

These instructions apply to the SET-PODCU1 controller. Setsquare recommend all installations are carried out by a suitably qualified electrician and that these instructions are followed. Failure to do so may lead to damage to either the circuits or installer.

### Unit Description

The SET-PODCU1 is an automatic light switching system which operates by sensing movement of infra-red radiation from a human body. The system comprises a control and switching unit, with up to 10 occupancy detectors (SET-PDOCH) and optionally a photocell (SET-PP). It is possible to replace one of the occupancy sensors (SET-PDOCH) and the optional light level sensor (SET-PP or SET-ALD5) with the combined sensor (SET-DOL).

### Locating Sensors

#### Motion Detector (SET-PDOCH)

The sensor should be mounted on a rigid surface where it has a clear view of the occupied area, and should preferably be mounted in front of rather than behind activity.

Avoid placing adjacent to forced air heating or cooling systems (1 metre or more in direct flows).

#### Light Level Sensor (SET-PP)

The light level sensor should be positioned such that it has a clear view of the area within which it is required to control the light level. The sensor has a wide field of view to ensure it measures the average light level.

#### Combined Sensor (SET-DOL)

This combined sensor should be mounted on a rigid surface where it has a clear view of the occupied area, and should preferably be mounted in front of rather than behind activity. This sensor must also be placed to that it has a good view of the average light level in the area to be controlled.

Avoid placing adjacent to forced air heating or cooling systems (1 metre or more in direct flows).

#### Fitting Sensors

Sensors are fitted by drilling a 38mm diameter hole through the ceiling tile and then retained using the metal clip supplied. They can also be fitted by using a surface adaptor box which is available from Setsquare using order code SET-PSB.

## Electrical Connection

If switching a contactor please contact technical department of Setsquare on telephone number 01732 851888.

- 1). Wiring to detectors should use the correct cable, see list by wiring diagram.
- 2). You can retain the existing light switch as an override off switch, which should preferably be positioned between the controller and its load. It can be positioned between the live and the controller but this is not recommended.
- 3). Photocell override is an option that can be provided by a push button.

## Commissioning

- 1). Wire as per Diagram.
- 2). Set DIL switch to 1-OFF, 2, 3&4 ON, unit in test mode .
- 3). Switch on mains supply and allow sensors to stabilise for 15 minutes. Light should come ON at first.
- 4). Check lights come on when movement is detected and switches off 10 Seconds after movement stops. Check this with each detector head.
- 5). Set DIL switch 2 to OFF, normal operation, set DIL switches 3&4 to required time interval.

## Photocell (option)

### Set up without photocell fitted :-

Turn both pots on the front of the unit fully clockwise. Use care when adjusting these potentiometers to ensure that they are not damaged.

### Set up with photocell fitted :-

**If using the SET-PP light level sensor ensure that JMP1 is in place, if using a SET-DOL combined sensor ensure JMP1 is placed onto only one pin of JMP1 (parked).**

**Important:-** The photocell is easiest to set up when the lights are required to be ON. i.e. When it is dull.

- 1). Turn both dials on the front of controller fully anti-clockwise.
- 2). Turn the ON control until the green LED glows. (The yellow LED may flash). This is the level at which the lights will come ON, however this will only activate after 30 Seconds as there is a buffer to stop short dull spells making the lights flash on and off.
- 3). When the lights come on turn the off control until the yellow LED stops flashing and remains ON, then continue to turn clockwise the equivalent of 1 hour on a clockface. This ensures the OFF level is higher than that created by the lights. The OFF level should always be greater than the ON level, if not the yellow LED will flash.

### Photocell Override (option)

Set switch 1 to OFF to enable. The Photocell override button enables you to manually switch the lights ON if they have been switched off due to the light level measured by photocell. Resets to normal operation when system times out.

It is not possible to manually switch the light OFF if the light level measured by the photocell indicates they should be ON.

## Demand Button ( Option )

Set switch 1 to ON to enable. The demand button ensures the system only activates when the button is pressed, and operates as normal when area occupied. When unoccupied it will time out and switch OFF and will only re-activate if the demand button is pressed. (NOTE:- The demand button incorporates the photocell override, activated by holding the button down for 2 seconds.)

## Corridor Link Facility.

A one way link can be made between controls by linking SOUT and GND from one controller to OCH and GND in the corridor controller. Screened cable must be used.

## Photocell Override

Action	Output
One press (2 sec)	ON
2nd press (2 sec)	OFF

## Demand Button & Override

Action	Output
One press	ON
2nd press	OFF

NOTE:- When used as a demand button, the action is momentary and does need to be held on.

## Time Delay Settings

Time Delay	Minutes
Switch 3	4 8 16 32
Switch 4	on on off off
	on off on off

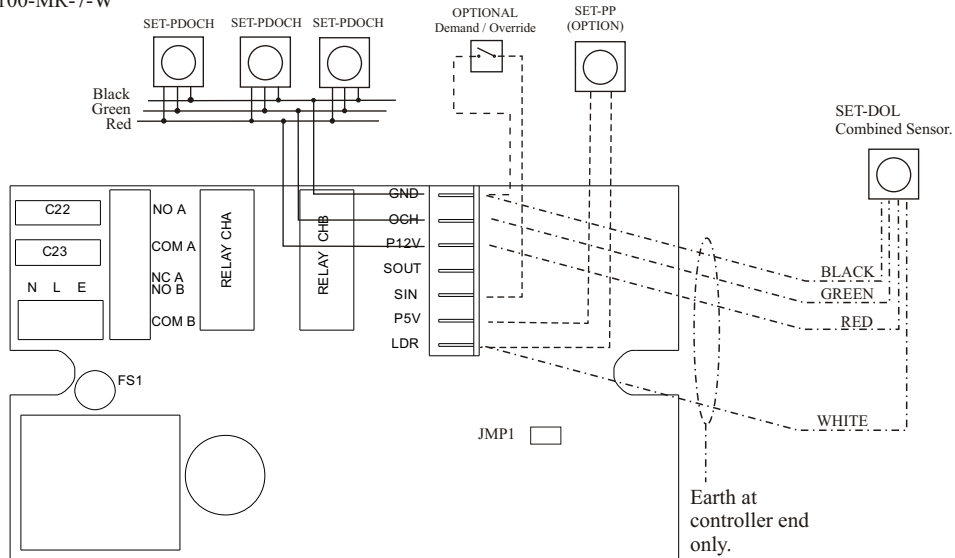
## Recommended Delays

Office - Low traffic	16mins
Office - High traffic	8mins
Classroom	8mins
Corridor	8mins

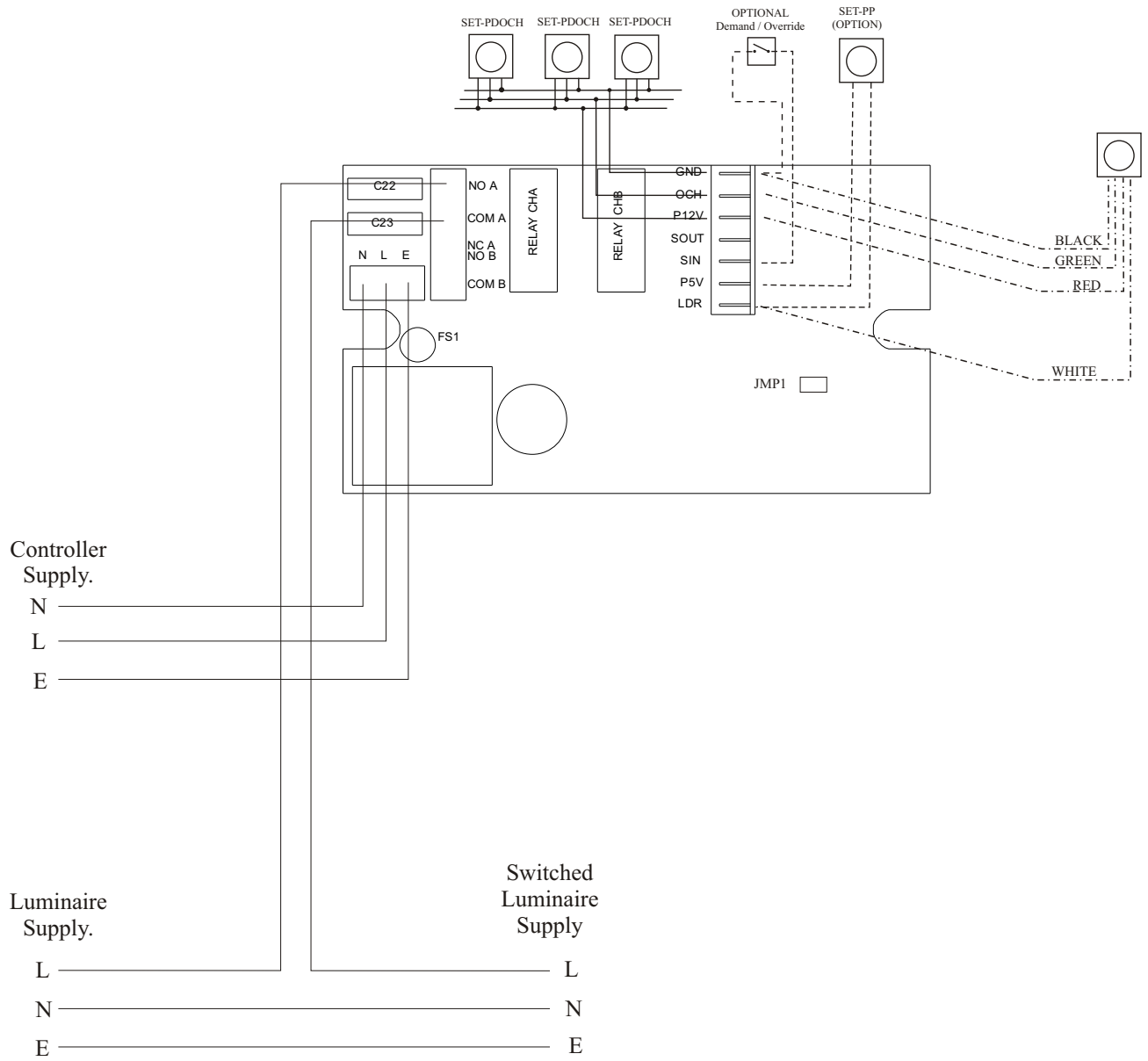
## Wiring Diagram.

### Sensor Connections.

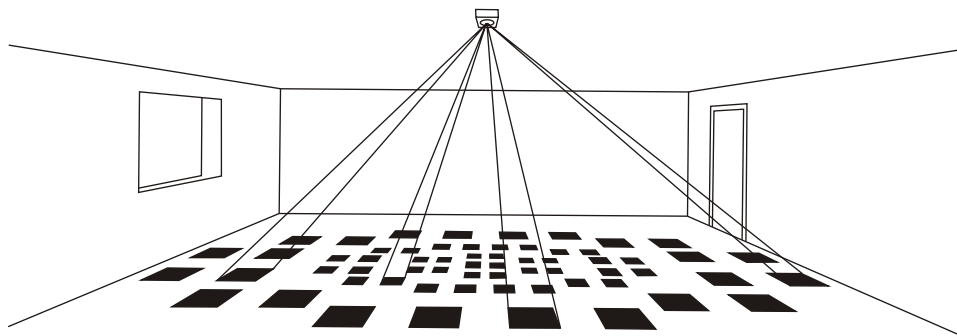
Cable colours if using Setsquare SET-D4SC100-MR-7-W



# Controller Supply, and Switched Load Connections.



## Detection Pattern Motion Sensor.



### Specification

#### Control Unit

Supply Voltage	240V A.C.
Switching Capacity	8 Amps inductive or resistive up to 240V A.C. Max 8 H.F. ballasts.
Time Delay	4, 8, 16 or 32 minutes. Light Level, 30 seconds.
Order Code	SET-PODCU1

#### Motion Sensor

Detector	Passive Infra Red.
Supply Voltage	12V D.C.
Output	Open Collector.
Field of View	360 Deg
Detection Area	Radius = 1.45 x Ceiling Height. 3.5 Metres with typical ceiling height.
Order Code	SET-PDOCH

#### Light Sensor

Light Level	50 to 1500 Lux.
Order Code	SET-PP or SET-SL8P (Water resistant housing)

Light Level	0 to 600 Lux
Supply	12 Volts D.C.
Output	0-10Volts D.C.
Order Code	SET-ALD5

Light Level	0-2,000, 0-4,000, 0-10,000 and 0-20,000 lux (4 switched ranges)
Supply	12 Volts D.C.
Output	0-5Volts into 3.3k Load.
Order Code	SET-LL602

#### Combined Sensor

Movement detector	Passive Infra Red
Supply Voltage	12V D.C.
Output	Open Collector
Field of View	360 deg.
Light Level	0 to 600 Lux
Order Code	SET-DOL

#### Accessories

Surface adaptor box	SET-PSB
Hole cutter (for sensor)	SET-TC
Demand Button	SET-DB
Photocell Override	SET-POB

**NOTE:- This unit is not suitable for use with METAL HALIDE lamps.**

## WARNING

This unit contains electronic devices.

Do not perform any high voltage tests on this product or to any equipment connected to this product.

Mains connections can be high voltage tested in accordance with BS 7671:2008, IEE Wiring Regulations 17th edition section 613.3.3.

Electrical and electronic equipment should never be disposed of with general household or commercial waste but collected for their proper treatment and recovery. The crossed out wheely bin symbol is to remind you of the need to dispose of this product at the end of its life in a way that will assist in the recovery, recycling and reuse of many of the materials used in this product. Where possible also recycle the packaging.



WEE/DJ0002ZR

The SET-PODCU1 is one of a range of energy conservation products available from Setsquare.

This apparatus may be turned on by high powered RF interference and should not be installed near pager aerials or inductive loop equipment. It will recover when the RF ceases.



### For details of other products contact:-

Setsquare Energy Saving Controls  
The Maltings  
63 High Street  
Ware  
Hertfordshire  
SG12 9AD  
United Kingdom

Tele:- 01920 462121

Fax:- 01920 466881

E-Mail:- sales@modelighting.com

WWW:- setsquare.com

REF:- SETPODCU1\_1 06-11-2013  
DS249 V1.0