The unit does not provide power to the C-Bus

network. Keep the C-Bus network cable segregated from mains wiring. Avoid placing the C-Bus network cable near sources of electrical interference, such as lighting ballasts and transformers.

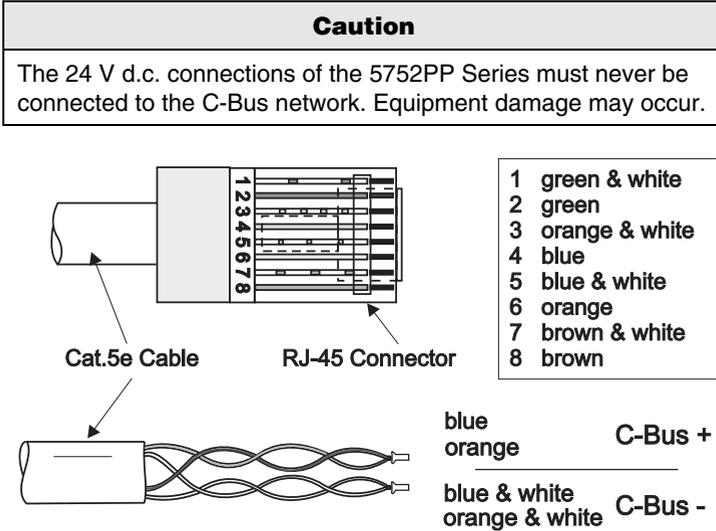


Figure 9. C-Bus network cable signal connections

4.6 Remote Override (optional)

The Remote Override feature is optional and allows you to override the current operational state of the installed relays. This can be very helpful when checking the lighting loads connected to the relays. The signals are active when tied to common (-). You should activate only one of the remote override functions at a time. The Remote Off has the highest priority and will turn the relays off if both modes are activated simultaneously. The selection of switches and wire used for the optional remote connection is not critical. A normal wall switch is an excellent choice.

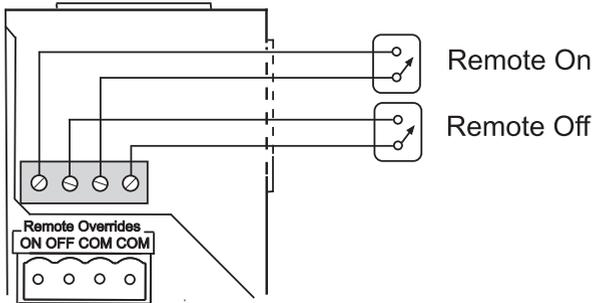


Figure 10. Optional Remote Override switch diagram

5 Setup and Programming

It is important to power OFF the controller when making wiring changes. Always disconnect the mains input circuits before doing any wiring task. The occupancy controller uses a microprocessor to turn the load relays on and off. If you change the wiring with power on, the circuits may not operate correctly.

Important Note:

You may access the SELV/Class 2 side of the controller (by opening the metal cover) to gain access to and adjust the onboard timers during operation. Keep the cover closed and secured at all other times.

5.1 Standalone Mode for C-Bus Controllers

If an active C-Bus network connection is not available, then you must use the standalone power jumper with the 5752PP Series Occupancy Controller. The jumper provides power for the C-Bus circuitry inside the unit. When the standalone power jumper is installed, the unit operates exactly the same as the 752PP series controller.

Using the standalone power jumper

To install the jumper, (1) disconnect the detector 1 terminal plug from the circuit board, (2) plug the standalone power jumper into the Ctrl 1 and C-Bus sockets and (3) insert the detector 1 plug in the socket in the middle of the jumper.

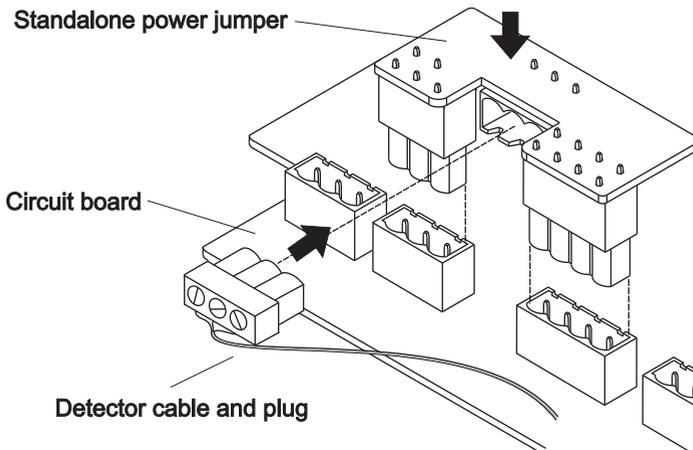


Figure 10. Standalone power jumper installation

When you are ready to connect the unit to the active C-Bus network, remove power. Then (1) remove the detector plug from the jumper, (2) remove the standalone power jumper and (3) Install the C-Bus plug and the detector plug on the circuit board.

5.2 Setup Tasks

Setting up the occupancy controller is not difficult when done in a logical manner. Follow these steps to make the unit operational:

- Step 1 Complete all wiring tasks**
- Step 2 Set switches and timers, as needed**
- Step 3 Apply power to the controller**
- Step 4 Set up the motion detectors**
- Step 5 Programming with C-Bus Toolkit software (5752PP Series)**

CAUTION

On 5752PP series C-Bus occupancy controllers, DO NOT disconnect the C-Bus network connection during operation. In order to use the 5752PP series controller without an active C-Bus network connection (standalone mode), you must use the standalone power jumper. Refer to Section 5.1.

Step 1. Complete all wiring tasks

Follow instructions and warnings found on the occupancy controller. Refer to the labels on the chassis and to the *Setup Sheet* provided with the unit.

- a. Verify that all connected circuit breakers are turned off and locked out. DO NOT perform wiring tasks with power applied to the occupancy controller or attached lighting loads. **There might be more than one mains connection to the occupancy controller.**
- b. Take a few minutes to make sure that mains and relay connections are correct and that the wiring terminal screws are tight. Make sure that strain relief devices are working properly.
- c. After you have checked the LV wiring, close and secure the metal cover.
- d. Check the SELV/Class 2 wiring to make sure that the motion detector and network wiring is correct. It is very important to observe the correct polarity. Make sure that the detector Ctrl 1/2 wires are in place.
- e. Make certain that no copper strands are protruding from the terminal plugs. Verify that signal cables are not placed near sources of electrical noise, such as mains wiring or transformers.

Step 2. Set switches and timers, as needed

Use the table below to verify the initial settings of the switches and timers in the SELV/Class 2 section of the occupancy controller.

Component	What to check
Relay fail safe switches SW1 / SW2	The sliding switch determines the state of the associated load relay (Relay 1 / Relay 2) upon loss of controller power.
Auxiliary input switches Aux-In 1 / Aux-In 2	If possible, start with auxiliary input switches in the open setting to allow the motion detector signals to have priority.
Motion detector input Ctrl 1 / Ctrl 2	Refer to the instructions for the motion detectors you are using. Some detectors have mode selection, timer interval and sensitivity settings. You may also need to set up sensor masking in the detection zone. See Note 1.
Onboard timers Timer 1/ Timer 2	Start with a short duration (one minute or less) to speed up the commissioning process. Afterwards, you can set the timers for a different duration.
Remote Override On / Off	Disable the remote override switches for the initial power on.
Standalone power jumper (5752PP units only)	Install the jumper if you do not have an active C-Bus network connection. Refer to Section 5.1.

Note 1: Follow the instructions provided with the motion detector. Set the motion detector timer for a short duration, for example 15 seconds, to speed up the testing and adjusting process. Later you can set the timer to a longer value, if desired.

Table 7. Switch and timer settings

Step 3. Apply mains power to the unit

When power is applied to the occupancy controller, there may or may not be visible indications that power is present. Never assume that the unit is powered off if no indicator lamps are on.

When the occupancy controller is powered on, there may be live voltages at any or all of the circuitry. Do not rely on indicator lights for operational status.

The occupancy controller supplies power to:

- the motion detectors connected to Ctrl 1 / Ctrl 2 (Com and +24 V d.c.)
- the lighting loads connected to Relay 1 / Relay 2, depending on the wiring setup
- the emergency lighting devices, as needed

To power the unit on follow these instructions:

WARNING

Avoid electrical shock and possible death or serious injury. You must keep the input power cover (metal LV cover) closed and secured whenever power is applied to the occupancy controller. There may be more than one circuit supplying power to the unit and the attached loads.

- a. Verify that the input power cover (metal LV cover) is securely in place. This was done in Step 1c.
- b. You should NEVER leave the unit unattended with the SELV/Class 2 cover open. You may operate the occupancy controller with the SELV/Class 2 metal cover open during setup and commissioning; it may be helpful to monitor the LED indicators on the circuit board. Close the SELV/Class 2 cover and secure the cover with the retaining screws when not accessing the controls and indicators.
- c. Turn on the mains power circuits for the occupancy controller.

Out of the box, the occupancy controller can be used to turn the relays on and off. The auxiliary input switches; timers and the remote overrides are fully functional. As you set up the motion detectors and C-Bus (5752PP series), more features are available for use.

Step 4. Set up the Motion Detectors

It is highly recommended that you set up the detectors' motion sensitivity, light level sensing and any zone masking before attempting to program the Occupancy Controller. You should use short detector timer settings to speed up walk-through testing.

Note: When the indicator light on the motion detector housing is on, the corresponding controller indicator next to the Ctrl 1 / Ctrl 2 connector is on.

Set up motion detectors according to instructions provided with the detector. The following guidelines are helpful for a successful installation.

- Read the entire instruction booklet for the motion detectors before beginning the setup.
- Do not install motion detectors in locations where they will be exposed to direct sunlight, near sources of hot and cold blowing air, or where there is moisture or condensation.
- After power on, allow a few minutes of warm up time before adjusting the motion detectors' settings.
- Do not touch the sensor elements or the lens and keep covers installed whenever possible.

Step 5. Programming with C-Bus Toolkit software

Before you can utilise the full capabilities of the 5752PP Series C-Bus Occupancy Controller, you must configure the unit using Toolkit software. Ensure that Toolkit software is loaded on a PC that is connected to the C-Bus network. The software is available free from the Clipsal Web site. Refer to Section 1.5.

Use Toolkit software to create or modify the project file to include the C-Bus Occupancy Controller (5752PP series). Refer to Toolkit Help when setting up the unit address, properties and timing parameters. The occupancy controller has features of key input devices (similar to wall switches, DLTs and touchscreens) as well as the ability to control connected electrical loads. This is a feature of C-Bus output devices.

Toolkit includes Help files that guide you through the configuration process. Be sure that you are using the latest released version of Toolkit software that includes:

- Programming examples
- Macro functions for the occupancy controller
- Tutorials

6 Specifications

Parameter	752PP Series	5752PP Series
Mains supply voltage	100 – 277 V a.c.	
Mains supply frequency	50 – 60 Hz	
Motion detector power supply	Power output 280 mA (140 mA per detector connection)	
Dimmer power supply (5752PP/2R/2D only)	Not applicable	Analogue: 1 – 10 V d.c. 200 mA DSI: 0 – 12 V d.c. 200 mA DALI: 0 – 12 V d.c. 250 mA
Power supply rating	24 V d.c. SELV/Class 2	
Relay rating	Fluorescent, capacitive (IEC 60669-2-1): 16 AX at 277 V a.c. Resistive: 16 A at 277 V a.c. Incandescent/ Tungsten: 12 A at 277 V a.c. Fluorescent (UL) Standard ballast (inductive 0.4 – 0.5 pf): 10 A at 277 V a.c.	
C-Bus supply voltage	Not applicable	15 to 36 V d.c. SELV / Class 2
Max units per network	Not applicable	80
C-Bus sink current	Not applicable	25 mA. Does not provide current for the C-Bus network.
C-Bus AC Impedance	Not applicable	80 K Ω @ 1 KHz
Connections	Input: Screw terminals, 2.5 – 4 mm ² (#14 – #12 AWG) Relay output: Screw terminals, 2.5 – 4 mm ² (#14 – #12 AWG) Motion detector: Screw terminal, 3-pin, 1 for each relay present Auxiliary input: Screw terminal, 2-pin, 1 for each relay present C-Bus (5752PP): Screw terminal, 4-pin	
Maximum operating temperature	50 °C (122°F) approved for use in a plenum.	
Operating humidity	10 to 90% RH (non-condensing)	
Dimensions (H x W x D)	203 mm (8.0 in.) x 200 mm (7.87 in.) x 60 mm (2.36 in.)	

7 Standards Complied

DECLARATIONS OF CONFORMITY

Australian/New Zealand EMC & Electrical Safety Frameworks and Standards



Regulation	Standard	Title
EMC	AS/NZS CISPR 14-1	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1: Emission
	AS/NZS CISPR 15	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
Electrical Safety	IEC 60669-2-1	Switches for household and similar fixed electrical installations – Part 2: Particular requirements – section 1: Electronic switches

European Council Directives and Standards



Directive	Standard	Title
EMC Directive 2004/108/EC	EN 60669-2-1 Clause 26.1	Immunity to ESD, RFI, EFT, Surge Voltages, Voltage Dips and Interruptions
	EN 60669-2-1 Clause 26.2	RF and Low Frequency Emissions
Low Voltage Directive 2006/95/EC	EN 60669-2-1	Switches for household and similar fixed electrical installations – Part 2: Particular requirements – section 1: Electronic switches
RoHS Directive 2002/95/EC		Restriction of Hazardous Substances

Additional Standards

Regulation	Standard	Title
Electrical Safety	IEC 60669-2-1	Switches for household and similar fixed electrical installations – Part 2: Particular requirements – section 1: Electronic switches

U.S. FCC Regulations



FCC Title 47

Part 15, Class B Digital Device

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operation.

Class B Product

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Warning:

Any changes or modifications not expressly approved by Clipsal or Schneider Electric could void the user's authority to operate this equipment.

Underwriters Laboratories

This Clipsal by Schneider Electric product is listed as follows:

Underwriters
Laboratories

UL/cUL Listed
 UL 916 (PAZX / PAZX7) – Energy Management Equipment
 CSA C22.2 No. 205 – Signal Equipment

8 Two-Year Warranty

The 752PP and 5752PP Series Occupancy Controllers carry a two-year warranty against manufacturing defects.

Warranty Statement

The benefits conferred herein are in addition to, and in no way shall be deemed to derogate; either expressly or by implication, any or all other rights and remedies in respect to the Schneider Electric product, which the consumer has in the location where the product is sold.

The warrantor is Schneider Electric with offices worldwide.

This Schneider Electric product is guaranteed against faulty workmanship and materials for a period of two (2) years from the date of installation.

Schneider Electric reserves the right, at its discretion, to either repair free of parts and labour charges, replace or offer refund in respect to any article found to be faulty due to materials, parts or workmanship.

This warranty is expressly subject to the Schneider Electric product being installed, wired, tested, operated and used in accordance with the manufacturer's instructions. Any alterations or modifications made to the product without permission of Schneider Electric might void the warranty.

Schneider Electric shall meet all costs of a claim. However, should the product that is the subject of the claim be found to be in good working order, all such costs shall be met by the claimant.

When making a claim, the consumer shall forward the Schneider Electric product to the nearest Schneider Electric office. Provide adequate particulars of the defect within 28 days of the fault occurring. The product should be returned securely packed, complete with details of the date and place of purchase, description of load, and circumstances of malfunction.

For all warranty enquiries, contact your local Clipsal sales representative. The address and contact number of your nearest sales office can be found at

<http://www.clipsal.com/locations>

or by telephoning Clipsal CIS Technical Support 1300 722 247 (CIS Technical Support Hotline).

Technical Support

For further assistance in using this product, consult your nearest Clipsal or Schneider Electric Sales Representative or Technical Support Officer.

Technical Support Contact Numbers for Australia and New Zealand

Australia	1300 722 247 (CIS Technical Support Hotline)
New Zealand	0800 888 219 (CIS Technical Support Hotline)

Technical Support email: cis.support@clipsal.com.au

Clipsal Australia Pty Ltd

A member of Schneider Electric

clipsal.com

Contact us at:

<http://www.clipsal.com/feedback>

Schneider Electric reserves the right to change specifications, modify designs and discontinue items without incurring obligation and whilst every effort is made to ensure that descriptions, specifications and other information in this instruction booklet are correct, no warranty is given in respect thereof and the company shall not be liable for any error therein.

Copyright by Schneider Electric. All rights reserved.

F2242

June 2010 CPL1039074