

## 12V WIRING INSTRUCTIONS



To connect up a Lumena 12v garden lighting system is very simple and does not legally require an electrician, although we would recommend that an electrician checks the system to make sure there are no short circuits before connecting it to the mains via a Lumena 12v transformer.

Any person competent in DIY will find it straight forward and the only tools required are a set of wire strippers and a small flat blade screwdriver. 12 volt systems are intrinsically safe and will not give an electric shock if wrongly wired or even short circuited.

All Lumena transformers are complete with a wired plug which needs to be plugged into the mains. Therefore all that is necessary is an external waterproof mains 230-240 volt socket, which must be installed by a qualified electrician if there is not one already in place.

The most important point to remember is that all lights must be wired in parallel. Put simply, all the same colour wires must be connected together and not run from one fitting to another. Never join the blue and brown wires together!

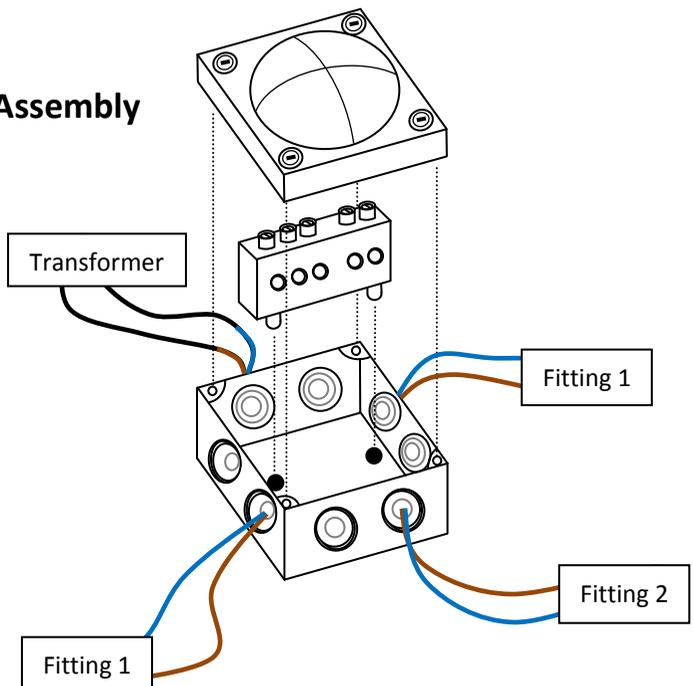
Use “Wiska”, or similar, waterproof junction boxes to connect the wires together in parallel. See our pictured instructions below and overleaf for more details.

### **Wiska Junction Box Assembly**

This 8 Way Junction Box is rated IP67 so is suitable for wet conditions.

A self sealing membrane ensures the junction box sustains its IP rating once pierced and external cables pass through each entrance.

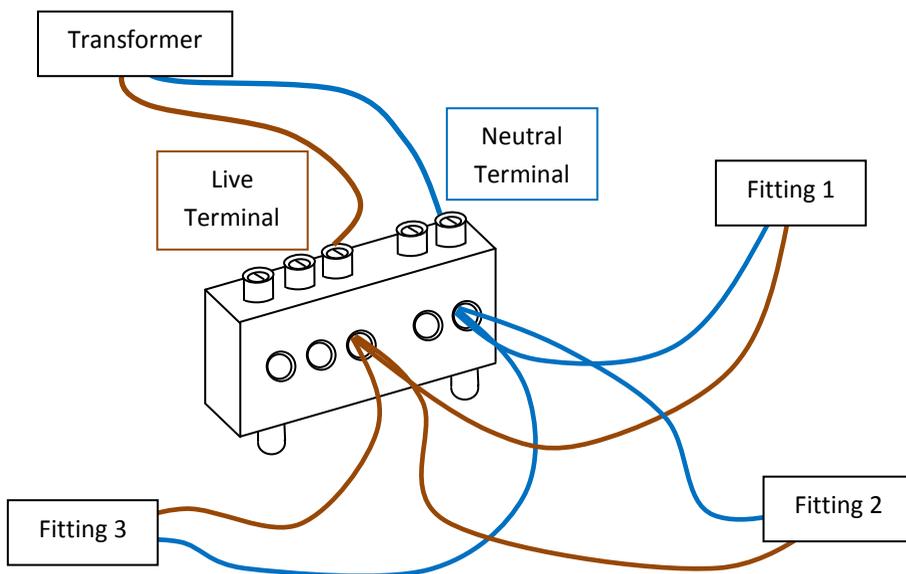
Screw in cable glands are available to securely clamp external cables in place if preferred.



In places where there is a likelihood of possible cable damage by rodents, squirrels etc., it is advisable to place the cable inside flexible conduit.

Always use 2 core insulated rubber cable as supplied by Lumena. For most applications 0.75mm<sup>2</sup> cable is sufficient but for longer runs over 20 metres it is recommended to use 1.5mm<sup>2</sup> cable to reduce any voltage drop.

### Wiring of Terminal Block



\*Ensure all of the same coloured wires are connected to the same terminal (Blue = Neutral, Brown = Live).

\*To wire a larger number of fittings to one junction box, connect two terminal points together to make extra room for cables.