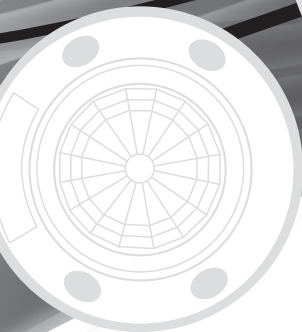
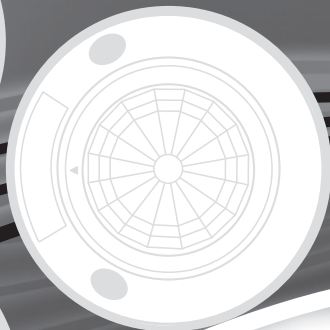
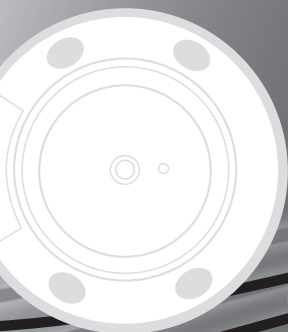


CLIPSAL[®]

by Schneider Electric



Ceiling-Mounted Motion Detector

**752/CD, 752/CP,
752/CU and 752/Cx180**



Installation Instructions

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1.0 Description

The 752 Series Motion Detectors are Class 2 devices ideal for use in business and office settings to accurately detect occupancy and automatically control lighting. The ceiling-mount design of these low-profile detectors allows the greatest possible motion sensitivity. After installation, an adjustment panel, conveniently located on the front of the detector, provides ready access to set the controls.

There are five models of ceiling mounted detectors:

- 752/CP Passive Infrared (PIR), 360° detection pattern
- 752/CU Ultrasonic, 360° detection pattern
- 752/CD Dual Technology, PIR and Ultrasonic combined, 360° detection
- 752/CU180 Ultrasonic, 180° detection pattern
- 752/CD180 Dual Technology, 180° detection pattern.

1.1 Contents of the Box

Item Description	Quantity
Motion detector	1
Mounting adapter plate	1
Threaded mounting post	1
Washer	1
Lock nut	1
Mounting screws	2
Masking strips sheet, see Note	1

Note: Supplied with PIR and Dual detectors only.

2.0 Safety

Follow all safety information on the motion detector and follow the safety warnings below.

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.

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 power is off.

Replace all devices, doors and covers before turning on power to this equipment.

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

Control power must be provided by a 752PP or 5752PP Series Occupancy Controller, or an approved equivalent.

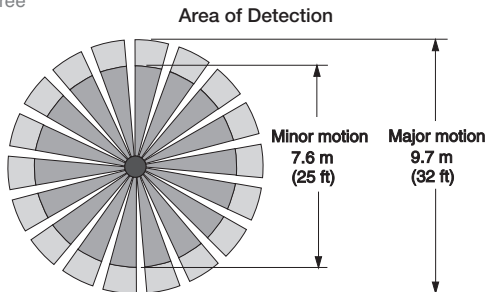
Changes or modifications to this device that are not expressly approved by Clipsal or Schneider Electric might void the warranty and void the user's authority to operate this equipment.

When wiring the unit, follow all applicable national and local codes.

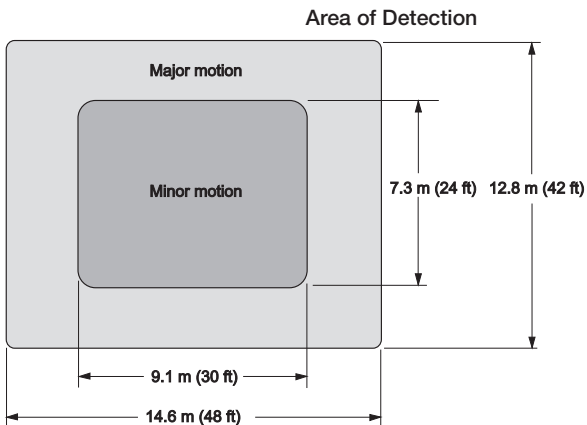
3.0 Coverage Patterns

The figures that follow show the coverage patterns for the five types of motion detectors for 2.7m (9 ft) ceiling.

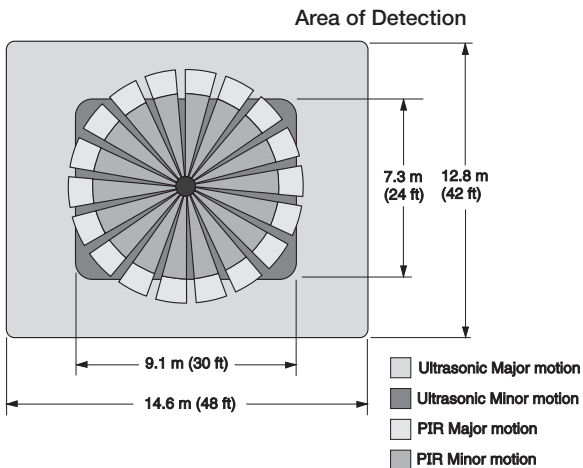
3.1 PIR 360 Degree



3.2 Ultrasonic 360 Degree

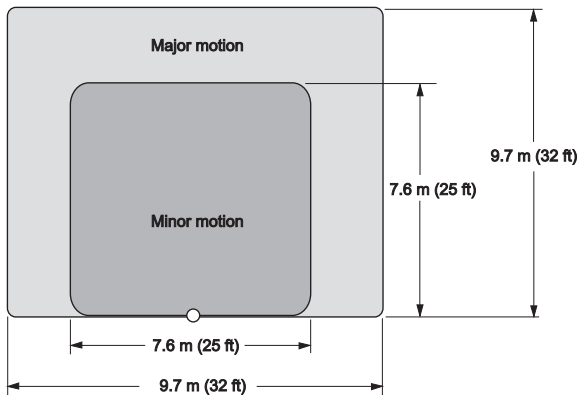


3.3 Dual Technology 360 Degree



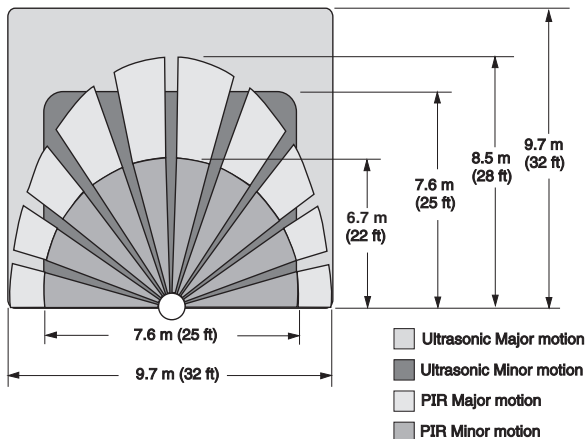
3.4 Ultrasonic 180 Degree

Area of Detection



3.5 Dual Technology 180 Degree

Area of Detection



4.0 Installation

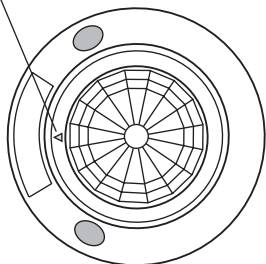
Installation and configuration is simple. The detector mounts directly to the ceiling or a ceiling junction box. The detector can be mounted to a variety of ceiling surfaces, such as acoustical tile, drywall, plywood, etc. Two possible mounting methods are described in this booklet.

Note: Install the detector at least 1.5m (5 feet) away from sources of airflow, such as HVAC vents, ceiling fans, etc.

4.1 Coverage Direction for the 180-Degree Detector

The 180 degree motion detector has a small directional arrow to indicate the coverage direction. Determine the direction to mount the detector and point the arrow in the desired direction.

Directional arrow

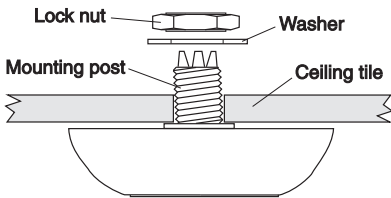


4.2 Mounting with the Supplied Mounting Post

Ensure that the circuit breaker supplying power to the occupancy controller is turned off. Refer to the figure and the following instructions.

1. Drill a 23mm (7/8 in.) hole in the mounting location.

Note: For acoustical tile, you can use the cutter on the end of the threaded mounting post to cut a hole. Press the cutter end of the mounting post firmly against the tile and twist to cut the tile.

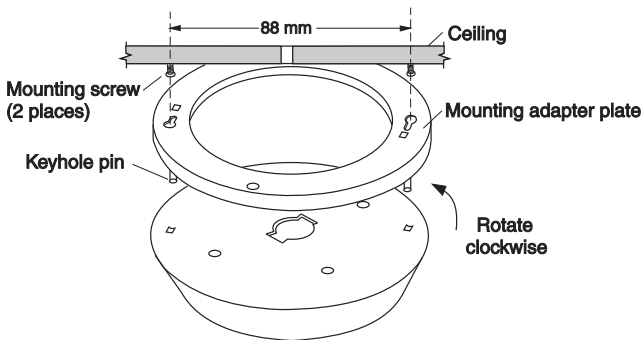


2. Feed the detector wire through the mounting post and then twist and lock the mounting post to the back of the detector.
3. Insert the mounting post into the hole drilled in Step 1. Secure the detector from the top of the ceiling tile using the supplied washer and lock nut.
4. Wire the detector according to the wiring diagram in this booklet. Follow all applicable national and local electrical codes.

4.3 Flush Mounting

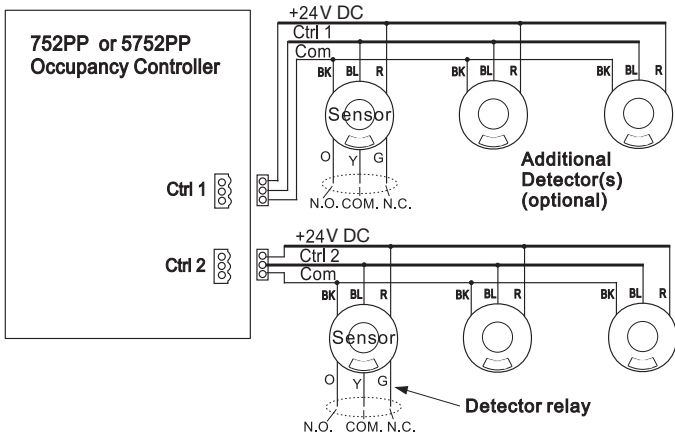
Ensure that the circuit breaker supplying power to the occupancy controller is turned off. Refer to the figure and the following instructions.

1. Drill a hole large enough to accommodate wiring at the mounting location.
2. Attach the mounting adapter plate to the ceiling using a secure method, such as with screws and wall anchors (not provided).



5.0 Wiring Diagram

The wiring diagram shows the maximum configuration of motion detectors on an occupancy controller.



Follow the instructions in the Occupancy Controller Installation Instructions for wiring and operation of detectors, auxiliary switches and lighting loads.

6.0 Operation

The following steps describe the basic operation of the motion detector. Refer to the occupancy controller instructions for information about the interaction between the detectors and the controller.

1. Turn on the circuit breaker and any wall switches that may be supplying power to the occupancy controller.
2. Set the occupancy controller to turn on the associated lighting load when the motion detection signal is active. The factory settings in the occupancy controller will do this.
3. Whenever motion is detected, the LED(s) on the detector housing flash on for approximately 0.5 seconds, and a signal is sent to the controller to turn on the lights or keep them on.

Note: When powered on, the detector may have to warm up for a few minutes before it is fully operational.

- Set the timer duration to the Test setting of 15 seconds (refer to Detector Adjustment in this booklet).
- Vacate the detection area until the lights turn off.
- Re-enter the detection area. Lights should turn on immediately. If the lights do not turn on immediately, verify that the detector wiring is correct and that the detector's signal is not being overridden by another control function.

Note: Lighting loads connected to ballasts will ramp to full power over a period of four seconds.

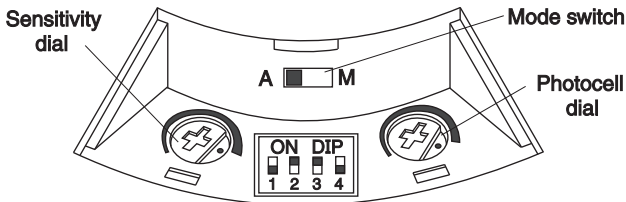
- When the motion detector is operational, adjust the settings as described in Detector Adjustment.

7.0 Detector Adjustment

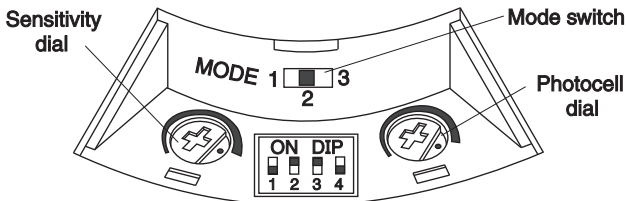
The adjustment panel is located on the front of the detector housing. To access the adjustment controls, gently pry the cover off with a small flat blade screwdriver. To replace the cover, snap it back in place.

Refer to the following figure and tables for adjustment details.

7.1 PIR and Ultrasonic



7.2 Dual Technology



7.3 Mode Switch

The Mode switch determines when the lights are turned on or remain on. Refer to the table that follows.

Detector	Mode	Description
PIR and Ultrasonic	A	Automatic mode. Normal, default setting. Lights turn on and stay on only when the detector senses motion.
	M	Manual override on mode. Lights are always on.
Dual Technology	1	Instant on setting. Either PIR or ultrasonic detection will turn the lights on or cause lights to remain on.
	2	Normal default setting. Only PIR detection will turn the lights on. Either PIR or ultrasonic detection will cause the lights to remain on.
	3	Override setting on. Lights are always on.

7.4 Sensitivity Dial

The Sensitivity Dial determines the amount of movement required to trigger the detector and the distance from which movement can be detected.

The sensitivity can be adjusted to the following percentages of the maximum coverage area:

- 360° PIR detector from 60% to 100%, default is 100%
- 360° ultrasonic and dual from 10% to 100%, default is 50%
- 180° ultrasonic and dual from 10% to 100%, default is 50%.

Turn the dial to the desired setting. The minimum setting is fully counter clockwise and the maximum setting is fully clockwise.

Note: Consider the characteristics of the room when adjusting the sensitivity of the Ultrasonic and Dual Technology detectors. Hard surfaces (concrete, glass and tile) are reflective and create a higher sensitivity for ultrasonic detection. Soft surfaces (carpet, drapes, cubicle walls and acoustical tile) absorb some of the ultrasonic energy and reduce the unit's sensitivity.

7.5 Photocell Dial

This dial sets the level above which ambient light will not trigger the detector. The ambient light level can be set from 5 – 2700 lux.

Turn the dial to the desired setting from 5 lux (fully counter clockwise) to 2700 lux (fully clockwise). The default setting is 2700 lux. The default setting disables the photocell, such that ambient light does not inhibit detector operation.

7.6 Time Delay DIP Switch

The four-position DIP switch determines how long the lights stay on after motion is no longer detected. Settings range from 15 seconds to 30 minutes. The default setting is 18 minutes. Refer to the following table.

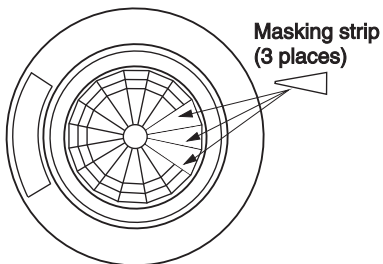
Time Delay	DIP Switch position			
	1	2	3	4
15 seconds (test setting)	On	On	On	On
2 minutes	On	On	On	Off
4 minutes	On	On	Off	On
6 minutes	On	On	Off	Off
8 minutes	On	Off	On	On
10 minutes	On	Off	On	Off
12 minutes	On	Off	Off	On
14 minutes	On	Off	Off	Off
16 minutes	Off	On	On	On
18 minutes (factory setting)	Off	On	On	Off
20 minutes	Off	On	Off	On
22 minutes	Off	On	Off	Off
24 minutes	Off	Off	On	On
26 minutes	Off	Off	On	Off
28 minutes	Off	Off	Off	On
30 minutes	Off	Off	Off	Off

The detectors include a patented feature that senses occupancy patterns and adjusts the time delay to an optimal setting.

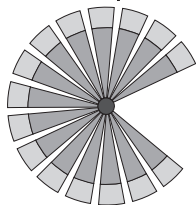
7.7 Detector Masking

To help prevent unwanted detection, such as people moving in adjacent areas, you can partially mask the lens of the PIR and Dual Technology detectors. Use the supplied white masking strips as shown in the example below.

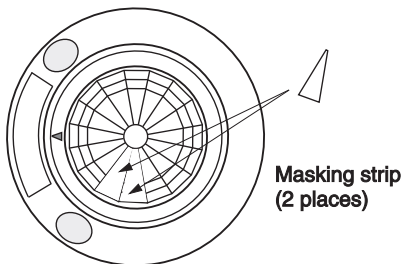
360° Detector



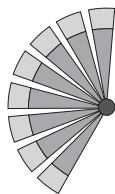
Detection pattern



180° Detector



Detection pattern



8.0 Specifications

Parameter	Description
Operating voltage	24V DC
Power requirement	360° PIR 21mA 360° Ultrasonic 34mA 360° Dual Technology 37mA 180° Ultrasonic 30mA 180° Dual Technology 33mA
Coverage (360 degree units)	PIR 93m ² (1000 ft ²) Ultrasonic 186m ² (2000 ft ²) Dual Technology 186m ² (2000 ft ²)
Coverage (180 degree units)	Ultrasonic 93m ² (1000 ft ²) Dual Technology 93m ² (1000 ft ²)
Isolated relay	Class 2, rating 1 A @ 24V DC
Adjustable time delay	15 seconds to 30 minutes
Ambient light level sensing	5 lux to 2700 lux
Sensitivity range (percentage of maximum coverage)	360° PIR Detector 60% to 100% 360° Ultrasonic/Dual 10% to 100% 180° Detector 10% to 100%
Motion indicator LEDs	
PIR	Red
Ultrasonic	Red
Dual technology	Red/Green
Operating temperature	0 to 50°C (32 to 122°F)
Operating humidity	90% maximum (non-condensing)

9.0 Two-Year Warranty

The 752/Cx series motion detectors carry a two-year warranty against manufacturing defects.

10.0 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).

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