



OFF THE GRID CAMPERS

ELECTRICAL COMPLIANCE & MAINTENANCE

At the time of commissioning of your camper, the RCD, MCBs, GPOs, 15A Lead and the Smoke Alarm, are all tested by our Licensed Electrician to ensure they are all functioning correctly. Accordingly, a certificate of compliance, testing and safety is issued, of which you are provided with at handover. We also provide to each of our customers, equipment manuals, as well as important procedures and notices in addition to the training that is provided at the time of handover. This is all in accordance with our Customer Handover Checklist. However, after you have taken ownership of your camper the ongoing checking and complying of the camper and equipment in your camper, now resides with you. You are advised to ensure that everything in your camper remains compliant, so that you are not putting yourself, others or any of the equipment at risk. It is imperative that you understand what equipment is in your camper that requires ongoing maintenance or testing to ensure compliance and safety is maintained.

RCD & MCBs

We use the Powersafe RCD DUO Device in all our campers. It is clearly labelled on the clear window of the 230V switchboard where it is located, as well as on the RCD DUO itself. The RCD DUO combines an ESD (Earth Sensing Device) with a 2 Pole RCBO, to sense and trip in the instance of voltage on the earth circuit. This means that when your camper is not plugged into the grid, you still have 230V electrical safety when running off battery and inverter power, or when you are using a portable generator. The inverter and a portable generator are floating power sources. The RCD DUO is therefore required as your camper can't have an MEN (Multiple Earthed Neutral), and your camper is not earthed, (attached to a Fixed Earth), unless you are using the grid for mains supply. We also use 2 Pole MCBs (Miniature Circuit Breakers) in the 230V switchboard, and 2 Pole General Power Outlets (GPOs), as these are required for mobile installations to provide complete isolation when they are switched off.

We have fitted more than one 2 Pole MCB in your switch board, so that in the unlikely event of electrical fault on one circuit, this does not disable your entire 230V electrical system and makes troubleshooting easier for a licensed electrician, when they are investigating the fault. You have individual circuits for the air conditioning, the electric hot water system, and the for the GPOs.

TESTING: Powersafe recommends the RCD DUO is tested monthly. To do this, there are two orange test buttons on the RCD DUO. One test button on the DUO ESD, and the second on the RCBO / breaker that is attached to it. Press the test button on the DUO ESD to trip its breaker, and to ensure that the RCD DUO protecting this circuit is functioning correctly. Reset the breaker and press the test button, this time on the RCBO breaker itself. If either test button fails to trip, you will need to contact Powersafe or organise for a Licensed Electrician to come to site to verify and fix the fault.

If you require further information, visit <https://www.powersafe.net.au/>

NOTE: If you need to use a licensed electrician to perform any work on your camper, they need to be made aware of the fact that there is no MEN in the switchboard, and that the system is not earthed. A PAT (Portable Appliance Tester) machine will fail unless the camper is plugged into the Grid, or Mains Supply that has an MEN. Electricians use PAT machines to test the safety of electrical circuits and appliances. It helps them identify

potential electrical hazards before they can cause you or anyone else harm, including electrical shocks or fires. PAT testers perform various electrical tests, including earth continuity, insulation resistance, and lead polarity checks to ensure appliances meet safety standards.

GPOs

Downstream from the MCB's are the General-Purpose Outlets, or GPOs – these are also commonly referred to as “power points”. In our campers, we only use 2 pole GPOs and 2 pole breakers to ensure we are fully compliant with current legislation and safety standards. The GPOs are an outlet for 230V appliances such as the induction cooktop, kettle, laptop AC adaptors and other 230V AC appliances that you may wish to plug in.

TESTING: We provide free of charge, to all customers an RCD and polarity testing device, including the operating manual and a step-by-step guide on how to use it. You can use this tester in accordance with the manual and the instructions that we have provided to you to check the safe operation of your GPOs, the MCB's, the associated 230V wiring, and the RCD DUO Safety Switch in the camper.

15A LEAD

If you have purchased a new 15A Extension Lead from us it will have been tested and tagged with a “New to Service Tag” so it can be used at caravan parks. It may be a requirement at the caravan park that you are staying at that you must have an extension lead that has a current “test and tag” attached to it to comply with workplace safety obligations. For procedures on how to check your 15A extension lead, or your 15A to 10A adaptor, please refer to our Safe Mains Supply document and procedures.

TESTING: If you have any doubts regarding your extension lead(s) after a visual inspection, do not use it and get a Licenced Electrician to inspect the extension lead to ensure that it is safe to use. We also strongly recommend having your extension leads regularly tested and tagged. The frequency of how often you need to have your extension lead tested and tagged, will depends on the environment where it is used. The Test and Tag technician will advise on the frequency that you will need to have you lead tested, which will be in accordance with AS/NZS 3760.

SMOKE ALARM

We have supplied and fitted a state-of-the-art compact smoke alarm in your campers. The smoke alarm is tested and certified for use by our Licensed Electrician at the time of commissioning your camper. The smoke alarm is photoelectric, which is highly effective for detecting slow smouldering fires. It has been fitted with a 10-year long-life sealed battery which eliminates the need for regular battery replacement. Your smoke alarm also incorporates a low battery alert that will notify you with a series of beeps, for at least 30 days prior to the battery expiring. The smoke alarm also has two layers of mesh screening to minimise entry of insects and dust, which helps minimise nuisance alarms.

TESTING: The manufacturer recommends that your smoke alarm is tested monthly. To do this, press and hold the test button for 5 seconds to ensure the audible alarm is working.

The manufacturer advises further testing if:

- You have been away for an extended period.
- Following battery replacement.

- After cleaning the alarm or carrying out maintenance nearby.
- If you have experienced a false alarm or relocated the unit.

In addition to monthly testing, the manufacturer is also recommending every 3 to 6 months that you use a vacuum cleaner with a soft brush attachment to remove any insects or dust from the alarm's chamber. The battery must be replaced after its 10-year life span or if it starts beeping to ensure it keeps working effectively. We have provided you with a manufacturers operational guide at the time of handover. The manufacturer's guide always takes precedent should there be any variation between it and what is stated in this guide.

FIRE EXTINGUISHER

Although this device is not electrical, your camper has been fitted with a new Portable Fire Extinguisher which is mandatory under Australian Design Rules and Standards for campers. An ABE fire extinguisher is designed to combat fires involving ordinary combustibles (like wood, paper, and textiles) and flammable liquids (like petrol and oil) and electrical equipment. The "ABE" designation indicates its ability to handle Class A, Class B, and Class E fires, making it a versatile fire extinguisher.

Your fire extinguisher is as important as any of the other safety equipment that has been fitted to your camper. You are therefore required to perform regular checks on it and have the mandatory inspections and tests performed on it.

TESTING: At the commissioning of each camper the Fire Extinguisher installed is inspected and displayed with the manufacturer's tag. This tag is a starting point but not a permanent solution as it will need to be replaced at the first scheduled service by a certified professional.

Routine Visual Inspections: These can be done by anyone who has been trained on how to check for common issues like pressure gauge readings in the "green zone", intact tamper seals and any signs of damage to the nozzle or hose.

Regular Maintenance Checks: These should be conducted by a competent person, such as a trained employee or a fire safety professional and involve more detailed assessments of the extinguisher's condition and functionality.

Six-monthly: Check the pressure gauge ensuring it's in the green zone and look for any signs of damage.

Annually: Conduct a thorough visual inspection, checking for dents, rust, leaks, and any damage to the hose, nozzle, or handle.

Hydrostatic Testing and Refill: This test, which assesses the pressure vessel's integrity, must be performed by a certified professional with specialized equipment. ABE extinguishers, like other dry chemical extinguishers, require hydrostatic testing and refilling every five years. This involves emptying the extinguisher, testing the cylinder for pressure integrity and refilling it with new powder.

Replacement: If the extinguisher shows signs of damage, such as a dented or corroded cylinder or if it fails the hydrostatic test, it should be replaced immediately. Also, if the extinguisher is over ten years old it may be recommended to replace it depending on the manufacturer's guidelines.

If you find anything wrong, while you have performed your Routine Visual Inspections or the extinguisher has been used, partly or completely, the fire extinguisher will need to be inspected by a certified professional, to ensure that the fire extinguisher is still fit for purpose. Otherwise, you will need to replace the fire extinguisher.

Manufacturer's Instructions: Always refer to the manufacturer's instructions and warranty information for specific replacement recommendations.

CO ALARM

Your camper is fitted with a Quell PD04 Carbon Monoxide (CO) alarm. This is an essential safety device designed to detect the presence of the highly toxic, colourless, and odourless gas, carbon monoxide. The alarm is battery-operated and features a digital display that provides continuous monitoring of CO levels and displays the highest concentration measured since the last reset (Peak Level Memory). It is a crucial supplement to your smoke alarm as it is specifically designed to detect CO from sources such as gas appliances (for customers who use gas BBQs), heaters, or your vehicle engine or exhaust fumes. If the alarm sounds, indicating a dangerous level of CO, you must immediately take action to ventilate the camper and identify the source of the CO leak.

TESTING: The manufacturer recommends that you test your CO alarm weekly. To do this, press and hold the "Test/Reset" button for a few seconds. The alarm will sound a series of loud beeps, and the digital display will show a reading confirming that the alarm's circuitry and horn are working correctly. The green LED should flash every 30 seconds during normal operation, indicating the unit is powered and functioning.

Maintenance: You should regularly clean the alarm to remove dust and debris. Use a vacuum cleaner with a soft brush attachment and gently clean around the alarm's vents. Do not use any cleaning agents, solvents, or air fresheners near the unit, as these can damage the sensor.

The unit is powered by 3 x AA batteries which must be replaced when the low battery alert activates. The digital display will show "Lb" and a red LED will flash with a chirp every 60 seconds.

Replacement: The alarm has a 10-year limited warranty and an end-of-life deactivation switch. After 10 years, a different alarm sequence will sound, indicating it has reached its end of life and must be replaced immediately. Always refer to the manufacturer's operational guide for replacement recommendations. If you have any concerns or if the alarm shows a fault, it should be replaced immediately.

HEAT ALARM

Your camper is equipped with a Cavius Heat Alarm, a crucial safety device for detecting fires in areas where smoke alarms may be unsuitable, such as the electrical enclosure. This alarm is specifically designed to react to a rapid rise in temperature or once it reaches the temperature threshold of 58°C, making it highly effective at detecting electrical fires. It is less susceptible to nuisance alarms from dust, insects, or steam, which is why it's installed in the electrical enclosure. The alarm is fitted with a 10-year long-life battery and has a low battery alert function.

TESTING: The manufacturer recommends that you test the alarm monthly. To do this, press and hold the test button for 5 seconds until the alarm sounds to confirm the alarm's audible signal is working.

Maintenance: This alarm is a sealed unit, so no cleaning or maintenance is required other than monthly testing.

Replacement: The alarm will have a low battery alert in the form of a short beep every 48 seconds for at least 30 days before the battery expires. If you hear the low battery alert or the alarm has been activated by fire or if the unit is over 10 years old, the entire alarm must be replaced because it is a sealed unit – you can't just replace the battery.

VENTS & FILTERS

Your camper has been fitted with air filters behind each external vent. These vents and filters permit airflow into the respective compartments. They keep the compartment's air circulating to avoid the build-up of heat or

moisture, as well as the ingress of dust which can harm electrical components. From a safety perspective, we recommend inspection of the air filters at regular intervals and replacement as required. At the commissioning of our campers all vents and air filters are inspected as per our Handover Checklist. Customers are also provided with a full set of spare air filters if that option was chosen at the time of purchase.

Maintenance: Visually check the outside of each vent to ensure there is no debris or build-up of dirt that could otherwise clog or restrict the airflow of the vent. If there is, use a vacuum cleaner with a soft brush attachment to remove any dust or debris from the vent's openings. Following this, lift the door of the compartment and visually inspect the air filter behind each vent. The air filter can also be vacuumed (very gently). If the air filter appears to be too dirty, discoloured or blocked, it is time to replace it. To replace the filter, you will need to unbolt its housing first before replacing the filter and then refit the housing.

**A HARDCOPY OF THIS INFORMATION IS
PROVIDED TO ALL CUSTOMERS AT HANDOVER
IT IS ALSO AVAILABLE FROM OUR WEBSITE**

WWW.OTGCAMPERS.COM.AU/INFO