

[Which lighting system for me?](#)

There are three basic types of lighting system – 240 volt, 12 volt and solar. So what are they, and what are the benefits and disadvantages of each?

[240 Volt Lighting](#)

A 240 volt light runs directly from your mains supply. It can either be plugged into a socket (such as your bedside lamp) or hardwired in (such as your ceiling lights). Mains voltage systems are well understood by electricians, and in most cases if you presented them with a nice new 240v light that you've just bought they'll know exactly what to do with it.

The two big advantages of 240v lights are:

- ✓ There is no need for a transformer
- ✓ The range of products and styles is huge – there is truly something for every taste and budget!

The downsides are:

- ✗ Unless you are very competent you won't be able to install the light yourself – we would never recommend anything other than using a qualified and reputable electrician.
- ✗ If you wish to run lights through the garden, for example if you wanted some post lights at the end of your garden, you'd need to protect the cables using armouring. Only the last 2 metres to the light can be flexible cable.
- ✗ 240v outdoor lights can be susceptible to water ingress, which can trip your power. Look out for the IP rating of the lights, and ensure that connections are watertight.
- ✗ Once installed, the lights are fixed.

What to look out for

- Does the light come with a BS standard plug, or is it an open cable end?
- Is the light supplied with a bulb? In most cases, as with your inside lights, it won't be.
- The IP rating – should be at least IP44 or higher.

We sell a range of 240v lights under quality brands such as Luxform, SLV and Nordlux. We can also give advice on designing your system and help finding an installer.



12 Volt Lighting

A 12 volt light requires a transformer to step the voltage down (i.e. transform it) from 240 volt to 12 volt. There are a number of ingenious 12 volt systems on the market – the ones we sell are designed to be easy to use and not require any great electrical knowledge.

12 volt systems have a number of advantages:

- ✓ They are incredibly easy to install. In most cases, plug your transformer into a socket, plug your light into the transformer, and switch on. You can genuinely be up and running in less than 2 minutes. Of course, it takes a bit more time if you want to run an extension cable and add multiple lights!
- ✓ They are flexible – you are not restricted in where you can lay cables, and so long as you don't exceed the transformer capacity (see below) you can just add more lights when you wish. As many of the lights just spike into soil, they can be moved around if you wish too.
- ✓ If a cable is inadvertently broken, the risk of electric shock and the damage it will cause is much much lower. This makes the system ideal for homes with children or pets.
- ✓ The system can handle a bit of moisture, so is unlikely to trip your electrics if a bit of rainwater gets onto a bare cable.
- ✓ Most 12 volt lights are supplied with a bulb, and most are LED meaning economy is good.



The disadvantages are:

- ✗ Lights are often not as bright as 240v. However some of the new LED bulbs on the market are excellent.
- ✗ Should you want an electrician to install your system, some may not be familiar with 12 volt and may have had bad experiences from old style systems. The new modern systems that we sell though are light years ahead of old style systems.
- ✗ You are limited in how far away you can run the cables from your power source. Generally we would recommend no more than 40-50 metres.



What to look out for

- The connection. Does it come with a 2 pin plug (e.g. Luxform), a 3 pin plug (e.g. Techmar), or an open ended cable. If you are unsure, we can advise on what connectors to use.
- The wattage. If you overload the transformer, it will burn out. Simply add up the wattage of the lights, and check this is lower than the capacity. For example – a 22 watt transformer will easily cope with four 5 watt lights.
- The lumen rating of the light – as a guide, anything over 250 lumen is very bright whereas under 100 lumen is a softer background light.
- The IP rating, which should be IP44 or higher. Only IP68 or higher can be used underwater.



We sell 12 volt systems from Luxform, Techmar and In-Lite, which are all “plug and play” with a minimum use of fiddly connections. We can also give advice on designing your system and help finding an installer. Where there is a lot of moisture, we also sell waterproof boxes to protect the connections.

Solar Lighting

A solar light takes the sun's energy, stores it in a battery and discharges light in the dark hours.

The advantages of solar are:

- ✓ It's green – using 100% renewable energy.
- ✓ Very flexible, the lights generate their own power so no need for cables. And as many are on ground spikes they can be placed anywhere.
- ✓ Solar lights tend to be inexpensive.

The disadvantages are:

- ✗ Brightness is generally not very high, as otherwise the batteries would get drained. There are however some neat solutions such as those that have motion sensors that increase brightness when something moves in front of the light.
- ✗ Batteries will become less effective over time and need replacing every couple of years – they are specialist batteries and can be expensive.

We sell solar lights from quality brands such as Luxform, in both "serious" and "fun" styles.



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