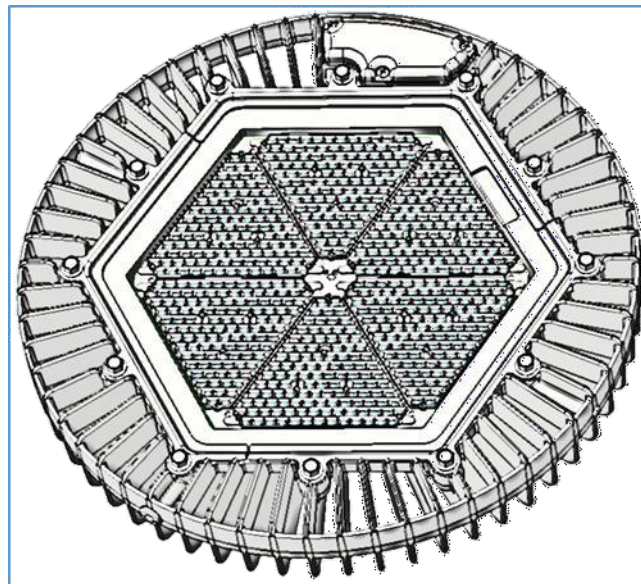
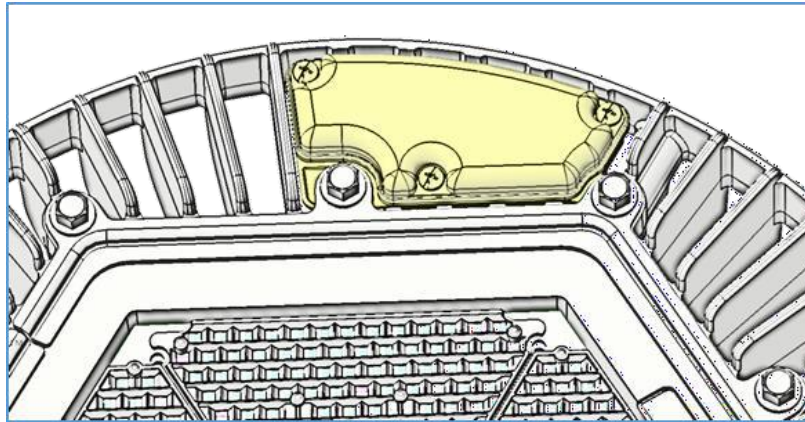


Combo Sensor for Vigilant High Bay (Microwave and Ambient Light Sensors) User Guide



These instructions contain safety information; read and follow them carefully.
Dialight is not responsible for injury or damage that may occur due to incorrect installation,
operation, or maintenance.



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READ AND FOLLOW ALL SAFETY INSTRUCTIONS

- Refer to operating temperature ratings of this device before installing.
- DO NOT mount near gas or electric heaters.
- Equipment should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommended by the manufacturer may cause unsafe conditions.
- DO NOT use this equipment for other than intended use.
- DO take pictures of the installation and mounting for future reference.
- Contact your local Sales representative or Dialight when necessary.
- The installation and maintenance must be carried out by authorized personnel.
- Repairs and installation must only be carried out by a qualified electrician.
- Only genuine or authorized Dialight replacement parts must be used when unforeseen repairs are required.
- Observe the national safety rules and regulations during installation.
- Observe product label or its manual for Electrical ratings.
- Mounting in extreme heat locations should be avoided. Failure to do so could void all warranties.
- No alterations are allowed without the written agreement from Dialight Corp. Alterations other than written in this manual will void all warranties.

SAVE THESE INSTRUCTIONS!



Introduction

This product allows you to set the light in different modes to utilize the ALS (Ambient Light Sensor) and Microwave Sensor in different ways to set the behavior of the light for energy saving.

This manual is for installation only of the Vigilant High Bay with the combo sensor device. Refer to each of the associated products for additional information.

NOTE: This manual does not cover mains wiring.

End users and installers are responsible for installing these fixtures in an appropriate and safe environment.

Technical Specifications

Certification	FCC part 15, Canada IC,CE,EN 55016-2-1, EN 55016-2-3, EN 55032, EN 61000-3-2, EN 61000-3-3, EN 61547
AC Power Input (Refer to Fitting manual for ratings)	100-277 VAC 50/60 Hz or 277-480 VAC 50/60 Hz
Operating Temperature For Indoor Use Only	Operating Temperature: -20° C to +65°C
Microwave Sensor	24 GHz

Operational Instructions

Power Up

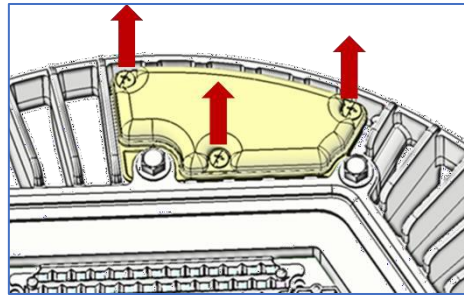
When the light is first turned on the light will remain on for 1 min – this is to ensure that the light itself is functioning, After that the light will turn off for 1 min – this is to ensure that the sensor itself is functioning.

After that, the light and sensors will be ready to trigger according to the selected behavior per the DIP switches.



Setting Up the Mode

- Remove the Sensor cover



- The Sensor board has (4) DIP switches (**DIM**, **DELAY**, **MODE**, and **LUX**) as shown below



- Dialight will have the DIP switches pre-set as shown

	3	2	1
OFF	•		•
ON		•	
	DIM		

	3	2	1
OFF			
ON	•	•	•
	DELAY		

	3	2	1
OFF	•	•	
ON			•
	MODE		

	3	2	1
OFF			
ON	•	•	•
	LUX		

DIM Switch

This switch will set the dim lighting level for **Modes A, C and T**; and will set the max lighting level for **Mode B**

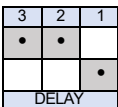
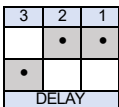
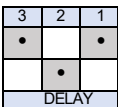
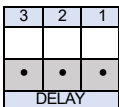
The following dim levels can be set:

10%	Switch #1 - 'ON'	OFF ON 	80%	Switch #3 - 'ON'	OFF ON
50%	Switch #2 - 'ON'	OFF ON 	100%	Switch #1,2,3 - 'ON'	OFF ON

If user puts 2 switches/undefined mode "ON" it will always go to 100%

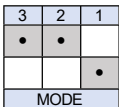
DELAY Switch

This switch will set the delay after a change in state

1 min	Switch #1 - 'ON'	OFF ON 	15 min	Switch #3 - 'ON'	OFF ON 
5 min	Switch #2 - 'ON'	OFF ON 	30 min	Switch #1,2,3 - 'ON'	OFF ON 

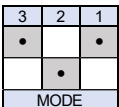
If user puts 2 switches/undefined mode 'ON' it will always go to 30min

MODE Switch

			<u>Description</u>
Mode A	Switch #1 - 'ON'	OFF ON 	Daylight Harvesting, Occupancy Sensing, and High/Low/OFF Dimming

Features: At dusk, turns **ON** with occupancy; Drops to Low Dim after vacancy, then turns **OFF** after delay; **OFF** at dawn

When the ambient lighting is below daylight control level and occupancy is detected, the sensor turns the loads **ON** at maximum level. Once no occupancy is detected and the time delay expires, the load will go to the level set with the Dim DIP switch. As long as the area remains unoccupied, the load stays at the dim level for one half the amount of the Time delay, and then turns **OFF**. Once ambient lighting rises to the daylight control level, the load will turn **OFF**.

			<u>Description</u>
Mode B	Switch #2 - 'ON'	OFF ON 	Daylight Harvesting and Occupancy Sensing, NO Dimming

Features: At dusk, turns **ON** with occupancy; High Dim Level Sets Maximum **ON** level; **OFF** at dawn

When the ambient lighting is below daylight control level and occupancy is detected, the load turns **ON** at the level set with the Dim DIP switch. Once no occupancy is detected and the time delay expires, the load will turn **OFF**. Once ambient lighting rises to the daylight control level, the load will turn **OFF**.

Mode C	Switch #3 – ‘ON’	OFF	<table><tr><td>3</td><td>2</td><td>1</td></tr><tr><td></td><td>•</td><td>•</td></tr><tr><td>•</td><td></td><td></td></tr><tr><td colspan="3">MODE</td></tr></table>	3	2	1		•	•	•			MODE			<u>Description</u>
		3	2	1												
	•	•														
•																
MODE																
		ON		Occupancy Sensing and High/Low/OFF Dimming, NO Daylight Harvesting												

Features: High/Low/Off Levels - Day or Night

There is no daylight control. Therefore, anytime occupancy is detected, the load turns **ON** at maximum level. Once no occupancy is detected and the time delay expires, the load will go to the level set with the Dim switch. As long as the area remains unoccupied, the load stays at the dim level for one half the amount of the Time delay, and then turns **OFF**.

Mode D	Switch #1 & #3 – ‘ON’	OFF ON <table><tr><td>3</td><td>2</td><td>1</td></tr><tr><td></td><td>•</td><td></td></tr><tr><td>•</td><td></td><td>•</td></tr><tr><td colspan="3">MODE</td></tr></table>	3	2	1		•		•		•	MODE			<u>Description</u> Occupancy Sensing and High/Med/Low Dimming, NO Daylight Harvesting
3	2	1													
	•														
•		•													
MODE															

Features: High/Low/Dimmed Low Levels

There is no daylight control. Therefore, anytime occupancy is detected, the load turns **ON** at maximum level. Once no occupancy is detected and the time delay expires, the load will go to the level set with the Dim switch. As long as the area remains unoccupied, the load stays at the dim level for one half the amount of the Time delay, and then the load will go to half the dimming level set with the Dim switch or 10% Dimming level whichever is greater.

Mode Z	All Switch – ‘OFF’	OFF ON <table><tr><td>3</td><td>2</td><td>1</td></tr><tr><td>•</td><td>•</td><td>•</td></tr><tr><td></td><td></td><td></td></tr><tr><td colspan="3">MODE</td></tr></table>	3	2	1	•	•	•				MODE			Description NO Daylight Harvesting, NO Occupancy Sensing, NO Dimming
3	2	1													
•	•	•													
MODE															

Features: Off Levels

There is no daylight control, occupancy and dimming. Hence, the load remains always **ON** at maximum level.

Mode T	Switch #1,2,3 – ‘ON’	OFF ON <table><tr><td>3</td><td>2</td><td>1</td></tr><tr><td></td><td></td><td></td></tr><tr><td>•</td><td>•</td><td>•</td></tr><tr><td colspan="3">MODE</td></tr></table>	3	2	1				•	•	•	MODE			<u>Description</u> Test Mode
3	2	1													
•	•	•													
MODE															

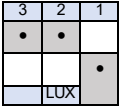
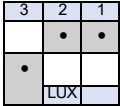
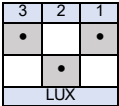
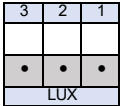
Features: Quick test for verification of function

This mode will run through a quick **5 second** interval testing to verify the function of the sensor. When occupancy is detected, the load will turn **ON** at 10V. Once no occupancy is detected, the load will go to the **DIM LEVEL** after **5 seconds** and will stay at the **DIM LEVEL** for **2.5 seconds**, before turning **OFF**. After **5 minutes**, the unit will revert to **Normal Mode C** operation.

If user puts 2 switches/undefined mode “on” it will always go to Mode C

ALS Level Switch (LUX)

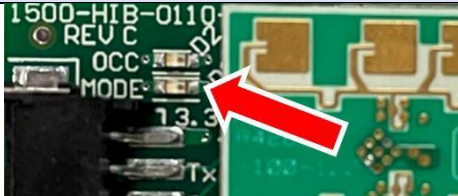
This switch will set the ambient light level where the light will be at turn on/Dim

50 lux	Switch #1 – ‘ON’	OFF ON 	200 lux	Switch #3 – ‘ON’	OFF ON 
100 lux	Switch #2 – ‘ON’	OFF ON 	Disable	Switch #1,2,3 – ‘ON’	OFF ON 

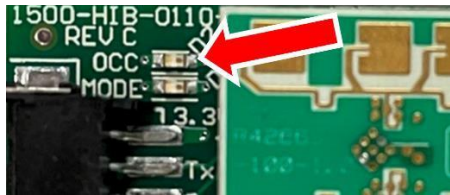
If user puts 2 switches/undefined mode “on” it will always go to 50 lux

Mode LED Behavior

Mode LED:

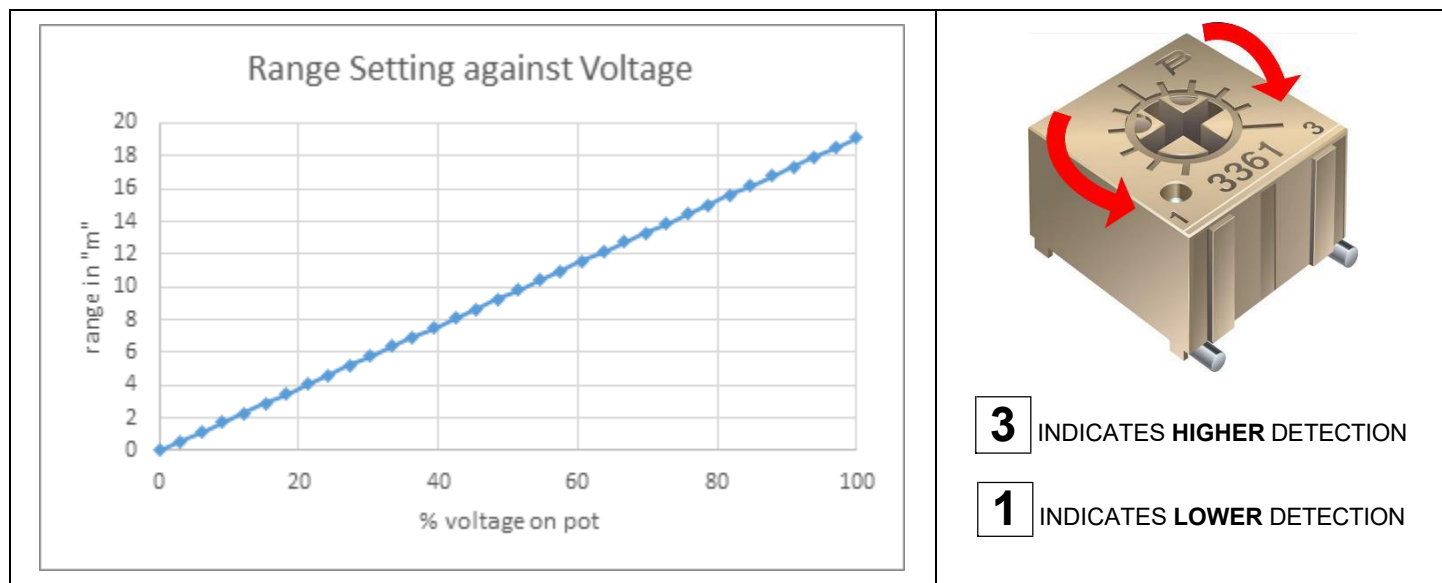
Modes		
Mode A	Blink every 1 second	
Mode B	Blink every 0.5 second	
Mode C	Blink every 0.25 second	
Mode D	Always ON	
Mode Z	Always OFF	
Mode T	Always OFF	

Occupancy LED:

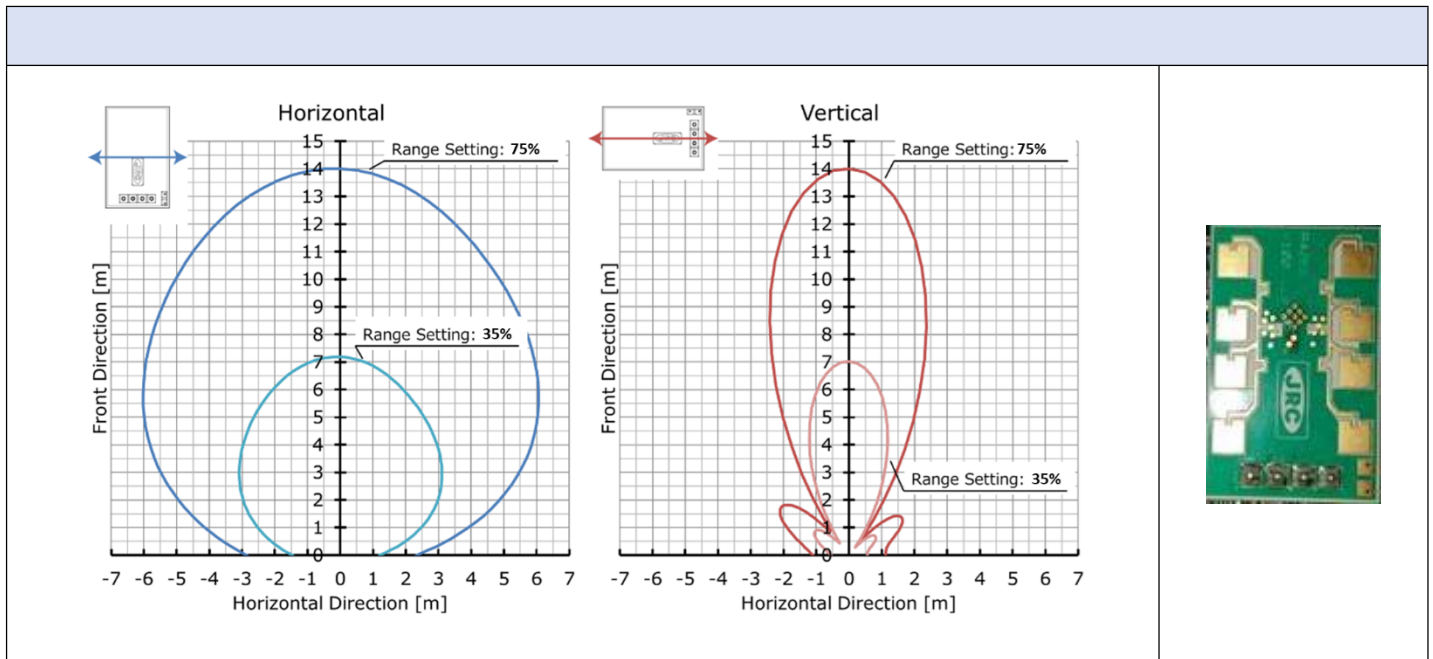
<u>Mode A</u>	<u>Will blink when occupancy is detected</u>	
<u>Mode B</u>	<u>Will blink when occupancy is detected</u>	
<u>Mode C</u>	<u>Will blink when occupancy is detected</u>	
<u>Mode D</u>	<u>Will blink when occupancy is detected</u>	
<u>Mode Z</u>	<u>Always OFF</u>	
<u>Mode T</u>	<u>Will blink when occupancy is detected</u>	

Setting the Occupancy Range

Using the Range Pot to adjust the range of occupancy

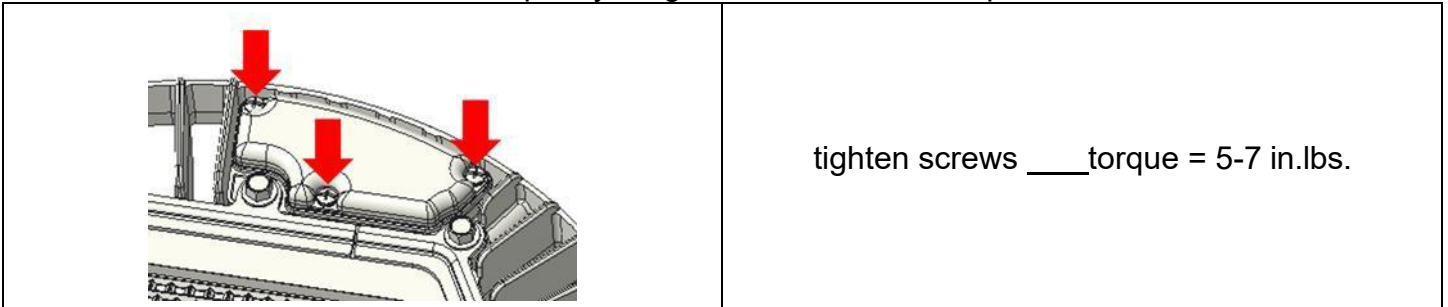


- Dialight will set the Range Pot at approximately 75% for approximately 10.5m(35ft) detection range
- Turning the Range Pot counterclockwise will decrease the range
- Turning the Range Pot clockwise will increase the range



Replacing the Sensor cover

Once all the DIP switches and occupancy range have been set --- replace the Sensor cover



Legal Notice

All values and performance data contained herein are designed or typical values when measured under laboratory conditions. Dialight products are intended for ultimate purchase by industrial users and for operation by persons trained and experienced in the use and maintenance of this equipment. While every precaution has been taken to ensure accuracy and completeness of the information in this document, this document does not form part of any contract with Dialight and Dialight does not assume any liability for damages resulting from the use of this information, including any information on third party websites linked to from this document. The information in this document is subject to change without notice. The products or software referenced in this document is subject to the applicable warranties and terms and conditions of use/purchase. Unless agreed otherwise in writing, Dialight does not warrant or represent that its products are fit for a particular purpose and accepts no responsibility for the installation or un-authorized use of its products.