

SAVE THESE INSTRUCTIONS - READ ALL INSTRUCTIONS CAREFULLY

A WARNING

PLEASE READ ALL INSTRUCTIONS BEFORE ATTEMPTING INSTALLATION.

- To reduce risk of death, personal injury or property damage from fire, electric shock, falling parts, cuts / abrasions, and other hazards read all warnings and instructions included with and on the fixture box and all fixture labels.
- Before installing, servicing, or performing routine maintenance upon this equipment, follow these general precautions.
- Commercial installation, service and maintenance of luminaires should be performed by a qualified licensed electrician.
- For the installation: If you are unsure about the installation or maintenance of the luminaires, consult a qualified licensed electrician and check your local electrical code.
- To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.

INSTALLATION INSTRUCTION

SURFACE MOUNTING

1. Securely mount the Mounting brackets directly to a sturdy surface using the correct mounting hardware through the Drill Locations, (2 places minimum). See Fig.1.

2. Lock the tabs into the opening, then push the cover to the right and left respectively. See Fig.1a.

3. Pull supply wires through the outlet, use correct UL rated wire connectors as required by the National Electric Code to make electrical splices to fixture leads. See Fig.1b.

4. Then clip the brackets to the slots of fixture. See Fig.1c.

WARNING: To prevent wiring damage or abrasion, do not expose wiring to sharp objects.

CAN ICES-005 (B) NMB-005 (B)

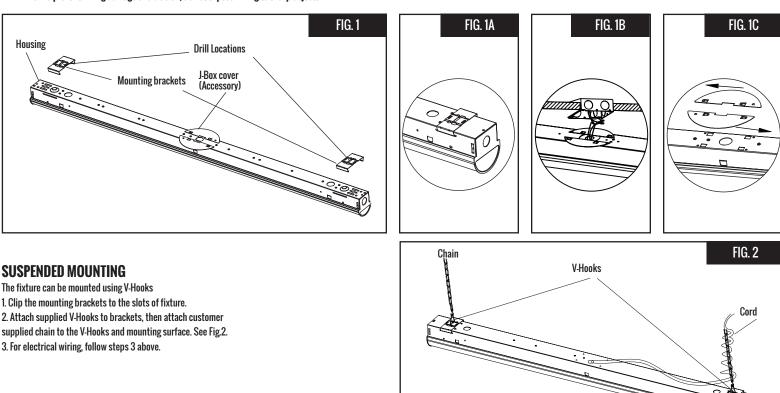


WARNING

- Turn off electrical power at fuse or circuit breaker box before wiring fixture to the power supply.
- Turn off the power when you perform any maintenance.
- Verify that supply voltage is correct by comparing it with the luminaire label information.
- All wiring connections should be capped with UL approved wire connectors.

ACAUTION

- Avoid direct eye exposure to the light source while it is on.
- Account for small parts and destroy packing material, as these may be hazardous to children.
- Risk of burn. Disconnect power and allow fixture to cool before changing bulb or handing fixture.





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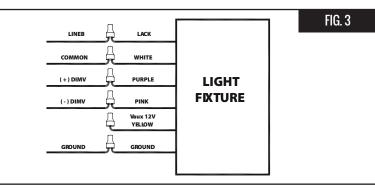
DIMMABLE WIRING

Universal voltage driver permits operation at 120V thru 277V or 347V, 50 or 60Hz. For 0.10V Dimming, follow the wiring directions in Fig. 3.

- 1. Connect the black fixture lead to the LINE supply lead.
- 2. Connect the white fixture lead to the COMMON supply lead.
- 3. Connect the GROUND wire from fixture to supply ground.
- 4. Connect the purple fixture lead to the (V+) Dim lead.
- 5. Connect the pink fixture lead to the (V-) Dim lead.

6. Cap the yellow fixture lead, if present. Do NOT connect.

NOTE: Do not connect DIM V+ (purple) / DIM V- (pink) to line voltage or supply ground.



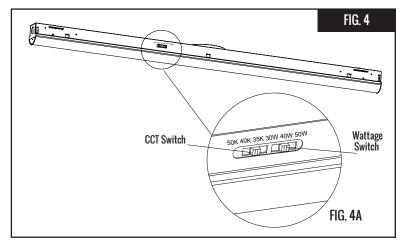
FIELD-ADJUSTABLE WATTAGE & CCT

The end users may adjust the colour temperature and lumen output respectively by two DIP switch buttons integrated into the driver. Each DIP switch is accomodated with 3 options (left, middle and right), corresponding to 3 colour temperatures and 3 powers respectively, which can perform the desired color temperature and lumen output combination.

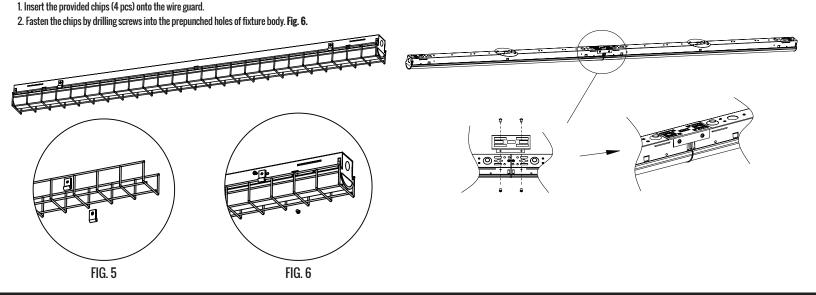
Factory Settings: 5000K, 50W

WIRE GUARDS

- 1. Dip switches are located onto the side of the fixture. (see Fig. 4)
- 2. Select a wattage and colour temperature by sliding switch left or right respectively to the desired value. (see Fig. 4A)



TANDEM MOUNTING





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MICROWAVE SENSOR INSTALLATION GUIDE

INSTALLATION PRECAUTIONS.

- 1. Microwave sensor can be installed in any lamp except the one with full metal shell.
- 2. The detected surface cannot be shielded by metal objects.
- 3. Make sure the microwave module is completely exposed outside.
- 4. The detection surface of the sensor module shall be installed facing the detection area.
- 5. Should be kept away from the driver to avoid interference generation and lamp flashing.
- 6. Wiring must be strictly in accordance with the wiring diagram to avoid short circuit.

USER NOTES.

- 1.Microwave can penetrate walls or glass thinner than 20mm and attenuate if thicker than 20mm. 2. The driver voltage shall be stable and float within 10%.
- Detection area will be affected by speed of motion, mounting height and movement volume.
- Conduct test on sunny days without the lampshade which will affect the tested lux value.
- S 3M distance is suggested when having a lot sensors in one same room.
- 6. If the sensor is applicated in the room with 5G WiFi router, 3M distance or above is needed.

	TECHNICAL INFROMATION	
Operating Voltage	10-15VDC	
Quick Connector	3 Pin Output for VCC, GND, 0-10V	
Switching Capacity	Max. Output Current <40mA	
Operating Current	<30mA	
Control Method	0-10V	
Microwave Frequency	5.8GHz±75MHz	
Microwave Power	<0.3mW	
Detection Angle	Side Wall <150°, Ceiling Mounted 360°	
Standby Dimming Level	10%/20%/30%/50%	
Microwave Power	5.8GHz±75MHz	
Mounting Height	2.5-4.5m / 8.2-14.76ft Ceiling Mounted	
Function Setting	DIP Switch / Remote HB5-RCS	
Detection Area	DIP Switch: 50%/100%, Remote: 5s/30s/1min/10min/20min/30min	
Hold Time	5s/30s/1 min/3 min/5 min/10 min/20 min/30 min	
Daylight Threshold	DIP Switch:0s/1min, Remote: 2Lux / 10Lux / 15Lux / 50Lux / 80Lux / 120Lux / Disable	
Standby Period	DIP Swicth: 0s/10s, Remote:0s/10s/30s/1min/5min/10min/30min/+	
Standby Dimming Level	DIP Swicth: 10%, Remote:10%/20%/30%/50%	
Operating Temperature	-35°C~+70°C	
IP Rating	IP20	

Factory Default Setting: Detection Area 100% / Hold Time 5s / Daylight Threshold Disable / Stand-by period Os/ Stand-by dimming level 10%. Deafault programming can be customized

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APPLICATION ENVIRONMENT.

- Suitable for indoor installation to avoid false triggering due to external factors such as rain, wind or tree swing.
 Shall not be installed in the place with all four metal shelters and small space (such as galvanized-iron roof).
- 3. Shall note be mounted installation, so as to avoid false trigger caused by the lamp itself shaking.
- 4. Shall not be installed next to large operating machines such as ventilator/ceiling fan to avoid false triggering caused by machine vibration.

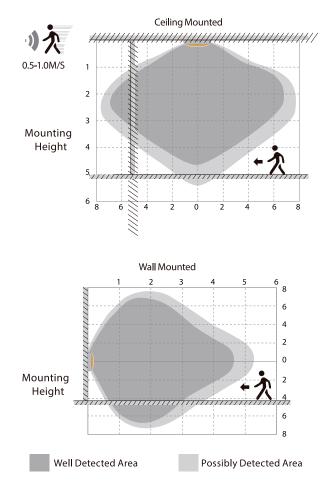
5. The sensor might be unwanted triggered in rooms that are small, or mostly filled with metal materials; please try to decrease sensitivity when it happens or contact us for support.



DETECTION RANGE

Highest mounting height is 4.5m

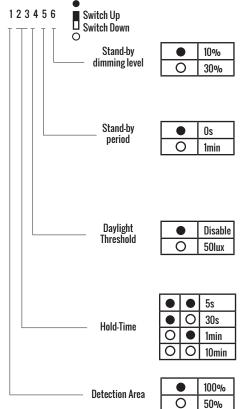
This figure indicates the maximum distance at the highest mounting height with 100% sensitivity





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DIP Switch Setting



The period of light keeping low output before it's completely switched off. When it's preset as" ∞ ", the light always keep at low output if no movement in the detection area and doesn't turn off.

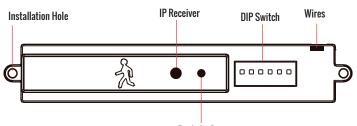
The definition of low output in the

standby period.

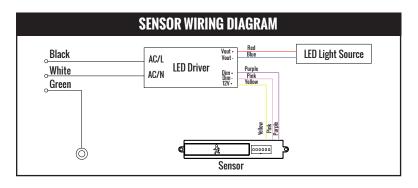
Definition of the ambient brightness: only when the ambient brightness is lower than the preset specific lux amount, the sensor will work: when it's preset as "disable", the sensor works everytime it detects motion regardless the ambient brightness.

The period of light keeping 100% brightness after moving objects leave the detection area.

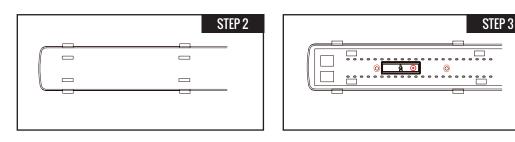
In this area, movement will be detected and able to trigger the sensor. 100% detection area is also known as the strong sensitvity.



Daylight Sensor



SENSOR INSTALLATION



Please ensure no any metal is shielding the sensor antenna.



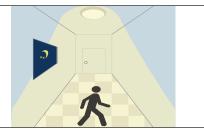
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AUTOMATICALLY ON / OFF FUNCTION:

Fixture is on when motion is detected and off when space is vacated.

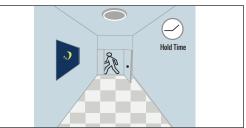


With sufficient Daylight, even when motion is detected, the fixture remains off.



With insufficient Daylight, when motion is detected, the fixture will turn on.

After the space is vacated, the fixture will remain at 100%



After the space is vacated, and the preset hold time has elapsed, the fixture will turn off.

NO DAYLIGHT FUNCTION

The Daylight Threshold is set to "Disable". The fixture will be on when motion is detected. When the space is vacated, the fixture will turn off after the standby period.



When motion is detected, the sensor will turn the fixture to 100% brightness.

Bi-LEVEL DIMMABLE / CORRIDOR FUNCTION

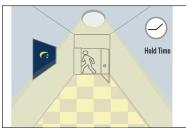


With sufficient Daylight. Even when motion is detected, the fixture remains off.



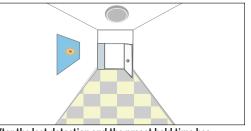
brightness for the hold time

With insufficient Daylight, when motion is detected, the fixture turns on.



Hold Time

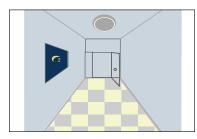
After there's no motion detected, the sensor keeps light ON 100% for the hold time.



After the last detection and the preset hold time has elapsed, the fixture turns off.



After hold time, sensor dims light to standy dimming level for standby period



After the standby period, the fixture will go off.



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REMOTE CONTROL APPLICATIONS

	BUTTON NAME	DESCRIPTION
Image: Series Image: Series	ON / OFF	 "ON/OFF" key only functions as a switch of the light. If this button is pressed to turn off the fixture before power is turned off, the fixture will remain off after power is turned on again.
	MW	A Microwave Sensor is installed. Do not activate this button.
	Scene	Press "Scene" button. Otherwise all setting will be default. Default settings are - 100% detection range / Hold Time 5S / no standby time / daylight threshold disabled.
	Start	Start - Press the button before choosing the parameters.
	Memory	Memory - Press the button after choosing all the parameters to save them
	Apply	Apply - Press the button to deliver the saved settings to the other sensors directly
	Hold Time 🕥	The period of light keeping 100% brightness after moving objects leave the detection area.
	Standby Period 🕥	The period of light keeping low output before it gets completely off. When it's preset as -, the light always keep at low output even no movement in the detection area.
	Power %	Press the button to change the output power from 0% to 100% it changes 5% every press.
	Test (2s)	The button "Test (2s)" is for testing purpose after comissioning. Pressing this button, the sensor goes to test mode (hold time is only 2s)
	▲	Increase or decrease the parameters.
	Daylight Threshold	Definition of the ambient brightness; only when the ambient brightness is lower than the preset specific lux amount, the sensor will work,: when it's preset as "disable", the sensor works everytime it detects motion regardless of the ambient lux level.
	Standby Dimming Level 🐨	The definition of low output during the standby period.
	Detection Range	The area in which movement will trigger the sensor, 100% detection area also means strong sensitivity

MEMORY AND APPLY MODE.

- 1. Press the On/Off Button to turn the fixture on or off.
- 2. To Reset the parameters, follow steps as below:
- Press ON to turn on the fixture if it is off.
- Press START at the fixture being set.
- Press the buttons of DETECTION RANGE, HOLD TIME, STANDBY DIMMING LEVEL, STANDBY PERIOD, and DAYLIGHT
 THRESHOLD one after the other in sequence. Press "+/-" to set Parameters.Press MEMORY to
- memorize the settings.
- NOTE: THE INTERVAL OF EACH PARAMETER SETTING SHALL BE CONTROLLED WITHIN 30 SECONDS
- 3. To program other fixtures in the array that will have the same program.
- Press ON to the second fixture.

• Press APPLY.

ISOLATED SETTING MODE.

1. Press the On/Off Button to turn the fixture on or off. Press SCENE - the remote will activate settings that were saved last or remain at factory settings.

- 2. To reset the parameters, follow the steps below:
- Press ON to turn the fixture on, if it was off to start.
- Press any button of SCENE, TEST , APPLY to begin the sensor detection mode.
- PRESS the buttons of Detection Range, Hold Time, Standby Dimming Level,
- Standby Period and Daylight Threshold one after the other in sequence.

NOTE:

- Setting will be saved automatically and remain until you press RESET again.
- Fixture will flicker when you are setting each parameter.
- The lcon will flash when setting the corresponding parameter.