



Motion Sensor PIR Light Switch – 2 Wire

Model: ST910



Installation & Operating Instructions

1. General Information

These instructions should be read carefully in full prior to installation, and retained for further reference and maintenance.

2. Safety

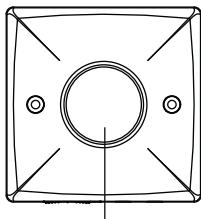
- Before installation or maintenance, ensure the mains supply to the light switch is switched off and the circuit supply fuses are removed or the circuit breaker turned off.
- It is recommended that a qualified electrician is consulted or used for the installation of this light switch and install in accordance with the current IEE wiring and Building Regulations.
- Check that the total load on the circuit including when this light switch is fitted does not exceed the rating of the circuit cable, fuse or circuit breaker.

3. Technical Specifications

- Mains Supply: 230V AC 50 Hz
- 2 wire connection: No neutral required
- This light switch is of class II construction and must not be earthed
- Switch Type: Single one way
- Switch Rating: 300W (Max total load) Halogen,
18W (Min lamp size) to 150W (Max total load) Fluorescent Low-loss or Electronic ballast,
15W (Min lamp size) to 100W (Max total load) CFL Electronic ballast,
5W (Min lamp size) to 300W (Max total load) LED lighting
- Minimum Depth of Wall Box: 25mm
- Operating Temperature: -20°C to +40°C
- Detection Angle: 120°
- Detection Range: 8m Front, 4m Sides
- Mounting Height: 1.1m for optimum detection range

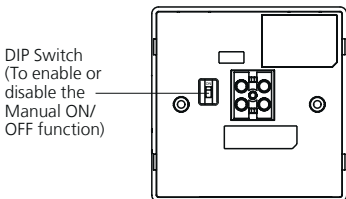
- Time ON Adjustment: 10 seconds (Min) to 15 minutes (Max)
- LUX Adjustment: 1 ~10lux (Moon symbol) to 1000lux (Sun symbol)
- Slide Switch: For Automatic and Manual ON/OFF selection
- DIP Switch: To enable or disable the Manual ON/OFF function.
- Motion Indication: Red LED turns ON for 1 second when motion detected
- CE Compliant
- Dimensions – H=86mm, W= 86mm, D=45mm

This product requires to be permanently powered which is achieved through the switched live. As such, some LED and CFL lamps may glow or flash whilst this product is in the "OFF" status. This glow/flash can be eliminated by adding the Timeguard FLA01 Light Adaptor or ZV900 Automatic switch load controller to the circuit.



Motion Sensor

Fig 1 – Front view



DIP Switch
(To enable or
disable the
Manual ON/
OFF function)

Fig 2 – Back view

Slide Switch
(For Automatic
or Manual ON/
OFF operation)

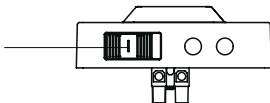


Fig 3 – Bottom view

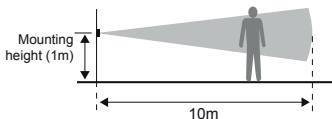
4. Selecting a Location

- For indoor use only i.e.: hallways, dining-room, basement, utility rooms and garages, etc. To replace existing one way light switches.
- Since the ST910 is sensitive to temperature changes. Avoid mounting directly above heat sources or exposed to direct sunlight.
- Avoid mounting the motion sensor switch where it can come into contact with water or rain.
- For best results mount the sensor switch to detect objects moving across it.

Coverage

- The ST910 can be mounted at heights between 0.85m to 1.5m. The optimum height for detection is 1m, which we recommend to achieve the 10m range. Please note that that mounting it any higher will not give the same performance.

Detection



Top view

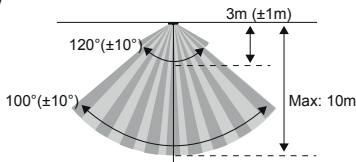


Fig 4 – Coverage

5. Installation

- 5.1 Ensure the mains supply is switched off and the circuit supply fused are removed or the circuit breaker is turned off, until you have completed the installation.
- 5.2 Remove the existing light switch, and transfer the wires to the ST910 (See Fig 6.Connection Diagram).
- 5.3 Secure the unit to the back box with the fixing screws provided, forming the cables during installation to avoid any entrapment and cable damage.

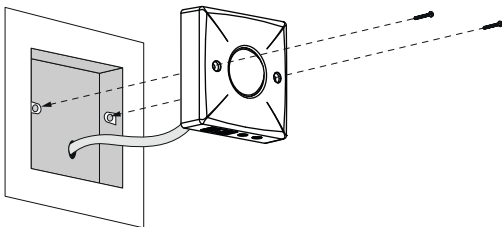


Fig 5 – Installation

6. Connection Diagram

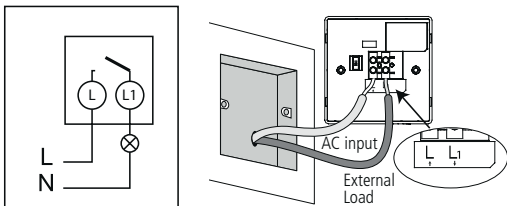
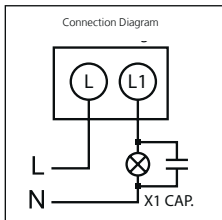


Fig 6 – Connection Diagram

In the event of ST910 not able to power on during installation due to high impedance of LED lamp, installer is advised to connect X1 capacitor (without polarity) in parallel with L/N.

Recommended X1 Capacitor value.

- X1 0.22uf / 275V or
- X1 0.33uf / 275V or
- X1 0.39uf / 275V



7. DIP Switch and Slide Switch

Note: The DIP Switch located on the back of the light switch can be used to enable or disable the Manual ON/OFF function, when using the Slide Switch. By default this will be set ON.

- If the DIP Switch is set to the ON (upwards) position, the Slide Switch can be used to turn your lights ON/OFF manually, or can be set to AUTO for motion control only.
- If the DIP Switch is set to the opposite (downwards) position, the Slide Switch will be disabled and your lights will turn ON using motion only.

8. Walk Test

Note: If the DIP Switch is set to the ON position, also make sure the Slide Switch is set to the AUTO (middle) position.

- Set the On-time adjuster fully anticlockwise to the min 10s position.
- Set the Lux adjuster fully clockwise to the SUN symbol.
- The light switch will now operate during the daytime as well as at night, illuminating your lights for approx. 10 seconds each time. This allows testing to be carried out to establish whether the sensor is covering the required area.
- Walk in front and around the sensor to establish the detection area. The sensor will detect motion within an 10m diameter (walking across), and within a 3m range (walking towards) with the sensor mounted at 1m.
- As you cross the detection 'zone' your lights will illuminate. Now stand still until your lights extinguish (this should take approx. 10 seconds).
- Start moving again after 2 seconds until your lights turn ON.
- Repeat the above, walking at various distances and angles from the light switch. This will help you confirm the detection pattern.

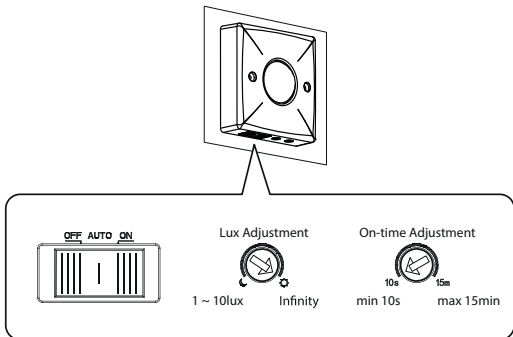


Fig 7 – On-time and Lux Adjustment

9. Setting up for Automatic Operation

- Turn the Lux Adjustment fully anti-clockwise to the Moon symbol.
- Turn the On-time Adjustment to the desired setting (10 seconds Minimum to 15 minutes Maximum).
- When the ambient light level reaches the level of darkness at which you wish the lamp to become operative once motion is detected (i.e. at dusk) SLOWLY rotate the control in an clockwise direction, whilst moving (e.g. your hand) in front of the sensor, until a point is reached where the lamp illuminates.
- Leave the Lux Adjustment set at this point.
- At this position, the unit should become operative at approximately the same level of darkness each evening each time motion is detected.

Adjustments

- If you find that your lights switch on when it is too dark, turn the Lux Adjustment clockwise towards the Sun symbol.
- If the light is in operation when it is too light, turn the Lux Adjustment towards the Moon symbol.

10. Support

Note: If you have any concerns that the intended application of this product does not meet your requirements, please contact Timeguard directly prior to installation.

If you experience problems, do not immediately
return the unit to the store.

Telephone the Timeguard Customer Helpline:

HELPLINE

01582 544 548

or email helpline@timeguard.com

Qualified Customer Support Coordinators will be online
to assist in resolving your query.



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