



If you're sick of trying to cook dinner by the light of your camping lantern, then you've probably thought about investing in a 12V lighting setup for your weekend camping escapes. Whether you want to add lights to your tent, caravan, vehicle, annexe or awning - once you get the hang of the basics, it's super easy to add extra illumination to your setup.

In this guide, we've put together a quick video explaining all of the features of 12V lighting, and what you need to know. Then we go into further detail by answering your most frequently asked questions about 12V lighting.

So, without any further ado, let's get stuck into it!

*In this video, our gear guru Ben explains the basics of how to choose 12V camp lighting for beginners.*

## **Power options for 12V lighting**

You have a few different options for powering your 12V lighting and other devices when you're camping.

A few factors to consider are: whether the power source can store a charge as well as recharge; the power output; the weight and portability; and whether it has enough outlets for your use.

### **1. Dual battery**

If you already use a portable 12V fridge, fan or other appliances whilst camping, then it's likely that you already have a dual battery setup.

A second battery can be wired into your vehicle, so that it's separate from your main battery, and will charge up while the engine is running - ideally while you're driving. This enables you to run 12V gear such as fridges, lights, fans and other equipment without the risk of flattening your battery.



*A dual battery system is a reliable way to power your gear off the grid. Image: Aaron Schubert*

### **2. 12V socket**

If you don't have a dual battery and you want to power it from your car, you can power your lighting and other gear into the factory fitted 12V socket in your vehicle. This is generally not an issue with smaller devices such as lanterns, your phone or smaller tech items. However, if you want to run lights - you might want to consider an alternative as you'll risk flattening your vehicle's starter battery within a day.

There's only so much power you can draw from a single 12V outlet though, and if you find the sum of all your ratings is pushing the limits (see below for more detail on this) then you're best consulting an auto electrician to have the cables in your car upgraded.

An even better solution is a dual battery system as touched on above, with heavy duty wiring, cables and plugs.

## 4. Power pack or power station

A portable power pack or station is also an option that you have to power your 12V lights. Depending on the product you choose, you can charge it up before you leave from your mains power, top it up with solar panels or charge from your vehicle whilst on the road.



*A power bank or power station stores a charge, so you can just plug and play. Image: Goal Zero*

### Power draw

The number of lights you can run from one cigarette socket can get a bit technical, so let's cover the basics in layman's terms. A factory fitted cig socket is rated to about 120W or 10A, and the sum of all the ratings of the light bars (for example) you run from the battery can't go over this.

You may think that this means you can run 20 x 0.48A light bars from a 10A socket (20x4.8 = 9.6A), but this is not the case. If you push power consumption to the limit of the plug, this will cause things to heat up which could become dangerous or damage your gear.

### What features should I look for in 12V lighting?

Check out the specs to make sure the lights have a low power consumption so that they won't run down your battery. Ideally, you want lights with a high light output and higher quality LEDs so that they last longer.

If you're just setting up strip lighting on your car, or around your boat, then the lumens can be lower as you won't need as much visibility. This will also help you conserve precious battery power.

You also want to consider durability. If your lighting is semi-permanently mounted onto your vehicle, then they will need to be able to handle the vibrations of your 4WD without getting damaged.



*High-quality lights are more durable, brighter and last longer on your adventures. Image: Aaron Schubert*

## Lighting Options:

### LED strip lights

The benefits of LED strip lighting are that it's super easy to install and the power output compared to weight is excellent. They're also cool to the touch in low applications, have a long life (as you don't need to replace the globes) and have an efficient power draw.

## Flexible tape lighting

You can get flexible tape options which can be cut to fit, have adhesive tape on the back, as well as connectors on each end. These are usually low powered, so they're not super bright like other lighting options, but they use up very little energy.

LED strip lighting is a great option to add on your awning, or on your 4WD but just keep in mind that it will be stuck to your chosen surface, so you can't take it off easily. However, this is also an advantage as you won't need to move it around.

If you think that you'd prefer something that's more portable, then you might want to consider strip lighting with Velcro on the back instead, or a light bar kit setup.



*Enjoy the space under your awning more in the evenings by attaching some tape lighting.*

*Image: Korr Lighting*

## LED strip lighting

Other forms of LED strip lighting will be attached to a strip of canvas, which has Velcro on the back so that you can mount it. This is a little more versatile as you can set it up very quickly, and move it where you want it. However, the tradeoff is that it's not flush fitting, and it can catch on moving items such as camper trailer frames, gazebos and awnings. If you want a more permanent lighting option, flexible tape lighting would be your best bet.



*Strip lights and light bars can really brighten your gazebo or shelter when the sun goes down.*

*Image: Korr Lighting*

## LED camping light bars & kits

You can purchase individual bars or a light kit which usually comes with all the necessary parts that you will need to set up the lights yourself - including a cigarette plug to connect it into your vehicle, extension leads, and a dimmer switch for manual adjustment.

The benefits of light bar kits are that they offer a higher amount of lumens and have the flexibility for different mounting options. They also perform better in comparison to flexible tape lighting in hot conditions.



*You won't need to wear your headtorch around camp if you set up lighting around your tent.*

*Image: Korr Lighting*

## How many light bars do I need for a campsite?

Light bars will come in a variety of sizes, starting at 25cm, which is equivalent to the light you would get from a lantern. The largest size you can get is 100cm in length which is enough to light up a gazebo or tent awning from one direction.

A light bar kit will come with up to 5 bars, which is going to be more than enough for an entire campsite. This is well within standard 12V socket ratings and gives you 1-3 days of continuous lighting from a deep cycle auxiliary battery (as mentioned above). You could run



this from your regular car battery, but we wouldn't recommend this as it could flatten your battery after a day of use, or if you accidentally leave them on.

You can also use extension leads to create bigger gaps so that you can set up the bars all around the tent/shelter or campsite. The benefit of choosing a kit is that it comes with different sized leads which makes it easy to customise it to your specifications.

A single bar kit isn't going to give you those options as you will need to purchase leads to use it with the rest of your gear. So, this is more of an add-on if you're looking to add more illumination to your current setup.



*Illuminating your whole campsite will be fairly easy with one light bar kit. Image: Korr Lighting*

## Mounting light bars to your tent or awning pole

If you want to fix a light bar to an awning pole or tent pole, you can purchase [pole clamps](#) which will connect onto the rear channel of the light bar. This accessory provides you with some extra versatility to move your lighting around to suit your needs at the time. Or, you can use Velcro strips or cable ties for a more permanent application.

## Should I choose white or orange lights?

Bright white lights can attract bugs, so colour is something to factor in when making your decision. White light will provide better visibility, but orange is going to reduce the presence of bugs by a significant amount.

If you choose to use white LEDs, avoid hanging them over cleaning/washing or food areas. This will draw bugs to the area, which can get messy and unsanitary when preparing meals. To be on the safe side, you might want to choose white and orange lights so you have both options.

Just keep in mind that if you want to extend your [dual colour lighting system](#), you will need to use [dimmers](#) and [cable kits](#) that are compatible with dual orange/white light bars and other products.



*You have the option of white or orange coloured LEDs. Image: Korr Lighting*

## How do I extend my light kit/lighting setup?

This is going to depend on what brand lighting you have. Some brands, design their kits so that you don't have to solder anything. Instead, you can just purchase extra leads to extend and customise it to what you want. You just need to make sure that they're compatible.

## Can I run my 12V camping lights from a 240 powerpoint?

Yes, you can, but you will need a [transformer/plug pack](#) that can handle the power draw of your lights.



## **Are light kits compatible across different brands?**

The only way to know if parts are compatible across different ranges is to check the connectors to see if they fit. We do however recommend sticking with the same manufacturer. These plugs are made to be water resistant, so ensure you use compatible brand components so that they form a tight seal.

**Do you have any other queries about 12V lighting that you want us to answer? Let us know in the comments below.**