



Proudly 100% Australian Family Owned Since 2008

Owners

Manual

Welcome to the Swag Family...

Congratulations on the purchase of your new Swag Camper. As a 100% Australian family owned & operated business, we are so happy you selected to be part of our family.

No doubt you are looking forward too many happy years ahead travelling this great country in a SWAG Camper and we cannot wait for you to share photos and blogs about your experiences. That said, like any vehicle, you will need to maintain your Swag so that you can enjoy those hassle-free holidays.

Unlike a car, your camper may spend prolonged periods of no use. It is not until you go to use it again, that you realise you may not have checked the bearings after the last trip driving through salt water, or you have left the batteries to go flat. This handbook will help to answer most of the common questions we get asked daily in relation to product care and preventative maintenance. Our website is also a handy area for video tools and information.

Please have a good read and if you have any questions, feel free to give us a call

Again, welcome to the Swag Family.

Adam Mathieson

General Manager

FOR ANY ASSISTANCE WE ARE HERE.

PHONE: 1800 792 422

EMAIL: sales@swagcampertrailers.com.au

SOCIAL: Facebook – search OFFICIAL Swag Owners Group

WEB: www.swagcampertrailers.com.au

Enjoy Hassle Free Holidays...!!!

As per our Standard Warranty Terms & Conditions (contained herein), Camper Trailer & Hybrid maintenance is the responsibility of the camper trailer owner. Swag Camper Trailers is not liable to any warranty claims for poor maintenance, negligence, or wear & tear.

Just like buying a new care, Customers are required to have their camper trailer or hybrid van serviced annually or every 5000km (whichever is less) by a reputable service centre.

Items included at each service interval MUST include inspection & testing of:

- Wheel Bearings & Seals
- Wheel Nuts
- Wheel Alignment
- Brake Drum inspection & test
- Handbrake Cable tension & test
- Driving Lights test
- Electronic Brake Test
- Hub Bolt inspection & Tension check
- Swing Arm bolt inspection and tension test
- Swing Arm Grease
- Jockey Wheel inspection & Test
- Coupling Inspection & Test

Customers should keep a record of services as evidence may be required for any warranty claims.

MAINTENANCE AT HOME

Before You leave on any drive holiday:

- **CHECK YOUR JOCKEY WHEEL & HITCH ARE SAFE, SECURE AND GREASED.** Do a quick visual check for cracks in the plastic or welds.
- **CHECK YOUR DRIVING LIGHTS** all work when plugged into the tow vehicle i.e. brake lights, indicators etc
- **GREASE YOUR SWING ARM POINTS** – There are 2 to 4 grease nipples on the swing arms that can easily be greased
- **CHECK SWING ARM BOLTS** – Check the 4 swing arm bolts where the trailer connects to the swing arms are tight and there are no visual defects
- **CHECK WHEEL HUBS** - see service bulletin
- **CHECK WHEEL NUTS** – see service bulletin
- **ARE ALWAYS YOUR BATTERIES CHARGED?** You should always keep your battery charge level above 11.6volts.
- **GRAB A SHIFTER** – there is nothing better than grabbing a shifter/socket set or spanner set and doing a quick tension check on all the visual nuts and bolts. Especially if you do a lot of off road/corrugated road driving
- **CHECK YOUR ELECTRONIC BRAKE CONTROLLER WORKS** - each manufacturer is different - refer to the electronic brake controller manual
- **ENSURE EVERYTHING IS SECURE** – the last thing you want is to get to your destination and the camp chairs on somewhere on the Bruce highway...!!!

SHAKE DOWN TEST

Unless otherwise specified you are purchasing a product that is new and unused. Swag undertakes a rigorous QC process prior to your collection of the camper however we have not used your camper under full load therefore we encourage customers to use the camper as much as you can in the first 2-3 months. We call this a shake down test!

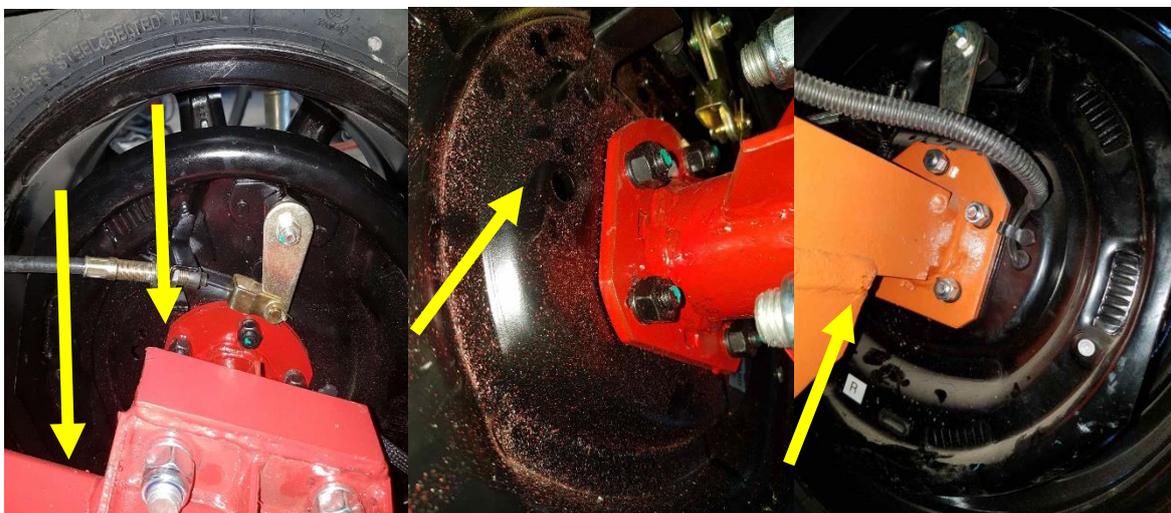
This shake down test puts the camper under load. It is normal for the camper body to flex, water pipes and fittings to stretch and brakes to bed down etc. Should you have any issues during this period, please contact Swag Service on 1800 792 422 to speak with a member of staff.

CHECK WHEEL HUBS

Wheel Hub bolts must be checked prior to every trip. In addition, we recommend a check every 100-200km on off-road/corrugated road environments and every 500-800km in normal drive conditions.

It is important to check your wheel hub bolts & nuts are tight to prevent uneven wearing on wheels, incorrect camber or in the worst case, a hub coming loose.

To check your hub bolts and nuts are tight, simply check the nuts on the back of the hub are tight with a hand spanner. To check the size spanner required refer to the nut size. Do not over tighten or use a rattle gun.



CHECK WHEEL NUTS

Wheel nuts must be checked prior to every trip. In addition, we recommend a check every 100-200km on off-road/corrugated road environments and every 500-800km in normal drive conditions.

It is important to check your wheel nuts are tight to prevent uneven wearing on wheels, incorrect camber or in the worst case, a wheel coming loose.

To check your nuts are tight, simply check the nuts with a 19mm wheel nut lever or torque wrench (setting 125nm). **Do not over tighten or use a rattle gun.** A quick way to monitor wheel nut movement is to purchase wheel nut indicators.

The first time you drive away: You **MUST** Check your wheel nuts @ 100km, 200km, 500km.



No wheel nut indicators

Shown with wheel nut indicators

SEASONING YOUR CAMPER

*This is an extract taken from **Australian 4WD Action Camping with your 4WD NO 5** and written by **Dan Chojnacki**,*

A leaky tent quickly takes the fun out of camping. We show you how to prepare your canvas for any weather

Buying a new tent to make your camping trips more enjoyable is great fun. Once you get your new tent home, unpack it and go about seasoning it. Now why on earth would you need to “season” or “weather” a new tent?

It is new and it will get seasoned as you camp in it, right? True, but if you leave it to the weather to do your seasoning for you, your likely to get a tad wet. Your new tent has been pricked, punctured, and penetrated with a needle more times than a pin cushion. Sewing these materials together cannot be avoided. When two materials are sewn together the machine’s needle punctures the canvas as it pulls the thread through with it to catch another thread and marry the two pieces of material together, or bond them if you like. So, your new tent has millions of holes in it! As the material is pierced by the needle it is only partially filled by the thread, meaning the ability of the material to retain the water proofing quality it once had is now jeopardized.

THE GOOD NEWS - Water has an interesting effect on canvas and the thread used to sew it together. Both the thread and the canvas expand and contract in different situations. Generally, when wet, the cotton thread will swell slightly, and the canvas will shrink to a small degree. Ultimately, if you can make this process occur in a controlled manner, you will effectively remove the gaps around the thread. The spin-off is that you have **successfully ‘seasoned’ your new tent**. The process to season a tent is the same for any canvas product, be it a swag, an awning, a bag or a tent.

WATER WORKS

It is important to set up your tent in an area that it will not be disturbed for a few days. So, the back yard or maybe even the front yard would be a good spot. You will need a hose, and you will need to check your local water restrictions to be sure that you will be allowed do this.

A bonus to this exercise is you’ll get the opportunity to set up your tent in a nice controlled environment, and get some set-up practice at home, rather than in a unfamiliar camping area at midnight, with a fading torch, and persistent insects using your forehead as a runway!

You should set you tent up as if it was in a showroom, picture perfect, **almost textbook if you like**, and use all the pegs, all the poles and all of the guy ropes that the tent is supplied with. How you set up the tent now, is how the tent’s memory will be formed.

If you set it up with a slouch to one side, then chances are the material will shrink to favour the other side and it will remain this way. So take the time to set it up square. Ever noticed how some campers set up a tent crooked with one peg in, one peg out, up at one end and down at the other? Overall, it looks like a dog’s breakfast and when the weather turns nasty, it performs like it looks. **Ordinary**.

After you have spent some extra time to make sure the tent is presented in its most glorious state, it is a remarkably simple process of wetting the tent down. Make sure all the windows and zippers are closed properly. With a hose, **first wet the tent down lightly**. Then, focus on all the areas **that have been stitched and waterlog the materials** the best you can. It should take 3-5 minutes to really drench a camping tent.

Leave the tent to **completely dry**. It is best to do this process over a few days. Wetting the tent down and letting it completely dry out, and then wetting it down again. Ideally repeating this process **at least 3 times**, finally when it is **completely dry**, pack it away ready for use.

The reason we repeat the process is to give the material and thread the best chance it can possibly have of sealing of its own accord. After three times the effect of the process is somewhat lessened to where the canvas and thread have shrunk and expanded as much as they can.

Do not be alarmed if the tent leaks for the first or second time you season the canvas, this is normal as the thread and canvas expand and contract together. If, after seasoning your tent three times, and the seams still leak you will use to need a seam sealer.

By using a commercially available 'seam sealer', you can effectively force wax into the seams, which in turn helps seal the tiny pinholes. It is best to follow the instructions provided by the seam sealers as their application differs slightly depending on the brand.

PVC used in some sections of the tent like the sewn in floor for example, is not affected by water like canvas is. If you find seams are leaking where PVC is sewn together, it is best to go straight for a seam sealer.

TIMELESS WATERPROOFING

As canvas ages its waterproofing ability deteriorates. Canvas is treated with a wax coating when it is manufactured though it eventually wears off. You will first notice this as the tent begins to leak for no reason. There are methods to overcome this, though the material will never be as waterproof as it was when it was new.

Good Quality waterproofing compounds can be applied to canvas to reseal it. Once applied they need to be re-applied every two years, depending on how much you use your tent of course. The more you spend on a seam sealer and a canvas waterproofing compound, the better the result. The more time you take to prepare the canvas and apply the compound, the more favourable the result will be.

HOT TIPS

NEVER USE DETERGENT, CHEMICAL, BLEACH OR CHLORINE TO CLEAN YOUR CANVAS OR VINYL. While they will clean the tent, they will also remove the waterproofing compound in the canvas and the tent will fade and leak from then on. To clean canvas effectively, brush the debris or soiled area off with a bristled brush and use water to remove the rest, or a combination of the brush and water. **Do not scrub too hard** or you will wear the material prematurely.

STORING CANVAS & VINYL

1. Never pack canvas or Vinyl away wet or store the tent in a dark damp spot (Like on concrete in the back of the shed)
2. Store the tent out of direct sunlight and keep it off the ground.
3. **DO NOT LEAVE YOUR CAMPER PACKED AWAY IN A DAMP OR WET STATE AS MOISTURE WILL DESTROY ANY CANVAS & VINYL. THE TENT MUST BE DRY, CLEAN AND FREE FROM DIRT.**

During any instance that you are required to pack away your Camper in the above state, place a plastic sheet over your bedding (Queen size mattress up to 15cm in depth, along with your blankets, pillows, sheets & possibly, a couple of kid's mattresses).

AS SOON AS POSSIBLE, OPEN YOUR CAMPER & ALLOW IT TO DRY. On any of your future departure dates, there is rain, forecast, we suggest you place a cover over your Camper Tent. During a break in the rain, pack your Camper Tent away to help you minimize the drying time required. Using a tarp, will also help keep bird droppings off your Camper Tent & help keep it clean. **Please note we recommend seasoning your canvas every 6 months.**

STORING YOUR CAMPER OR HYBRID

To protect your camper or hybrid from harsh environmental factors, you should store the product undercover in a dry setting. If this is not able to be done, you should use an approved caravan or camper trailer cover.

We recommend that for trouble free operation and longevity of your camper that you:

- Open your camper after rain to inspect for water ingress or intrusion due to a seal that has not been seated or closed correctly.
- Clean all surfaces of the Trailer with mild soapy solution and warm water, and rinse with fresh clean water and make sure all canvas is dry before storage. Never pack up a wet tent and leave for a period greater than 1 day before drying out, this will help prevent mould and mildew.
- Lubricate hardware with silicone spray (or similar) do not use grease or similar product as this attracts dust and dirt and accelerate wear.
- We encourage customers to use Lennox spray on their camper. Simply spray on and wipe over the entire camper regularly.
- Clean the outside of the trailer and apply a good quality automotive polish. In addition to making it look great, the polish will help protect the paint and prevent it fading.
- Be aware of the use of pressure washers - these are often powerful and can direct spray under trim and damage bodyworks, stickers, and seals.
- Because your trailer often stands in one place for long periods this can cause your tyres walls and inside the treads to crack. Keeping the wheels regularly turned, placing on tyre-saving devices, or lifting off the ground helps to cut down the cracking process.
- Check your fire extinguisher charge regularly (at least annually).
- When camping near the beach or ocean remember to wash your Trailer, tent, and wheel rims regularly with a mild detergent to prevent corrosion and rust.
- When travelling in dusty (Bull Dust) conditions ensure you travel at a speed to minimise dust intrusion.
- Ensure Aircon Vents are properly taped up and sealed before travel on Dusty roads (Bull Dust) or water crossings (must be untapped before using appliance) Also taping of all exterior keylocks and switches and water fillers is highly recommended. A cloth backed tape is recommended.
- Inspect all seals regularly and ensure there is no damage and that the adjustment is set correctly as the seals will need adjusting as required. This is the responsibility of the owner to ensure the seals are correctly adjusted for maximum seal performance.
- Travel at a speed to suit conditions. Limit speed over corrugations, lower tyre pressures and take frequent stops to allow shockers to cool.
- Ensure that your trailer is regularly serviced by a trained and competent person as per our Maintenance Schedule.
- Over the summer wet season or prolonged rain periods you MUST open and air your camper monthly to prevent moisture build up due to the humidity.
- Once a month run a charge cycle through your batteries as this will prolong battery life

YOUR WARRANTY

The following information relates to products sold by SWAG Camper Trailers PTY LTD. Please read all the information carefully. By purchasing from SWAG Camper Trailers PTY LTD you hereby agree to the Terms & Conditions of this warranty.

1. All SWAG Camper Trailers are covered by standard Australian Consumer Law 12-month manufacturer's warranty from the original date of purchase. Please retain your sales invoice for the product as this is proof of purchase and must be presented when making a warranty claim.
2. **5 Year Structural warranty** – Our Industry leading structural warranty covers the draw bar and chassis (ONLY) from fatigue for a period of Five (5) years from original date of manufacture.
3. This Warranty applies only to the original buyer from the original date of purchase - collection date. The warranty is not transferable or deferrable in any way. Once sold or otherwise disposed of by the original purchaser to any third party, all warranties become null & void, and the original purchaser shall make no claims or be eligible for any claims on behalf of the new owners.
4. Items not covered under this warranty include:
 - 4.1. Any parts that are considered consumables are not covered by warranty, such as Wheels, Wheel Bearings, Tyres, Rust, Lights, Tent Zippers, Tent Lights etc. SWAG supply spare parts if needed which can be purchased from us (postage will apply).
 - 4.2. Impact or stone damage to body, chassis or running gear
 - 4.3. Soiling of fabrics and internal fittings from dust and other airborne substances
 - 4.4. Movement or damage caused by dislodgment of appliances and fittings resulting from hard impact or heavy landings or severely rutted roads or tracks
 - 4.5. Water damage due to water crossings.
 - 4.6. General damage arising from misuse
 - 4.7. The Warranty does not extend to maintenance items which are the responsibility of the purchaser
 - 4.8. Wheel alignment
 - 4.9. Damage because of Off-road use where the road is not suitable for travel
5. Warranty covers factory faults only. The warranty does not extend to cover damages caused by improper use, poor maintenance, wear & tear or mistreatment. This includes the use of the vehicle on non-gazetted roads in the country of Australia.
6. Warranty does not cover damage due to **ANY** modification of design, accidental damage or collision, misuse, abuse, incorrect assembly, improper and irregular/inadequate maintenance.
7. The purchaser must follow the instructions, care and maintenance information provided by SWAG Camper Trailers PTY LTD (customer care guide) to ensure that the product performs to the purpose intended.
8. This Warranty covers **NEW** trailers only. Trailers sold as "*EX Display or DEMO*" or for commercial use, will have limited warranty.
9. The standard Warranty is void when used for commercial purposes i.e rentals, loan equipment or if the unit is being used as a permanent dwelling.
10. No warranty is offered on products sold at auction, ex-demonstration, factory seconds, damaged or used product unless specified
11. The warranty covers the original the Camper Trailer only. The Warranty **DOES NOT** cover the following items:
 - 11.1. Appliances, parts and equipment which are not manufactured or supplied by SWAG Camper Trailers (for example a refrigerator, batteries, solar panels or customer modifications) are covered by the warranty of such items for the term offered by the manufacturer of such items.
- 11.2. Any defect resulting from overloading, misuse, negligence, accident, poor maintenance, or other cause beyond the direct control of Swag Camper Trailers.
- 11.3. Any defect resulting from fitting or installation of any accessories or options such as an altered toolbox or other items after the camper trailer has left the premises of Swag Camper Trailers.
- 11.4. Any rectification or other work required due to alterations in Local, State or Federal legislation which occurs after manufacture of the recreation vehicle.
- 11.5. Any consequential damages or repair work necessitated due to continued usage or towing after a defect has, or should have, become apparent to the purchaser or user.
- 11.6. Any accommodation or re-location expenses including fuel/freight. Loss of earnings or rents or other costs incurred before or whilst repairs under this warranty are being affected.
12. Unless otherwise agreed in writing the unit must be returned to our factory for any assessment or warranty work. In this case the warranty does not extend to cover.
 - 12.1. Any Transportation, accommodation, towing, or recovery costs arising from a warranty claim are the responsibility of the purchaser unless stated in writing by SWAG Camper Trailers PTY LTD.
13. Any Warranty Work/s performed by a third party/repairer must first be approved in writing by an authorised representative of SWAG Camper Trailers. Please refer to item 12.
14. Works carried out will be solely at the manufacturer's digression as to extent of the repair or replacement of parts.
15. Any agents, suppliers, resellers or similar of SWAG Camper Trailers PTY LTD shall have no authority to authorise or deny warranty claims on behalf of SWAG Camper Trailers Pty Ltd.
16. Canvas is covered by a 12-month manufacturer's warranty. Misuse, negligence, wear & tear are not covered. Items not covered under the standard canvas warranty are outlined in item 18.
17. Extended 24-month (Total 3 years) is available on all GENESIS Campers produced post 2019. This warranty covers the structural integrity of the canvas and does not include the items listed in item 15.
18. The Canvas warranty does not cover any internal/external zips, flooring, mesh, stitching, seams, heat proofing, vinyl, Velcro.
 - 18.1. To make a Canvas claim the unit must be Returned to the place of manufacture. The claim does not extend to cover leaks if it is found that the tent has not been weathered correctly or has been overstretched during tent erection. Tents are not covered under warranty for usage of sprays on canvas.
19. All Trailers come with guarantees that cannot be excluded under the Australian Consumer Law. In addition to our warranty, the consumer may also be covered by other rights and remedies of Consumer Law in relation to the goods and/or services to which this warranty relates.
20. Warranty is subjected to our approval after a full inspection has been made from us to determine that the issues are genuine and not deliberate.
21. Swag Camper Trailers & Hybrids are not designed for tight, undulating, or extreme 4WD tracks that are unsuitable for trailers. Consequently, they should not be used on such tracks, and any damage that may occur from unreasonable use in these circumstances will not be covered under warranty. The best and safest policy is to leave your camper as a base camp and explore unsuitable areas with your tow vehicle alone
22. **Return Policy** - Please choose carefully to make sure the model of Trailer suits you and your needs. Wrong selection change of mind, minor variations in model, colour, specifications are not reason/s for a refund.

MAKING A CLAIM.

Please note; all warranty claims must be lodged through our website using our online Support Form with as much information as possible. Failure to provide enough information or incorrect information may result to delays or a rejection to your claim.

To submit a warranty claim, please follow the instructions listed below.

1. Complete the online warranty claim form on our website
2. We will validate ownership details
3. A member of our team will contact you within 24-48 hours of the claim being received and advise you of the status
4. Please note Any claims for repairs carried out without prior authorization will be denied.

FIRE EXTINGUISHER: Where applicable we provide users with an Australian Standard AS1851-2012 extinguisher. Australian standards require all extinguishers to be checked and tagged every six months. Depending on the type of extinguisher, they also need replacement every year.

CAMPER TRAILER LIFE SPAN: To prolong the life span of your Camper Trailer, a rust prevention treatment should be carried out & maintained. Products such as Lennox, Fish Oil etc are readily available at all good Auto/Hardware Stores. You must have all stone chips and scratches treated and touched up to help prevent further damage, please note we recommend having the camper trailer covered when stored at home, to protect against the elements

JOCKEY WHEEL: Always ensure your jockey wheel is secured with the handle & wheel at least level with or higher than your draw bar. This will reduce the possibility of damage being sustained. You must remember to loosen the handle & allow the wheel to swivel, before moving your Camper Trailer. Do not move your camper or van whilst the jockey wheel is in the raised position. **FAILING, TO DO SO, COULD RESULT IN DAMAGE TO THE AXLE OR SHAFT OF THE JOCKEY WHEEL.** This is not a warrantable repair.

COUPLINGS: Please note the greasing points & maintain as required. Depending on the Coupling fitted to your Camper Trailer, check to see if there is securing clip directly to the rear of the Coupling. This clip allows movement within the Coupling shaft. During normal road driving, this clip can be swung away from the shaft allowing movement. During off road driving & reversing, it is advisable to place the clip over the shaft to reduce knocking. Variations to this coupling may vary, depending on stock availability.

ADJUSTING DOOR LOCKS: Most of our models are fitted with locks around the camper. Please ensure to have these adjusted within the 1st month of owning your camper. This is to allow for your locks/seals to bed in.

RUBBERS, SILICONE AND SEALS: Rubbers, seals and silicone will naturally deteriorate if not treated or maintained correctly. You should regularly lubricate, clean, and maintain all silicone, seals, and rubbers. These items should also be kept out of the direct sunlight when stored. To stop door rubbers sticking, you should open them regularly.

STABILIZER LEGS: A spindle has been supplied to allow you to lower & raise them. Please ensure they are raised & secured on each occasion before your departure. This should prevent them lowering during travel & sustaining any damage, **PLEASE NOTE; STABILIZER LEGS SHOULD NEVER BE FULLY EXTENDED TO SUPPORT THE CAMPER, IN THE EVENT OF NEEDING FURTHER ADJUSTMENT, WE RECOMMEND USING CHOCKS UNDERNEATH THE LEGS.**

CLEANING WATER TANK: All campers fitted with water tanks, must be cleaned before and after use (this will help prevent any contamination). This type of product can be purchased from most major camping stores

RAIN AND HEAVY WIND CONDITONS: During Rain or gusty winds **YOU MUST** lower the awning to allow for better water flow, this will help stop pooling occurring on your awning.

AWNINGS ROPES & PEGS: All Campers are supplied with ropes & pegs for the main tent and awnings to brace in windy conditions. Failure to use ropes appropriately will result in damage to your camper.

BIKE MOUNT: The weight capacity on the rear bike rack mount is 30kg. Bikes must be held firm in position with slings or ropes so that they do not swing around.

BOAT LOADER: The capacity of the boat loader is 85kg.

GAST STRUTS: Never remove a gas strut. These use an extremely high gas pressure capacity and removing them can be lethal.

SPREADER BARS: Spreader bars are to help minimize the chance of pooling; these are recommended to be used for every camping trip. Please note: additional spreader bars can be purchased from us.

CARING FOR TENT POLES: Make sure the poles and zips are always clean and dry before storage. When the poles and zips have been used in damp, dusty conditions. Sandy or salty conditions, they must be cleaned and coated with a thin film of oil or silicon based liquid spray before storage. Many of the frame poles relate to pole joiners, which are designed to keep them organized and allow quick assembly of the pole frame. Over stretching or dropping the poles will easily damage the pole joiners and this may not be covered under warranty. Please ensure to handle the poles carefully; especially when unpacking and packing away.

CONDENSATION: Condensation is a natural occurrence in cold weather. In confined areas like campers and hybrids the body releases more moisture than the canvas can dispose of. To minimize the chance of condensation, we recommend slightly opening the window of the swag or tent to enable airflow on cold nights.

MOULD: Most moulds need 24-48 hours of moisture to begin to grow. Therefore, if a suitable material in your camper/tent is wet for more than 24 hours then you run the risk of mould starting to grow. Many species of mould can begin to grow from humidity alone if the humidity stays high for long enough. In fact, the humidity only needs to be higher than 55% before some moulds can begin to grow.

BATTERIES AND BATTERY MANGEMENT

The most common customer service request and most common question asked is *“how long can I get out of my batteries?”*

This is a can of worm’s question as there are so many variables such as:

- Supplied battery type and amp rating.
- Ambient temp / fridge temp.
- Battery charging system - dual vehicle battery or standalone charge at home.
- How often you open the fridge door.
- How much gear is in the fridge.

An example is - An Evakool 75ltr fridge running at 5 deg-C on a 32 deg-C day can draw approx. 2-4 amps an hour if you do not open the door and it's not in direct sunlight. A more common average would be working on the fridge using up to 4-6-amps an hour, as the unit will have a duty cycle most likely it would be slightly less if used as a fridge and more if used as a freezer. If you did not charge the battery and minimised open time you may get 24-48 hours out of your battery/s before the voltage drops below 12V.

When is my battery flat? If a battery drops below 11.2 volts technically it is flat. Most reputable brand fridges will cut out when the battery reaches this point. If your batteries reach this point it will need an immediate **CHARGE**.

How long should I charge my battery for? A deep cycle or AGM battery is not like a smart phone. If you are charging through a smart charger (Projecta PC1600 or similar) at 4 amps – this is 4 amps per hour, it can take up to 50 hours to charge (200ah/4amps per hour = 50 hours).

But my lights still work: LED lights give no indication that the batteries are going flat. LED lights will work as low as 2 volts but allowing your battery to get this low can cause permanent damage to the battery and may not be covered under warranty.

Solar & Batteries: The solar panels we can supply are rated to 160w. They normally have an input rate of 10amps (use calculation above). This is calculated in 100% sunlight i.e. middle of the day & no clouds. Solar panels are good for trickle charging your batteries and power feeding things like fridges during the day to reduce the draw on your battery power.

Flat Batteries and warranty: Please note, just like a car battery, if you run your batteries flat you can cause irreparable damage to the batteries and battery system. In most cases a damaged/flat battery is not covered under warranty. Please always maintain a charge in your batteries above 11.5volts. This can be done by using a good quality battery charger at home or when the van is not being used.

VOLTAGE	≈ CHARGE STATE	
>12.6	100	<p>Note that these voltages are approximate and are influenced by temperature etc. Batteries just taken off charge will have a significantly higher voltage until the 'surface charge decays over 30mins or so.</p>
12.5	90	
12.4	80	
12.3	70	
12.2	60	
12.1	50	
11.9	40	<p>Repeated discharge to these levels will shorten battery life</p>
11.8	30	
11.6	20	
11.3	10	<p>Permanent Damage will occur</p>
10.5	0	

We recommend to fully charge your camper trailer batteries with a suitable 240v battery charger before and after every use and If you're not using your batteries for long periods of time we recommend to trickle charge your batteries.

PLEASE NOTE: THIS IS A GUIDE ONLY

Notes: