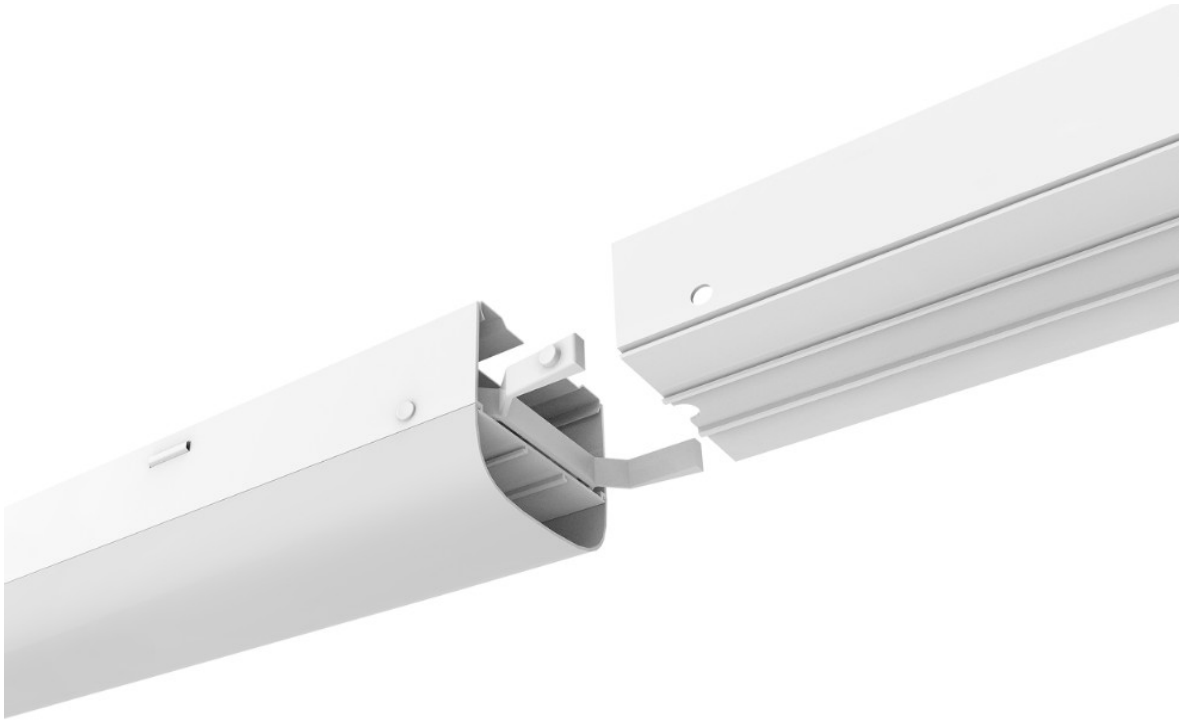
MELEC ML-MRBBV2-60 Diffused LED Batten Instructions

MR BB V2 Diffused LED Batten
Instructions Manual

Contents

ML-MRBBV2-60 Diffused LED Batten



EXTEND IT
Combine 2 or more to make 1 long batten.
X JOINER
Endless connection

Diffused LED batten

The BB V2 has arrived! The original BB design with pre-cut conduit entries, large centre 25mm back entry and PA16 terminal block remains but a new lighter weight structure wraps the product up with an advanced anti-scratch powder coat finish.
Optional microwave sensor or emergency kit can be added to the fitting by simple plug-and-play methods making one fitting suitable for a large variety of jobs. The fitting can also be joined using X-joiners making ‘endless’ connections or trunking style lighting easy to wire and fit off. Suitable for suspension, surface, trunking, and vertical installations.

TECHNICAL INFORMATION

Data subject to change, please visit our website for up to date specifications: **melec.com.au**

	ML-MRBBV2-60	ML-MRBBV2-120
Total Power	10/20W*	20/38W*
Lumen Output:	10W: WW 1200LM NW 1250LM W 1250LM 20W: WW 2200LM NW2500LM W 2400LM	20W:WW 2600LM NW2700LM W2700LM 38W: WW4750LM NW5130LM W4940LM
Colour Temp:	3000K (WW) | 4000K (NW) | 5700K (W)	
IP Rating:	IP20	
CRI:	80	
Efficacy:	10W: UP TO 125LM/W 20W: UP TO 125LM/W	20W: UP TO 135lm/W 38W: UP TO 135lm/W
Beam Angle:	120°	
Input Current	240V 500mA	240V 900mA
Inrush Current	24A	18A
Earth Leakage current	<0.5mA @ 240Vac	
Dimmable:	No	
Power Supply:	240V Intergrated driver	
Power Factor	0.9	
Frequency	50/60Hz	
Average Life:	50,000hrs**	
Dimensions:	620.4 x 74 x 61.9mm	1220.4 x 74 x 61.9mm
Weight	0.94kg	1.68kg
Operating Temp	-10°C to 45°C	
Compliance	SAA	
Connection	PA16 Terminal block	
LED Chip Brand	SMD2835	
Materials:	Stamped metal body, PC diffuser, ABS Endcaps	
Warranty:	5 YEARS	

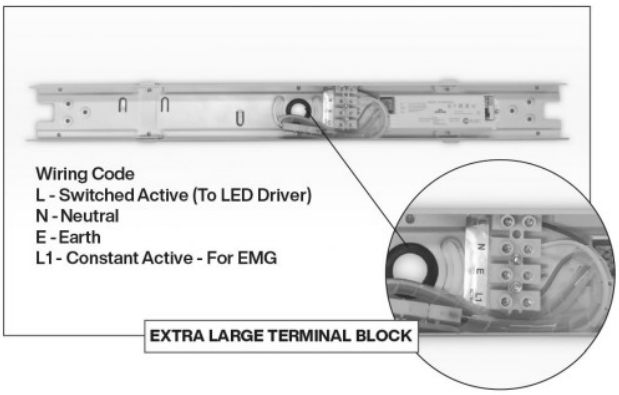
*Total power consumed including driver
** Average life is calculated on expected average lifespan

INSTALLATION GUIDE

1. By pressing side tabs on the fitting sides IN separate the “top” of the fitting from the “base”.
2. Using suitable fixing methods fix the “base” into the required location.
3. Wire up the fitting according to the marked terminals (picture 1).

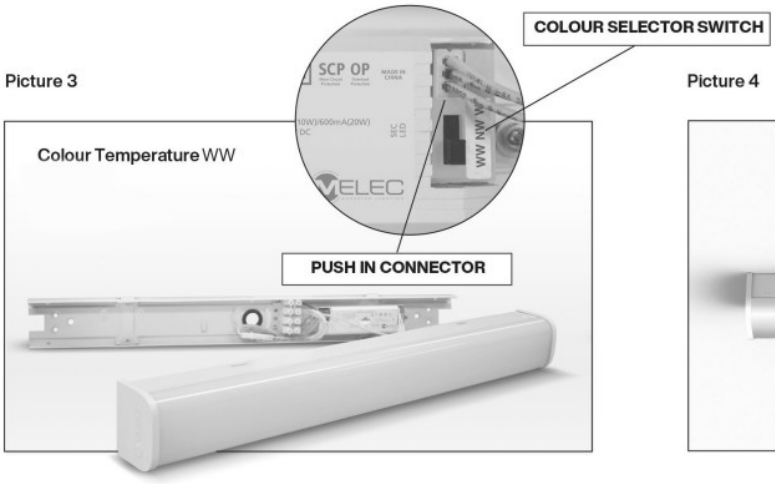
4. Set the driver switch to desired setting: Single/Twin Mode (picture 2) Default driver setting is Twin Mode.
5. Set the desired colour output with the “selector switch” on the output side of the driver (picture 3).
6. Connect the push connector into the driver ensuring polarity is correct (picture 3). Ensure Earth wire is also connected.
7. Snap the “top” onto the “base” to its original position.
8. Make sure all 4 spring connectors are in place securely holding “top” in place (picture 4).

Picture 1

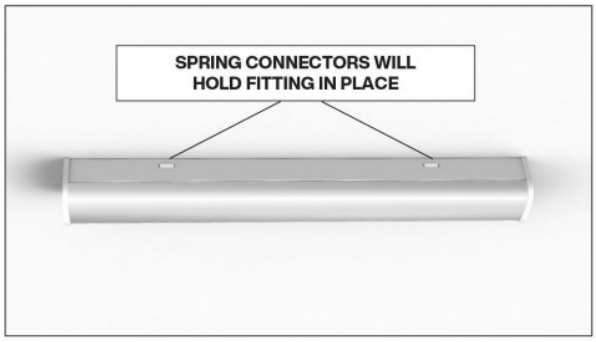


Picture 2

Picture 3



Picture 4



OPTIONAL ACCESSORIES AVAILABLE:
ML-BBV2-60 or 120 EM – emergency kits, ML-BBV2SN – Microwave sensor (both plug & play), ML-MRBBV2-JN – X joiner, ML- MRBBV2-SUSKIT – Suspension kit

SENSOR INSTALLATION

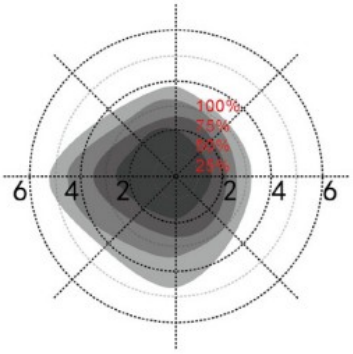
input	Operating Voltage Range	120-277V AC 50Hz/60Hz
	Rated Voltage	220-240V AC, 50Hz/60Hz
	Stand-by Power	≤0.5W
	Surge Test	L–N: 1kV
output	Working Mode	ON/OFF function
	Type of Load	Inductive or Resistive
	Load Capacity	400W (Inductive) ; 800W (Resistive)
	Max. Surge Capacity	10A relay; 30A (50% Ipeak, twidth =500uS, 230Vac full load, cold start);
Sensor parameters	Operating Frequency	5.8 GHz ±75 MHz, ISM Band.
	Transmitting power	0.5mW Max.
	Hold time	5S/30S/90S/5Min (by two dialing codes) 10S/90S/3Min/10min (by remote MH03)
	Detection Sensitivity	100%/75%/50%/25% (by two dialing codes) 100%/50% (by remote MH03)
	Daylight Sensor	25lux/Disable (by one dialing code) 5lux/15lux/50lux/Disable (by remote MH03)
	Detecting Radius	3m (mounting height 3-4m) ; >2m (mounting height 6m) ;
	Mounting Height	2.5-6m, and 4m is of the max. detecting radius
	Detecting Angle	150° (Wall mounted)
Other	IP Rating	IP20
	Protection class	Class II

SENSOR INSTALLATION

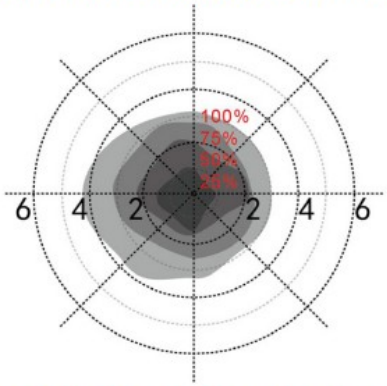
DETECTION PATTERN

1) Ceiling mounting

Ceiling mounted height: 3m
Sensitivity: 100%/75%/50%/25%

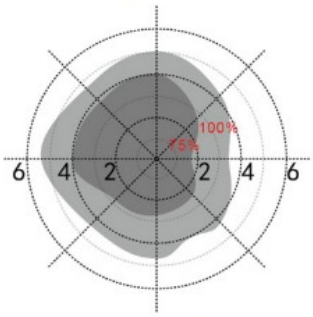


Normal moving (Speed:1m/s)

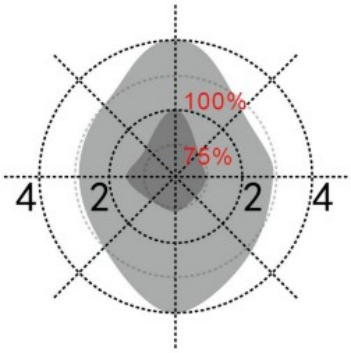


Slow moving (Speed 0.3m/s)

Ceiling mounted height: 6m(*)
Sensitivity:100%/75%



Normal moving (Speed:1m/s)

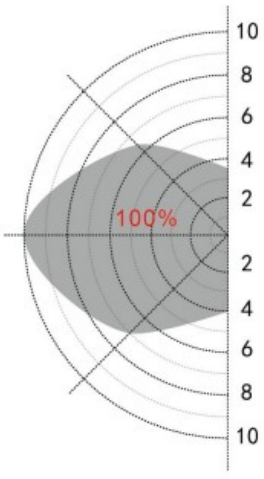


Slow moving (Speed: 0.3m/s)

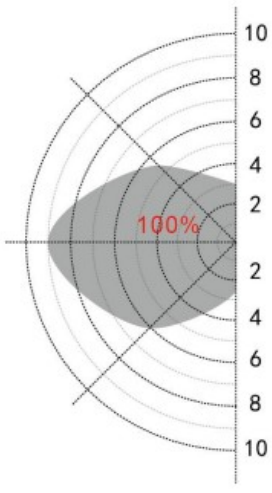
*Only 100%/75%detection sensitivity is workable when installed at 6m mounting height. 25%/50% sensitivity is not able to detect motion signal.

2) Wall mounting

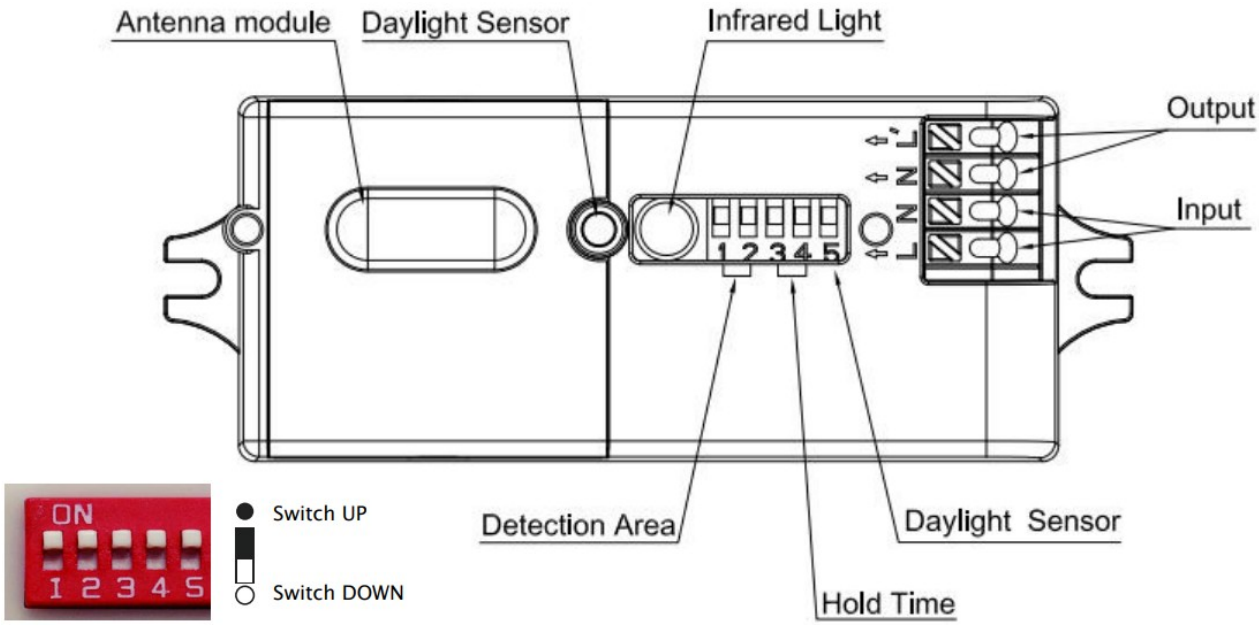
Horizon mounted height: 2m
Sensitivity: 100%



Normal moving (Speed： 1m/s)



Slow moving (Speed 0.3m/s)



DETECTION RANGE (SENSITIVITY)

Detection range is the term used to describe the detection zone produced on the ground after mounting the sensor light

When using this product please adjust the sensitivity to an appropriate position you need. The following may prevent the motion detection from working normally: blowing leaves, curtains, small animals or even power grid & electrical equipment. If this should happen, simply try to lower the sensitivity appropriately and then test it.

Detection area		
	S1	S2
100%	● UP	● UP
75%	○ DOWN	● UP
50%	● UP	○ DOWN
25%	○ DOWN	○ DOWN

DAYLIGHT SENSOR

*Disable" means the daylight sensor not work. it will turn on light once motion is detected regardless of ambient light.

Daylight	
	S5
25 Lux	● UP
Disable	○ DOWN

TIME SETTING (HOLD TIME)

The light can be set to stay ON for periods of time between 5 seconds to 5 minutes. Any movements detected before this time elapses will result in the timer being restarted.

Adjust the dip switches according to the desired time settings shown in the chart below.

PLEASE NOTE!

After the light switches OFF it takes approximately 4 sec before it is able to start detecting movement again.

The light will only switch ON in response to movement detected once this period has elapsed.

TIME SETTING		
	S3	S4
5S	● UP	● UP
30S	○ DOWN	● UP
90S	● UP	○ DOWN
5MIN	○ DOWN	○ DOWN

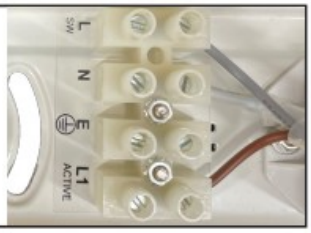
Override function
Power off, quick switch ON/OFF sensor 3 times (ON-OFF-ON-OFFON) within 2 seconds to override sensor function. The light will blink 3 times and then switch ON. Power off and on again to recover sensor function.
Initialization
After powering on, the sensor automatically turns the luminaire on at 100% brightness. After 10sec, it turns off the light. During the initialization, the sensor is not able to detect movement.

SENSOR INSTALLATION

1. By pressing side tabs on the fitting sides IN separate the “top” of the fitting from the “base”.
2. Using suitable fixing methods fix the “base” into the required location.
3. Wire up the fitting according to the marked terminals (picture 1)
4. Set the driver switch to desired setting: Single/Twin Mode (Default driver setting is Twin Mode).
5. Set the desired colour output with the “selector switch” on the output side of the driver.
6. Install the sensor onto the base in the specific mounting holes. (picture 2), ensuring that the node is on the right side (picture 3)
7. Connect the push connectors of the sensor to the corresponding connectors of the driver and fitting (refer to picture 6 ensuring polarity is correct).
8. Safely remove the sensor node knockout on the “top” ensuring not to damage the LED PCB (picture 7).
9. Snap the “top” onto the “base” to its original position, ensuring that the sensor node is exposed through the knockout (picture 9)
10. Make sure all 4 spring connectors are in place securely holding “top” in place (picture 9).

PICTURE 1

Wiring code
L - Switched active (To LED Driver)
N - Neutral
E - Earth
L1 - Constant active - For EMG



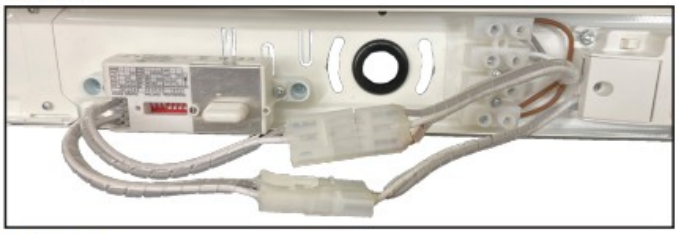
PICTURE 2

PICTURE 3

PICTURE 4

PICTURE 5

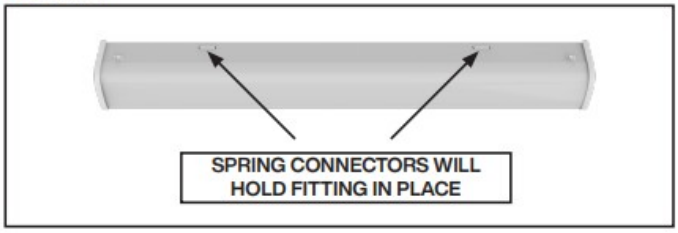
PICTURE 6



PICTURE 7

PICTURE 8

PICTURE 9



EMERGENCY INSTALLATION

PLEASE READ INSTRUCTIONS BEFORE COMMENCING INSTALLATION AND RETAIN FOR FUTURE REFERENCE.

TESTING

The emergency lighting must be inspected and tested regularly in accordance with regulations and laws. We suggest the following as a minimum.

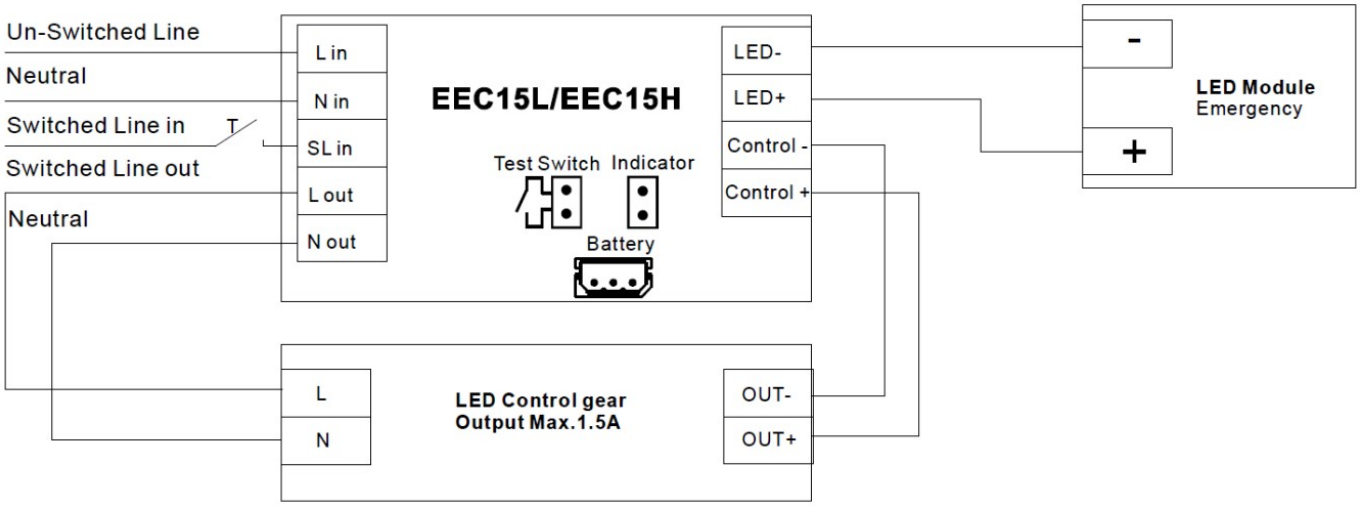
PLEASE NOTE!

After initial installation please allow 24 hours to ensure the battery is fully charged before commencing tests.

1. Check daily that the charge indicator LED is working.
2. Monthly, interrupt mains for a short period and check LED lights.
3. Annual 12 month check, full duration test (longer then 2 hours). Batteries or the fitting should be replaced if they fail to last the 2 hours.
4. Complete record sheet on installation and retain in maintenance file.

5. Update file with ongoing test records for inspection by fire officer or other duly authorised person.

WIRING DIAGRAM



	ML-MRBBV2-EM
Rated supply voltage	220~240VAC
Mains frequency	50/60Hz
Mains input current, min	25mA
Mains input current, max	38mA
Input power in mains operation, min	3.1W±10%
Input power in mains operation, max	3.8W±10%
Battery charge time	24h
Ambient temperature ta	0°C~55°C
Max. Casing temperature tc	65°C
Battery	LiFePO4 6.4V 4500mAh(3H)
Battery duration	3 Hours
IP rating	IP20
Test mode	Self-testing

NOTICE
Fault status:
If an error is detected, the indicator LED switches to RED. If the error has been corrected please reconnect the battery after the mains is powered off, the indicator LED immediately switches back to GREEN when mains power is on.
NOTICE
Battery failed duration test: After an exchange of the battery and holding down the button (>10S) to reset the timer, the indicator LED switches to GREEN.

EMERGENCY INSTALLATION – TESTING/COMMISSIONING (SELF TEST)
Test Switch Funtionality

1. A short press (>1s) on the button commences a function test lasting 5 seconds (The battery's capacity should be more than 5% = 30mins charge)
2. Holding down the button(>10s) resets the timer(System-resets)

Functional Test
The 5 second long, each 7 days' function test serves to check the functionality of the emergency unit, the batteries and LED module.
Notice:

- If a mains supply failure occurs whilst a functional test is in progress, the test will be postponed and the system will enter emergency operation. Following restoration of the mains supply, a postponed functional test shall re-commence automatically as soon as conditions permit.

Duration test

- Initial duration test: The test will be carried out exactly 16 hours later after the initial installation.
- Half year duration test: The test will be carried out on each 180 – 182days.
- 2hrs duration test on the first 180-182 days checks the capacity of the batteries.
- 1.5hrs duration test on the first 180-182 days checks the capacity of the batteries.

Notice:

- A duration test shall only be started when the battery supply is fully charged, if a mains supply failure occurs whilst a duration test is in progress, the test will be postponed and the system will enter emergency operation. Following restoration of the mains supply, a postponed duration test shall recommence automatically when the battery supply is fully re-charged.
- The indicator will be slow flashing Green within 5 days if the duration test is carried out successfully.

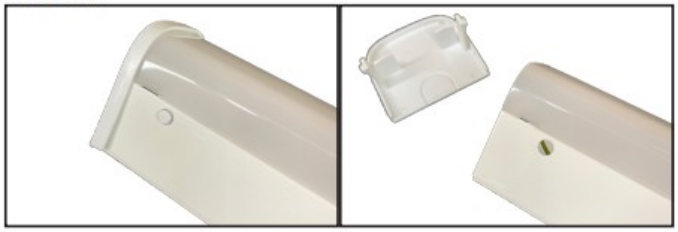
Indicator LED system status:

LED Indication	LED Indication	Status	Description
	Permanent Green	Standby ,System OK	Mains Operation, battery is charged
	Fast flashing Green (0.25s on 0.25s off)	Function test underway	Function test underway
	Slow flashing Green (1s on 1s off)	Duration test underway	Function test underway
	Permanent Red	Lamp failure	Open Circuit or Short circuit or LED f ailure
	Fast flashing Red (0. 25s on 0.25s off)	Battery capacity failure	Battery failed duration test
	Slow flashing Red (1 s on 1s off)	Battery fault	Incorrect battery voltage or Short circ uit or Open Circuit
	Green and Red off	Battery Operation	Emergency mode:Mains disconnected or Mains f ailure

EMERGENCY INSTALLATION

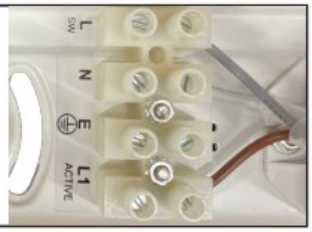
1. By pressing side tabs on the fitting sides IN separate the “top” of the fitting from the “base”.
2. Remove one end cap (this will be used for the emergency FPC) (Picture 1)
3. Using suitable fixing methods fix the “base” into the required location.
4. Wire up the fitting according to the marked terminals (picture 2)
5. Set the driver switch to desired setting: Single/Twin Mode. Default driver setting is Twin Mode.
6. Set the desired colour output with the “selector switch” on the output side of the driver.
7. Install the emergency converter and battery onto the base in the specific bend tabs (Pictures 3 and 4)
8. Ensure that the bend tabs for the emergenecy converter is bent forwards and that the bend tabs for the battery are bent backwards. (refer to picture 5)
9. Connect the push connectors of the emergency kit to the corresponding connectors of the driver and fitting (refer to pictures 6, 7, 8 below ensuring polarity is correct).
10. To install the test button and indicator light FPC, remove the small knockout on the top part of the end cap. (Picture 9)
11. Peel the protective film to expose the 3M adhesive backing of the FPC and paste the button onto the outer face of the end cap.(Picture 10)
12. Connect the picoblade connectors of the FPC and wires connecting back to the emergency converter. (Picture 11)
13. Connect the male connector of the FPC to the female connector connecting back to the emergency converter. (Picture 12)
14. Re-install the endcap with the FPC back into the BB. (Picture 13)
15. Snap the “top” onto the “base” to its original position. (Picture 14)

PICTURE 1



PICTURE 2

Wiring code
L - Switched active (To LED Driver)
N - Neutral
E - Earth
L1 - Constant active - For EMG

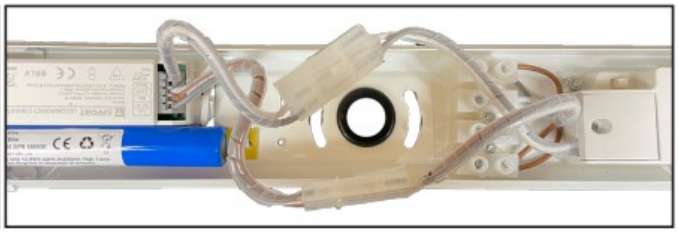


PICTURE 3

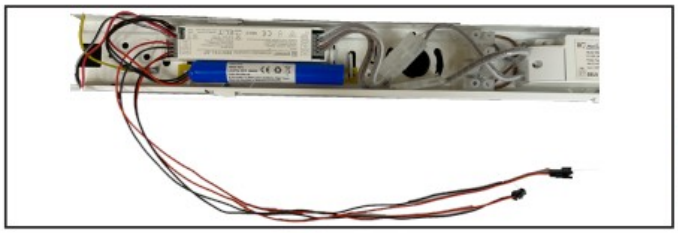
PICTURE 4

PICTURE 5

PICTURE 6



PICTURE 7



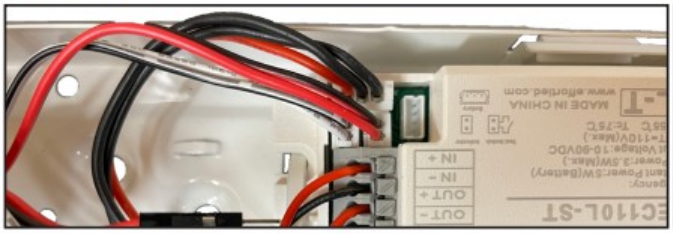
PICTURE 8

EMERGENCY INSTALLATION

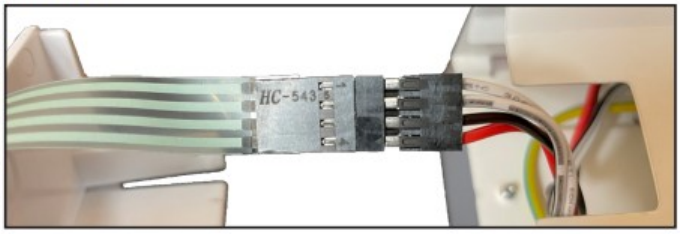
PICTURE 9

PICTURE 10

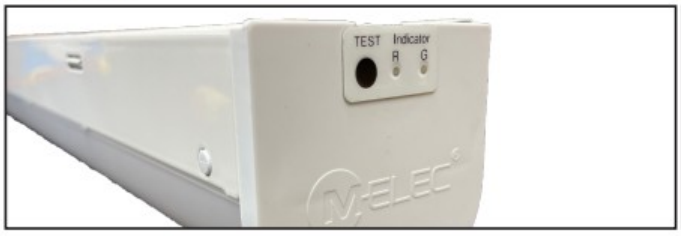
PICTURE 11



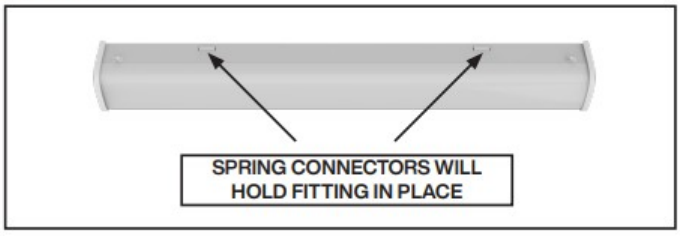
PICTURE 12



PICTURE 13



PICTURE 14



PLEASE NOTE!
Take note of the requirement to dispose of Waste Electrical & Electronic Equipment separately from household waste (WEEE marked with a crossed out wheelie bin symbol).
Product technical information and specification may change over time without prior notification. For the latest technical information please visit our web site **www.melec.com.au**

PLEASE NOTE
MUST BE INSTALLED BY A LICENSED ELECTRICIAN

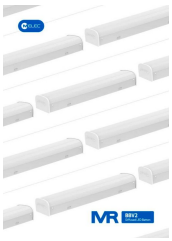
- Read instructions carefully before attempting to install the fitting. Retain this guide for future reference
- Disconnect power before installing or servicing
- Do not extend low voltage cables from the output of power supply
- All components must not be mechanically stressed
- Be careful not to damage or destroy conductive paths on the circuit board
- Follow all relevant electrical and safety standards (including AS3000)
- Correct electrical polarity must be observed as the wrong polarity may destroy the product and is not covered under warranty
- Damage by corrosion will not be honoured as a material defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture, condensation and other harmful elements

FREE ONSITE WARRANTY
EXCLUSIVE TO MEMBERS ONLY

FREE ONSITE WARRANTY FOR 3 YEARS
INCLUDES PARTS & LABOUR
In conjunction with your standard product warranty

Version 2

Documents / Resources

	MELEC ML-MRBBV2-60 Diffused LED Batten [pdf] Instructions ML-MRBBV2-60 Diffused LED Batten, ML-MRBBV2-60, Diffused LED Batten, LED Batten

References

- M-Elec – Illuminated by design
- Warranty – M-Elec
- M-Elec – Illuminated by design
- Shenzhen Mairui Intelligent Technology Co., Ltd.