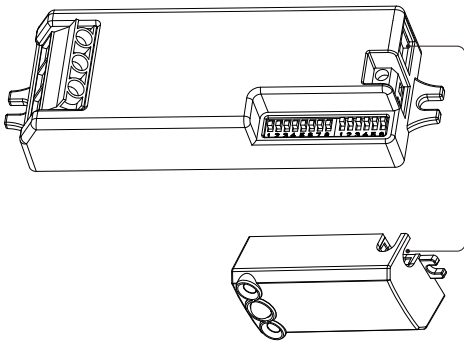




MICROWAVE MOTION SENSOR USER'S MANUAL

Model No.:MC613V D RC



EN

Instruction
MI20170815

GENERAL GUIDELINES FOR INSTALLATION

- 1, The sensor should be installed by a qualified electrician. And ensure that the electricity supply is switched off before installing or servicing the product.
- 2, The company does not accept responsibility for any consequences resulting from unauthorized modification of the product.
- 3, MC613V D RC should be connected to a stable power supply of 120/277Vac/347Vac, 50Hz/60Hz.
- 4, Microwaves cannot pass through metal or brick walls if thicker than 20cm. They will pass through thinner walls but there will be some attenuation.
- 5, Installation inside a glass or plastic housing will result in a reduction of detection sensitivity. Expect a reduction of approximately 20% for every 3mm of thickness.
- 6, The sensor is designed for indoor use only. The raining or wind blowing may trigger the microwave motion sensor even if without human motion when outdoor use.
- 7, Detection area will be affected by speed of motion, height of installation and volume of moving object.
- 8, Daylight sensor was tested on sunny environment with no lampshade.

INSTALLATION & WIRING



MC613V D RC

The sensor has 5-position terminal blocks :
L (Phase) N (Neutral) L' (Switched phase / control)
0-10V(+, -) (Connected to 0-10V interface)

The sensor is designed for installation at 8.2ft~26.2ft
/2.5-8m in height.

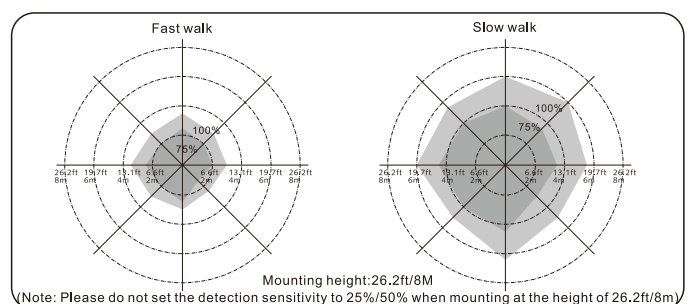
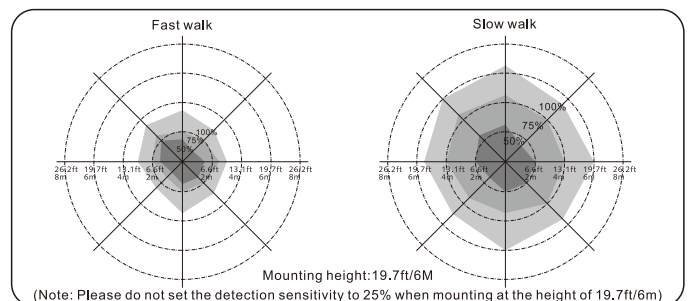
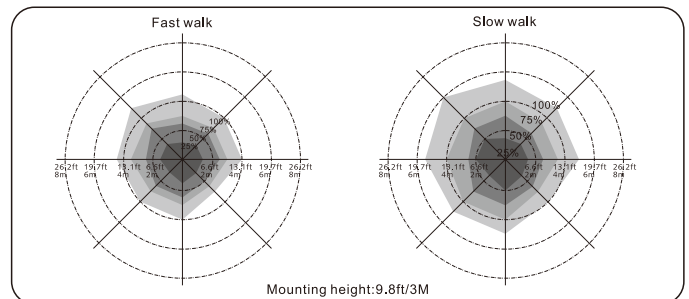
FEATURES

- Sensor parameters can be conveniently set by a remote controller.
- The mini motion detector is separately from sensor power part, it will be easier to fix motion detector on the surface of tri-proof light and hidden the power part behind it.
- This sensor is particularly designed for the lights which have limited space, for examples, LED linear, batten, and LED tri-proof lights.
- Using pluggable design between motion detector and power part, easy to reinstall or maintain.
- 0-10V interface can match up with Merrytek stand-alone daylight harvesting sensor MS01.

SPECIFICATIONS

Operating voltage	120/277/347Vac
Rated Load	120Vac 50/60Hz 3.6A Electronic/magnetic ballast; 277Vac 50/60Hz 3.4A Electronic/magnetic ballast; 347Vac 50/60Hz 3.3A Electronic/magnetic ballast
HF system	5.8GHz±75MHz, ISM wave band
Transmitting power	<0.5mW
Power consumption	≤1.0W(stand-by)
Detection Range(Diameter)	39.4ft/12m Max.
Max. Mounting height	26.2ft/8m
Hold time	8S/30S/1min/5min/10min/15min/30min (Remote Control: 8S/1min/5min/15min/30min)
Stand-by Period	0S/1min/3min/5min/10min/30min/+∞ (Remote Control: 0S/1min/5min/30min/+∞)
Stand-by DIM Level	10%/20%/30%/40%(Remote Control: 10%/20%/30%/40%/50%)
Daylight sensor	5lux/15Lux/30Lux/50Lux/100lux/150lux/Disable (Remote Control: 5lux/15Lux/50Lux/150lux/Disable)
Operating temperature	-35℃ ~70℃
IP rating	IP20

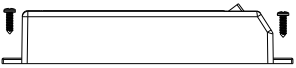
DETECTION PATTERN




MC613V D RC INSTALLATION

Main sensor installation

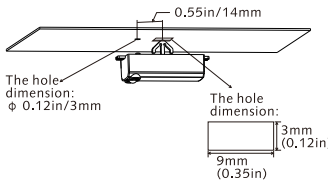
Install the sensor on the LED plate by using 2 screws



2X

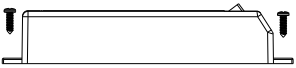
Detachable sensor installation method 1


Make two holes on the LED plate , push the sensor into the holes.



Main sensor installation

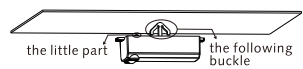
Install the sensor on the LED plate by using 2 screws




2X


Detachable sensor installation method 2

Step 1: Cut the following buckle and the little part off.

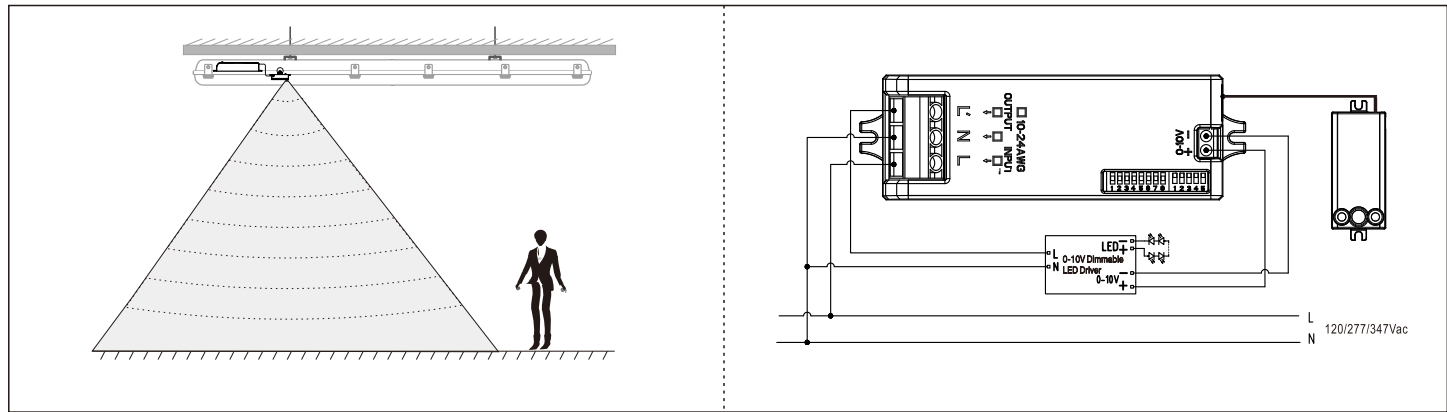


Step 2: Place the sensor towards to the floor and fix it on the LED plate by screws. The hole of the wire is 0.15in/3.7mm.



2X

WIRING SCHEME



SETTINGS

Detection area, hold time and daylight sensor can be set by using DIP switches on the sensor. Note that reducing the detection area will also reduce the sensitivity.

1, Detection area

- I: up to 100%
- II: up to 75%
- III: up to 50%
- IV: up to 25%

		1	2	
I	ON	ON	100%	
II	ON	-	75%	
III	-	ON	50%	
IV	-	-	25%	

2, Hold time

- Refers to the time period the lamp remains at 100% illumination after no motion is detected.
- I: 8s
 - II: 30s
 - III: 1min
 - IV: 5min
 - V: 10min
 - VI: 15min
 - VII: 30min

		3	4	5	
I	ON	ON	ON	8S	
II	ON	-	ON	30S	
III	-	ON	ON	1min	
IV	ON	-	-	5 min	
V	-	ON	-	10min	
VI	-	-	ON	15min	
VII	-	-	-	30min	

3, Stand-by period

Refers to the time period the lamp remains at a pre-setting dimming level before it completely switches off in the long absence of people.


- I: 0s
- II: 1min
- III: 3min
- IV: 5min
- V: 10min
- VI: 30min
- VII: +∞

		6	7	8	
I	ON	ON	ON	0s	
II	ON	-	ON	1min	
III	-	ON	ON	3min	
IV	ON	-	-	5min	
V	-	ON	-	10min	
VI	-	-	ON	30min	
VII	-	-	-	+∞	

* When set to "+∞" mode, the low light is maintained until motion is detected.



4,Stand-by dimming level

- This is the pre-setting dimming level you would like to have after the hold time in the long absence of people.
- I: 10%
 - II: 20%
 - III: 30%
 - IV: 40%

		1	2	
ON	I	ON	ON	10%
	II	ON	-	20%
	III	-	ON	30%
	IV	-	-	40%

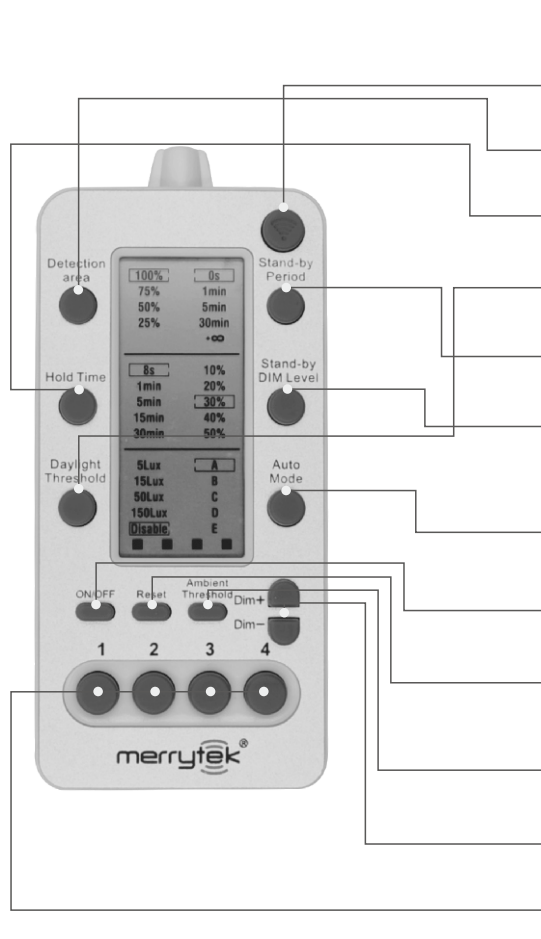
5,Daylight sensor

- The sensor can be set to only allow the lamp to illuminate below a defined ambient brightness threshold. The settings are as follows:
- I: 5lux, darkness operation only
 - II: 15lux, darkness operation only
 - III: 30lux, twilight operation
 - IV: 50lux, twilight operation
 - V: 100lux, twilight operation
 - VI: 150lux, twilight operation
 - VII: Disable

<div>ON</div> <div></div> <div></div>		3	4	5	6	
	I	ON	ON	ON	ON	5Lux
	II	-	ON	ON	ON	15Lux
	III	ON	-	ON	ON	30Lux
	IV	-	-	ON	ON	50Lux
	V	ON	ON	-	ON	100Lux
	VI	ON	ON	ON	-	150Lux
VII	-	-	-	-	Disable	

*When set to Disable, the daylight sensor will switch on the lamp when motion is detected regardless of ambient light levels.
*It should be set to Disable mode if the motion sensor is connected to stand-alone daylight sensors.

Remote Control Setting



Button	Name	Description										
	Transmit	Uploads the settings										
	Detection Area	25%/50%/75%/100%										
	Hold time	The timeout from 100% to dim 8S/1min/5min/15min/30min										
	Daylight Threshold	5Lux/15Lux/50Lux/150Lux/ Disable										
	Stand-by period	The timeout from dim to off 0S/1min/5min/30min/+∞										
	Stand-by DIM level	10%/20%/30%/40%/50%										
	Auto mode	A. Movement Motion detect 9.8ft~19.7ft/3-6m B. Presence detect 9.8ft~19.7ft/3-6m C. Presence detect with daylight harvesting 9.8ft~19.7ft/3-6m D. High mounting: 19.7ft~49.2ft/6-15m E. High mounting with daylight harvesting : 19.7ft~49.2ft/6-15m										
	ON-OFF	Permanent ON/OFF										
	Reset	Press "Reset" button for factory testing purpose only. <table border="1"> <thead> <tr> <th>Detection Area</th> <th>Hold Time</th> <th>Daylight sensor</th> <th>Stand-by period</th> <th>Stand-by dim level</th> </tr> </thead> <tbody> <tr> <td>100%</td> <td>1min</td> <td>Disable</td> <td>3min</td> <td>20%</td> </tr> </tbody> </table>	Detection Area	Hold Time	Daylight sensor	Stand-by period	Stand-by dim level	100%	1min	Disable	3min	20%
Detection Area	Hold Time	Daylight sensor	Stand-by period	Stand-by dim level								
100%	1min	Disable	3min	20%								
	Ambient Threshold	Press this button to set the current suitable daylight threshold.										
	Dim+ / Dim -	Adjust the light level when motion detected.										
	*1/2/3/4	4 optional quick settings										

* Note 1: MH02 is a common used remote control for a various of sensor, MC613V D RC only works under Mode A.
 * Note 2: 1/2/3/4: These 4 optional quick setting are factory default settings, see table chart 1 below.

1. Factory default settings:
 According to the default settings, short press 1/2/3/4, then press to transmit.
 2. Modification:
 Short press 1/2/3/4 number key, select your own sensor settings such as "Detection Range / Hold Time / Daylight Sensor / Stand-by Period / Stand-by Dimming Level", then press to transmit.
 3. Save the modification:
 After you have set the customized parameters, long press the numeric keys 1/2/3/4 number key for more than 3s and will save the current settings to the 1/2/3/4 number key.

Quick Setting	Detection Area	Hold Time	Daylight sensor	Stand-by period	Stand-by dim level
1	100%	8S	Disable	0S	10%
2	100%	8S	5Lux	1min	10%
3	100%	1min	15Lux	1min	10%
4	100%	5min	50Lux	30min	10%

(Table chart 1: 1/2/3/4 Quick Setting for MC613V D RC)

As the control angle of the Infrared Remote Control is fixed (30°), if the sensors are installed too close to each other, the settings of both sensors will be configured. Please refer to the below chart for the distance of the installation of each sensor:

Mounting height	Distance between each sensor
26.2ft/8m	14ft/4.28m
19.7ft/6m	10.5ft/3.2m
9.8ft/3m	5.2ft/1.6m
8.2ft/2.5m	4.3ft/1.32m

FAQ

Question	Cause	Remedy
The load will not illuminate	Incorrect daylight sensor setting selected.	Adjust setting.
	Load has failed.	Replace load.
	Power is switched off.	Switch on.
The load is permanently illuminated.	Continuous movement in the detection area.	Check detection area setting.
	The lamp (containing sensor) is installed in an area too close to reflective surfaces, i.e. metal, glass or concrete walls.	1. Make sure installation area suitable with at least 30cm 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 0.5-3m/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.	Change the battery.
	The remote control is not aligned with sensor.	Change the remote angle.

