

2 What tools will I need, where can I buy them and how much will they cost?

For general use

Hand tools

Most people will have a basic set of spanners and screwdrivers for general maintenance around the home; these are handy for accessing equipment inside your caravan or motorhome that may be hidden behind panels or trim. If not, these can be purchased very cheaply from your local DIY store or online. So, let's say £20.

The most commonly used spanners are 10mm and 13mm.



2-1. Hand tools.

Electrical testing

Multimeter

You will need a multimeter to test the leisure battery voltage, the battery charging system, and for checking the condition of the vehicle electric hook-up point and cable.

You will need a multimeter that measures ohms for any tests on the electric hook-up facility of your vehicle. A good quality multimeter can be purchased on sites such as eBay or Amazon for as little as £10.



2-2. Multimeter.



7-3. Resistance.

in this test) your multimeter display should read maximum resistance (see image 7-3).

- This tells us the pins of the hook-up lead are adequately insulated, not going to short-circuit, and that all is well.
- Repeat the test between the plug pins at the other end of the cable.
- Image 7-4 shows obvious damage to a cable that should be replaced.
- Visually check the condition of the vehicle's hook-up point. If there are signs of damage, visible cracks, or signs of overheating then the hook-up point should be replaced.



7-4. This hook-up cable has damage to the outer insulation.



7-5. Hook-up point condition.

DO YOUR OWN CARAVAN OR MOTORHOME HABITATION CHECK

If you've found no problems with your hook-up lead or vehicle hook-up point it's time to plug in and move on.



If you're doing this at home (as I suppose most people will be), and if you don't already have one, you'll need an adapter such as the one on the right, so that you can connect to your home mains supply.

RCD and MCBs

- RCD is the abbreviation for residual current device.
- MCB is the abbreviation for miniature circuit breaker.

It's very likely you'll have an RCD unit somewhere in your caravan/motorhome. If you haven't, then either you haven't got mains electric, or your vehicle is a deathtrap!

In most cases the RCD will look something like the one in image 7-11. It might be smaller, or it might be bigger, depending on how many plug outlets and electric appliances you have fitted to your vehicle. But, in this particular case, size doesn't matter as their operation is basically the same.



7-10. Mains lead adapter.



7-11. RCD unit.

9 The liquefied petroleum gas (LPG) system

The LPG locker and components

Innovative products on the leisure vehicle and marine market can cut out the need for LPG entirely. Many appliances that did run on LPG, such as hobs and interior heating systems are now available to run off the vehicle diesel tank.

Also, advances in lithium battery technology means that a very powerful battery bank, half the size and weight of conventional lead-acid batteries, can be linked together to run electric hobs and other appliances.

However, alternative systems to LPG can be very costly, and therefore gas systems are still, by far, more prevalent.

If you spot or suspect a problem with the LPG system, any necessary repairs *should only be carried out by an LPG qualified technician.*

💡 LPG is highly flammable, so it goes without saying the while working around it there should be no smoking or naked flames.

In the last section you tested the operation of the three-way fridge on gas, so now you're going to move on the other LPG appliances. But,



9-1. A typical gas locker compartment.

12 Safety equipment

Every caravan or motorhome should be fitted with a fire extinguisher and/or fire blanket for obvious reasons. If you haven't got one, you should purchase one forthwith.

A smoke detector and carbon monoxide alarm are also essential pieces of kit for any leisure vehicle.

Assuming you already have these items the following checks should be carried out:

- ✓ Check that the fire extinguisher is in good condition, secure, and that the gauge is reading full pressure (in the green area).
- ✓ Check the extinguisher is suitable for the types of fire that might occur in leisure vehicles – this is usually ABC Dry Powder.
- ✓ Check the date of the extinguisher. On the model pictured the date is stamped on the case, but on other models it might be on the neck of the extinguisher, or on a printed label.
- ✓ The service life of an extinguisher is around ten years, after which time it should be replaced.



12-1. This extinguisher has full pressure.