

Toughbay™ Retrofit Range

Installation guide for LED Highbay

JCC | a **LEVITON** company

WARNINGS AND CAUTIONS

- It is recommended that luminaires are installed by a qualified electrician to ensure the installation complies with the local current wiring regulations.
- Any broken or damaged parts should be replaced as soon as possible. JCC will not accept responsibility for claims arising from sub-standard installations.
- It is recommended that the ambient room temperature should not exceed 45°C.
- Caution.** Risk of electric shock 
- The external flexible cable or cord of this luminaire cannot be replaced; if the cord is damaged the luminaire shall be destroyed.
- These products are designed for connection to a 220-240V~ 50/60Hz supply.
- The light source of this luminaire is not replaceable by the end user. The light source contained in this luminaire shall only be replaced by the manufacture or their service agent or a similar qualified person.
- This luminaire is suitable for indoor and outdoor use.
- It may be necessary to upgrade your MCBs to allow for increased inrush current.
- This luminaire should be installed out of arms reach.
- Terminal block not included. Installation may require advice from a qualified person.

INSTALLATION

ENGLISH

Specifications Colour Temp: 4000K*/5700K Ra: 80

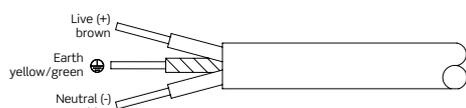
Wattage	Lumens	LpcW	Beam
100W	12300	123	60°/90°
150W*	18400	123	60°/90°
200W	24500	123	60°/90°

Available finishes: Black only

Standard version connection

220-240V~ 50/60Hz / Class I 

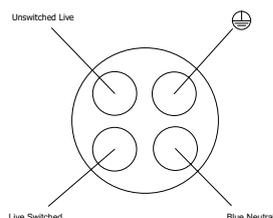
Figure 1. Mains input



Emergency version connection

220-240V 50/60Hz / Class I 

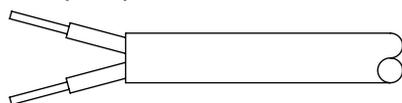
Figure 2.



1-10V Dimming control input

Figure 3.

Dim - (white)



Dim + (Black)

Terminal block must comply to EN 60998-2-1 or EN 60998-2-2

Important warranty information

Toughbay™ Retrofit is supported by a 5 year extended warranty; which must be registered online at jcc.co.uk/warranty.

The installer will be asked to provide the following information, which is detailed on a label attached to the luminaire's chassis: Product Code/date code.

    **IP65** jcc.co.uk

- Read instructions and check that you have all of the tools and accessories required to complete the installation correctly. Isolate power supply before starting the installation.

Standard dimmable version installation procedure

- The luminaire comes with a fixed eye(s) for suspension as standard.
- For surface mounting please order correct bracket separately (see table below for details). Fit the bracket to a flat surface ensuring that fixings are suitable to hold the weight of the luminaire. Fit the luminaire to the bracket using the bolts supplied.
- Connect the mains input as shown in Fig.1, using a suitable connector to maintain the IP rating for the location. Alternatively connect using accessory JC71851 waterproof IP65 connector (not supplied). Please ensure that 3-core H07 RN-F cable is used.
- This luminaire is 1-10V dimmable as standard, if you wish to dim this fitting ensure that you connect the 1-10V dimming control wires as shown in Fig.3 to a 1-10V dimming system only. If no dimming is required please leave the terminals isolated.

Emergency dimmable version installation procedure

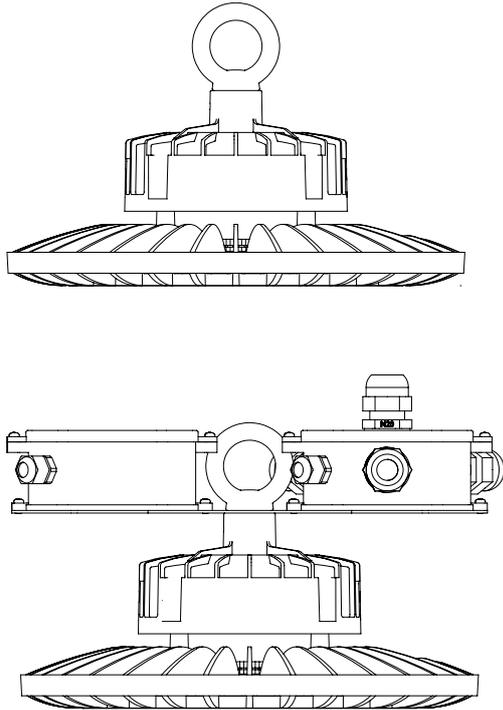
- Follow steps 1-2 of the standard installation procedure.
- Once the mains supply is connected and the fitting is installed, connect batteries. The LED charge indicator will illuminate showing the fitting is in charge mode and is working correctly. Allow 24hrs for the batteries to charge prior to testing in emergency mode.
- This luminaire is 1-10V dimmable as standard, if you wish to dim this fitting ensure that you connect the 1-10V dimming control wires as shown in Fig.3 to a 1-10V dimming system only. If no dimming is required please leave the terminals isolated.

Accessories

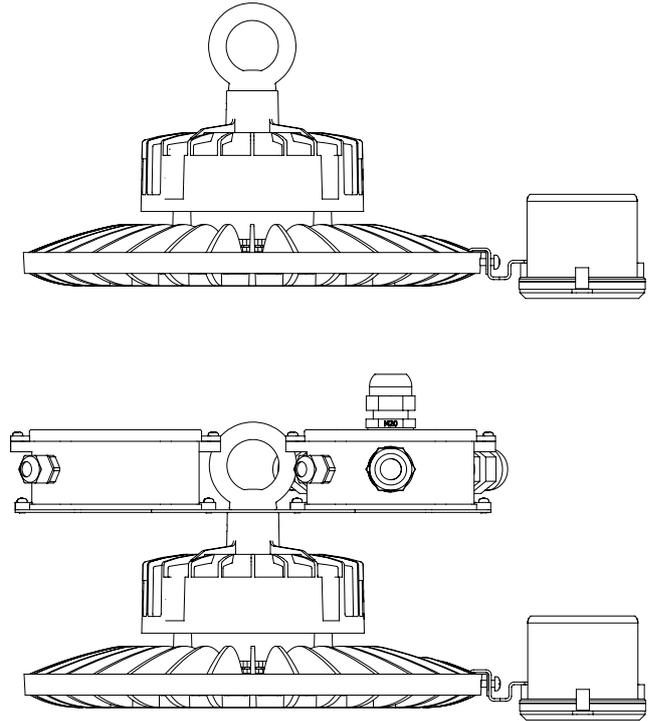
JC040049	Surface Mount Bracket for 100/150W Toughbay Retrofit G2
JC040050	Surface Mount Bracket for 200W Toughbay Retrofit G2

Profile & Dimensions

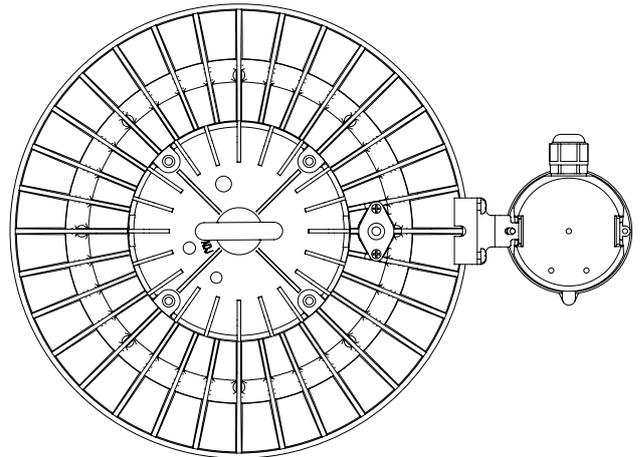
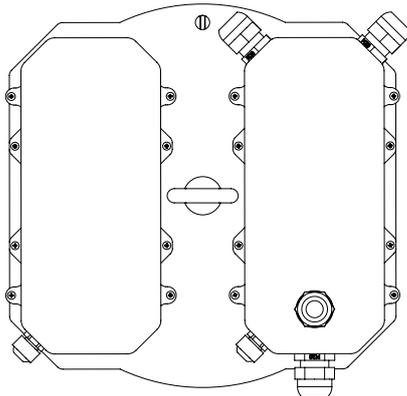
Standard



With sensor



Emergency pack



Standard W H

100W	260	162
150W	280	162
200W	320	162

With sensor W H

100W	354	170
150W	374	170
200W	414	170

Emergency pack

L	W	H
277	280	80

All dimensions in millimetres

Toughbay™

1-10V step dimmable microwave sensor user manual



- 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.

Input voltage	120~277Vac, 50/60Hz
Rated load	400W@120Vac; 800W@220-277Vac (Inductive load) 800W@120Vac; 1200W@220-277Vac (Resistive load)
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
Transmitting power	<0.5mW (1% of transmitting power for cell phone)
Mounting height	3-15m
Detection angle	150°(Wall installation), 360°(Ceiling installation)
Motion detection	0.5~3m/s
Operating temperature	-35°C~55°C
IP rating	IP65

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 should be connected to a stable power supply of 120-277Vac, 50/ 60Hz.
- 7, Detection area will be affected by speed of motion, height of installation and volume of moving object.

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"> <tr> <td></td> <td>1</td> <td></td> </tr> <tr> <td>I</td> <td>ON</td> <td>100%</td> </tr> <tr> <td>II</td> <td>-</td> <td>50%</td> </tr> </table>		1		I	ON	100%	II	-	50%	Detection area I: up to 100% II: up to 50%																										
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I	ON	100%																																		
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<table border="1"> <tr> <td></td> <td>2</td> <td>3</td> <td>4</td> <td></td> </tr> <tr> <td>I</td> <td>ON</td> <td>ON</td> <td>ON</td> <td>5S</td> </tr> <tr> <td>II</td> <td>-</td> <td>ON</td> <td>ON</td> <td>30S</td> </tr> <tr> <td>III</td> <td>ON</td> <td>-</td> <td>ON</td> <td>1min</td> </tr> <tr> <td>IV</td> <td>-</td> <td>-</td> <td>ON</td> <td>3min</td> </tr> <tr> <td>V</td> <td>ON</td> <td>ON</td> <td>-</td> <td>20min</td> </tr> <tr> <td>VI</td> <td>-</td> <td>-</td> <td>-</td> <td>30min</td> </tr> </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	Hold time 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																																	
I	ON	ON	ON	5S																																
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II	-	ON	ON	1min																																
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	6	7	8	9																																													
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VII	-	-	-	-	Disable																																												

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.

LEV71805

Microwave Sensor Remote Control for LEV71804BLK user manual



RESET

Reset microwave sensor to dip switch settings.

AUTO MODE

Return to settings before on/off selected.

DETECTION AREA

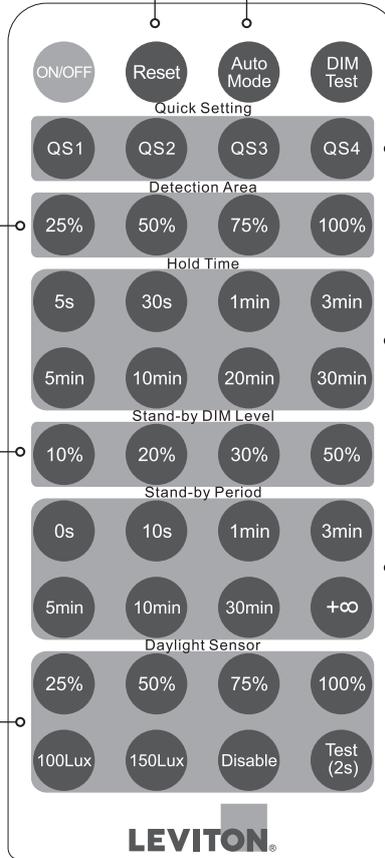
Variable microwave sensitivity depending on mounting height and required area of detection.

STAND-BY DIM LEVEL

Minimum brightness the luminaire remains at after no movement is detected.

DAYLIGHT SENSOR

Select ambient natural light level that is required before the luminaire is switched on with microwave detection.



QUICK SETTING

4 default settings available. Suitable for different applications and mounting heights (see website for more details).

HOLD TIME

The length of time the luminaire remains at full brightness before dimming or turning off.

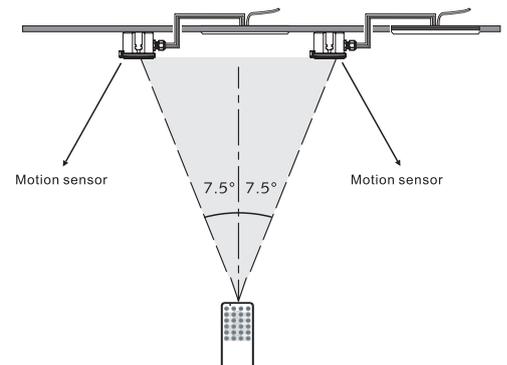
STAND-BY PERIOD

Length of time the luminaire remains at the dimmed brightness before turning off.

Button	Remarks																														
	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.																														
	Press "DIM Test" button to test dimming function. Sensor will dim automatically and return to normal work mode.																														
	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.																														
	<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>50%</td> <td>20min</td> <td>30min</td> <td>30%</td> <td>Disable</td> </tr> <tr> <td>QS2</td> <td>100%</td> <td>20min</td> <td>30min</td> <td>30%</td> <td>Disable</td> </tr> <tr> <td>QS3</td> <td>100%</td> <td>3min</td> <td>1h</td> <td>10%</td> <td>Disable</td> </tr> <tr> <td>QS4</td> <td>N/A</td> <td>10min</td> <td>On at 100% Permanently/A</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>Note: Detection area / Hold time / Stand-by period / Stand-by dim level / Daylight sensor can be adjusted 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	50%	20min	30min	30%	Disable	QS2	100%	20min	30min	30%	Disable	QS3	100%	3min	1h	10%	Disable	QS4	N/A	10min	On at 100% Permanently/A	N/A	N/A
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QS2	100%	20min	30min	30%	Disable																										
QS3	100%	3min	1h	10%	Disable																										
QS4	N/A	10min	On at 100% Permanently/A	N/A	N/A																										

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



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