## TECHNICAL SPECIFICATIONS

230V AC, 50 Hertz

| | | | |
|---|---|---|---|
| Minimum Load: | 10mA | | |
| Maximum Load: | LED | 5 Amp | 1150VA |
| | Incandescent | 10 Amp | 1150VA |
| | Fluorescent | 5 Amp | 1150VA |
| Resistive Load: | 2000W | | |
| Inductive Load: | 1000W | | |

Compatible with:

- Electronic and magnetic ballasts
- Electronic and magnetic low voltage ballasts
- Incandescent lamps
- Fans

*NOTE: Ecopoint does not recommend this sensor is used to switch/control inductive loads.*

## AUXILIARY CONTROL FEATURES

This Sensor Switch can be interfaced to a home air-conditioning/heating system, a building management system (BMS), and a security and surveillance system. This additional feature incorporates the following volt free (dry) contacts:

Black: Normally Closed

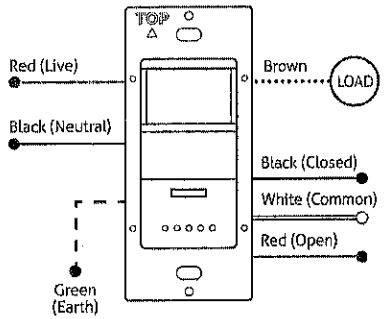
White: Common

Red: Normally Open

Discuss this feature with your building services expert, e.g. electrician or heat pump installer, as to how to fully utilise this feature. For example it can be used to:

- Enable the heat pump upon arrival home, or enable a zone in the room. Turn off the heating/cooling when you leave.
- Trigger video recording in the room.
- Replace or add the room/zone to an existing security system.

AUXILIARY FEATURES WIRING DIAGRAM




## TROUBLESHOOTING

1. If there is no response from the unit (the light never turns on and the LED never flashes) 90 seconds after the power is applied, then uninstall the device and verify there is a ground connection at the wall box. If there is a good ground connection verify wiring.
2. If the light never turns on but the LED flashes, check if the ambient light setting is too high. Turn the Light dial clockwise until the lights turn on.
3. If the lights constantly stay on even when the room is unoccupied:
   A. Check the Time setting. See how this time compares to how long the lights stay on.
   B. Try lowering the Range control. Turn the Range dial counter clockwise about 30°.
   C. If the problem persists, Try reducing the range again. *NOTE: Do NOT reduce so much that the sensor cannot detect normal occupancy.*
   D. Be sure to use shields to block any unwanted passing traffic.
   E. Check for reflected heat/motion as the sensor may be detecting motion through a window.
   F. Check for adjacent HVAC and/or heater ducts.
4. If the lights do not stay on long enough after the room is vacated, adjust the Timer accordingly. Factory setting is 30 seconds.
5. If the lights do not turn off when there is sufficient sunlight, adjust the ambient Light setting.

If you wish to use the sensor in a bedroom: You can set the Light levels so that the sensor will detect PIR. When retiring simply manually turn off the sensors. Upon arising manually turn the sensors on again. Remember the lights may not turn on if there is adequate ambient light in the room.

## POWER SAVINGS*

For details on potential power savings that can be obtained with an Ecopoint sensor switch visit: www.ecopoint.co.nz

## 12 MONTH GUARANTEE

This product is fully guaranteed for 12 month from date of purchase. Should any issues arise, please return the unit (along with proof of purchase) to the store.

This guarantee does not cover: normal wear and tear, abuse, faulty installation, damage or uncontrolled power fluctuations.

ecopoint

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# ESSDF3S
# Sensor Switch

## Triple Technology Sensors
## PIR/Motion • Sound • Light

- Compatible with LED Lighting & Electronic Ballasts
- Manual Over-ride
- Sound Sensor: On/Off
- Adjustable Timer/Range
- Voltless/Dry Contacts for AC/Heatpump and Security
- Saves up to 40% Power*
- 12 Month Guarantee

## IMPORTANT: READ BEFORE INSTALLATION

The Ecopoint Sensor Switch ESSDF3S is designed to replace the normal lighting switch in a single room. The Sensor Switch will detect motion/heat, Passive Infra-Red (PIR), sound and lighting levels in the room, responding as programmed.

Once the primary detector is set off by PIR, the lights will run for a predetermined time (adjustable) before switching off.

The light will remain on if the sensor is triggered by more PIR (resetting the timer), or if the secondary sound sensor detects sound in the space. This sound detection will reset the timer.

If the light level sensor is enabled, the lights will not switch on if adequate ambient light is detected, i.e. sunlight. The level of acceptable ambient light is adjustable or you can disable this feature entirely.

Read the instructions in their entirety prior to set up so that the full range of features and benefits is understood.

It is a legal requirement that a licensed electrician installs the switch in accordance with appropriate rules, codes and regulations. Upon installation the licensed electrician should complete an electrical Certificate of Compliance.

## INSTALLATION INSTRUCTIONS

**INSTALLATION SHOULD ONLY BE PERFORMED BY A LICENSED AND REGISTERED ELECTRICIAN.**

**WARNING**: To be installed and/or used in accordance with appropriate electrical codes and regulations.

**WARNING**: If you are unsure about any part of these instructions, consult a qualified electrician.

**WARNING**: Controlling a load in excess of the specified ratings will damage the unit and pose risk of fire, electric shock, personal injury or death. Check your ratings to determine suitability for your application.

**WARNING**: Do not install this unit to control a power socket.

**OTHER CAUTIONS AND NOTES:**

1 Disconnect power when servicing the fixture or bulbs.

2 Use this device with wire specified for domestic lighting purposes only.

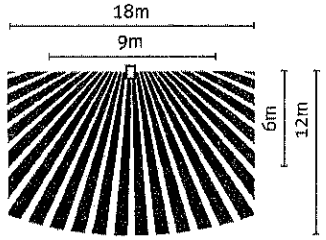
3 Do not touch the surface of the sensor lens. Clean the outer surface with a damp cloth only.

4 This sensor switch is design to replace a standard light switch.

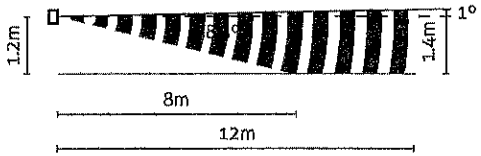
**WARNING**: TO AVOID FIRE, SHOCK, OR DEATH, TURN OFF POWER AT CIRCUIT BREAKER OR FUSE AND TEST THAT THE POWER IS OFF BEFORE WIRING.

- Assess site the field of view for range and angle. This is to ensure maximum benefit from the Sensor Switch. Refer to the recommendations below. If the site is not suitable consider relocating the sensor for the best results.

FIELD OF VIEW (HORIZONTAL)

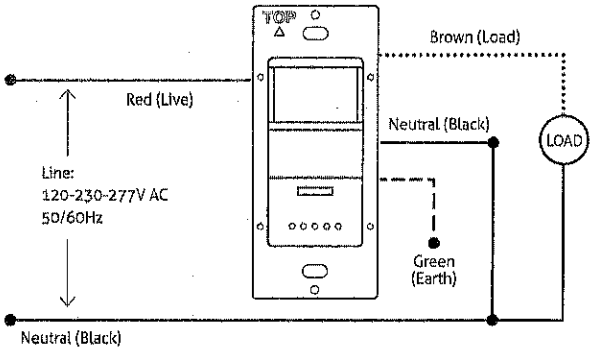



FIELD OF VIEW (VERTICAL)

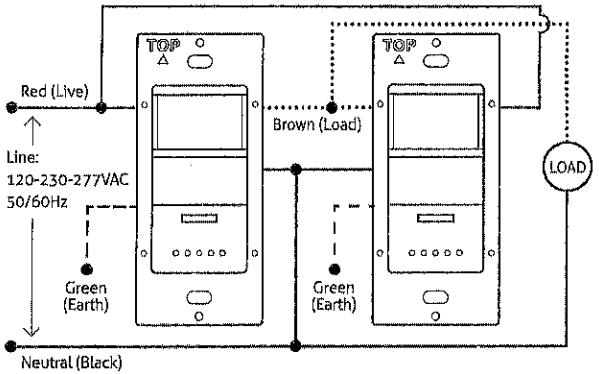



- Check that existing installation/wiring is code complaint. If not, remedy.
- Connect the wires as per the diagram below.
- Comply with all national laws, codes and regulations.
- The sensor should not be mounted close to bright lights.
- The sensor should be mounted a minimum of 2m away from any heating or cooling source, i.e. ducts, heaters.
- The neutral (black) wire must be connected.
- Allow approximately 1 minute after power is applied for warm-up. After this the lights will turn ON and the LED will flash.

WIRING DIAGRAM: SINGLE CONTROL




WIRING DIAGRAM: 2 LOCATION CONTROL




- *NOTE: Neutral is required in all applications*

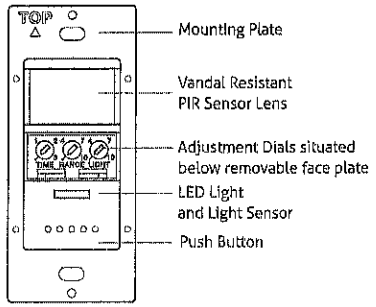
## TO OPERATE

The push button will toggle the lights. If the lights are off push for ON, the lights will stay on as long as the room is occupied or until they time out. If the lights are on, they will turn off when the button is pushed. They will stay off until the time out expires.

The LED will flash every 2 seconds while motion is detected.

In MANUAL ON mode the button must be pressed to turn the lights on. In the absence of occupancy the unit will time out and turn off.

If MANUAL ON mode is desired, keep Light settings at fully counter clockwise.




## ADJUSTMENTS

**WARNING: To avoid permanent damage to the unit be careful not to over turn the control dials when setting.**

**Push Button Manual Override**: For manual control. If you want to force the lights on simply press the button. This will enable the lights until the sensor recognises there is no one in the room, either PIR or sound. Pressing this button will also turn the lights off even if the room is occupied – Use this for media presentations. The lights will come back on when the button is pressed again.

**Time Delay**: This is where you set the delay for the lights to turn off, after detection has taken place, and when the room is vacated and the sensor is not detecting a presence in the room.

- Turn TIME dial fully counter clockwise for the minimum time delay: 30 Seconds. Typically used for set up.
- Click clockwise is (1) or 10 minute time out.
- Click clockwise to (2) or 20 minute time out.
- Fully clockwise (3) is 30 minutes to time out.

**Sensitivity**: Turn the RANGE dial completely anti-clockwise, this is the minimum range. The LED will stop blinking when you move out of this range. To increase the range adjust clock wise until the LED starts blinking at your nominated distance from the sensor.

Range can be adjusted from 100% down to 36%.

**Light Setting:** This setting is so you can have the lights off in the room if there is enough sunlight for the tasks you want to do in the room.

- Ensure the lights are ON.
- Turn the Time dial fully counter clockwise.
- Turn the Light dial fully counter clockwise. This disables the light sensor.
- Cover the sensor or leave the room. Allow the lights to turn off after the 30 seconds wait.
- Then rotate the Light dial clockwise until the lights go out. You have just set the light level at the room ambient light level.

**Sound:** To disconnect the sound sensor, press down and hold the on/off button until the LED starts flashing rapidly. To re-enable sound detection simply repeat the previous steps.

*NOTE: Sound will not trigger the lights, only heat detection by the PIR will do this. Sound is primarily used to maintain the lights after PIR activation.*