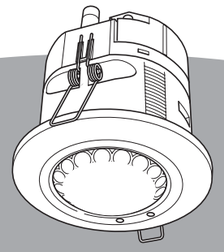
Installation Instructions



Command Plus Low Voltage PIR Sensor with photocell

⚠ Only suitably qualified personnel should install this equipment

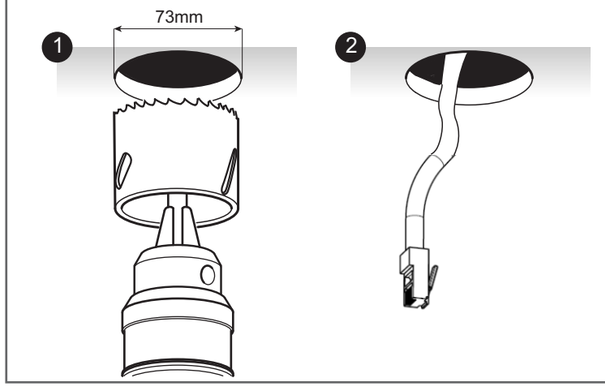
32317711-001_RevA

Part Number	Flush Mount	Surface Mount	Fixed Housing	Office Type
EVGAMMA	●		●	●
EVGAMMASM		●	●	●

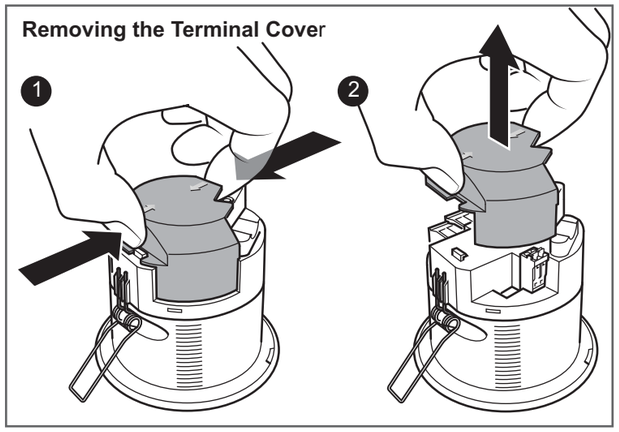
360° Passive Infrared Sensor with Photocell for use with Command Open Plan Hub CPDMGAMMA, or Hard Wired Hubs CPDMHW4 or CPDMHW8

(COMHC or COMAHP required for Photocell Commissioning)

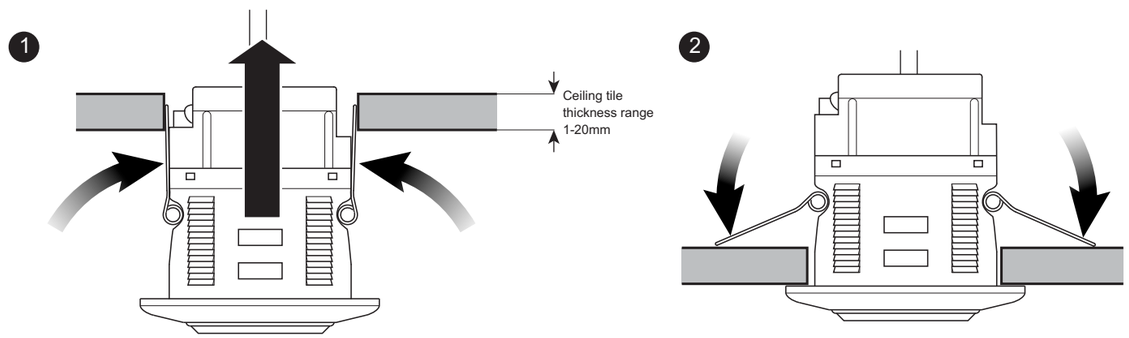
Installing the Sensor into Ceiling Tile



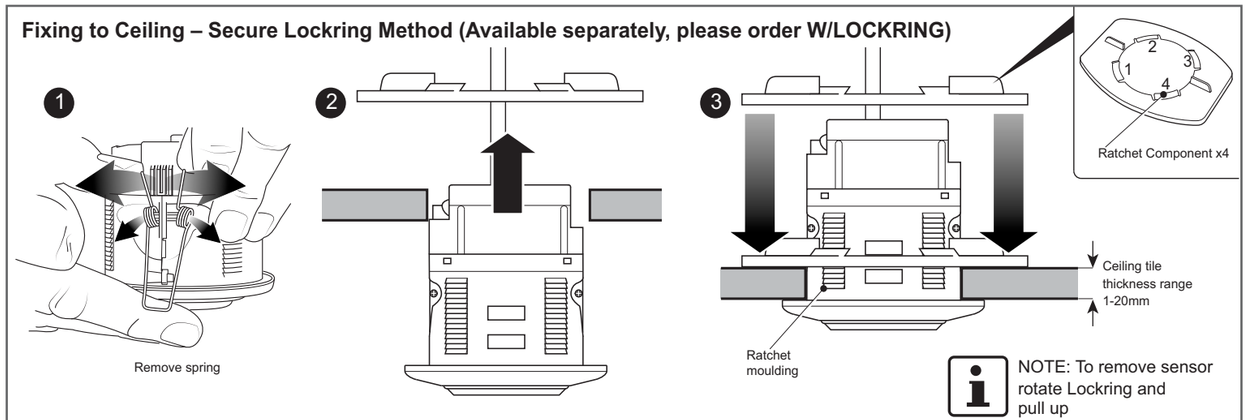
Removing the Terminal Cover



Fixing to Ceiling - Standard Method



Fixing to Ceiling – Secure Lockring Method (Available separately, please order W/LOCKRING)



Electrical Connections

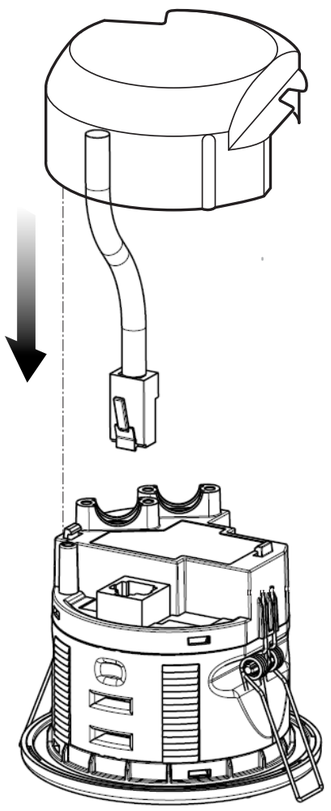


fig 1

Introduction

The EVGAMMA offers high performance presence detection and contains a photocell to monitor total light levels, allowing the light output of dimmable luminaires to be adjusted to suit the natural light level available. An integrated infrared port can be used both for local control from a hand-held device when in service, and for initial Command Hub LCM system commissioning. When properly installed and connected the EVGAMMA is an SELV device.

Connecting

The sensor connects to the Command Hub LCM via an eight core, RJ45 plug terminated, patch lead see fig1. **All such patch leads must be segregated from mains wiring to preserve the detectors' SELV status that is provided by the Command Hub LCM design.**

Ready-made patch leads in lengths of 3m, 5m and 10m are available from Whitecroft (see overleaf for part numbers).

Where it is a requirement that the patch leads are protected by conduit it may prove more convenient to run the cables unterminated and attach the RJ45 connectors afterwards. In this case the cable used should be 4-twisted pair, 24awg multi-stranded, unscreened data cable to Category 5E standard (e.g. Belden Datatwist 350). No strain-relief hoods should be fitted to the insulation displacement RJ45 connectors, due to the limited space available above the emplaced detector. **Note that the maximum allowable cable length between the sensor and the Command Hub LCM is 100m.**

The wiring scheme used should follow either the T-568A or the T-568B Ethernet standards, and must give "1-1", "straight-through" connectivity between the two RJ45 connectors for all eight cores. **Note that this detector is not an Ethernet device and cannot be used with network Hubs and Switches.**

Plug the RJ45 connector at the detector station into the modular socket labelled "To CD Box" on the top of the detector module and offer the detector to the backbox.

Commissioning

In the Command Hub systems, all configuration information is held within the Lighting Control Modules themselves, not in individual detectors. Most of the configuration items are set up with the aid of a dedicated program running on a portable PC which communicates with the LCM either by an infrared link via one of the attached detectors, or by a specialised serial link into the LCM itself. However, when setting the actual light levels around which dimming or switching decisions are to be made, the system allows the commissioning engineer the same convenience as if he were dealing with traditional stand-alone detectors. An infrared programming tool, the COMAHP or COMHC, is used to set the controlling or switching set-point for the photocell. In all cases the setting is then transmitted from the detector to the LCM, where it is uniquely associated with the detector number being dealt with and will be preserved in the event of power failure. All settings can be re-programmed any number of times.

Setting the Regulating Photocell

Using the COMAHP Programmer, enter the Utilities menu and select 'Command/Plus/Gamma', then'Set Light Level'. Use the 'up' and 'down' buttons to manually adjust the light output from the luminaire(s) and when at the required level press and hold 'OK' to store. The luminaire(s) will blink to acknowledge a successful store operation.

Due to the fact that the photocell is on the ceiling looking down, it is not possible for measurements made with a lux meter on the working plane to remain constant when daylight illuminates the ceiling and the working plane to a differing extent. Therefore, products of this type should be regarded as capable of maintaining an APPROXIMATE light level only.

Setting the Switching Photocell

Now the desired switching light level must be arrived at either by waiting for an appropriate time of day or by a combination of manually switching off lights and perhaps masking windows. Using the COMAHP Programmer, enter the Utilities menu and select 'Command/Plus/Gamma', then 'IR Remote'. Scroll down to 'Scene 1' and press and hold the 'OK' button to store. The luminaire(s) will blink to acknowledge a successful store operation.

Testing

Detectors can be put into a temporary 10-second off-delay mode to speed the process of checking their sensitivity and range settings using the COMAHP (in the 'Utilities' menu, choose 'Command/Plus/Gamma' then select 'User Test' and 'Walk Test'). This mode expires automatically after a few minutes.

Fixing to Ceiling – Surface Mounting (optional)

Product variants with “SM” suffix on the part number are supplied with the surface fitting kit as standard. The surface mount kit is available as a separate part, please order W/SURFMT.

The sensor may be mounted to any suitable surface, but is most commonly fixed to a conduit stop-end (fig 2 set) (BESA) box or bushed to trunking.

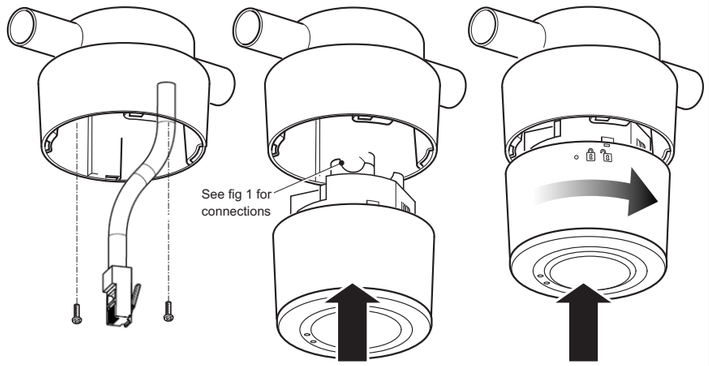


fig 2

Uninstalling and Repositioning

Insert a flat headed screwdriver into the slot as shown and twist the collar anti-clockwise to release, (fig 3).

To separate the sensor from the surface mount casing, push a flat headed screwdriver onto the tab via the inside void of the casing and pull the sensor upwards, (fig 4).

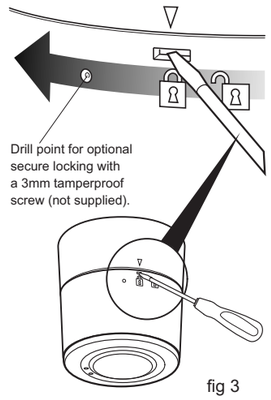


fig 3

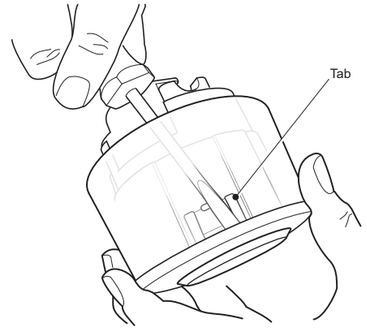
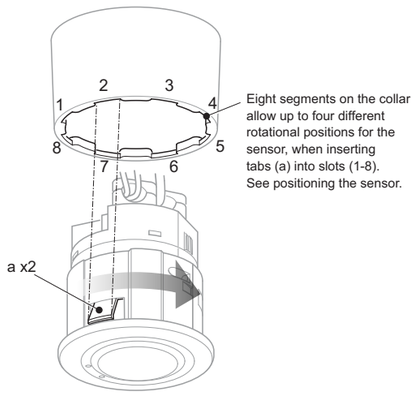


fig 4



Positioning the Sensor

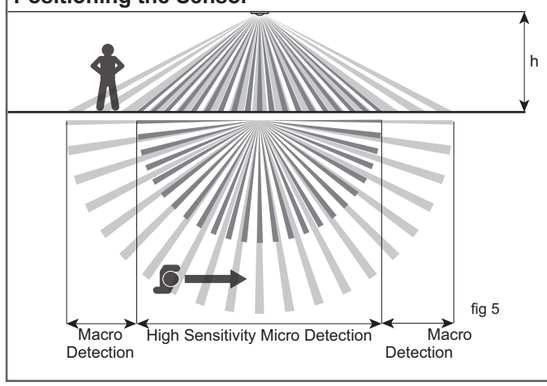


fig 5

The sensor should be positioned on the ceiling in the centre of the occupied space. Ensure that the maximum recommended mounting height is not exceeded. Do not mount within 0.25m of a luminaire. Avoid mounting next to an Air Conditioning unit.

The sensor is more sensitive to movement across the beam compared with movement towards the centre.

	Aspect Ratio (diameter : height)		
Type	Micro Detection - High Sensitivity	Macro Detection - Standard Sensitivity	Max Recommended Mounting Height
Office	2.8:1 (7m diameter @ 2.5m height)	4:1 (10m diameter @ 2.5m height)	3.5m

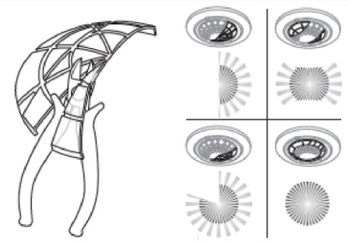


fig 6

Two lens masks are provided which may be used to restrict the viewable footprint of the sensor e.g unwanted detection through a doorway. Cut the mask segment(s) as desired and install by pushing the mask lip between the bezel and the lens on the sensor as shown in fig 6.

Technical Data

OPERATING VOLTAGE:	12V DC, SELV if installed correctly.
PHOTOCELL:	Regulating
WEIGHT:	121g (flush mount); 215g (surface mount)
COLOUR:	White RAL9010
MATERIAL:	Flame retardant PC/ABS
IP RATING:	4X

Part Numbers

W/BT5E030GY	3m Detector Patch Lead
W/BT5E050GY	5m Detector Patch Lead
W/BT5E100GY	10m Detector Patch Lead
W/SURFMT	Surface-mount Kit (supplied with SM version)
W/LOCKRING	Secure Lockring

FOR FURTHER INFORMATION CONTACT
TECHNICAL SUPPORT
Tel: 0161 331 5700
Email: technical@whitecroftlight.com
www.whitecroftlighting.com

At the end of their useful life the packaging and product should be disposed of via a suitable recycling centre.
Do not dispose of with normal household waste. Do not burn.

CE

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