

# MC054V RC



## MICROWAVE MOTION SENSOR USER'S MANUAL Model No.: MC054V RC

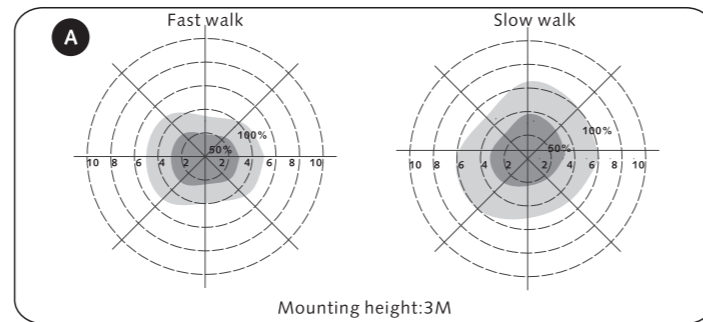


EN  
Instruction

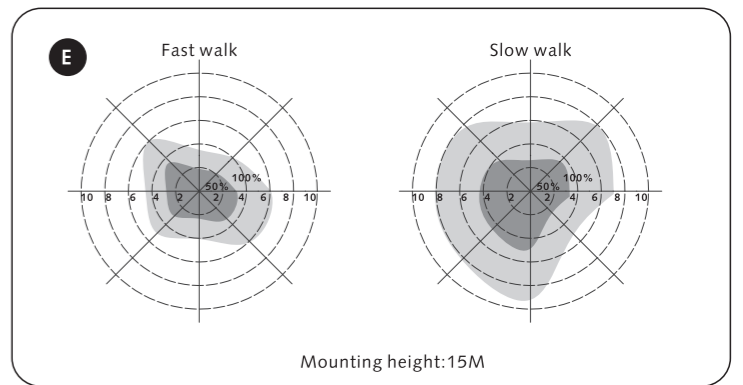
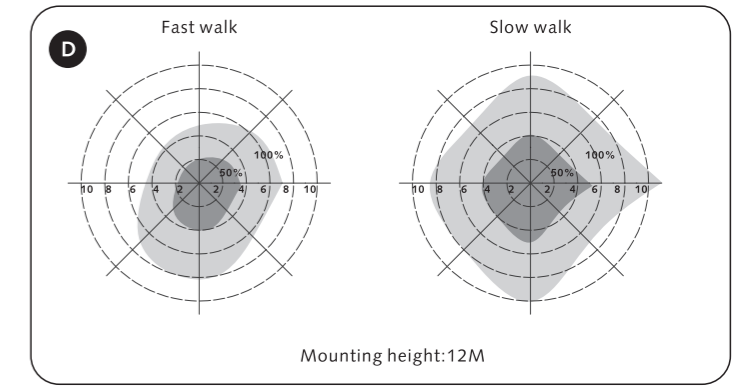
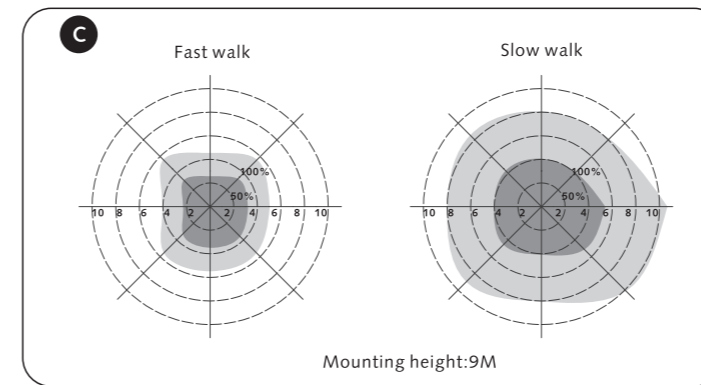
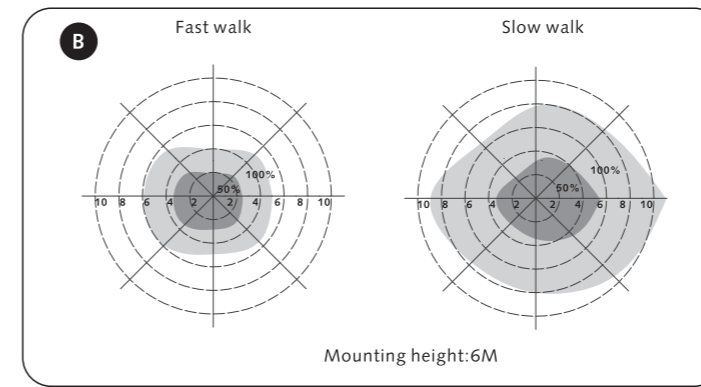
### GENERAL GUIDELINES FOR INSTALLATION

1. Please read the entire instruction manual before using the product and then save it for future reference. We reserve the right for any errors in text or images and any necessary changes made to technical data.
2. The sensor should be installed by a qualified electrician. And ensure that the electricity supply is switched off before installing or servicing the product.
3. The sensor should not be modified in any way. Any modifications made to this product will immediately invalidate any warranties issued.
4. The company does not accept responsibility for any consequences resulting from unauthorized modification of the product.
5. Microwaves cannot pass through metal or brick walls if thicker than 20cm. They will pass through thinner walls but there will be some attenuation.
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. The sensor should be connected to a stable power supply of 120-277Vac, 50/ 60Hz.
8. Detection area will be affected by speed of motion, height of installation and volume of moving object.
9. Daylight sensor was tested on sunny environment with no lampshade.
10. CAUTION - Risk of Electric Shock - More than one disconnect switch may be required to de-energize the equipment before servicing.

### DETECTION PATTERN



### DETECTION PATTERN



MI170224

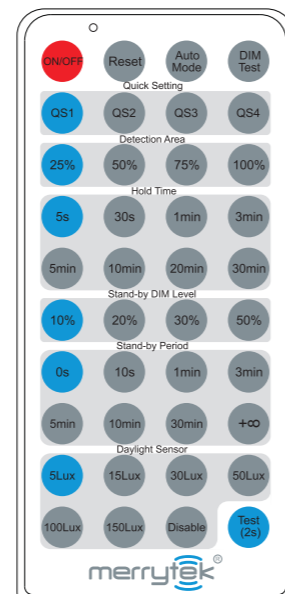
### FEATURE

- Sensor parameters can be conveniently set by a remote control.
- Mounting height up to 15m max. , suitable for warehouse use.
- Water proof sensor with IP65 rating.
- Automatic dimming when used in combination with 1-10V dimmable control gears.
- Built-in adjustable daylight sensor.
- 1-10V interface can match up with Merrytek stand-alone daylight sensor MS01 and achieve daylight harvesting.
- Optional mounting brackets for different application.

### SPECIFICATIONS

Input voltage	120/277Vac 50/60Hz
Rated load	120Vac 50/60Hz 4A electronic/magnetic ballast 277Vac 50/60Hz 3A electronic/magnetic ballast
Detection area	8m Max.(radius) adjustable
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	3-15m
Detection angle	150°(Wall installation), 360°(Ceiling installation)
Motion detection	0.5-3m/s
Operating temperature	-35°C~70°C
IP rating	IP20

### SETTINGS (REMOTE CONTROL MH01)

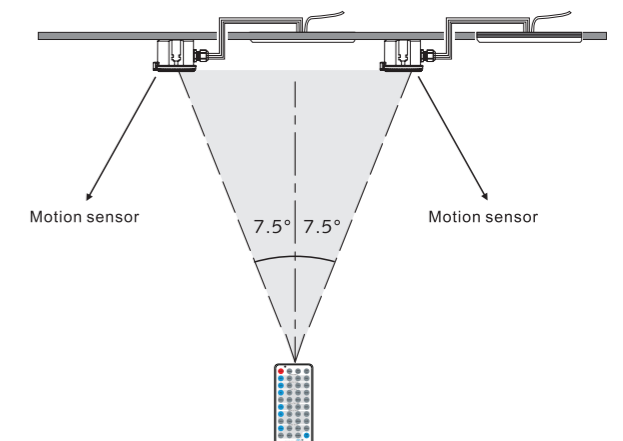


The green work light of microwave sensor will flash 3 times if set successfully by remote control.

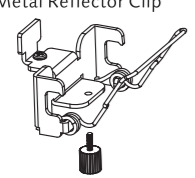
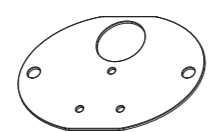


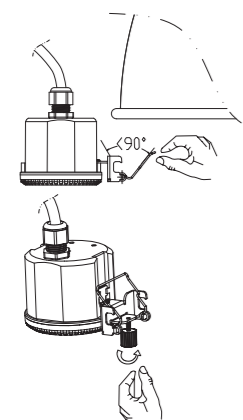
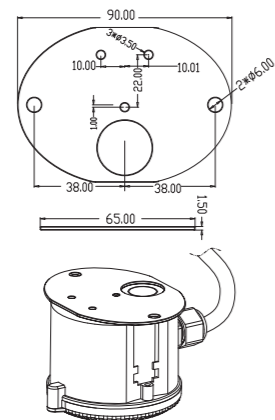
Button	Remarks																														
ON/OFF	Press the "ON/OFF" button, the light goes to constant on or constant off mode, sensor is disabled. Press "Reset" or "Auto Mode" button to quit from this mode.																														
Reset	Press "Reset" button, all parameters are same as setting of DIP switch.																														
Auto Mode	Press "Auto Mode" button, the sensor starts to work and all parameter setting will be remained the same as the previous status before the light was switched on/off.																														
DIM Test	Press "DIM Test" button to test dimming function. Sensor will dim automatically and return to normal work mode.																														
Test (2s)	The button "Test(2s)" is for factory testing purpose only. The sensor will go to test mode, Detection sensitivity: 100% Hold time: 2sec stand-by dim level:10% Stand-by period: 0s Daylight sensor: Disable Test mode can be quit by pressing any button.																														
QS1, QS2, QS3, QS4	<table border="1"> <thead> <tr> <th>scene Options</th> <th>Detection Area</th> <th>Hold Time</th> <th>Stand-by period</th> <th>Stand-by dim level</th> <th>Daylight Sensor</th> </tr> </thead> <tbody> <tr> <td>QS1</td> <td>100%</td> <td>30s</td> <td>1min</td> <td>10%</td> <td>5Lux</td> </tr> <tr> <td>QS2</td> <td>100%</td> <td>1min</td> <td>3min</td> <td>10%</td> <td>10Lux</td> </tr> <tr> <td>QS3</td> <td>100%</td> <td>5min</td> <td>10min</td> <td>10%</td> <td>30Lux</td> </tr> <tr> <td>QS4</td> <td>100%</td> <td>10min</td> <td>30min</td> <td>10%</td> <td>Disable</td> </tr> </tbody> </table> <p>Note: Detection area / Hold time / Stand-by period / Stand-by dim level / Daylight sensor can be adjust by pressing corresponding button. The latest setting stays in validity.</p>	scene Options	Detection Area	Hold Time	Stand-by period	Stand-by dim level	Daylight Sensor	QS1	100%	30s	1min	10%	5Lux	QS2	100%	1min	3min	10%	10Lux	QS3	100%	5min	10min	10%	30Lux	QS4	100%	10min	30min	10%	Disable
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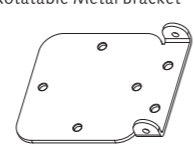
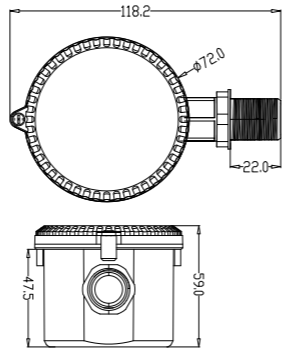

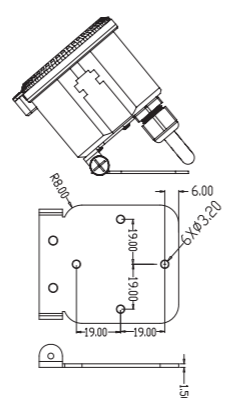
As the control angle of the Infrared Remote Control is fixed (15°), if sensors are installed too close to each other, settings of both sensors will be configured. Please refer to the below chart for the distance of the installation of the sensor:

Mounting height	Distance between sensors
15m	4m
12m	3.4m
9m	2.4m
6m	1.6m
3m	0.8m

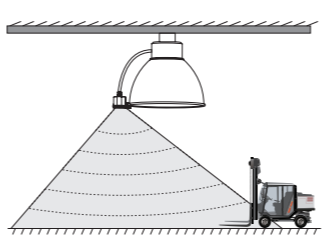
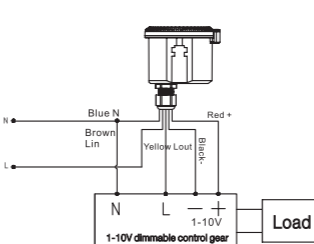
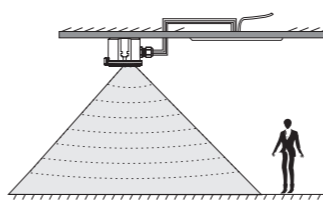
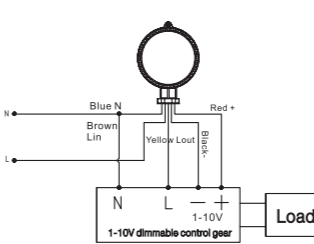
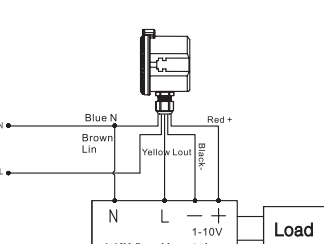


## INSTALLATION

MC054V RC A		MC054V RC B	
Metal Reflector Clip 		Oval Surface Mounted Bracket 	
 8X10+M3.0X8mm Screw	1X	 M4.0X25mm Screw	2X
			

MC054V RC C		MC054V RC D	
Rotatable Metal Bracket 			
 M3.0X8mm Screw	4X		
			

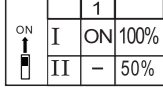
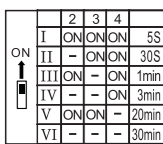
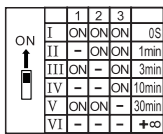
## WIRING

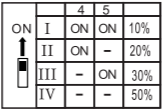
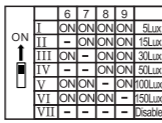
	
<b>MC054V RC A</b>	<b>MC054V RC C</b>
Not allowed to install on the ceiling 	
<b>MC054V RC B</b>	

NOTE: Lord bushing of the torque is 2.5NM, Torque of nut is 2.5NM.

## SETTINGS (DIP SWITCH)

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

	<table border="1"> <thead> <tr> <th>1</th> </tr> </thead> <tbody> <tr> <td>I ON 100%</td> </tr> <tr> <td>II - 50%</td> </tr> </tbody> </table>	1	I ON 100%	II - 50%	<b>Detection area</b> I: up to 100% II: up to 50%						
1											
I ON 100%											
II - 50%											
	<table border="1"> <thead> <tr> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>I ON ON ON 5S</td> </tr> <tr> <td>II - ON ON 30S</td> </tr> <tr> <td>III ON - ON 1min</td> </tr> <tr> <td>IV - - ON 3min</td> </tr> <tr> <td>V ON ON - 20min</td> </tr> <tr> <td>VI - - - 30min</td> </tr> </tbody> </table>	2	3	4	I ON ON ON 5S	II - ON ON 30S	III ON - ON 1min	IV - - ON 3min	V ON ON - 20min	VI - - - 30min	<b>Hold time</b> Refers to the time period the lamp remains at 100% illumination after no motion detected. I: 5s II: 30s III: 1min IV: 3min V: 20min VI: 30min
2	3	4									
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1	2	3									
I ON ON ON 0S											
II - ON ON 1min											
III ON - ON 3min											
IV - - ON 10min											
V ON ON - 30min											
VI - - - +∞											

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4	5												
I ON ON 10%													
II ON - 20%													
III - ON 30%													
IV - - 50%													
	<table border="1"> <thead> <tr> <th>6</th> <th>7</th> <th>8</th> <th>9</th> </tr> </thead> <tbody> <tr> <td>I ON ON ON ON 5lux</td> </tr> <tr> <td>II - ON ON ON 15lux</td> </tr> <tr> <td>III ON - ON ON 30lux</td> </tr> <tr> <td>IV - - ON ON 50lux</td> </tr> <tr> <td>V ON ON - 100lux</td> </tr> <tr> <td>VI ON ON - 150lux</td> </tr> <tr> <td>VII - - - 300lux</td> </tr> </tbody> </table>	6	7	8	9	I ON ON ON ON 5lux	II - ON ON ON 15lux	III ON - ON ON 30lux	IV - - ON ON 50lux	V ON ON - 100lux	VI ON ON - 150lux	VII - - - 300lux	<b>Daylight sensor</b> 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* *When set to Disable Mode, the sensor will switch on the lamp when motion is detected regardless of ambient light levels.
6	7	8	9										
I ON ON ON ON 5lux													
II - ON ON ON 15lux													
III ON - ON ON 30lux													
IV - - ON ON 50lux													
V ON ON - 100lux													
VI ON ON - 150lux													
VII - - - 300lux													

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.

## 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

## 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 Canada licence-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 ariel est conforme aux CNR d'Industrie Canada licables aux ariels radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'areil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Shenzhen Merrytek Technology Co.,Ltd

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