



# IP65 2.4W LED Step Lights & Starlights

Cat. No. LST013KWE, LST013KPS, LST023KWE, LST023KPS

## Instruction Sheet



Class III Construction

Please read instruction sheet before commencing installation. Installation must be performed by a registered electrical contractor.

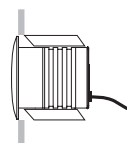
### 1 Description

| Cat no.   | Description   | Ceiling Cut-out | Ceiling Depth | Fascia Diameter | Lumens | Colour Temp | IP Rating |
|-----------|---|-----------------|---------------|-----------------|--------|-------------|-----------|
| LST013KWE | <b>White</b> Step light 2.4W LED <b>Warm White</b>  | 45mm            | 42mm          | 54mm            | 24lm   | 3000K       | IP65      |
| LST013KPS | <b>Silver</b> Step light 2.4W LED <b>Warm White</b> | 45mm            | 42mm          | 54mm            | 24lm   | 3000K       | IP65      |
| LST023KWE | <b>White</b> Starlight 2.4W LED <b>Warm White</b>   | 32mm            | 35mm          | 37mm            | 95lm   | 3000K       | IP65      |
| LST023KPS | <b>Silver</b> Starlight 2.4W LED <b>Warm White</b>  | 32mm            | 35mm          | 37mm            | 95lm   | 3000K       | IP65      |

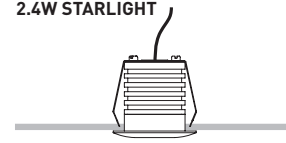
### 2 LED Lamp Life

30,000 Hrs Rated Average Lamp LED Life @25°C when installed with the default insulation clearances specified by AS/NZS 3000 -2007

2.4W STEP LIGHT



2.4W STARLIGHT

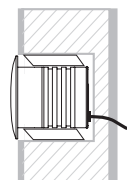


20,000 Hrs Rated Average Lamp LED Life @25°C when installed with the thermal insulation abutting and covering the fixture in accordance with the IC rating specified in AS/NZS 60598.2.2 Amendment A (NZ only).

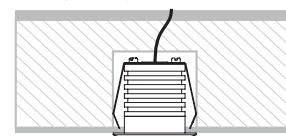


**Note:** This form of installation complies with the Wiring Rules AS/NZS 3000:2007 requirement for recessed downlights, clause 4.5.2.3.1 (i).

2.4W STEP LIGHT



2.4W STARLIGHT



### 3 Dimming

The HPM Step Lights and Starlights are dimmable with Trailing and Leading Edge Dimmers. We recommend the following Dimmers only.

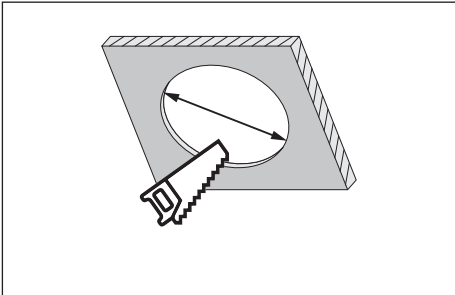
| Legrand Excel Life EM400A3P    | Max. 8 per EM400A3P | Dimming Range 100%-5%  |
|--------------------------------|---------------------|------------------------|
| Legrand Excel Life EM250T/250L | Max. 5 per EM250T   | Dimming Range 100%-10% |
| Legrand Excel Life EM400T/400L | Max. 8 per EM400T   | Dimming Range 100%-10% |
| Legrand Arteor AR400T/400L     | Max. 8 per AR400T   | Dimming Range 100%-10% |
| Legrand Arteor AR400A3P        | Max. 8 per AR400A3P | Dimming Range 100%-5%  |
| HPM 250T/250L                  | Max. 5 per 250T     | Dimming Range 100%-10% |
| HPM 400T/400L                  | Max. 8 per 400T     | Dimming Range 100%-10% |
| HPM 700T/700L                  | Max. 14 per 700T    | Dimming Range 100%-25% |
| HPM 1000T/1000L                | Max. 20 per 1000T   | Dimming Range 100%-25% |

## 4 Ceiling/Wall Preparation

### 2.4W STARLIGHT – PLASTERBOARD

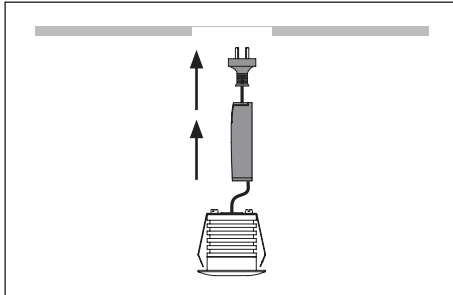
#### Step 1

Cut out a diameter of 32mm.



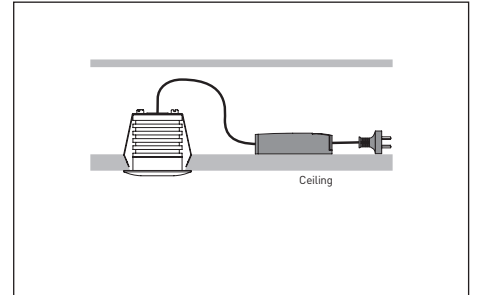
#### Step 2

Connect driver to main cables.



#### Step 3

Hold clips in place and push into cut out.

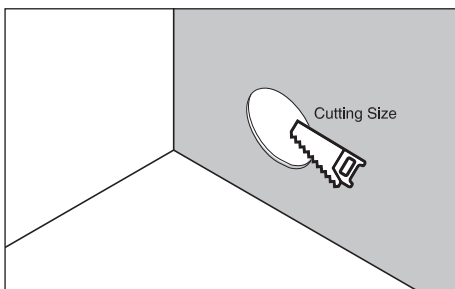


**Note:** Driver is too large to fit through ceiling cutout. Connect to fixed wiring before plasterboard is installed.

### 2.4W STEP LIGHT – PLASTERBOARD

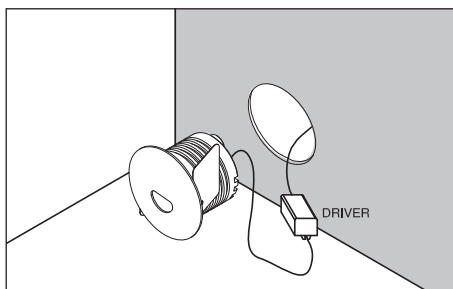
#### Step 1

Cut out a diameter of 45mm.



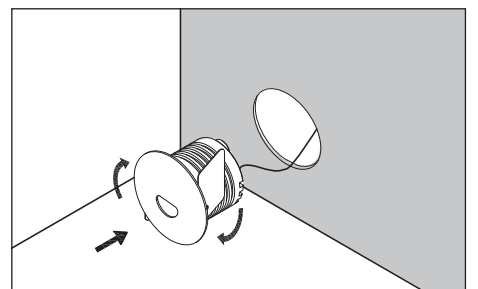
#### Step 2

Connect driver to mains cables.



#### Step 3

Hold clips in place and push into cut out.

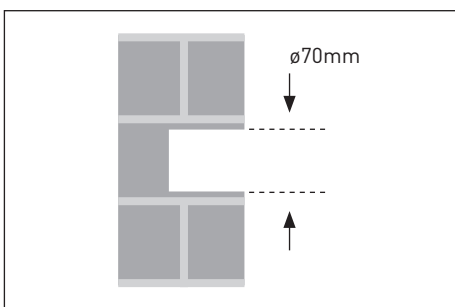


**Note:** Driver is too large to fit through ceiling cutout. Connect to fixed wiring before plasterboard is installed.

### 2.4W STEP LIGHT – RENDERED BRICK

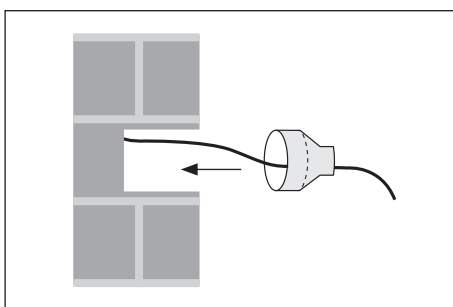
#### Step 1

Chisel a  $\phi 70$ mm hole to a depth of 75mm.



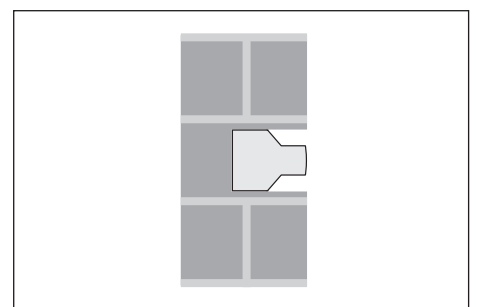
#### Step 2

Run cable and push canister into wall.



#### Step 3

Ensure canister is level and flush with wall before rendering.



**Note:** Wall canister is available separately. Please contact HPM customer service to order.

## 5 Insulation Rating IC

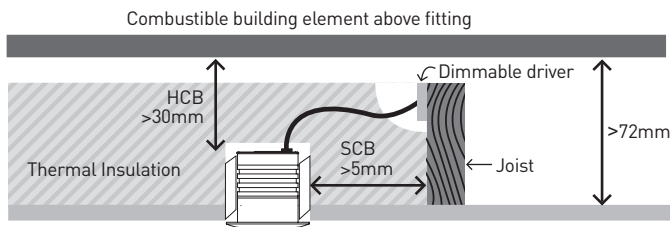


This series of luminaires has achieved an IC insulation rating in accordance with AS/NZ 60598.2.2.

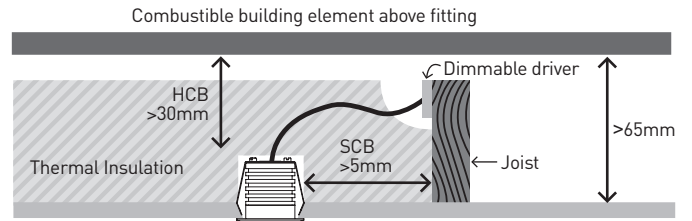
A type IC, recessed luminaire can be installed with building insulation material that can safely be exposed continuously to temperatures up to 90°C. Such insulation can cover and abut the side of the luminaire.

Refer to diagram for clarification.

### 2.4W STEP LIGHT



### 2.4W STARLIGHT



**Note:** LED driver can be placed under insulation, however, the driver's lifespan will be affected and warranty made void. Not suitable for use with loose-fill insulation. If installed in accordance with the IC rating, insulation shall have a minimum temperature rating of 90°C.

**Risk of FIRE** - Required clearance from structural members and building elements  
SCB = 5mm HCB = 30mm

**SCB - Side Clearance to Building element:** Minimum distance between the side of the recessed luminaire and any building element.  
**HCB - Height Clearance to Building element:** Minimum distance between the top of the recessed luminaire and any building element above it.

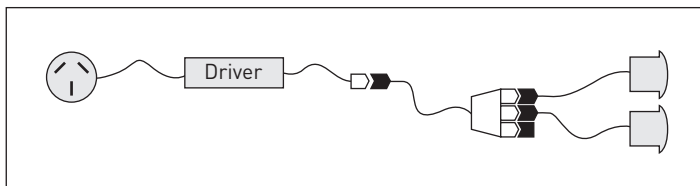
## 6 Wiring Connections

**IMPORTANT:** A minimum of 2 Step Lights or Starlights must be connected with each driver. Step Lights and Starlights must be connected in series.

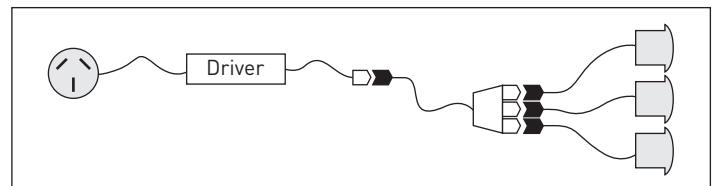
|  |                      |  |
|--|----------------------|--|
| <b>Driver Kit, Cat LDR02D700/18 (not supplied)</b> | Plug, lead, driver   |  |
|  | Plug coupler (x 2)   |  |
|  | Socket coupler (x 2) |  |
|  | Jumper (x 1)         |  |
|  | Hub (x 3)            |  |
| Step/Star Light                                    |                      |  |
| Customer supplied cabling                          |                      |  |

| Customer Supplied Cabling         |                         |    |    |     |     |
|-----------------------------------|-------------------------|----|----|-----|-----|
| Conductor size (mm <sup>2</sup> ) | Maximum length (metres) |    |    |     |     |
|                                   | A                       | B  | C  | D   | E   |
| 0.75                              | 8                       | 8  | 4  | 0.5 | 1   |
| 1.0                               | 11                      | 11 | 6  | 0.8 | 1.5 |
| 1.5                               | 15                      | 15 | 8  | 1   | 2   |
| 2.5                               | 25                      | 25 | 13 | 1.6 | 3   |

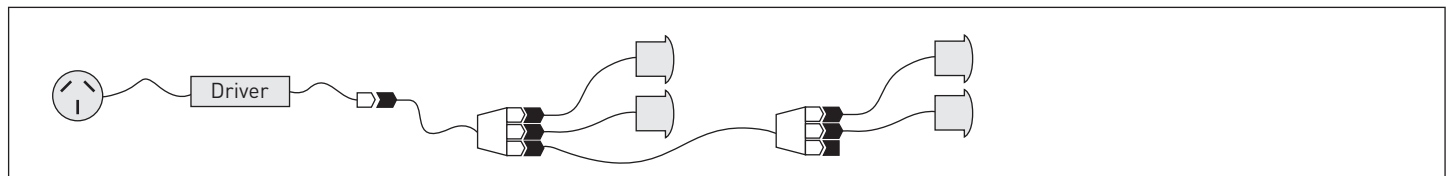
### 2 LIGHTS



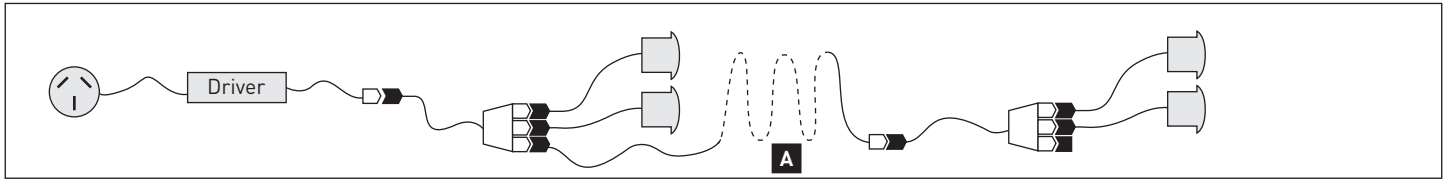
### 3 LIGHTS



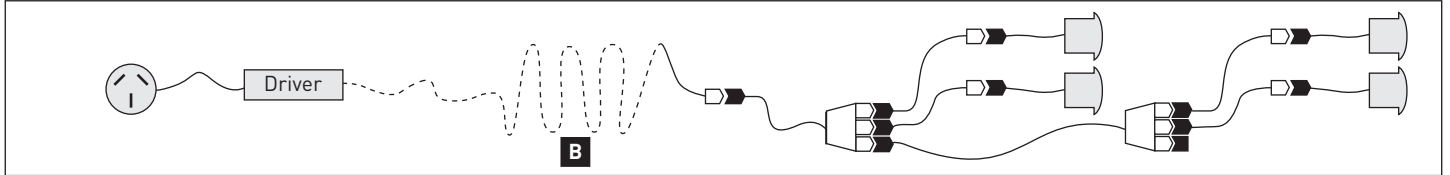
### 4 LIGHTS



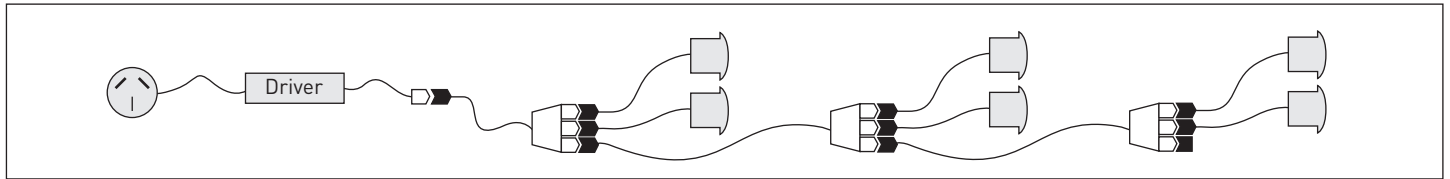
#### 4 LIGHTS WITH REMOTE LAMPS



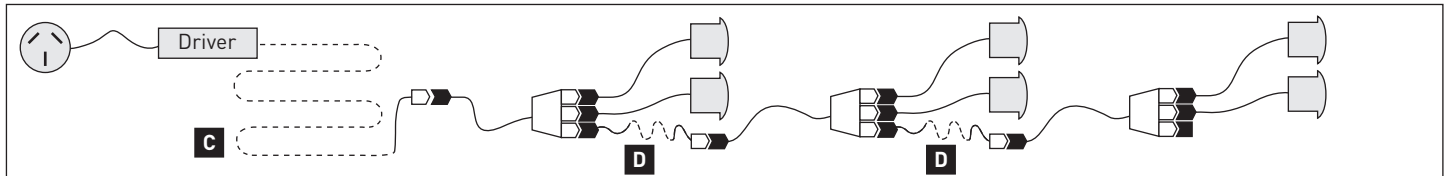
#### 4 LIGHTS WITH REMOTE DRIVER



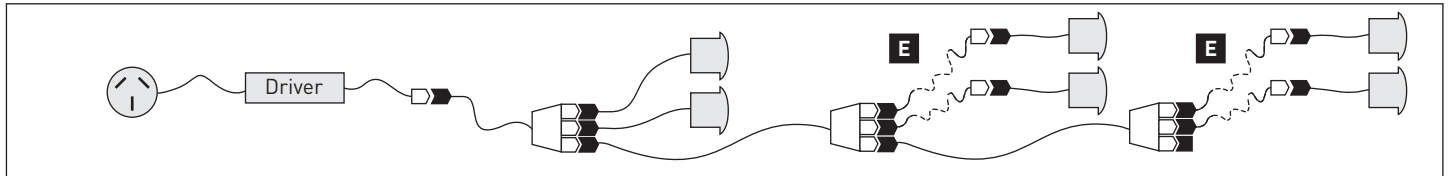
#### 6 LIGHTS



#### 6 LIGHTS WITH REMOTE CONNECTORS



#### 6 LIGHTS WITH REMOTE LAMPS



#### Disclaimers

1. This product must be installed and used as per these instructions. 2. This product should only be cleaned with a damp cloth. Cleaning agents and solvents should not be used. 3. The IP rating of this product is only valid when installed on a flat and non-porous surfaces. Additional sealing may be required for irregular surfaces. 4. This product has been designed to minimise the effects of interference from off peak electricity signals. Interference in the form of light flicker is still possible in some cases depending on proximity to the signal injection point. 5. This product must be used with the loads specified only. Other load types should be used only when written confirmation is given by HPM Legrand. 6. This product contains no serviceable parts and no attempt should be made to repair this product. If the product is faulty it should be discarded. 7. Severe electromagnetic interference from other products may cause malfunction of this product. 8. The material in this product may vary in colour from batch to batch. Colour matching from one batch to another cannot be guaranteed. 9. Electrical installations periodically receive transient over voltages. This product has been designed to minimise the effect of such voltages on connected equipment. It may not give full protection for extreme over voltage transients such as those resulting from a close lightning strike. 10. Lamp LED life is an average and will be reduced by frequent switching. 11. This product utilises intellectual property in the form of registered designs, trademarks, and/or patents. Such intellectual property remains the property of HPM Legrand in all cases. 12. HPM Legrand reserves the right to modify the specifications of this product at any time.

#### Warranty

HPM Legrand warrants this product for a period of 6 years from the date of purchase. These goods come with guarantees that cannot be excluded under the Australian and New Zealand Consumer Laws. You are entitled to a replacement or a refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired if the goods fail to be acceptable quality and the failure does not amount to a major failure. See the Warranty card enclosed with the driver kit for further details.

#### Customer Service

For all Customer Service and Technical Support please call Monday to Friday during business hours.

HPM Legrand Australia  
1300 369 777  
www.hpmlgrand.com.au

HPM Legrand New Zealand  
0800 476 009  
www.hpmlgrand.co.nz

ABN: 31 000 102 661

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