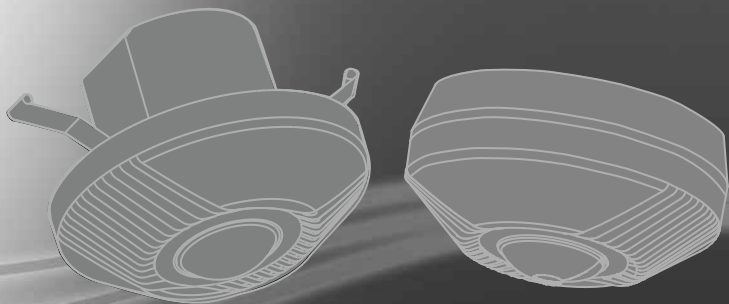


**CLIPSAL**<sup>®</sup>

by **Schneider Electric**



**Dual-Tech Occupancy Sensor  
360° Flush/Surface Ceiling Mount**

**752/CD1RC  
752/CD2RC**



Installation Instructions

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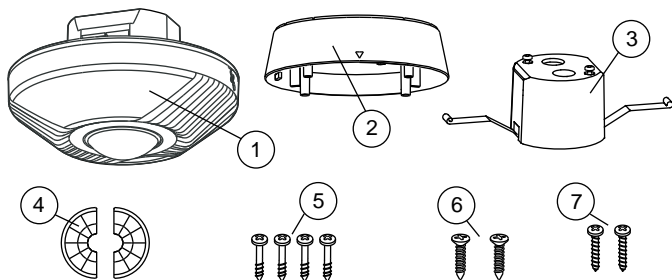
## 1.0 Introduction

### 1.1 Orderable Products

Two sensor models and a hand held remote control are available.

Cat. No.	Description
752/CD1RC	Dual-technology occupancy sensor, single-load control with 360° Passive Infrared (PIR) and Ultrasonic (US) detection. For flush mounting or solid surface mounting.
752/CD2RC	Dual-technology occupancy sensor, dual-load control; one general purpose control and one isolated HVAC control. For flush mounting or solid surface mounting.
Accessory Item Description	
752RC/D	Hand held IR Remote Control for programming and controlling sensor units. (purchased separately).

### 1.2 Supplied Items



Drawing Ref.	Item	Quantity
1	Sensor	1
2	Enclosure, surface mount	1
3	Enclosure, flush mount with spring clips	1
4	Lens mask, split	2
5	Screws, non-dropping	4
6	Screws, countersunk, self-tapping	2
7	Screws, wood	2

## 2.0 Safety and Installation Requirements



# WARNING

All of the wiring tasks described in this installation instruction must be carried out by a licensed electrician in accordance with wiring rules that apply in the location and installation type where the product is installed. Unauthorised or unqualified persons risk electrocution which could result in death.

The sensor unit can switch a controlled load circuit on or off at any time. Switch action may cause unexpected exposure to dangerous voltages or mechanical hazards. Remove power to any connected device before servicing.

If the unit malfunctions, do not attempt to open or repair the unit.

Check installation requirements before installation:

- Turn off power before proper installation of the unit.
- Lamps of certain brands might cause high in-rush current that can damage the unit permanently.
- Turn off power when changing the light sources.
- Turn off power when changing the knob settings.
- A circuit breaker (250VAC, 10A) type C according to AS/NZS 60898-1 shall be installed.

### **Caution** Possible equipment damage

When installing the 752/CD1RC unit, DO NOT connect a load across terminals A1/P1 and B1/P2. This is a safe extra low voltage (SELV), open-collector output. Improper connection to these terminals could cause serious damage to the sensor and connected equipment. Refer to the wiring diagrams for more information.

Cleaning:

Wipe with dry cloth only. Solvents or detergents or rough cloth may damage the sensor lens.

## 3.0 Features of the Sensor Units

### 3.1 752/CD1RC Single-Load Sensor

The 752/CD1RC includes a single output that switches on a connected load when:

- Motion is detected by the user-selected combination of PIR and Ultrasonic sensors.
- The ambient light level is below the set light level adjustment.

#### Time Adjustment

The sensor has a TIME adjustment that determines the switch-off time delay. The time adjustment can be set for delays from 5sec to 30min. There is also a 1sec Pulse and a Test setting that are used during setup. Refer to Setup and Operation.

#### Shared or Isolated Load Power

The mains circuit that supplies the sensor can also power the controlled load. A loop wire provides the connection. Removing the loop wire isolates the connected load from the sensor's supply circuit. See the wiring diagrams for the 752/CD1RC.

#### Manual Override/Auxiliary Mode Switch

The 752/CD1RC sensor includes a manual override/auxiliary output mode switch that operates as follows:

- In the manual override mode (default factory setting), an optional momentary-contact pushbutton switch (normally open) can be connected to switch the load on, or switch it off during a timed cycle.
- When switched to auxiliary mode and motion is detected, the sensor sends a signal to a remote device, such as the input of a C-Bus Auxiliary Input Unit, L5504AUX.

Important: DO NOT connect the C-Bus network directly to the sensor. Refer to the instructions provided with the C-Bus Auxiliary Input Unit.

#### Lux (ambient light level) Adjustment

A Lux level adjustment may be configured during setup so that ambient light may be used in conjunction with motion detection. Light level sensing can be disabled during walk testing. Refer to Setup and Operation.

#### Mounting Options

Three mounting options are described in this document, they are:

1. Use the provided flush mount enclosure that suits installations in ceilings with adequate clearance above and where a hole can be cut in the ceiling. The flush mount enclosure has spring clips that hold the sensor in place in the ceiling.
2. Mount the sensor on the ceiling using a standard junction box that may already be cast in the ceiling. In this configuration, the power plate is attached directly to the junction box and a mounting enclosure is not required.
3. The surface mount enclosure suits installation on solid surfaces such as masonry. Conduit knockouts are provided for cable entry.

### 3.2 752/CD2RC Dual-Load Sensor

The 752/CD2RC includes two independent outputs, one is for a general load connection that operates when motion is detected and the light level is below that of the threshold of the Lux sensor. The second output is typically used for HVAC control applications where the output is operated using motion detection only.

As a result, the two circuits have different setup and operational features. The detailed differences are described below. For more information, refer to Setup and Operation.

#### Output 1 (for lighting loads, connected to terminals L' and N)

This output operates in exactly the same way as the output in the single-load sensor unit and switches the connected load when:

- Motion is detected by the user-selected combination of PIR and Ultrasonic sensors.
- The ambient light level is below the set light level adjustment.

Output 1 uses TIME 1 adjustment to set the switch-off time delay. The time adjustment can be set for delays from 5sec to 30min. The 1sec Pulse and Test settings are used during setup. Refer to Setup and Operation.

#### Output 2 (for HVAC control, connected to terminals D1 and D2)

- Output 2 operates independently of the ambient light level making it suitable for HVAC control.
- Output 2 uses TIME 2 adjustment to set the switch-off time delay. The TIME 2 adjustment can be set for delays from 10sec to 60min. TIME 2 does not have pulse or test settings.
- The D1 and D2 terminals are isolated from the sensor's power supply. The HVAC control circuit must be protected by suitable circuit protection.

#### Lux (ambient light level) Adjustment

The Lux level adjustment affects only Output 1. The level is configured during setup to make the most effective use of ambient light or to detect low-light conditions. Light level sensing can be disabled during walk testing. Refer to Setup and Operation.

#### Mounting Options

The mounting options are the same as the single load sensor.

1. You can use the flush mount enclosure that suits installations in ceilings with adequate clearance above and where a hole can be cut in the ceiling. The flush mount enclosure has spring clips that hold the sensor in place in the ceiling.
2. Mount the sensor on the ceiling using a standard junction box. In this configuration, the power plate is attached directly to the junction box and a mounting enclosure is not required.
3. The surface mount enclosure suits installation on solid surfaces such as masonry. Conduit knockouts are provided for cable entry and exit.

### 3.3 PIR and Ultrasonic Detection Patterns (all models)

The recommended ceiling height is 2.5m. Installing the sensor on a lower ceiling will reduce the detection range. Typical dual-technology detection patterns are illustrated in Figure 2 below. Refer to this figure when performing the walk test.

Notes:

- The PIR sensitivity cannot be adjusted by the user. To modify the infrared coverage pattern, refer to Using the PIR Lens Mask.
- The SENS adjustment allows you to adjust the Ultrasonic detection pattern.
- The ACC (Air Current Compensation) adjustment when ON reduces the Ultrasonic sensitivity. This lowers the likelihood of false detection signals. Refer to Performing a Walk Test.
- The Lux adjustment has a profound effect on motion detection. Each installation may have different requirements when using the ambient light threshold. Certain functions, such as the action of the auxiliary mode function on the single load unit are independent of the Lux adjustment. Another example is that Output 2 on the dual load unit responds to motion detection only (independently to the light level threshold adjustment). Refer to Adjustments and Indicators.

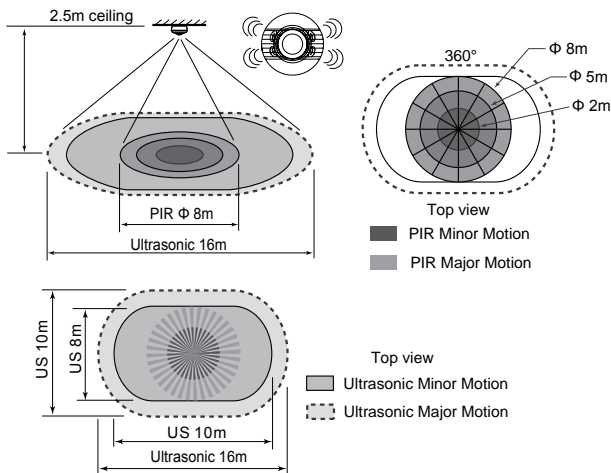


Figure 2. PIR and Ultrasonic detection patterns

## 4.0 Installation

### 4.1 Mounting Location Guidelines

When choosing a location for the sensor or multiple sensors, choose the location that gives the best coverage. Use Figure 2 as a guide.

Keep the following in mind when installing sensors:

- The sensor must be located at least 2m away from a window to avoid nuisance ultrasonic triggering due to glass vibrations.
- The sensor must be located at least 2m away from the source of airflow such as doorway, vents and air conditioning that can cause inaccurate ultrasonic sensor triggering.
- When multiple sensors are installed, the distance between two adjacent sensors must be at least 6m to avoid interference.
- The sensor must be installed at least 0.5m from a corner or wall to avoid ultrasonic signal saturation.

Figure 3 shows the parameters for optimal sensor operation.

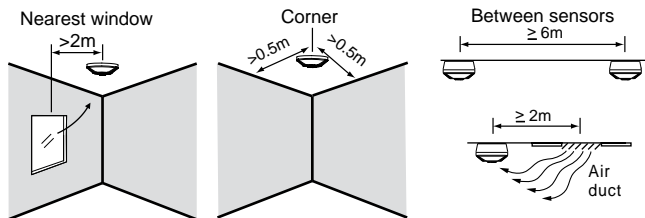


Figure 3. Guidelines for sensor locations

Locations to avoid are shown in Figure 4. Since the sensor responds to temperature, airflow and wind change, please avoid (A) aiming the sensor toward objects which may sway, such as curtains, tall plants and highly reflective objects such as mirrors. (B) Avoid placing the sensor near sources of heat or bright lights or (C) in drafty areas such as doorways.

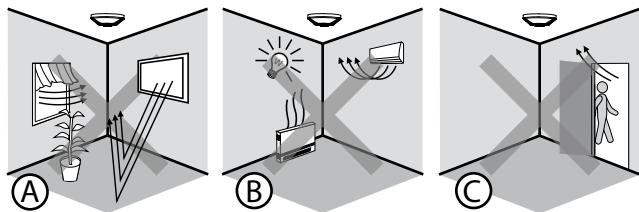


Figure 4. Locations that should be avoided



## 4.2 Flush Mounting

### Using the Flush Mount Enclosure

The flush mount enclosure has two spring clips, knockouts for conduit and two integral, non-dropping screws.

To install the sensor,

1. Cut the appropriately sized hole in ceiling board (Figure 5) and then pull the power cables through the hole.
2. If you need a second conduit connection, use a screwdriver to remove the second knockout from the flush mount enclosure. Refer to Figure 5.
3. Feed the power cables through the appropriate holes in the enclosure.

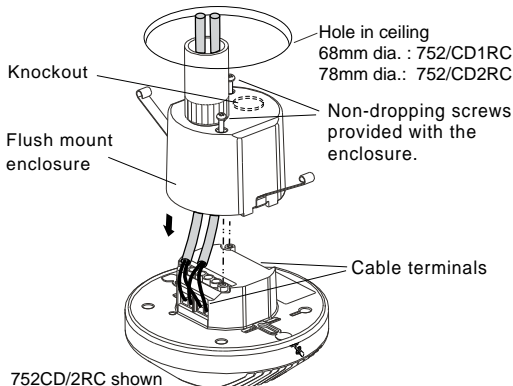


Figure 5. Placement of cables and components

4. Connect the power and signal cables and then attach the flush mount enclosure to the sensor using the two non-dropping screws.
5. To install the sensor in the ceiling, press the spring clips together (Figure 6) and push the sensor upward until the unit is flush with the ceiling.

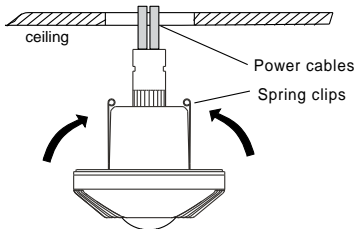


Figure 6. Bend the spring clips

### Flush Mount with a Standard Junction Box

Flush mounting with a standard junction box does not require the flush mount enclosure. Aim the ultrasonic sensor toward the main detection area to achieve the best detection coverage.

Use a small flat-blade screwdriver to take off the sensor head cover. Refer to Figure 7.

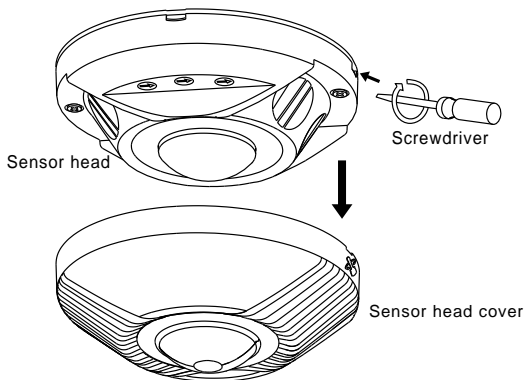


Figure 7. Removing the sensor head cover

Loosen the two non-dropping screws and separate the power plate from the sensor head. See Figure 8.

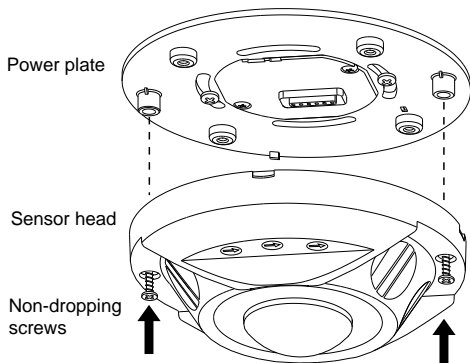


Figure 8. Power plate and sensor head assembly details

Pull out cables from the junction box and use the appropriate wiring diagram to connect the cables. See Figure 9.

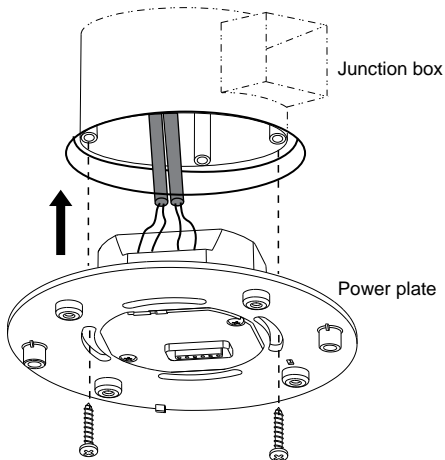


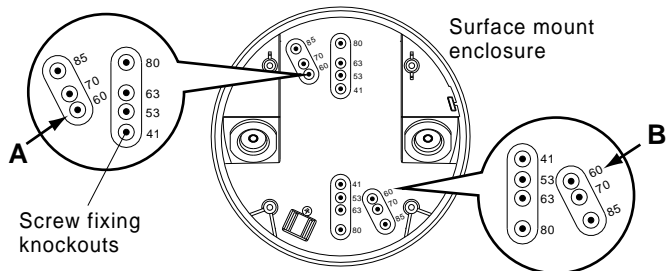
Figure 9. Attach the power plate to the junction box.

Attach the sensor head to the power plate with two screws. (See Figure 8).

### 4.3 Surface Mounting

Surface mounting uses the surface mount enclosure. The enclosure is mounted directly on the solid surface and the flush mount enclosure is not used.

The surface mount enclosure has 7 pairs of fixing screw knockouts placed at various distances from 41mm to 85mm as needed for different mounting applications. Select same two figures on both ends for the corresponding fixing distance (See Figure 10).



A	B	The distance between A and B
41	41	41mm
53	53	53mm
60	60	60mm
63	63	63mm
70	70	70mm
80	80	80mm
85	85	85mm

Figure 10. Selecting fixing screw knockouts in the surface mount enclosure

To feed power cables through the side of surface mount enclosure, break out the cable entry knockout, then insert cables into the cover and feed through. See Figure 11.

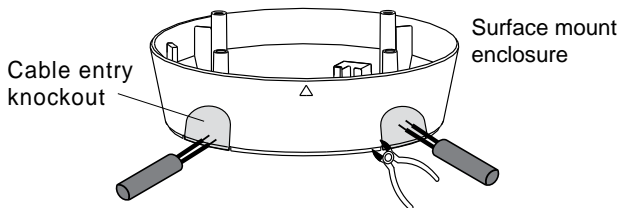


Figure 11. Inserting cables in the surface mount cover

Choose two fixing screw knockouts and attach the enclosure to the ceiling with two mounting screws. See Figure 12.

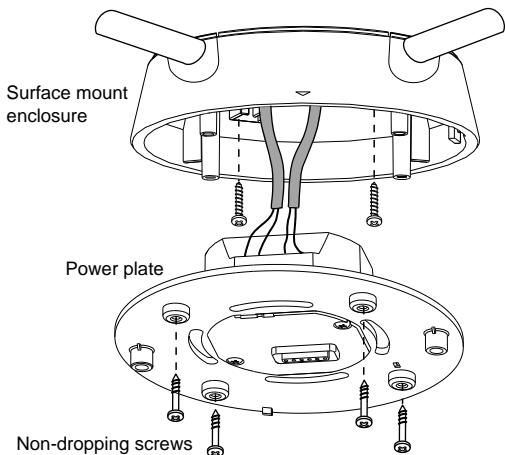


Figure 12. Attaching the surface mount enclosure and power plate to the ceiling

Refer to the wiring diagrams for the correct cable connections.

Insert the four non-dropping screws to the corresponding screw holes on sensor's power plate.

Attach the sensor head to the power plate using two countersunk screws as shown in Figure 8.

## 5.0 Wiring Instructions

### 5.1 Single-Load Sensor 752/CD1RC

The single load sensor can switch a single load on and off. The supply for the load can be provided from the line input using the looping wire that is installed in the factory. There must be a suitable isolation device (circuit breaker) on the input line to ensure compliance with AS/NZS 60898-1. Figure 13 shows a typical application of the single load sensor.

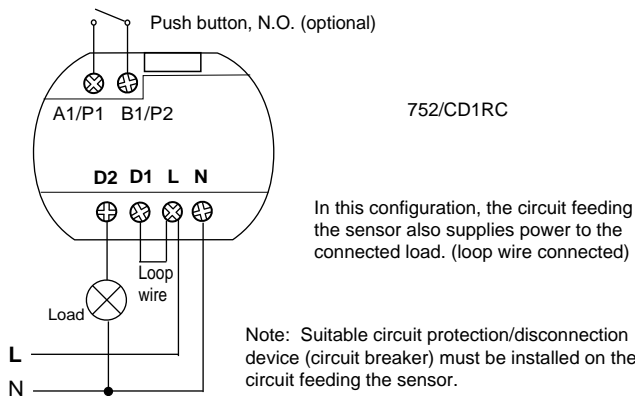


Figure 13. Wiring diagram for a typical single-load application

#### Terminals D1 and D2

D1: A looping wire is installed between terminals D1 and L on the terminal connectors. The loop allows you to connect the relay terminals to the line input that feeds the sensor.

If the controlled device (load) is on the same circuit as the sensor, the looping wire can be used.

If the load is on a different circuit (or if a dry contact is required), remove the looping wire. Use terminals D1 and D2 for the supply and load connections.

#### Caution

The sensor will be damaged if the wires are connected in reverse between D2 and N. Refer to the wiring diagrams.

## Terminals A1/P1 and B1/P2

There are two options for connections to terminals A1/P1 and B1/P2. A slide switch selects which of the two modes is being used.

- Manual override input terminals use an external momentary switch, or
- Auxiliary output (open collector) terminals to an Auxiliary input unit.

### Caution Possible equipment damage

DO NOT connect a load across terminals A1/P1 and B1/P2. This is a safe extra low voltage (SELV), open-collector signal. Improper connection to these terminals could cause serious damage to the sensor.

### Manual Override Mode

A pushbutton switch connected to terminals A1/P1 and B1/P2 will manually switch the load on/off. See Figure 13. When the load is OFF, press the switch to manually switch the load ON. The load remains ON if movement is detected constantly. The load will be automatically switched OFF if no movement is detected until the delay time has expired.

Switch the load OFF by pressing the push button. If the load is manually switched OFF before the timer has expired, motion will not trigger the sensor until the time delay expires.

### Auxiliary Output Mode

In auxiliary mode, when movement is detected, the 752/CD1RC sends a control signal to an input device such as a C-Bus Auxiliary Input Unit. The signal to the auxiliary unit is a pulse generated by motion detection only, independent to the Lux adjustment. For connection details, refer to Figure 15 and the instructions for the C-Bus Auxiliary Input Unit.

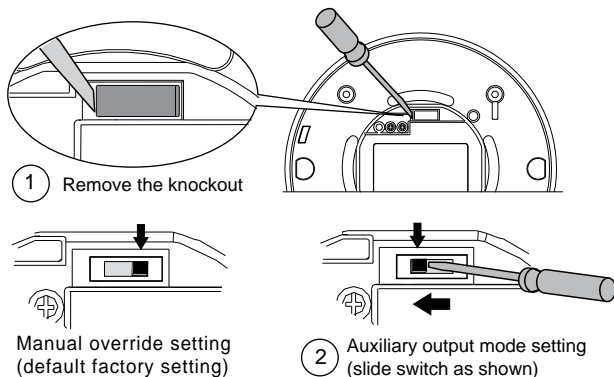


Figure 14. Setting the control mode switch

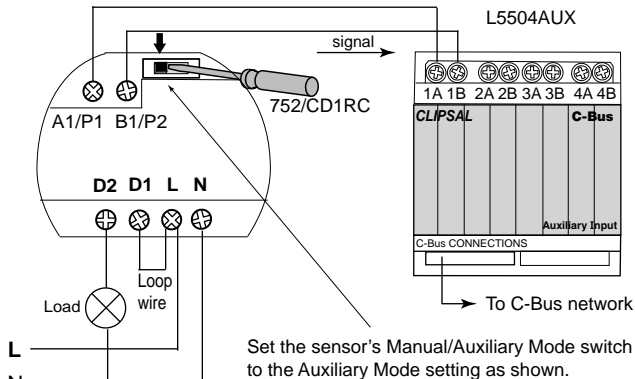
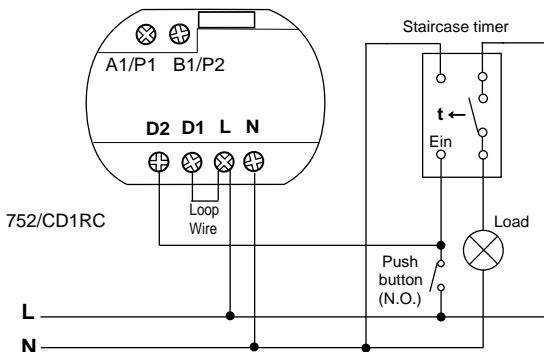


Figure 15. Connection to a C-Bus auxiliary input unit

### Staircase Timer Control Diagram

The sensor can be used in conjunction with a stairwell timing circuit that provides safety and convenience. Refer to Figure 16.

One sensor controls staircase timer (Set the Time knob to  $\sqrt{1s}$ )



Note: Suitable circuit protection/disconnection device (circuit breaker) must be installed on the circuit feeding the sensor.

Figure 16. One sensor controlling a staircase timer



For HVAC applications the sensor relay can control either a.c. or d.c. voltages. Remove the looping wire and connect the HVAC power source using Figure 17 and Figure 18.

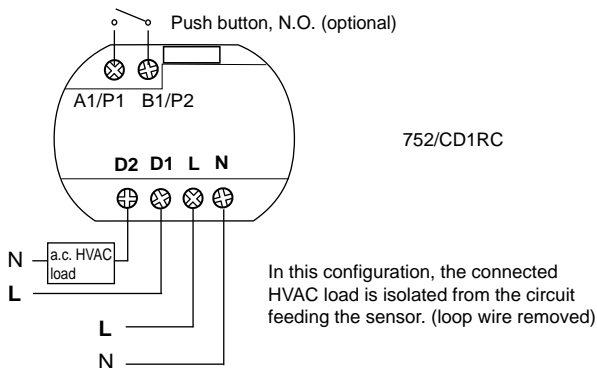


Figure 17. HVAC application with a.c. power supply

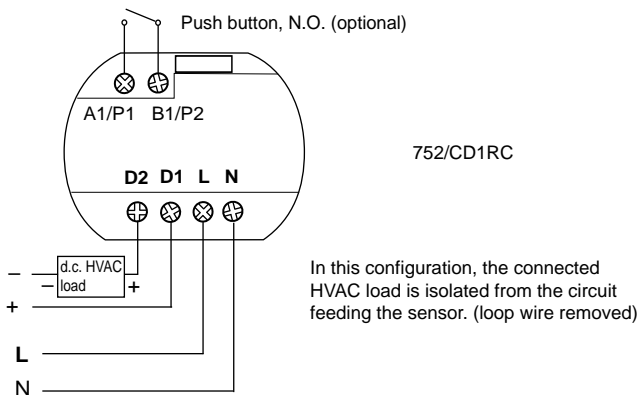


Figure 18. HVAC application with d.c. power supply

## 5.2 Dual Load Sensor 752/CD2RC

The dual load sensor can switch two independent loads (typically a lighting load and an HVAC load). The off delay setting for each load is independent of the other allowing more precise control over each controlled device. Also note that the light level adjustment applies only to the Output 1 control relay. The Output 2 control relay operates independently of the ambient light level. Figure 19 shows a typical application of the dual load sensor.

There must be a suitable circuit breaker on the circuit feeding the sensor and the HVAC circuit to ensure compliance with AS/NZS 60898-1.

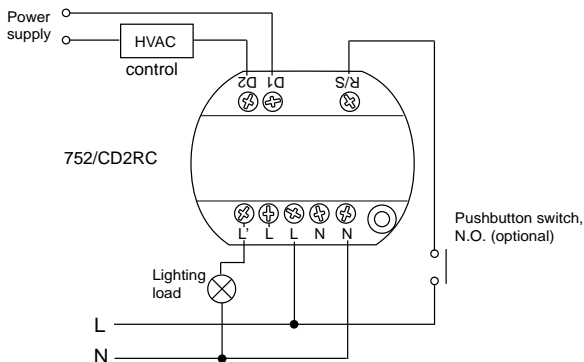


Figure 19. Wiring diagram for a typical dual load application

The R/S terminal provides an optional connection point for a pushbutton. Figure 20 shows how to connect the sensor to a stairwell timer circuit.

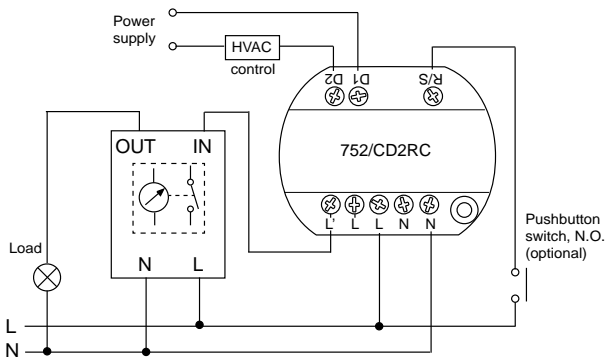
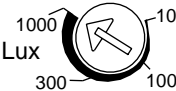
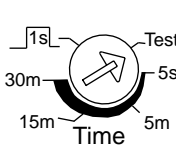
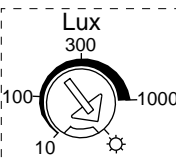
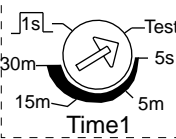
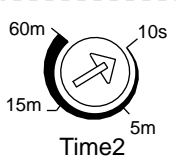


Figure 20. Sensor used with a stairwell timer circuit

## 6.0 Setup and Operation

### 6.1 Adjustments and Indicators

The Lux and Time adjustments with descriptions are provided below.

752/CD1RC	Function
 <p>Lux</p>	<p>Sets the light level threshold for switching ON the load.</p> <p>The Lux setting does not affect auxiliary mode operation (if used).</p>
 <p>Time</p>	<p>Sets the delay time off for the load.</p> <p>Test mode, when motion is detected the load and red and/or green LED will light for 2sec on, and 2sec off.</p> <p>Pulse: 1sec impulse mode for staircase timer switch control (the load and red and/or green LED will light for 1sec on, and 9sec off).</p>
752/CD2RC	Function
 <p>Lux</p>	<p>Sets the light level threshold to switch on Output 1 only. The Lux setting has no influence over Output 2.</p>
 <p>Time1</p>	<p>Sets the delay off time for Output 1.</p>
 <p>Time2</p>	<p>Sets the delay off time for Output 2. Output 2 is not influenced by the Lux setting.</p>

Note:

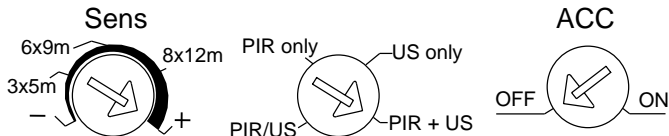
For HVAC control and similar loads that use motion detection only (independent of ambient light level), the Lux adjustment should be set to a low value.

The Sens, Technology selector and ACC adjustments allow you to configure the motion detection sensors.

Sens is the main Ultrasonic sensitivity adjustment. The settings are based on a ceiling height of 2.5m. The maximum range of the detection pattern (see Figure 2).

The technology selector sets the sensor's technology mix. This allows you to select a single- or dual-technology detection preference.

ACC (Air Current Compensation) reduces the Ultrasonic sensitivity where environmental conditions cause false triggering. When the function is on, the selected Ultrasonic sensitivity (Sens setting) is reduced.



Control	Function
Sens	Sets the sensitivity pattern of the ultrasonic sensor - = Min. (approx. an oval shape of 2x4m). + = Max. (approx. an oval shape of 10x16m).
Technology Selector	Sets the detection technologies to be used: PIR only: Infrared detection only. US only: Ultrasonic detection only. PIR/US: PIR or Ultrasonic detection. Either sensor can detect motion to switch the load on and keep it switched on. PIR + US PIR plus Ultrasonic detection. Both sensors must detect motion to switch the load on and keep it switched on.
ACC Air Current Compensation	Helps protect the sensor from interference from airflow or wind. ON: Activate the ACC function. OFF: Deactivate the ACC function.

## 6.2 Performing a Walk Test (uncontrolled by Lux)

The purpose of conducting the walk test is to check whether the triggering method (PIR, ultrasonic) is set correctly and to adjust the detection coverage.

- When power is first applied to the sensor, the start up time is approx. 40sec with the load on, after which the sensor will enter into normal operation mode.
- The Load will turn off after 100sec if no motion is detected, or remain on based on the time setting if motion is detected.

If the sensor has been configured using the IR Remote Control, the sensor's LEDs will flash during the 40sec start up period.

Note: If any of the sensor's adjustments are made using the physical controls of the sensor unit, all settings configured using the IR Remote will be erased.

Sensor will operate according to the previous settings when power is restored after a power failure.

### Initial adjustment settings

1. With power to the sensor off, set the Time1 adjustment to the 'Test' position.
2. Select the desired trigger method (i.e. PIR+US, PIR only, US only or PIR/US).
3. Set the Sens' adjustment to the desired Ultrasonic sensitivity. The detection coverage of PIR sensor can be adjusted later by using the lens shield.
4. Verify that the ACC switch is in the OFF position.

### Performing the walk test

1. Switch on the power supply, allow 100sec for sensor to start up and for the load to turn OFF.
2. Walk within the desired detection coverage of sensor. walk across the detection area at an angle as shown in Figure 21.

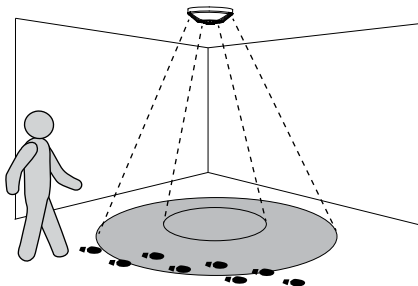


Figure 21. Walking across the detection area during testing and adjustment.

3. When the sensor detects movement, one or more LEDs will activate.
  - When the PIR sensor is triggered by movement, the load and the red LED turn on for 2sec, then turn off.
  - When the Ultrasonic sensor is triggered by movement, the load and the green LED turn on for 2sec then turn off.
  - When PIR+US is the triggering method, if both sensors have been triggered, the load, red LED and green LED will turn on for 2sec and then turn off.
4. Repeat the walk test as needed to adjust the settings of sensors either by the adjustment controls or the IR remote controller. Conduct the walk test until the sensor's detection coverage meets your needs.

#### Notes

The following conditions may cause lower sensitivity or false triggering of the US, ultrasonic sensor:

- When the ACC switch is set to OFF, the airflow from HVAC systems may cause false triggering of the ultrasonic sensor. To reduce the possibility of false triggering, the sensor is designed with air current compensation (ACC) function. Set the ACC switch to ON which reduces the sensitivity of the ultrasonic sensor by approx. 10% - 40% depending on the strength of airflow.
- Ultrasonic sensitivity can be affected by the materials such as carpets, curtains, etc.
- Low ambient temperatures might slightly decrease ultrasonic sensitivity and also reduce the detection range.

The following conditions may cause lower sensitivity of the PIR sensor:

- On very foggy days, the sensitivity may be less due to moisture collecting on the lens.
- On very hot days, the sensitivity will be lower as high ambient temperature can be close to body temperature.  
PIR sensors detect the temperature difference between a moving object and the room ambient temperature. On very cold days when wearing heavy clothing, and especially if the face is covered, PIR detection may be reduced.

### 6.3 Using the PIR Lens Mask

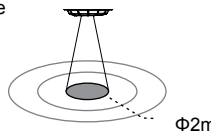
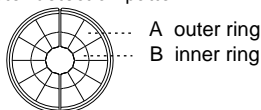
The sensor unit includes a lens mask to limit the coverage of the PIR detector to a specific area. The ultrasonic sensor is unaffected by the lens mask.

Each half of the mask has 2 rings with 6 small segments each (30° of detection angle is covered by each of the segments).

In Figure 22, the sensor is installed at the height of 2.5m and the complete lens mask is fitted, the detection range is 2m in diameter.

If only the outer ring A is used, the detection range is 6m in diameter.

Installing the unmodified mask gives a 2 metre diameter detection pattern.



Removing the inner ring (B) gives a 6 metre diameter detection pattern.

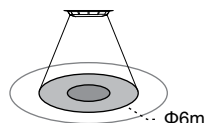
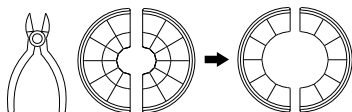
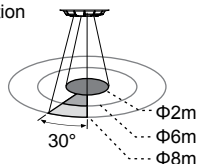
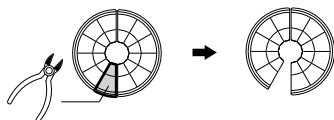


Figure 22. Using the lens mask to limit the detection area's diameter.

After choosing the desired detection area, remove the sections of the lens to allow the desired detection pattern. The shaded part in the figures shows the detection area exposed by removing sections of the lens mask.

Removing a wedge provides a 30-degree detection pattern opening.



Removing additional segments provides more detection coverage.

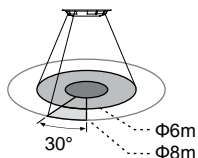
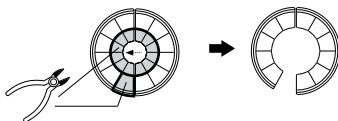


Figure 23. Removing sections for angled detection areas.

There is a circular groove around the edges of the two lens mask pieces. This groove fits over the edge of the opening in the sensor head cover. Use your fingers to fit the two mask pieces into the opening.

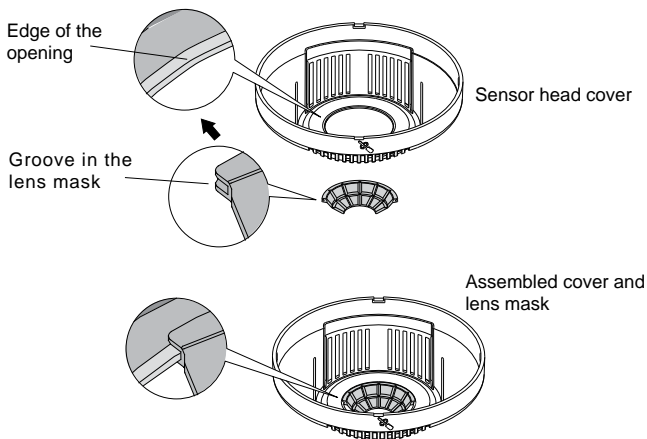


Figure 24. Installing the Lens Mask in the sensor cover

#### 6.4 Using the 752RC/D IR Remote

IR Remote control, 752RC/D (purchased separately) may be used during setup, testing and normal operation of the sensor unit. One remote can work with multiple sensor units. Refer to the instructions that are provided with the IR remote.

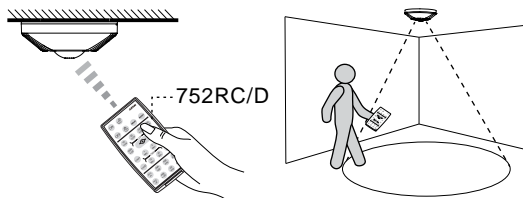


Figure 25. Using the IR Remote Control



## 7.0 Troubleshooting

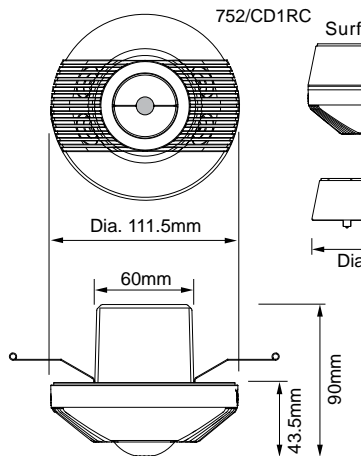
If the dual-technology sensor does not respond correctly, please refer to the table of problems and suggested solutions.

If the unit has been working and suddenly fails, check the unit for tampering or damage and make sure that the connected load or loads are working.

Problem	Possible Cause	Suggested solution
Lighting device does not switch ON	Power not switched on, or Incorrect wiring, or Ambient light level is too high, or Load is faulty.	Switch on the power.  Recheck the wiring and connections.  Set the Lux level value above the ambient light level.  Replace the faulty load.
Lighting device does not switch OFF	Auto off delay time is set too long, or Sensor is nuisance triggering, or  Incorrect wiring.	Set auto off delay time to a shorter interval.  Check the PIR lens mask and adjust if necessary. Check whether the manual override feature is enabled. Avoid walking in the detection path when testing for nuisance triggering.  Recheck the wiring.
Red LED does not switch on	PIR sensor is not selected as triggering method, or  Motion source is outside the valid detection range.	Choose one of the PIR triggering methods: PIR only, PIR+US, PIR/US.  Make sure that motion source is within the valid detection range (8m diameter).
Green LED does not switch ON	Ultrasonic sensor is not selected as the triggering method, or Exceeded the valid detection range, or Line and Neutral connections are reversed.	Choose one of the Ultrasonic triggering methods: US only, PIR+US, PIR/US.  Motion source must be within the valid detection range (10m x 16m).  Correct the wiring problem.
Nuisance triggering	One of the following may be the problem:  Unit is installed in a poor location.  Heat sources nearby, airflow, highly reflective objects or objects swaying or moving in the detection area.  Air conditioning system might be operating in the detection area.	See Section 4.0, Installation.  Avoid aiming the sensor toward heat sources or highly reflective objects.  Check the PIR lens mask and adjust if necessary.  Adjust the air conditioning vents and flow or move the sensor unit as needed.

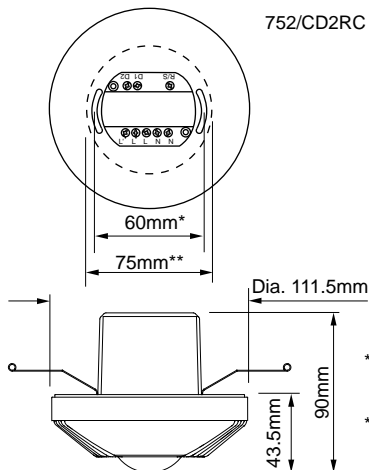
## 8.0 Specifications and Dimensions

Parameter	752/CD1RC	752/CD2RC
Operating voltage/freq.	240Va.c. $\pm 10\%$ / 50Hz	
Output 1 characteristics	<p>A removable looping wire is provided to connect the load to the sensor's supply circuit.</p> <p>Maximum loads:            Incandescent: 2000W            AC halogen: 1000W            LV halogen: 1000VA            CFL and PL: 80W or 4 x 20W            Fluorescent: 900VA (100<math>\mu</math>F)            LED: 300W with maximum of 8 external ballasts.</p>	<p>Output 1 is controlled by motion detection and Lux threshold settings.</p> <p>Maximum loads:            Incandescent: 2300W            AC Halogen: 1200W            LV Halogen: 1200VA            Fluorescent: 1200VA (140<math>\mu</math>F)            Energy Saving lamp: 800VA            LED load: 600w with external ballasts.</p> <p>Test and pulse settings apply to this output only.</p>
Output 2 characteristics	n/a	<p>Output 2 is controlled by motion detection only. It does not use the Lux threshold.</p> <p>Test and 1sec pulse settings are not applicable to this output.</p> <p>Maximum loads:            5A for <math>\leq 250</math>Va.c. (<math>\cos \phi = 1</math>)            5A for <math>\leq 30</math>Vd.c.</p>
Timer range	Adjustable from 5sec to 30min	Output 1: from 5sec to 30min Output 2: from 10sec to 60min
Lux threshold	10Lux to 1000Lux	10Lux to 1000Lux and infinity for Output 1 control only.
Detection technology	Passive Infrared (PIR) Ultrasonic (US)	
Detection range (2.5m ceiling height)	PIR: 360° circular up to 8m diameter, adjustable using lens mask Ultrasonic: 360° oval pattern, adjustable up to 10m x 16m, adjustable	
Detection Indicators	Passive Infrared (PIR) using red indicator Ultrasonic (US) using green indicator	
Environmental rating	Class II, IP20, for indoor use only	
Operating temperature range	0° C to +45° C	
Operating humidity range	10% to 90% relative humidity, non-condensing	

**Flush Mount**

60mm mounting centres when using a junction box.

68mm hole in ceiling when using cover with spring clips.

**Flush Mount**

\* 60mm mounting centres when using a junction box.

\*\* 78mm hole in ceiling when using cover with spring clips.

## Warranty Statement

Schneider Electric (Australia) Pty Ltd, (Clipsal by Schneider Electric), warrants this product to be free from defects in materials and workmanship for a period of twenty (20) months from the date of installation or twenty-four (24) months from the date of purchase of this product, whichever is the earliest. The benefits conferred herein are in addition to any other rights and remedies you may have at law in respect to this product. Australian and New Zealand customers please see the notes below.

Australian Consumer Law specifies that our goods come with guarantees that cannot be excluded. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

New Zealand. This guarantee is in addition to and does not affect your rights under applicable law, except where that law expressly provides otherwise. The Consumer Guarantee Act 1993(NZ) will not apply if this product is purchased for the purpose of business.

This warranty is expressly subject to the Schneider Electric product being installed, wired, tested, operated and used in accordance with our instructions and specifications. Any alterations or modifications made to the product without our permission will void the warranty.

Schneider Electric will at its option repair, replace or refund any defective product. The cost of replacement or repair of a defective product is limited to the price of the product only. Schneider Electric will not be responsible for the cost of retrieving, removing, reinstalling, transporting (including return of the defective product to us) or re-testing a product.

How to make a claim: You shall provide Schneider Electric with adequate particulars of the defect within 28 days of the fault occurring. Contact your local Schneider Electric, PDL or Clipsal products' supplier and provide the details of the date of purchase, description of load or connections and the circumstances of the failure. Returned products must be securely packed and labeled for proper processing.

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For technical assistance, contact your Schneider Electric sales representative.

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Technical Support email: [cis.support@clipsal.com.au](mailto:cis.support@clipsal.com.au)  
[www.schneider-electric.com.au](http://www.schneider-electric.com.au)

New Zealand Schneider Electric (NZ) Ltd  
38 Business Parade South, Highbrook, East Tamaki, Manukau 2013  
P.O. Box 259370 Botany, Manukau 2163  
Telephone +64 9-829 0490, Fax +64 9-829 0491  
After hours service hotline: 0800 735 4357 (New Zealand only)  
Customer Care: 0800 652 999  
Email: [sales@nz.schneider-electric.com](mailto:sales@nz.schneider-electric.com)  
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