

# MICROWAVE MOTION SENSOR INSTALLATION INSTRUCTIONS

To prevent death, injury or damage to property, this product must be installed in accordance to National Electrical Code (NFPA70) in the US or Canadian Electrical Code (CSA 22.1) in Canada.

Risk of fire or electric shock. The electrical rating of these products are 120-277 Vac, the installer must determine whether they have 120-277 V at the luminaire before installation.

Risk of fire or electric shock. Motion Sensor installation requires knowledge of luminaires electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.

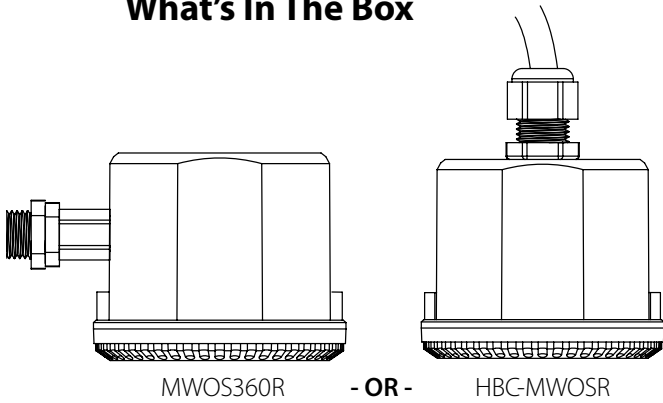
To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.

Disconnect power before installing the product or servicing it.

MIN. 90°C SUPPLY CONDUCTORS



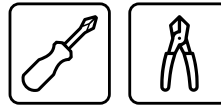
## What's In The Box



(1) Microwave motion sensor

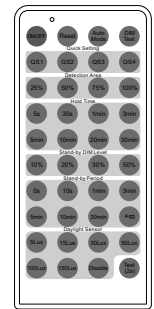
## Tools Needed

This microwave motion sensor requires very few tools for installation. A **screwdriver** and a pair of **wirecutters** will help to install the motion sensor.

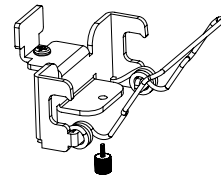


## Accessories

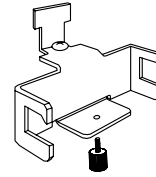
MWOS-REMOTE (Sold Separately)



## Mounting Clips Options



Standard w/HBC-MWOSR



HBC-10-MSBRACKET  
(Sold separately)

## SENSOR SETTINGS

ON		1	
I	ON	100%	
II	-	50%	

- A DETECTION AREA**  
Modifies the detection area of the sensor.

ON	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**  
Modifies the time the fixture remains at 100% illumination after no motion is detected.

ON		1	2	3	
I	ON	ON	ON	ON	0S
II	-	ON	ON	-	1min
III	ON	-	ON	-	3min
IV	-	-	-	ON	10min
V	ON	ON	-	-	30min
VI	-	-	-	-	+∞

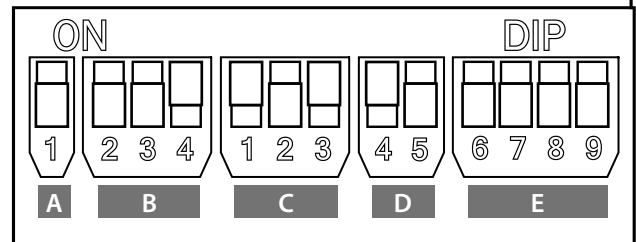
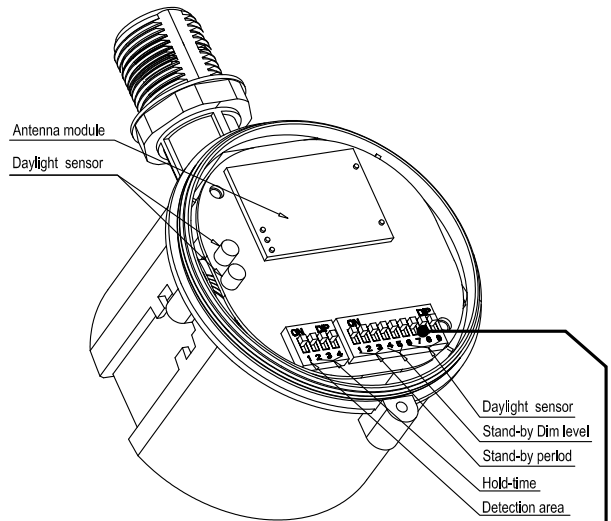
- C STAND-BY PERIOD**  
Modifies the time period the fixture remains at the standby dimming level (see below) before it completely switches off. When set to infinity mode the dimmed level is maintained until motion is detected.

ON		4	5	
I	ON	ON	-	10%
II	ON	-	-	20%
III	-	ON	-	30%
IV	-	-	-	50%

- D STAND-BY DIMMING LEVEL**  
Modifies sets the light level of the fixture while in stand by mode.

ON		6	7	8	9	
I	ON	ON	ON	ON	ON	5Lux
II	-	ON	ON	ON	ON	15Lux
III	ON	-	ON	ON	ON	30Lux
IV	-	-	ON	ON	ON	50Lux
V	ON	ON	-	ON	ON	100Lux
VI	ON	ON	ON	-	ON	150Lux
VII	-	-	-	-	-	Disable

- E DAYLIGHT SENSOR**  
Modifies the ambient light level sensing below which the fixture will not switch on. When set to disable mode the daylight sensor will switch on the fixture when motion is detected regardless of ambient light level.  
**Note: The daylight sensor is active only when the luminaire is completely off.**



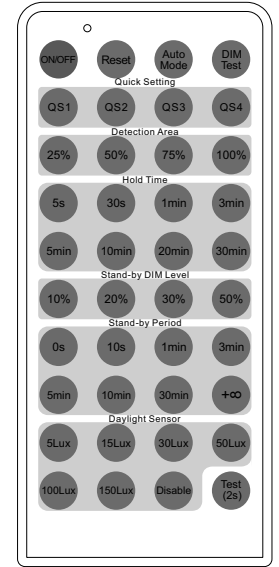
### Default DIP Switch Settings \*Shown Above\*

Unless the customer specifies a different setting the microwave sensors will ship from NICOR as shown below:

- Detection area will be set at 50% (12.5 ft. radius)
- Hold time will be set at 3 minutes
- Stand-by period will be set to 3 minutes
- Stand-by dimming level will be set to 20% dim
- Daylight sensing will be set to disabled mode.

# SENSOR SETTINGS

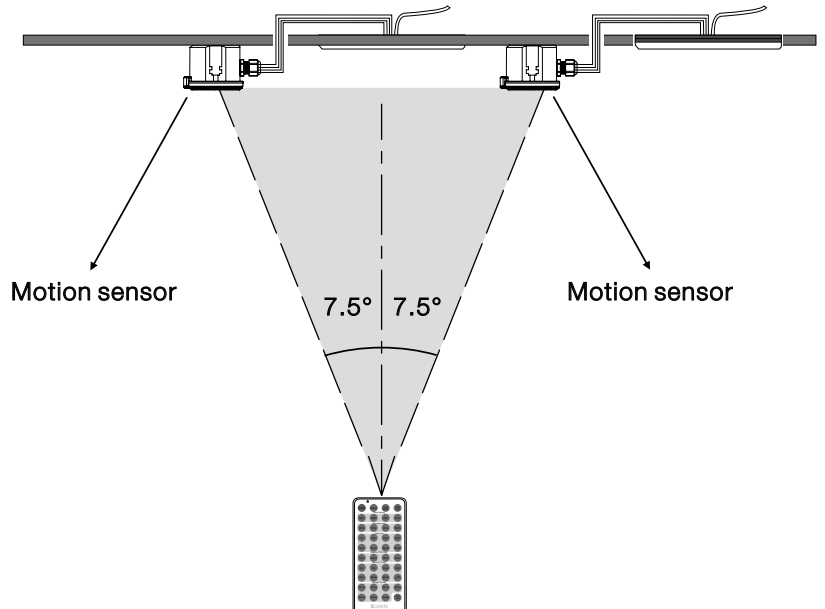
BUTTON	DESCRIPTION																														
	Press the "ON/OFF" button to disable sensor and power on/off fixture. Press "Reset" or "Auto Mode" button to reenale sensor settings.																														
	Press "Reset" button to default back to DIP switch settings.																														
	Press "Auto Mode" button to return to re-enable sensor settings.																														
	Press "DIM Test" button to test the dimming function. The sensor will dim the fixture to the set dim level, then returns to normal level.																														
	The button "Test (2s)" is for factory testing purpose only. Exit test mode by pressing any button. Detection sensitivity: 100% Hold Time: 2sec Stand-by dim Level: 10% Stand-by Period: 0s Daylight Sensor: Disable																														
	<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>30 s</td> <td>1 min</td> <td>10%</td> <td>5 Lux</td> </tr> <tr> <td>QS2</td> <td>100%</td> <td>1 min</td> <td>3 min</td> <td>10%</td> <td>10 Lux</td> </tr> <tr> <td>QS3</td> <td>100%</td> <td>5 min</td> <td>10 min</td> <td>10%</td> <td>30 Lux</td> </tr> <tr> <td>QS4</td> <td>100%</td> <td>30 min</td> <td>30 min</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 adjusted by pressing the corresponding button. The last setting stays active</p>	Scene Options	Detection Area	Hold Time	Stand-by Period	Stand-by dim Level	Daylight Sensor	QS1	100%	30 s	1 min	10%	5 Lux	QS2	100%	1 min	3 min	10%	10 Lux	QS3	100%	5 min	10 min	10%	30 Lux	QS4	100%	30 min	30 min	10%	Disable
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QS4	100%	30 min	30 min	10%	Disable																										



The Infrared Remote Control has an angle of 15°, if the sensors are installed too close to each other the remote might configure both sensors. See spacing table for minimum spacing for individual sensor command.

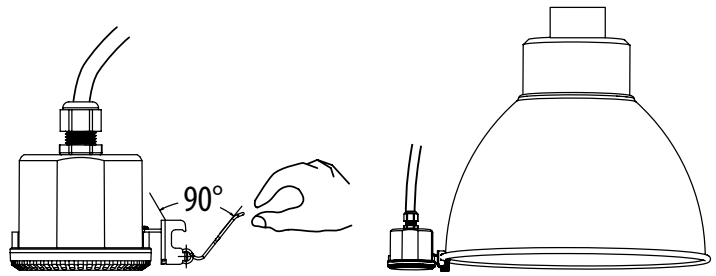
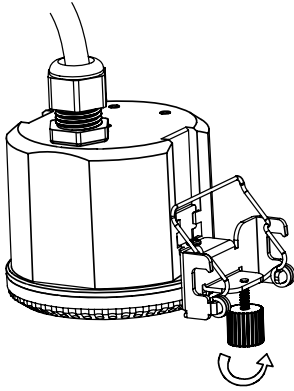
Spacing Table

MOUNTING HEIGHT	DISTANCE BETWEEN SENSORS
49.2ft (15m)	13.1ft (4m)
39.4ft (12m)	11.2ft (3.4m)
29.5ft (9m)	7.9ft (2.4m)
19.7ft (6m)	5.2ft (1.6m)
9.8ft (3m)	2.6ft (0.8m)



## MOUNTING CLIP W/ SPRING

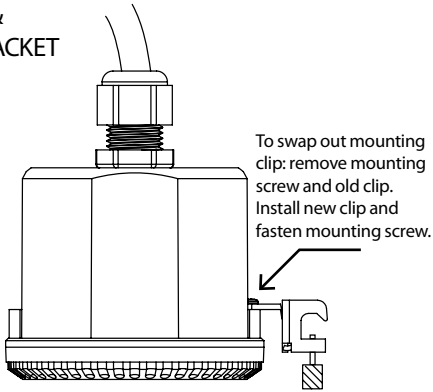
HBC-MWOSR



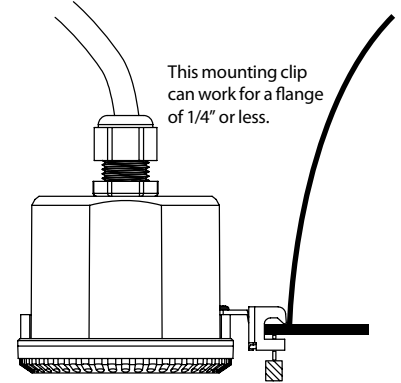
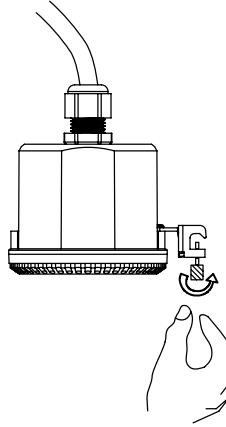
Use the spring clip to mount the sensor onto the fixture, then tighten the screw to ensure the sensor is secure

## MOUNTING CLIP

HBC-MWOSR &  
HBC-10-MSBRACKET



To swap out mounting clip: remove mounting screw and old clip. Install new clip and fasten mounting screw.

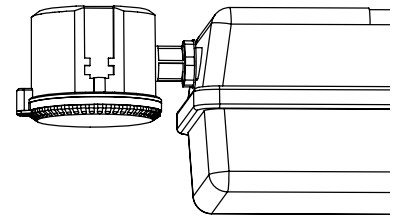
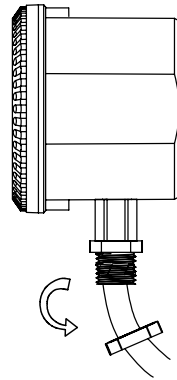
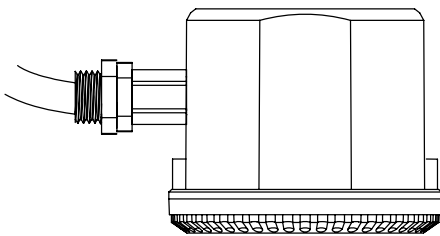


This mounting clip can work for a flange of 1/4" or less.

Place the mounting clip over the fixture and tighten the screw to secure the sensor to the fixture

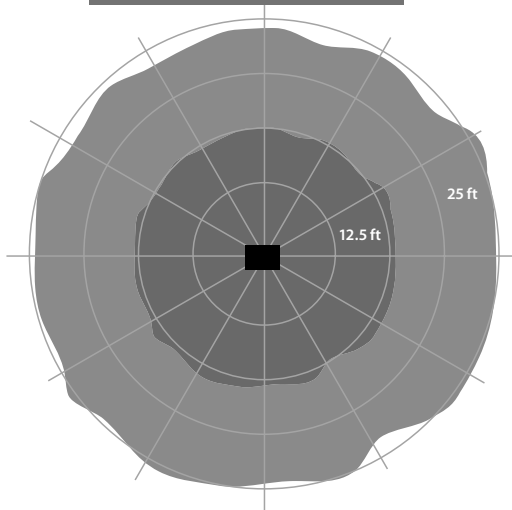
## FIXTURE KNOCKOUT MOUNT

MWOS360R

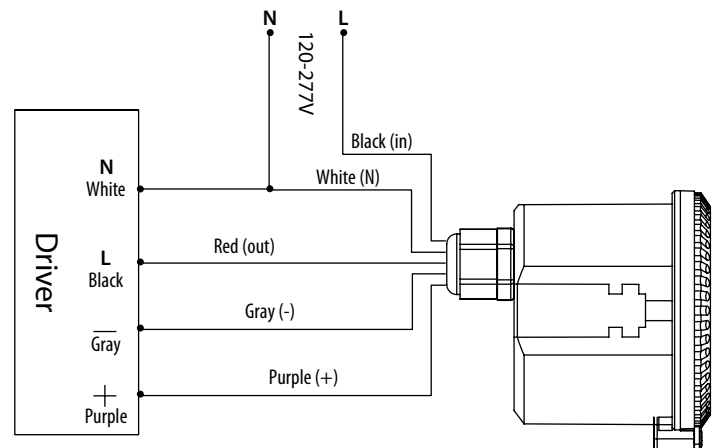


Remove the nut from the sensor and place the connector into the fixture knockout. Tighten the nut to secure the sensor to the fixture.

## DETECTION AREA



## WIRING DIAGRAM



## TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
The fixture will not illuminate despite movement.	Incorrect daylight sensor setting selected.	Adjust daylight setting.
	Power is switched off.	Switch power on.
	Object is moving slower than 1 mph (1.6 km/h) or faster than 6.5 mph (10.5 km/h).	Increase or decrease movement speed.
	Detection radius is too small.	Check detection area setting.
	Fixture has failed.	Replace the fixture.
The fixture will not switch off.	Continuous movement in the detection area.	Check detection area setting and hold time settings.
	The fixture with sensor is installed too close to reflective surfaces, i.e. metal, glass, or concrete walls.	Make sure installation area is suitable with at least 12 inches (30 cm) of space between fixture with sensor and surrounding reflective surfaces.
		Reduce sensitivity of the detection area.
The remote control is not working.	The battery on the remote control has died.	Change the battery.
	The remote control is not lined up with the sensor.	Aim the remote control directly at the sensor.

**Thank You**  
For Your Purchase!

WE WOULD LIKE TO HEAR FROM YOU



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