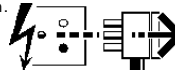


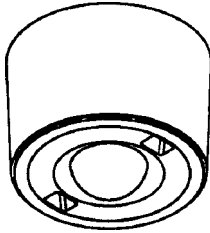
2646766

Installation Instructions  
IS500

**Disconnect from mains supply before replacing the fuse or the lamp.**  
**Vor dem Einsetzen der Sicherung oder der Lampe Spannungsfreiheit herstellen.**  
**Débrancher le secteur avant de remplacer le fusible ou l'ampoule.**  
**Desconectar del suministro de la red, antes de realizar la sustitución del fusible o de la lámpara.**  
**Voor het vervangen van lamp of zekering, eerst netspanning uitschakelen.**  
**Koppla bort spänningen före byte av en säkring eller en lampa.**



**Switch Off**  
**Abschalten**  
**Débrancher**  
**Desconectar**  
**Uitschakelen**  
**Stäng av**



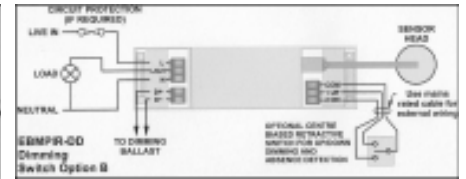
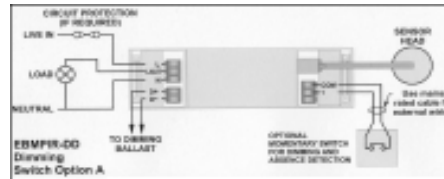
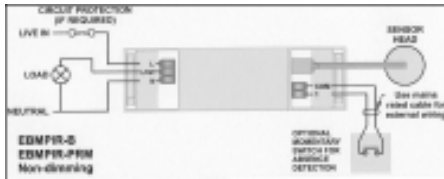
The EBMPIR series of miniature PIR (passive infrared) presence detectors provide automatic control of lighting loads with optional manual control. The miniature size together with multiple mounting options make these products ideally suited for mounting in, or attached to, luminaires to provide local control of individual fittings. Three models are available: basic, premium and direct dim, all of which will switch incandescent, fluorescent and compact fluorescent lighting. The direct dim variant controls DSI or DALI digital dimming ballasts.  
 The unit detects movement using a PIR sensor and turns the load on. When an area is no longer occupied the load will switch off after an adjustable time out period.

Feature	EBMPIR-B Basic	EBMPIR-PRM Premium	EBMPIR-DD Direct Dim
5m PIR sensing	✓	✓	✓
3 mounting options	✓	✓	✓
Lux sensor	✓	✓	✓
Absence detection	✓	✓	✓
Presence detection	✓	✓	✓
Infrared remote setting	✓	✓	✓
Infrared user handset	✓	✓	✓
Push button adjustment*	✓	✓	✓
Relay output	✓	✓	✓
Dimming output	✓	✓	✓
Absence switch input	✓	✓	✓
Up/down switch input	✓	✓	✓

\*For lux, time and sensitivity

**WIRING**

Wire the products as shown in the diagrams. All switches are optional, however the dimming variant can have two switch configurations. If used with Option A, a single momentary switch can be used for absence detection and dimming up/down—set switch mode 1 position switch together (see section 6). If used with Option B, a centre biased momentary switch gives the benefit of having separate switches to dim up and down—set switch mode 2 position switch together in this case.



**SETUP**

**Positioning**

- The detector should be sited so that the occupants of the room fall inside the detection pattern shown in section 7, at a recommended ceiling height of 2.8m. Note that the lower the sensor is installed the smaller the detection range will be, subject to the parameters shown on the diagram.
- Avoid direct sunlight entering the sensor.
- Do not site within 1m of forced air heating or ventilation.
- Do not fix to a vibrating surface.

**Settings**

**Absence or presence mode**  
**EBMPIR-B**

- The unit ships with presence detection as default. To change to absence detection, press and release the external switch 5 times within the first minute of power up. The LED will turn on solid for 30 seconds to indicate absence mode has been selected.
- To change back to presence detection, repeat the above procedure—the LED will flash for 30 seconds to indicate presence mode has been selected.

**EBMPIR-PRM & EBMPIR-DD**

Use the push button adjustment described overleaf or select using the programming handset (see section 6).

**Time**

**EBMPIR-B**—the time period is fixed at 20 minutes.  
**EBMPIR-PRM & EBMPIR-DD**—set the time period using the push button adjustment overleaf or the programming handset (see section 6). The factory default is 20 minutes.

**Lux**

**EBMPIR-B**—feature not available

**EBMPIR-PRM**—switch level on lux setting determines the ambient light level at which the lights turn on. This can be set using the push button adjustment overleaf or the programming handset (see section 6). Setting to maximum ensures that lights always come on (this is also the default setting).

**EBMPIR-DD**—switch level on described above is available using the programming handset only. The push button lux adjustment determines the dimming output level and can be set using push button the programming handset light level and works as follows:

- During operation the output level varies very gradually. However when the level is changed the unit automatically enters setup mode: in this mode the output level varies rapidly. After the setup time the unit reverts to normal.
- When adjusting, allow the output level to settle by changing very gradually.
- To disable the maintained illuminance function completely, set the level to maximum.

**User handset**

Using the UHS or UHS3 infra-red handset: the override on button turns the unit on permanently; the override off button turns the unit off permanently; the cancel button cancels the overrides. When an override is selected an LED will flash inside the unit. The UHS handset can also be used to set the lux levels (see section 6).

**Programming handset**

A host of other functions and settings are available using the programming handset—see section 6. Not available on EBMPIR-B.

**SETUP cont.**

**Push button adjustment**

**Time, Lux and Sensitivity**

- Press and hold either button for at least 5 seconds then release: one of the LED's positioned behind the lens will flash to show which function has been selected.
- The LED will flash a number of times (between 1 and 7) to indicate the current setting (minimum = 1 flash, maximum = 7 flashes).
- To change between Time (green), Lux (red) and Sensitivity (yellow) press and release the function button until the required LED shows.
- When the function has been selected press the adjustment button to increase the setting by 1 step. Pressing the button after reaching 7 flashes will return the setting to 1 flash.
- Time settings are as follows: 1 flash = 1 minute; 2 flashes = 5 min.; 3 flashes = 10 min.; 4 flashes = 15 min.; 5 flashes = 20 min.; 6 flashes = 25 min.; 7 flashes = 30 min.
- Lux settings  
 EBMPIR-PRM—1 flash turns on when very dark ; 7 flashes turns on regardless of ambient light.  
 EBMPIR-DD—1 flash gives dim output level; 7 flashes gives maximum illuminance.

- Sensitivity: 1 flash minimum; 7 flashes maximum.

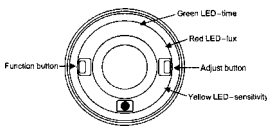
- After finishing adjustment, the LED will show the new setting 5 times and then return to operational mode.

**Default settings**

- Pressing and hold both buttons together: after 3 seconds the green LED lights. Release immediately to restore the factory settings.

**Absence/Presence mode**

- To check the mode press and hold both buttons together: after 3 seconds the green LED lights—leave the buttons pressed. After a further 3 seconds the following LEDs will light:  
 Green/Yellow = Presence Detection mode  
 Green/Red = Absence detection mode
- To accept the current mode release the buttons immediately.
- To change the mode keep the buttons pressed for another 5 seconds until the LEDs change, then release.



**PROGRAMMING**

All the following functions can be programmed using the remote control DD-LCDHS handset:

**1. Detector Parameters (factory default in brackets):**

- 1.1 Time adjustment (20 min)** 10 seconds to 99 minutes time delay (select 0 for 10 second delay – use for commissioning only).
- 1.2 Sensitivity On (8)** Sensitivity level when the detector is already operational adjustable between 1 (min.) and 9 (max.)
- 1.3 Sensitivity Off (8)** Sensitivity level for switching the detector on – adjustable between 1 (min.) and 9 (max.).
- 1.4 Power Up On (Y)** Select No for a 30 second delay on start up. If Yes is selected, there will be no delay on start up and the detector will always power up detecting.
- 1.5 Walk Test (N)** An LED behind the detector lens will flash to show movement has been detected (use for commissioning).
- 1.6 Disable Detector (N)** Disables detection, leaving the relay output permanently off with the dimming output operational. This mode is used when the unit is for maintained illuminance only.
- 1.7 Factory Default** Restores factory default settings.

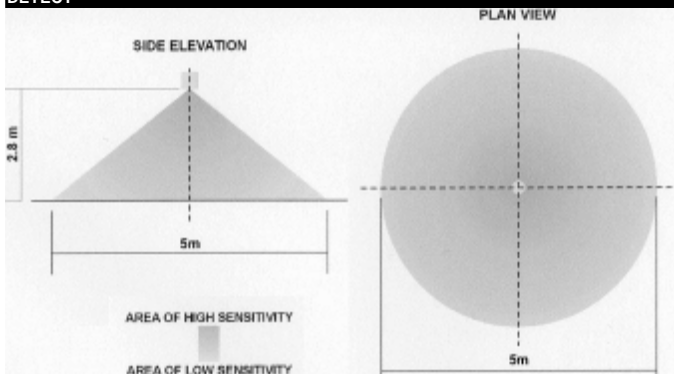
**2. Modes (factory default in brackets):**

- 2.1 Channel Modes**
  - 2.1.1 Switch only** N/A
  - 2.1.2 Switch and dim together (default)** The detector will switch and dim the lighting together.
  - 2.1.3 Switch and dim separate** N/A
- 2.2 Switch Modes**
  - 2.2.1 2 position switch together (default EBMPIR-DD)** A single centre biased retractive switch will be used to control both channels together.
  - 2.2.2 2 position switch separate** N/A
  - 2.2.3 1 position switch together (default EBMPIR-PRM)** A single position retractive switch controls both channels together.
  - 2.2.4 1 position switch separate** N/A

## PROGRAMMING Cont.

- 3. Switching Channel 1 functions EBMP-PRM only (factory default in brackets):**
- 3.1 Presence detection** Auto switch on with detection, auto off after movement ceases and time delay ends.
- 3.2 Absence detection** Manual switch on, auto off after movement ceases and time delay ends.
- 3.3 Switch level on (9)** Lux level setting to prevent the luminaires being switched on if the ambient light level is sufficient (adjustable between 1 and 9). The luminaires will always be switched on at level 9.
- 3.4 Switch level off (9)** Lux level setting to switch the luminaires off during occupancy if the ambient light level goes above the setting (adjustable between 1 and 9). Level 9 will always keep the lights on. This setting can be used for "window row switching".
- 4 Dimming Channel 2 functions EBMP-IR-DD only (factory default in brackets):**
- 4.1 Light level** Maintained illuminance level (adjustable between 1 and 999). At 999 the output will be always be at maximum.
- 4.2 Presence detection (default)** Auto switch on with detection, auto off after movement ceases and time delay ends.
- 4.3 Absence detection** Manual switch on, auto off after movement ceases and time delay ends.
- 4.4 Switch level on (9)** Lux level setting to prevent the luminaires being switched on if the ambient light level is sufficient (adjustable between 1 and 9). The luminaires will always be switched on at level 9.
- 4.5 Switch level off (9)** Lux level setting to switch the luminaires off during occupancy if the ambient light level goes above the setting (adjustable between 1 and 9). Level 9 will always keep the lights on. This setting can be used for "window row switching".
- 4.6 DSI (default)** Selects DSI dimming
- 4.7 DALI** Selects DALI dimming
- 4.8 Memorise (N)** If this is set to Yes, the last manual lux level set will be memorised and used as the new switch on level.
- 4.9 On value (99)** Dimming output level when switched on (0-99).
- 4.10 Off value (0)** Dimming output level when switched off (0-99). If set to anything other than 0 the light will not switch off but maintain a background lighting level.
- 4.11 Fade value (10)** After occupancy ceases, this dimming output level is loaded for the fade time (adjustable between 0 and 99).
- 4.12 Fade mins (0)** This is the time period (adjustable between 0 and 99 minutes) that the luminaire will be held at the fade value before turning off. A value of 0 disables the fade function.
- 4.13 Max value (99)** Maximum dimming output level (adjustable between 0 and 99).
- 4.14 Min value (1)** Minimum dimming output level (adjustable between 0 and 99).
- 4.15 Speed on (40)** Determines the dimming response speed after the setup time has finished. Measured in 0.1 sec intervals.
- 4.16 Speed set (5)** Determines the dimming response speed during the set up time. Measured in 0.1 sec intervals.
- 4.17 Set seconds (120)** Determines how long the dimming response set-up period lasts on power-up or on setting change (adjustable between 1 and 999 seconds). This enables the desired lux level to be achieved rapidly when the lights come on, or during setup.
- 5 User Menu**  
DD-LCDHS user menu or UHS handset functions:
- 5.1 Lux up** Increase light level. Reverts when occupancy cycle complete.
- 5.2 Lux down** Decrease light level. Reverts when occupancy cycle complete. Steps up between 6 pre-defined scenes.
- 5.3 Scene up** Steps up between 6 pre-defined scenes.
- 5.4 Scene down** Steps down between 6 pre-defined scenes.
- 5.5 Scene#** Select the individual scene, between 0 and 6. (1 = min. output; 2 = 10%; 3 = 25%; 4 = 50%; 5 = 75%; 6 = 100%)
- 5.6 Override on** Permanently overrides the luminaire output on.
- 5.7 Override off** Permanently overrides the luminaire output off.
- 5.8 Cancel** Cancels the on or off override, returning the detector to normal operation.
- 5.9 Set** If sent before using lux up or lux down, it will set the light level as in 4.1

## DETECT



## SPECIFICATION

### LOAD

- 6 Amps fluorescent and incandescent lighting.
- 3 Amps compact fluorescent lighting.
- 3 Amps low energy lighting.
- 3 Amps low voltage lighting (switch primary of transformer).
- Dimming output power supply versions - up to 10 dimming ballasts.
- Switch SON lighting loads via a contactor.

**SUPPLY VOLTAGE** 220-240 Volts AC 50 Hz

**LIGHT LEVEL** Light to dark (select products only)

**TERMINAL CAPACITY** 1.0mm<sup>2</sup>

**MATERIAL** Sensor head, side mounting bracket, power supply —PA (polyamide)  
Flush holder—Flame retardant ABS  
Lens—PMMA (Clear acrylic)

**TYPE** Class 2

**TEMPERATURE** -10°C to 35°C

**CONFORMITY** EMC-89/336/EEC LVD-73/23/EEC

## FAULT FINDING

### LOAD DOES NOT COME ON

Check to see if the live supply to the circuit is good. Strap across the L and LIVE OUT terminal to turn the load on.

If the supply and wiring are good, check the LUX level setting. Increase the LUX level setting to allow the controller to turn on at higher ambient natural light level.

If the detection range is smaller than expected, check the diagram above. Rotating the sensor slightly may improve the range.

### LIGHTS DO NOT GO OFF

Ensure that the area is left unoccupied for longer than the selected timer setting.

Make sure that the sensor is not adjacent to circulating air, heaters or lamps.

If the unit "false triggers" reduce the sensitivity using the sensitivity settings (see section 5 and 6).

## PART NUMBERS

EBMP-IR-B	Basic sensor head
EBMP-IR-PRM	Premium sensor head
EBMP-IR-DD	Direct dim sensor head
EBMP-PSU	Non-dimming power supply (suitable for -B and -PRM)
EBMP-PSU-DD	Dimming power supply (suitable for -DD)

**Kits—complete with sensor head and power supply**

EBMP-IR-B/C	Basic sensor head with power supply
EBMP-IR-PRM/C	Premium sensor head with power supply
EBMP-IR-DD/C	Direct dim sensor head with power supply

**Accessories**

DD-LCDHS	IR remote control programming handset with LCD screen
UHS	IR remote control user handset with lux and scene setting functionality
UHS3	IR remote control user handset with on/off override only

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Due to our policy of continual product improvement CP Electronics reserves the right to alter the specification of this product without prior notice.

## Suitable for use indoors

Geeignet für Innenanwendung

Pour un usage interne

Adecuada para uso en interiores

Geschikt voor gebruik binnen

Lämpelig för inomhusbruk



### Replace any cracked protective shield.

Dieses symbol bedeutet, dass defekte Schutzgläser sofort ersetzt werden müssen.

Ce symbole indique que vous devez remplacer tout verre de protection fêlé.

Este símbolo indica que hay que reemplazar filtros en caso de rotura o desperfectos.

Dette symbolet indikerer at alle ødelagte (sprukne) sikkerhetsglass må skiftes.

Valaisinta el saa käyttää ilman suojalasia vioitunut suojalasi on vaihdettava uuteen ennen valaisimen käyttöön ottoa.



Based on Data sheet Ref %WD249 Issue 3 by CP electronics

< Millimetres >



This Electrical Product MUST be recycled.



02.09

# Concord

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