SAFETY PHOTOCELLS MODEL 9044 AND 9044-PW (PRE-WIRED RECEIVER)

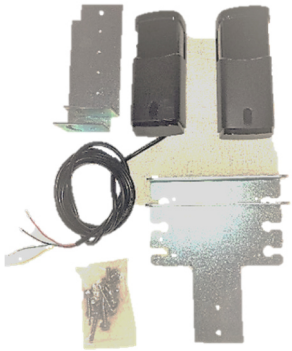
INSTALLATION MANUAL

MODEL 4094 : SAFETY PHOTOCELLS WITH WIRELESS INFRARED TRANSMITTER

MODEL 4094-PW : SAFETY PHOTOCELLS WITH PRE-WIRED RECEIVER & WIRELESS TRANSMITTER

- ***THE FASTEST FITTING PHOTOCELL INSTALLATION***

PHOTOCELLS MOUNTED ON THE ASSEMBLED WALL BRACKETS



MODEL 9044-PW : PRE-WIRED RECEIVER

SPECIFICATION MODELS 4094 & 4094-PW (Pre-Wired)

- **Eliminates wiring to the other side of the door**
- ***Fastest fitting Photocell Installation – Model 4094-PW***
- **CE & UL 325 Compliant 2 wire 300 c/s Pulsed**
- **OR N/C // N/O Relay Selectable**
- **Lithium Battery powered Infrared Transmitter**
- **6-year battery life with Energiser Ultimate Lithium AA batteries**
- **Low Battery Warning *Beep***
- **Range over 25 Metres/80 Feet**
- **12V or 24V A/C or DC Receiver Supply**
- **Temperature Range -25 : +55 deg C, -45 : +99 deg F**
- **Waterproof case**
- **Rotatable Emitter & Sensor assemblies**
- **Universal Mounting kit included**
- **Adjustable reach Wall Brackets**
- **Easy Fit and Go**

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Both packages include the following items:

- A battery powered Infrared Transmitter Photocell fitted with 2 Energiser Ultimate Lithium AA Batteries, providing a 5-year battery life.
- A Receiver Photocell. (Note that the Receiver of the PW version is pre-wired with 2 metres/6.5 Feet of 4-core cable to save installation time wiring to the door Control unit.
- 2 Main bracket sections.
- 2 Extension bracket sections.
- 4 M5 x 12mm Pan Head Screws for joining the two bracket sections together.
- 4 M5 Flange Nuts for above.
- 4 TEK screws for fixing that assembled brackets to a wall at the side of the door.
- 6 M3 X 16mm Pan Head screws for fixing the photocells to the main bracket sections
- 6 M3 Flange Nuts for above.

HOW TO REMOVE THE TOP COVER

Note that a small black self-tapping screw is fitted under the small facia cover of each photocell to secure the top moulding to the base.

Use a small flat blade screwdriver to lever up the bottom of the small black plastic screw cover.

Then use a small Pozi-Drive screwdriver to remove the screw

Assemble the wall bracket sections using the M5 screws and Flange nuts.

The reach of the main bracket may be adjusted dependant on which two sets of holes are used to bolt the two parts together, as shown in the picture on page one.

It is important to position the photocells with the infrared window uppermost and the body protected from side impacts by the bracket side plate.

The Receiver photocell bracket should be fixed to the wall on the same side of the door on which the door Control unit is mounted, to limit the wiring from the photocell to the controller.

It is preferable to use a PVC insulated able with an outer diameter no greater than 5mm.

WIRING – PULSED SIGNAL SAFETY

If the Safety circuit of the door controller requires a two-wire pulsed signal, then use a 2-core cable and connect it from the two supply terminals on the Receiver to the SAFETY terminals on the door controller, as described in the door controller manual.

If you are installing the Pre-Wired model 9044-PW, note that the RED and BLACK or BLUE wires should be used for the power supply.

The connection of the cable is not polarity sensitive. It is essential that the door control safety circuit voltage has a source resistance of 470 ohms with a 24V supply or 120 ohms with a 12V supply.

Set the **MODE SWITCH** on the Receiver to **PULSE**. The GREEN and YELLOW or WHITE wires are not required in PULSE mode.

WIRING – RELAY CONTROLLED SAFETY

If the Safety circuit on the door controller requires a Normally Closed relay contact then connect the other two cores, of the 4-core cable of a maximum overall diameter of 5mm (13/64” / 0.1969”) to fit the grommet hole, to the two relay terminals on the Receiver.

If you are installing a PRE-WIRED photocell then the cable colours are as follows:

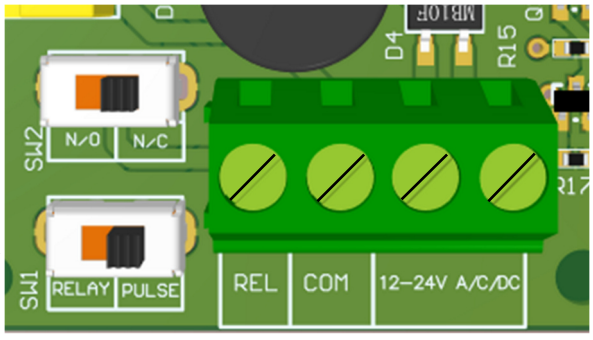
RED and BLACK or BLUE: 12V or 24V A/C or DC supply.

GREEN and YELLOW or WHITE: Relay connections.

RELAY SELECT SWITCH →

MODE SWITCH →

Set the **MODE** switch to **RELAY**.



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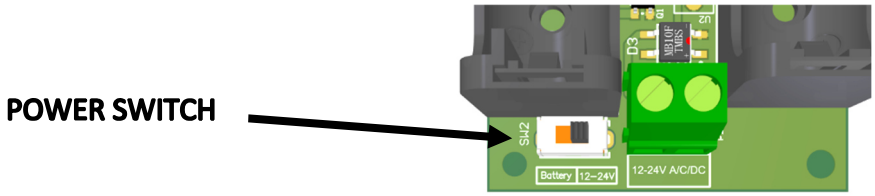
RELAY FUNTCTION SELECTION

If you require a Normally Closed relay circuit then set the **RELAY** select switch to **N/C** (Normally Closed)

If you require a Normally Open relay circuit then set the **RELAY** switch to **N/O** (Normally Open).

INITIAL TESTING

When power is applied or the door Controller power is switched on to the **Receiver** the RED LED will illuminate.



Next set the power switch on the Infrared **Transmitter** to **BATTERY.** A ***beep*** will sound on the Transmitter to confirm that the batteries are connected correctly in the battery holders and there is sufficient power to enable the Transmitter to function correctly. (Note that in the event that the batteries become discharged at some time in the future an intermittent BEEP will sound to warn of the low battery status. An alternative 12v or 24v A/C or DC supply may be connected to the 12v – 24v terminals of the Transmitter. In which case the supply switch should be set to **12 -24V)**

Next position the transmitter facing the receiver sensor and note that the RED LED on the Receiver turns off, which is an indication that the infrared emitter beam is aligned with the Receiver sensor.

WALL MOUNTING

Select a suitable flat position on the wall either side of the door to mount the wall brackets, ideally 150mm (6”) off the ground and away from the door opening as far as possible to avoid any sunlight from shining directly into the Receiver.

Bolt the two bracket sections together using the M5 screws and flange nuts using the appropriate holes depending upon the clearance required for the door protrusions, as shown in the central picture on page one.

The brackets are mounted on the wall using the TEK screws provided.

First drill two 3mm (1/8”) pilot holes in the wall, 25mm (1”) apart in a horizontal plane.

BEAM ALIGNMENT

Lightly secure each bracket with a TEK screw using the central single hole at the end of the Bracket assembly, to allow the bracket to be rotated slightly during the beam alignment process.

Note that alignment of the infrared beam in the horizontal plane is facilitated by rotation of the brackets and alignment of the beam in the vertical plane is facilitate by rotation of the infrared sensing heads in the plastic gimbals which are part of each of the base mouldings.

Note that when the beam is correctly aligned the RED LED on the Receiver will be off.

When you are satisfied with the alignment then screw in the second TEK screws in each of the brackets and ensure that all 4 TEK screws are firmly tight.

Reconfirm the alignment should the final fixing of the TEK screws may have affected the alignment.

Check the correct response of the Photocells by obstructing the infrared beam with your hand and confirm that the RED LED turns off.

Check the correct response of the door if the beam is obstructed whilst the door is closing.

RE-FITTING THE PHOTOCELL TOP MOULDINGS.

Note that the top mouldings are refitted by hooking the tongue of the top moulding into the slot of the base moulding and press the bottom of the top moulding firmly in place. Then refit the black self-tapping screw to secure the top to the base. Finally push the plastic screw cover in position to provide a means of hiding the assembly screw from unauthorised people.

Finally Recheck the correct functioning of the photocell installation.

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