

## READ BEFORE START

The following instructions are designed to help you ensure a safe and professional installation. Observe all the following steps.

You can also follow the instructions online. Scan the QR code above to view / download the pdf.

### CONTENTS

This document contains 3 parts:

1. LED Driver Distance Guide
2. Wiring Diagram
3. Wiring Installation Guide
4. (Optional) IP67 Driver Box and Waterproofing

### EQUIPMENT CHECKLIST

Some of the items you will need include:

- Electrical pliers
- Puck pliers (provided)
- Wire hook (provided)
- Cable Snake

### GENERAL NOTES

All LED Pucks are factory tested for a minimum of 24hrs.

### CAUTIONS!

Observe the following cautions.



LED PUCK INSTALLATION SHOULD BE CARRIED OUT BY A LICENSED ELECTRICIAN ONLY.



ENSURE THAT YOUR CHOSEN CABLE IS MINIMUM 0.5MM<sup>2</sup> CROSS SECTIONAL AREA AND MAXIMUM 2.8MM OUTSIDE DIAMETER INCLUDING INSULATION. USE OF INCORRECT CABLE WILL VOID WARRANTY.



BE CAREFUL THAT THE WIRE INSULATION IS NOT DAMAGED ON SHARP INTERNAL BURRS



LEDS ARE ALWAYS CONNECTED IN SERIES. TAKE CARE TO OBSERVE POLARITY.



READ AND OBSERVE THE PRECAUTIONS ON YOUR CHOSEN LED DRIVER. ALWAYS CONSULT THE DRIVER MANUFACTURER OR YOUR DISTRIBUTOR IF YOU HAVE ANY QUESTIONS.



LED PUCKS WILL OVERHEAT AND MAY CAUSE DAMAGE IF KEPT RUNNING OUTSIDE THE RAIL CONTINUOUSLY.



THE PROVIDED COOLSPICE CONNECTOR IS DESIGNED FOR A WATERPROOF CONNECTION. TO AVOID WATER INGRESS, DO NOT STRIP THE WIRES. STRIPPING THE WIRES WILL VOID WARRANTY.



DO NOT UNDERTAKE INSTALLATION WITH DRIVER POWERED.

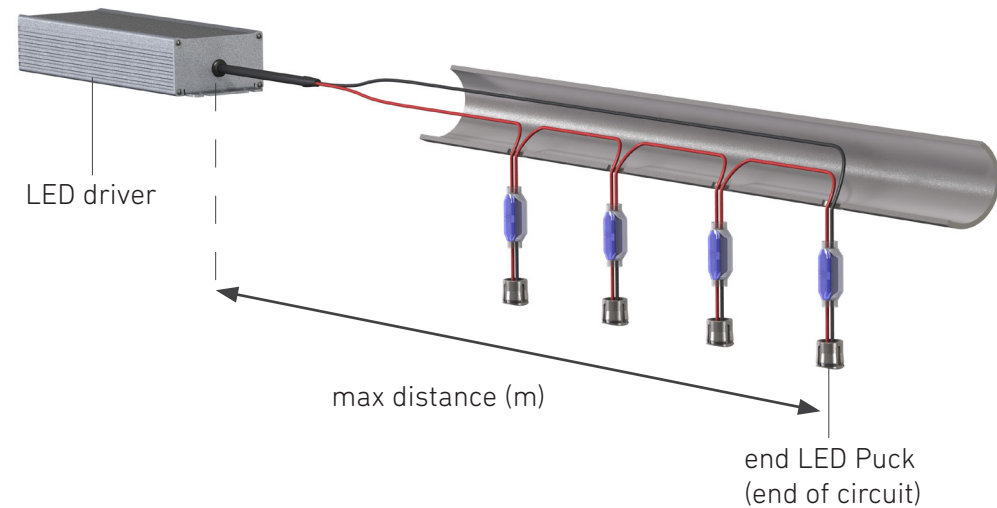


ALWAYS USE PLIERS. DO NOT STRIP THE WIRES. ENSURE WIRE IS PUSHED ALL THE WAY INTO THE CONNECTOR.

## RECOMMENDED DISTANCE BETWEEN LED DRIVER AND THE END LED PUCK

Observe this guide to avoid any significant voltage drops in the circuit. Note the relationship between the number of LED Pucks in the series, wire size, and distance between the end LED Puck (end of circuit) and the LED driver.

**NOTE!** Ensure that your chosen cable is minimum 0.5mm<sup>2</sup> cross sectional area and maximum 2.8mm outside diameter including insulation. Use of incorrect cable will void warranty.



| Number of Pucks in Series | Wire Size (mm <sup>2</sup> ) | Max Distance (m) between end LED Puck and LED Driver |
|---------------------------|------------------------------|--|
| 35                        | 0.5                          | 100  |
| 35                        | 0.75                         | 150  |
| 32                        | 0.5                          | 200  |
| 32                        | 0.75                         | 250  |

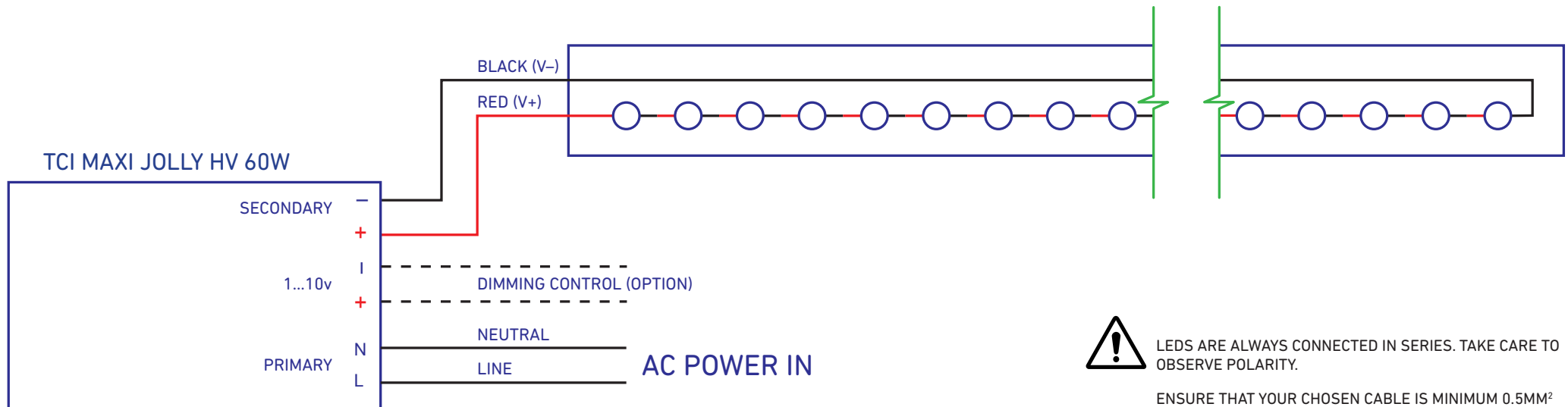
Table 1. The table above shows an example number of LED Pucks in a series with the distance between the end LED Puck and the driver without any significant voltage drop

## WIRING DIAGRAM

LED Puck is connected in series. Take care to observe polarity.

**NOTE!** This diagram must be printed in colour to show the correct wiring procedure.

1 TO 35 LED PUCKS



LEDs are always connected in series. Take care to observe polarity.



Ensure that your chosen cable is minimum 0.5mm<sup>2</sup> cross sectional area and maximum 2.8mm outside diameter including insulation. Use of incorrect cable will void warranty.



Read and observe the precautions on your chosen LED driver. Always consult the driver manufacturer or your distributor if you have any questions.

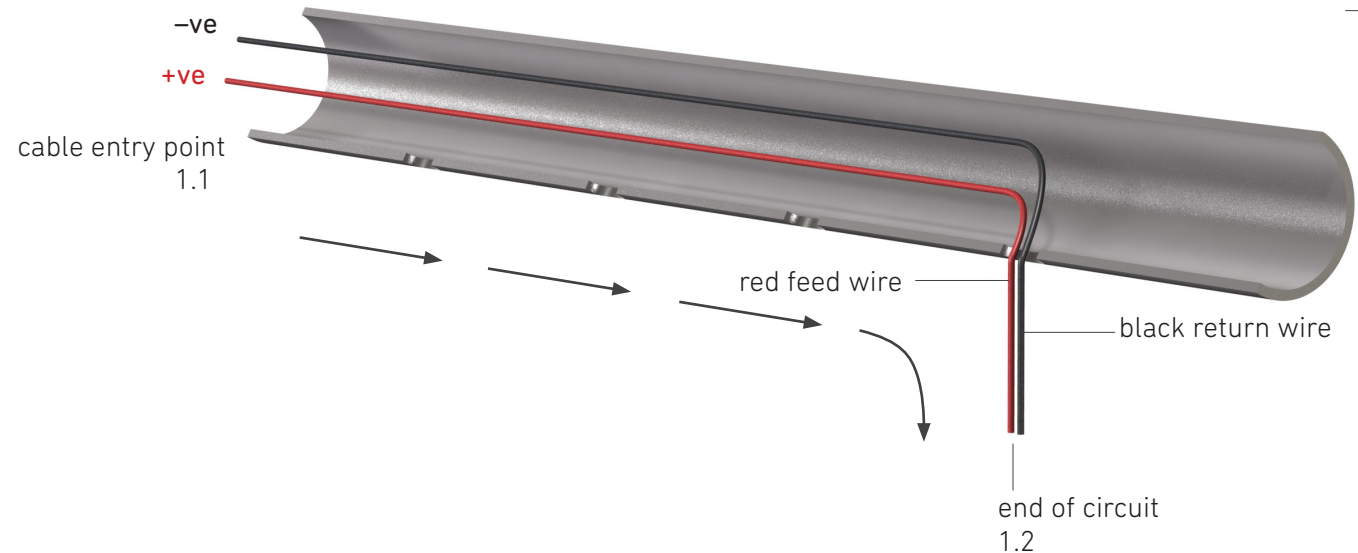
## 1. RUN THE CABLE

1.1 Run red and black wire through the rail for the designated circuit as per wiring specifications.

1.2 Pull both wires through the hole furthest from the cable entry point (this is the end of the circuit).

**NOTE!** In this guide, the red wire pictured here is referred to as the red feed wire. The back wire is referred to as the black return wire.

**NOTE!** Ensure that your chosen cable is minimum 0.5mm<sup>2</sup> cross sectional area and maximum 2.8mm outside diameter (including insulation)



BE CAREFUL THAT THE WIRE INSULATION IS NOT DAMAGED ON SHARP INTERNAL BURRS



ENSURE THAT YOUR CHOSEN CABLE IS MINIMUM 0.5MM<sup>2</sup> CROSS SECTIONAL AREA AND MAXIMUM 2.8MM OUTSIDE DIAMETER INCLUDING INSULATION. USE OF INCORRECT CABLE WILL VOID WARRANTY.

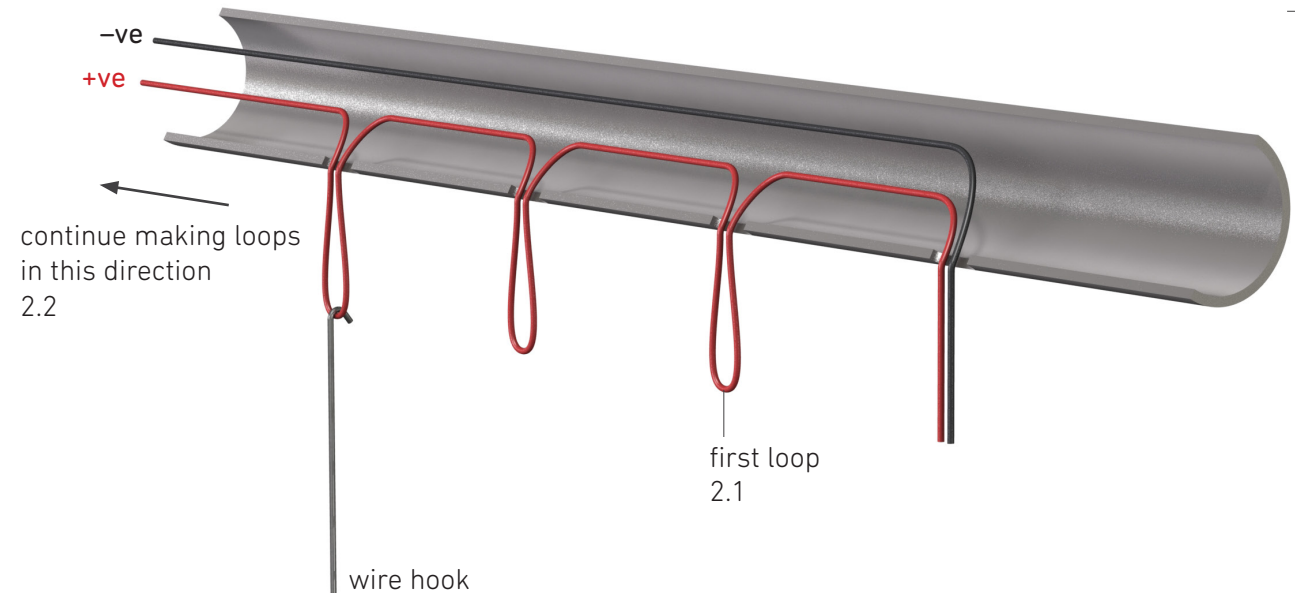
## 2. PULL RED WIRE LOOPS

2.1 At the last hole before the end of circuit, use a wire hook to gently pull out 100mm length of red feed wire from the hole to create your first loop. Tape the loop temporarily to outside of rail to prevent it being pulled back in.

2.2 Repeat above step (2.1) for each hole taking care to not pull the previous loop back into the tube.

**NOTE!** Ensure there is extra red wire available as every hole will require 100mm of loop pulled through.

**TIP!** Use a hook made from stiff wire to gently pull the red loops through the holes.



### 3. CONNECT PUCKS

3.1 Cut red loop wire protruding from hole.

3.2 Using the provided CoolsplICE connectors, connect the black wire from the LED Puck to the red feed wire which leads towards end of circuit.

**NOTE!** Check that you have the correct wire by gently pulling on the red feed wire to trace the direction of the cable.

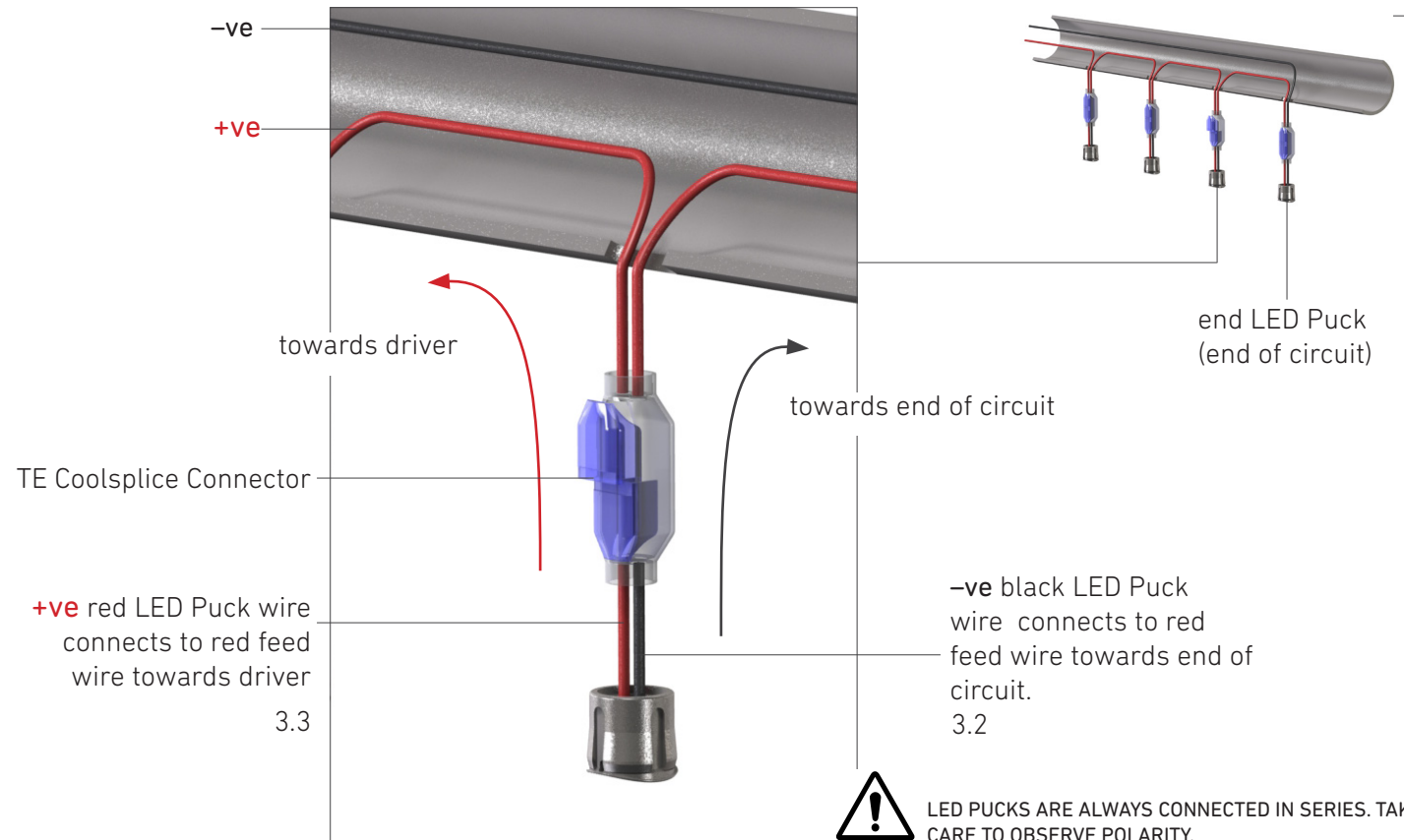
3.3 Connect the red LED Puck wire to the red feed wire leading towards driver.

3.4 Repeat above steps (3.1 – 3.3) for all remaining pucks EXCEPT the end LED puck at the end of circuit (see next step).

**NOTE!** LED Pucks are always connected in series. Take care to observe polarity.

**NOTE!** Always use pliers. Do not strip the wires. Ensure wire is pushed all the way into the connector.

**NOTE!** The provided CoolsplICE connector is designed for a waterproof connection. To avoid water ingress, DO NOT strip the wires. Stripping the wires will void warranty.



Connect LED Pucks observing polarity



LED PUCKS ARE ALWAYS CONNECTED IN SERIES. TAKE CARE TO OBSERVE POLARITY.



ALWAYS USE PLIERS. DO NOT STRIP THE WIRES. ENSURE WIRE IS PUSHED ALL THE WAY INTO THE CONNECTOR

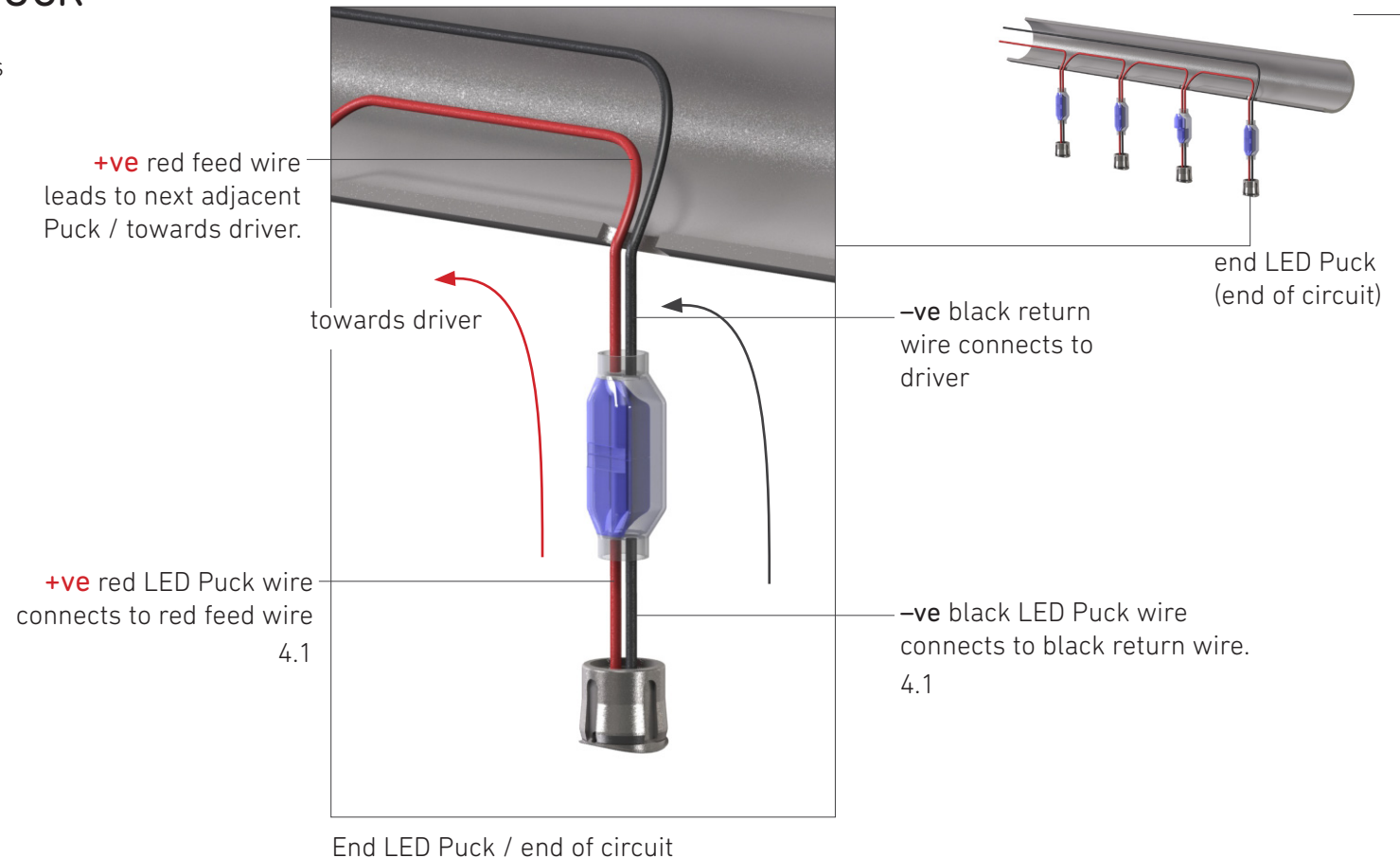


THE PROVIDED COOLSPLICE CONNECTOR IS DESIGNED FOR A WATERPROOF CONNECTION. TO AVOID WATER INGRESS DO NOT STRIP THE WIRES. STRIPPING THE WIRES WILL VOID WARRANTY.

## 4. CONNECT THE END LED PUCK

4.1 Connect the end LED Puck in the series as follows:

- The red wire on the LED Puck connects to the red feed wire.
- The black wire on the LED Puck connects to the black return wire (leading back to driver).



## 5. CHECK TEST THE SYSTEM

5

**NOTE!** This step requires TEMPORARILY connecting the driver to confirm the system is working correctly. Please ensure you observe your driver's safety precautions and operating instructions.

### 5.1 Connect the driver as follows:

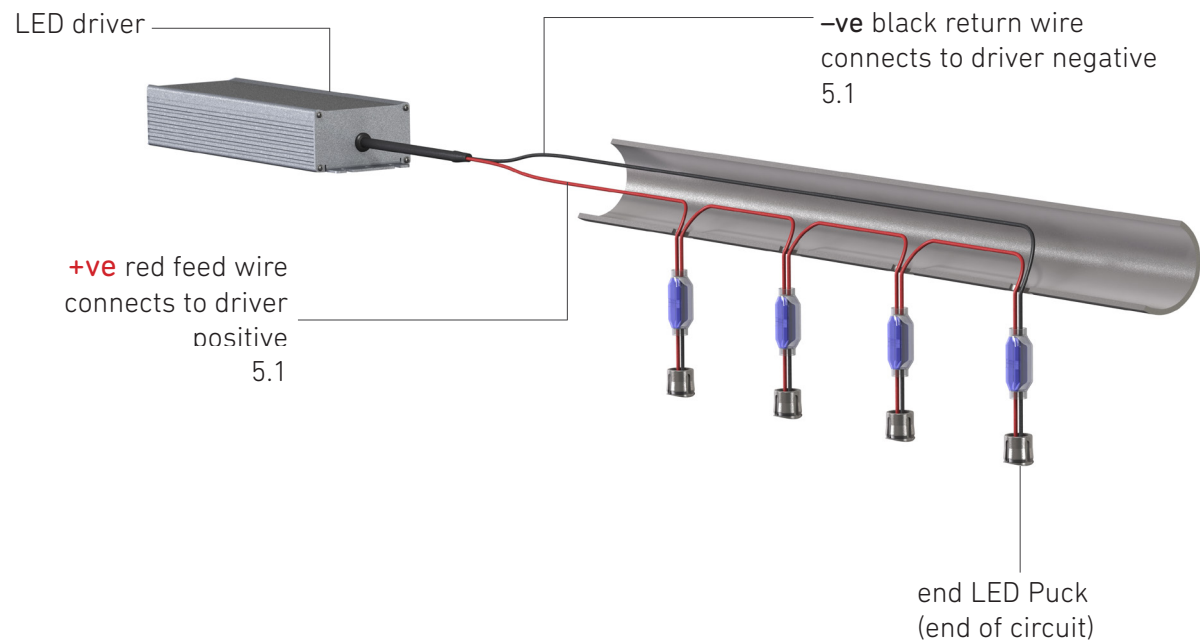
- Connect the driver positive (+) output to the red feed wire.
- Connect the drive negative (–) output to the black return wire.

### 5.2 Apply power to the driver.

**5.3** Check that ALL the LED Pucks are illuminated. Ensure that you only run the Pucks for a brief duration — 2 to 3 minutes maximum — to test illumination only.

**5.4** Disconnect power and proceed to next step.

**NOTE!** DO NOT continuously run the LED pucks outside the rail. ONLY power the Pucks for a brief duration (2-3 minutes maximum) to test illumination.



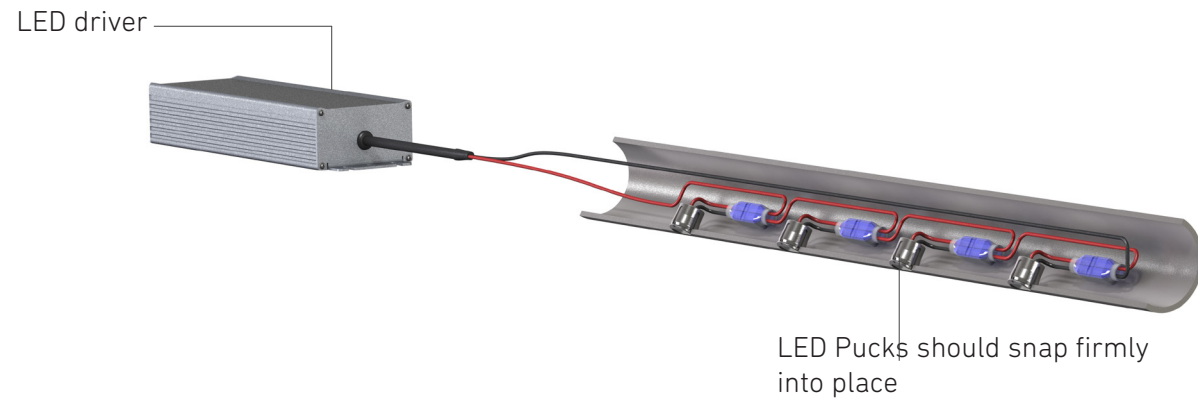
DO NOT CONTINUOUSLY RUN LED PUCKS OUTSIDE OF THE RAIL. LED PUCKS WILL OVERHEAT AND MAY CAUSE DAMAGE IF KEPT RUNNING OUTSIDE THE RAIL



## 6. INSERT LED PUCKS

**6.1** Push the LED Pucks into the tube. The Pucks should snap into place firmly and securely.

**6.2** Ensure correct alignment of LED Pucks. If not use the provided Puck pliers to align correctly, taking note to avoid scratching the lens.



## 7. CONFIRM SYSTEM IS WORKING

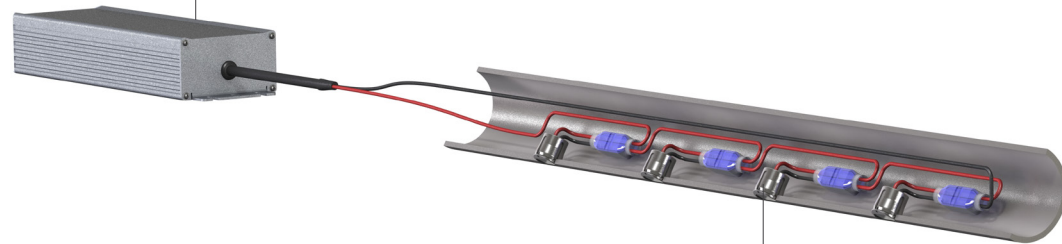
7.1 Apply power to the driver.

7.2 Check that ALL LED Pucks are illuminated.

With the LED Pucks now installed securely within the handrail, the system is ready for extended operation.

**NOTE!** Please ensure you observe your driver's safety precautions and operating instructions.

LED driver



Confirm illumination in all LED Pucks.



READ AND OBSERVE THE PRECAUTIONS ON YOUR CHOSEN LED DRIVER. ALWAYS CONSULT THE DRIVER MANUFACTURER OR YOUR DISTRIBUTOR IF YOU HAVE ANY QUESTIONS.

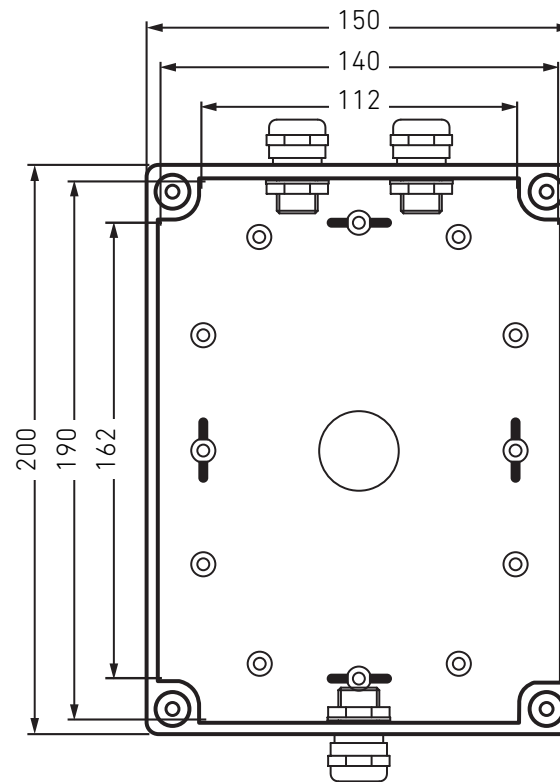
## IP67 DRIVER BOX INSTALLATION

The optional IP67 driver box installation is required for a total waterproof driver solution. Note the box layout and waterproofing checklist below.

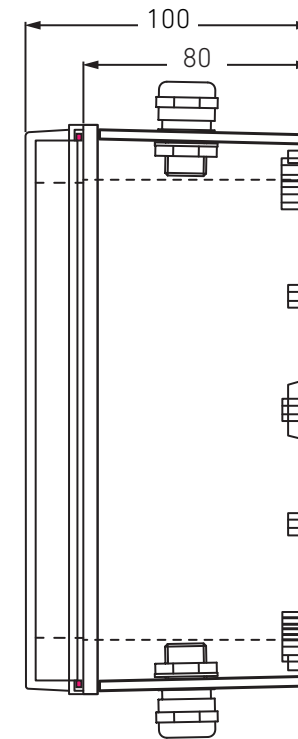
### WATERPROOFING CHECKLIST

To ensure your warranty is maintained, please observe the following:

- Use round cable ONLY.
- Cable diameter range: 4mm - 9mm
- Any unused glands must be plugged.
- Check that gland nuts and lid screws are tight.



TOP VIEW WITH COVER REMOVED



SIDE SECTION VIEW



PLEASE CONTACT PLANET LIGHTING OR YOUR DISTRIBUTOR IF YOU HAVE FURTHER QUESTIONS.