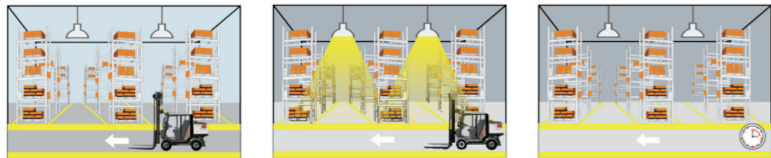


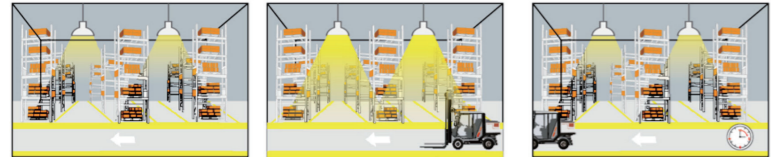
**FUNCTION**

1) ON/OFF Function (stand-by period be set to "0"s)



- ① With sufficient ambient light, the light will not be switched on even if with motion signal.
- ② With insufficient ambient light, the sensor switches on the light when motion is detected.
- ③ After elapse of hold time, the sensor switches off the light when no motion is detected.

2) 2-step dimming function (stand-by period be set to "+∞")



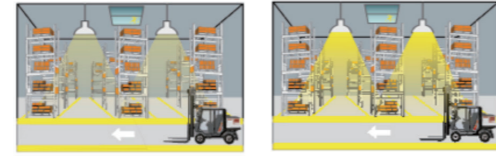
- ① If there is no motion detected, the light will be remained at a low light level all the time.
- ② When motion is detected, the sensor will switch on the light to 100% brightness.
- ③ After elapse of hold time, the sensor dims the light to the present low light level if no motion is detected.

3) 3-step dimming function (stand-by period be set to "10S / 1min / 3min / 5min / 10min / 30min")

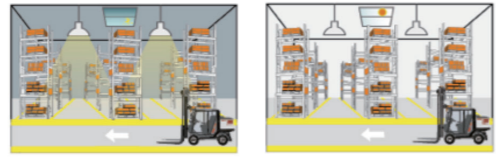


- ① With sufficient ambient light, the light will not be switched on even if with motion signal.
- ② With insufficient ambient light, the sensor switches on the light when motion is detected.
- ③ After elapse of hold time, the sensor dims the light at a low light level if no new motion is detected.
- ④ After elapse of standby period, the sensor switches off the light if no motion is detected in the detection zone.

4) Daylight priority (stand-by period set to "+∞")



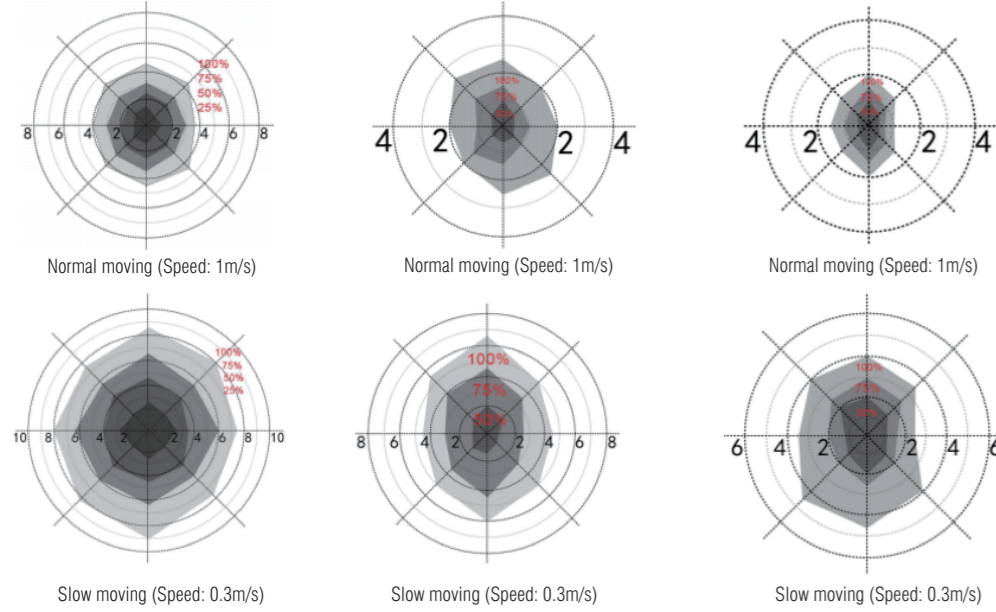
- ① Lamp turns on at low light level 10% in the night.
- ② Motion detected, lamp automatically lights up to 100%.



- ③ After hold time, the lamp gradually dims to a low light level 10% if no movement detected.
- ④ Lamp turns off after dawn.

**CEILING MOUNTING**

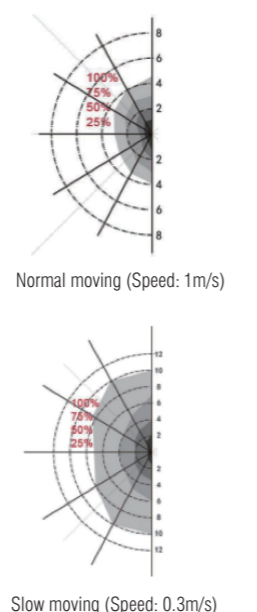
Ceiling mounted height: 3m Sensitivity: 100%/75%/50%/25%  
 Ceiling mounted height: 10m Sensitivity: 100%/75%/50%  
 Ceiling mounted height: 15m Sensitivity: 100%/75%/50%



\*Only 100%/75%/50% detection sensitivity is workable when installed at 15m mounting height. 25% sensitivity is not able to detect motion signal.

**WALL MOUNTING**

Horizon mounted height: 2m Sensitivity: 100%/75%/50%/25%



Instruction manual

# High Bay Remote Control & Microwave Sensor

78774, 78577, 106745



High Bay Remote Control 78774



Microwave Sensor 78577

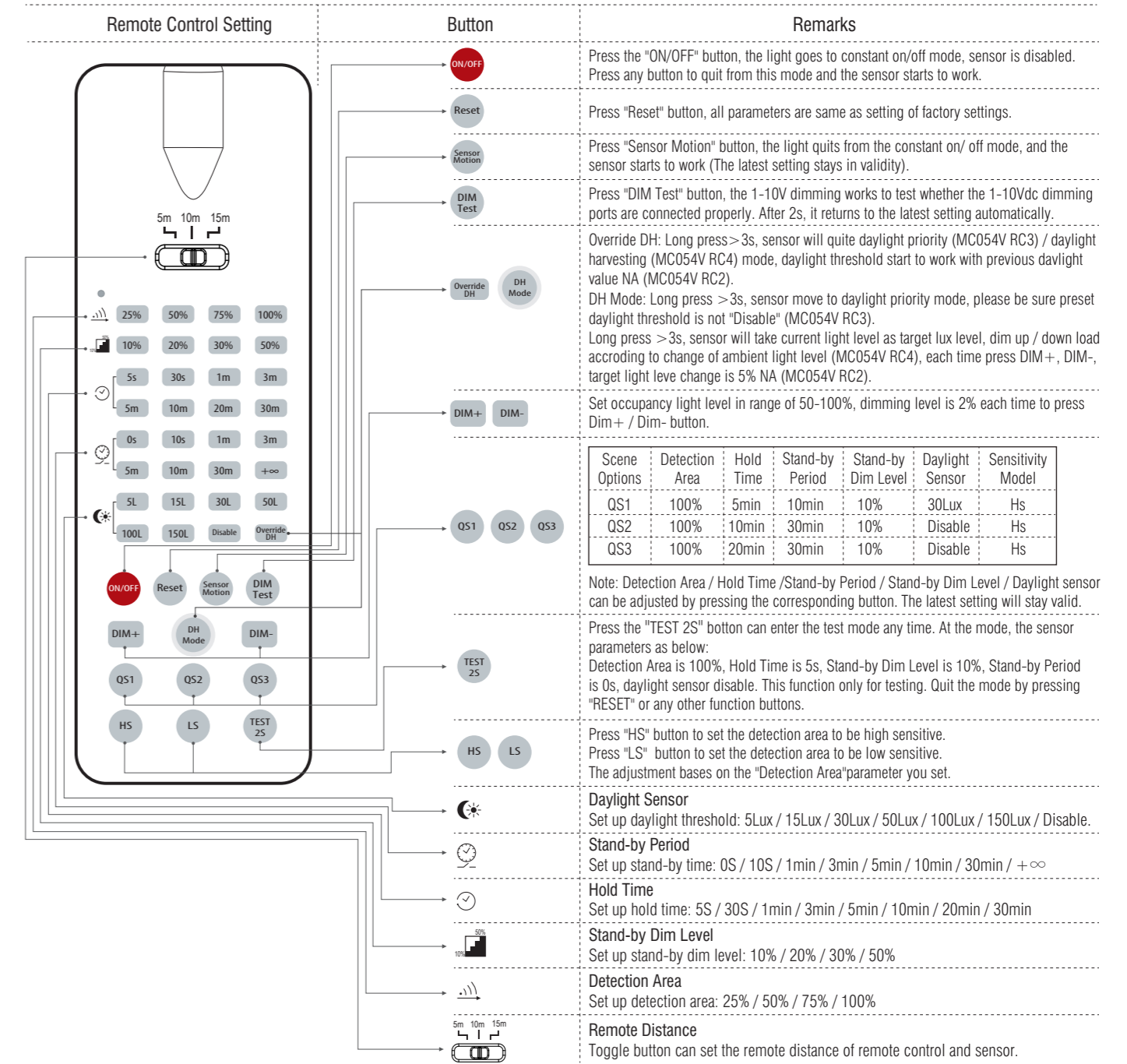


Microwave Sensor 106745

Thank you for purchasing this product. Please read the instructions carefully before use to ensure safe and satisfactory operation of this product. Please retain these instructions for future reference.

## High Bay Remote Control 78774

The remote control can be used in combination with Microwave Sensor 78577 or Microwave Sensor 106745.



Note: Detection Area / Hold Time / Stand-by Period / Stand-by Dim Level / Daylight sensor can be adjusted by pressing the corresponding button. The latest setting will stay valid.

Press the "TEST 2S" button can enter the test mode any time. At the mode, the sensor parameters as below: Detection Area is 100%, Hold Time is 5s, Stand-by Dim Level is 10%, Stand-by Period is 0s, daylight sensor disable. This function only for testing. Quit the mode by pressing "RESET" or any other function buttons.

Press "HS" button to set the detection area to be high sensitive. Press "LS" button to set the detection area to be low sensitive. The adjustment bases on the "Detection Area" parameter you set.

**Daylight Sensor**  
Set up daylight threshold: 5Lux / 15Lux / 30Lux / 50Lux / 100Lux / 150Lux / Disable.

**Stand-by Period**  
Set up stand-by time: 0S / 10S / 1min / 3min / 5min / 10min / 30min / +∞

**Hold Time**  
Set up hold time: 5S / 30S / 1min / 3min / 5min / 10min / 20min / 30min

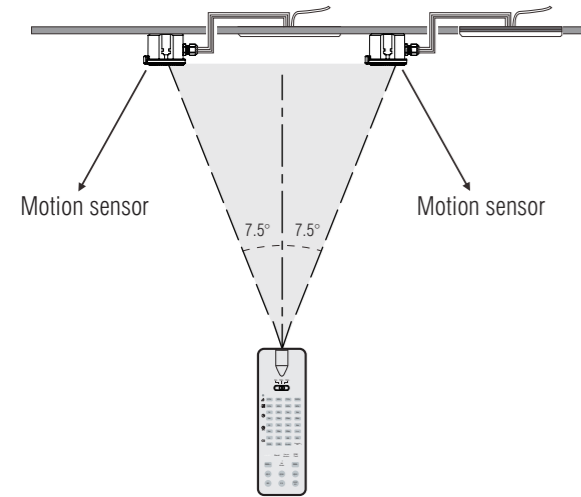
**Stand-by Dim Level**  
Set up stand-by dim level: 10% / 20% / 30% / 50%

**Detection Area**  
Set up detection area: 25% / 50% / 75% / 100%

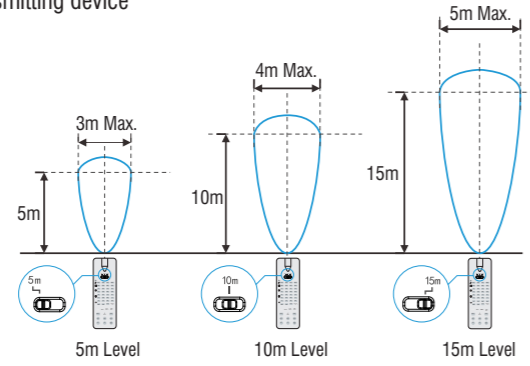
**Remote Distance**  
Toggle button can set the remote distance of remote control and sensor.

As the control angle of the Infrared Remote Control is fixed (15°), if sensors are installed too close to each other, settings of both sensors will be configured. Please refer to the below chart for the distance of the installation of the sensor:

Mounting height	Distance between sensors
49.2' / 15m	16.4' / 5m
39.4' / 12m	13.1' / 4m
29.5' / 9m	13.1' / 4m
19.7' / 6m	11.5' / 3.5m



### Unique design of infrared transmitting device



#### Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following Measures:

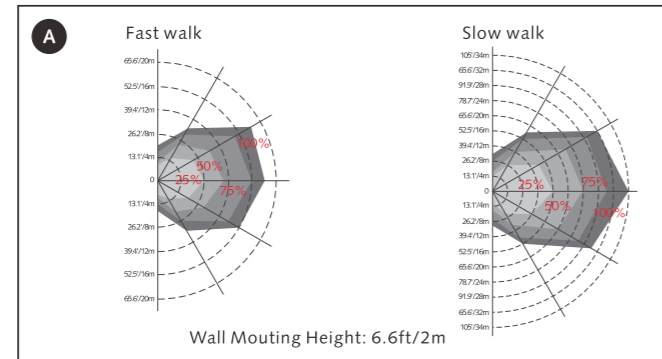
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## Microwave Sensor 78577

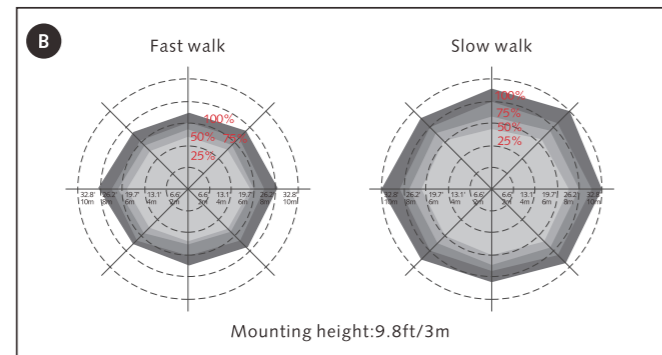
### SPECIFICATIONS

Input voltage	220-240Vac, 50/60Hz (AUS/EURO) 120/277Vac, 50/60Hz (USA)
Rated load (EURO/AUS)	800W-Inductive 1200W-Resistive
Rated load (USA)	120Vac, 50/60Hz 4A ballast 277Vac, 50/60Hz 3A ballast
Surge current of load	50A (50% Ipeak, twidth =500uS, full load, cold start) 80A (50% Ipeak, twidth =200uS, 277Vac, full load, cold start)
Detection area	100% / 75% / 50% / 25%
Hold time	5S / 30S / 1min / 3min / 5min / 10min / 20min / 30min
Daylight sensor	5lux / 15Lux / 30Lux / 50Lux / 100lux / 150lux / Disable
Stand-by period	0s / 10S / 1min / 3min / 5min / 10min / 30min / +∞
Stand-by Dimming Level	10% / 20% / 30% / 50%
Sensor Principle	Microwave motion detector
Microwave Frequency	5.8GHz±75MHz, ISM wave band
Mounting Height	49.2ft (15m) Max.
Detection Angle	150° (Wall installation), 360° (Ceiling installation)
Motion Detection	1.6~3.3ft/s (0.5~1m/s)
Operating Temperature	-35°C~55°C
IP Rating	IP65 (INDOOR USE ONLY)
Factory Setting	Detection area:75%, Hold time: 5s, Stand-by Period: 0s, Stand-by dim level: 10%, Daylight Sensor: Disable

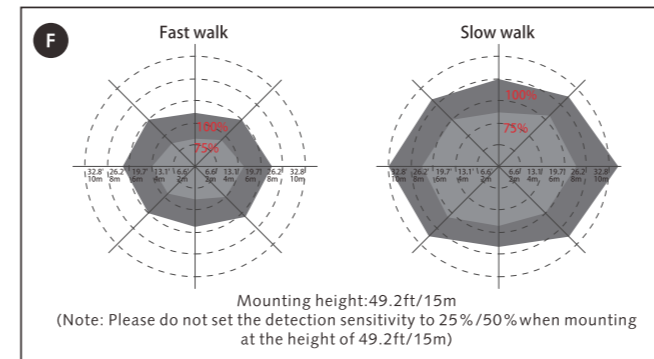
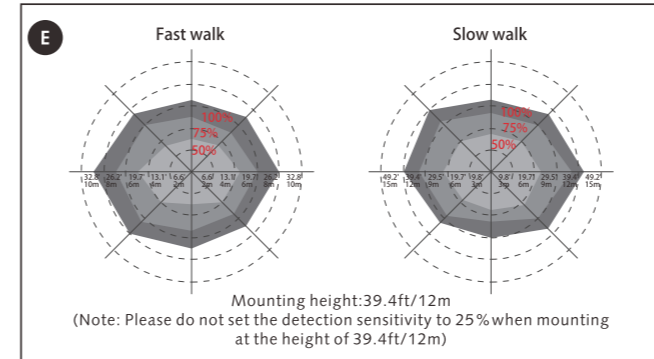
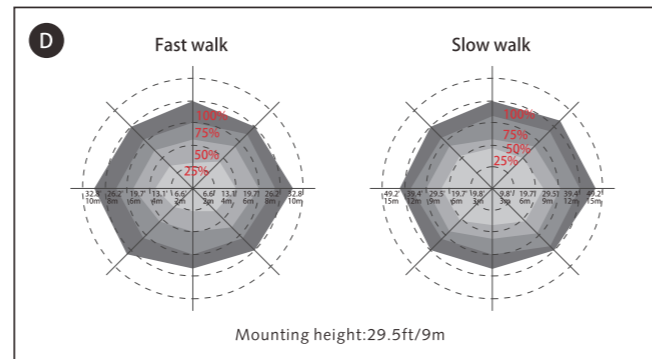
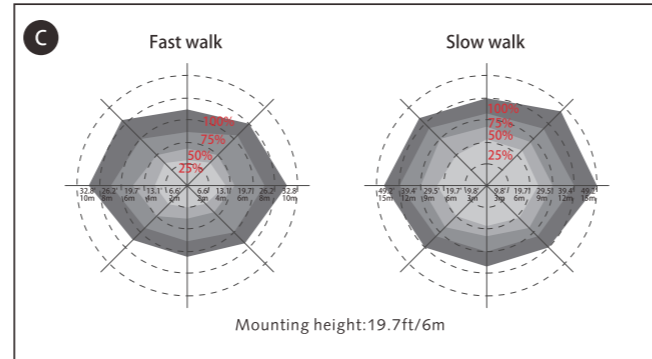
### DETECTION PATTERN (FOR WALL MOUNTING)



### DETECTION PATTERN (FOR CEILING MOUNTING)



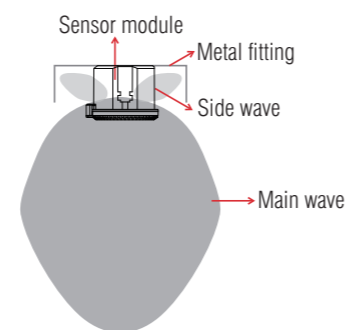
### DETECTION PATTERN



### FAQ

Question	Cause	Remedy
The load will not illuminate	Incorrect daylight sensor setting selected. Load has failed. Power is switched off.	Adjust setting. Replace load. Switch on.
The load is permanently illuminated. (SEE NOTE1)	Continuous movement in the detection area. The lamp (containing sensor) is installed in an area too close to reflective surfaces, i.e. metal, glass or concrete walls.	Check detection area setting. 1, Make sure installation area suitable with at least 39.4 inches (100cm) space between lamp and surrounding reflective surfaces. 2, Reduce sensitivity (detection area).
The load will not illuminate despite movement.	Speed of moving object is not in the range of 1.6~3.3ft/s (0.5~1m/s) or the detection radius is too small.	Check detection area setting.
The remote control is not working.	The battery on the remote control is run out. The remote control is not aligned with sensor.	Change the battery. Change the remote angle.

#### NOTE1



Microwave detection includes two parts called main wave and side wave. Main wave normally detects the motion signal. Side wave does not effect motion detection but might disturb main wave if the microwave motion sensor is built-in a sealed metal luminaire as microwave can not pass through metal.

When the microwave module is built into a metal lighting luminaire or installed in a sensor near a wall, the side wave will be reflected by the metal base or the wall. It can disturb the main wave. As the result of this, the microwave motion sensor might not perform optimally. Reducing the detection sensitivity or the side wave will help to solve such problems.

#### FCC Caution:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

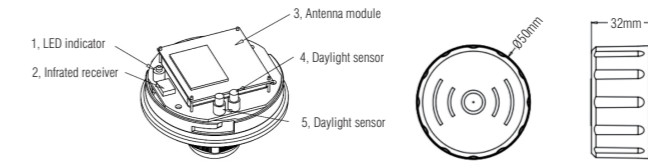
- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

#### IC RSS warning:

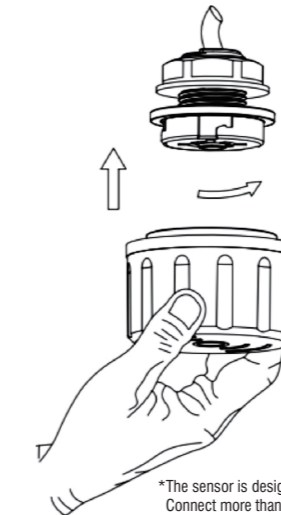
This device complies with Industry Canadalicense-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device. Le présent appareil est conforme aux CNR d'Industrie Canada licables aux ariels radio exempts de licence.

## Microwave Sensor 106745



### INSTALLATION (MATCH ZHAGA BOOK 18 CONNECTOR)



\*The sensor is designed for connect one load only. Connect more than one loads may damage the sensor.

### INSTRUCTION

- (1) The sensor should be installed by a professional electrician. Please turn off the power before installing, wiring, changing the setting of the DIP switch.
- (2) The sensor which installed in the plastic and glass lampshade will reduce the sensitivity. For every 3mm increase in thickness, the sensitivity will be reduced by 20%.
- (3) The dimming performance could be different from different 0-10v drivers.
- (4) The light sensitivity threshold is in a sunny environment, no shadow and ambient light diffuse reflection. Ambient lux level could be different in different environment, weather, climate, time-of-day and season.
- (5) The parameters of the sensor may need to be reconfigured in different installation environments. Please refer to the following instructions or contact the manufacturer.
- (6) This sensor is for indoor use only. It will affect the waterproof effect for outdoor use. Wind, rain, and moving objects around will cause false triggering.
- (7) The distance between any inductive sensors should be greater than 3m.
- (8) Do not place the sensor close to high-density objects such as metal, glass, concrete walls, etc. false triggering could happen. When the sensor is installed in a metal lamp, metal reflective surface, or a narrow enclosed environment, the microwave will be reflected repeatedly and cause false triggering. Please reduce the sensitivity or contact the manufacturer for technical support.
- (9) Please ensure that there are no moving signals around the sensor, such as fan, DC motor, sewer pipe, air outlet, etc., the sensor may generate false trigger.
- (10) You are advised to test 5 samples before mass application of sensor in a new lighting project.
- (11) Due to continuous improvement, the contents of this instruction could be changed without prior notice
- (12) A stabilized DC power supply with stable output voltage and low ripple must be used, the power supply ripple should be less than 300mV, and the load current should be greater than 25mA.

### PARAMETER

Input	DC Input Voltage	12 DC ±1V
	Rated Voltage	12V DC
	Voltage Ripple	<300mVp-p
	Stand-by Power	<0.3W
	Wiring	By Zhaga Book 18 connector
Output	Working Mode	0-10V DC
	Wiring	By Zhaga Book 18 connector
Dim Interface	0-10V Dimming	< 50mA (Non-constant source)
	Operating Frequency	5.8 GHz ± 75 MHz, ISM Band
Sensor Parameters	Transmitting power	1mW Max.
	Hold time	5S/30S/1min/3min/5min/10min/20min/30min
	Stand-by DIM Level	10%(1.4-1.6V), 20%(1.9-2.1V), 30%(2.9-3.1V), 50%(4.9-5.1V)
	Stand-by Period	0s/10S/1min/3min/5min/10min/30min/ +∞
	Detection Area	25%/50%/75%/100%
	Daylight Senso	Daylight threshold: 5lux/15Lux/30Lux/50Lux/100lux/150lux/Disable Daylight priority: 0N/OFF value (5lux/15Lux/30Lux/50Lux)/150Lux 100Lux/200Lux 150Lux/300Lux
	Operating	Operating Temperature
Storage Temperature		Temperature: -40°C...+80°C Humidity: 10%-95% (non-condensing)
Certificate Standards	Safety standards	EN60669-2-1, EN60669-1
	EMC standards	EN55015, EN61000-3-2, EN61000-3-3, EN61547
	Environmental Requirement	Compliant to RoHS
	IP Rating	IP65 when mount with Zhaga Block 18 connector
	Protection Class	Class II
	Installation	External mounting, integrated mounting
Net Weight	Net Weight	55g
	Lifetime	5 years warranty

\*Notes: Detection area is effected on volume of motion object and motion speed. The detection area is tested by a 165cm height person and walking speed is 0.3m/s.