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- Check that the wheel nuts on all wheels have been tightened
 to the manufacturer's specification for wheel nuts. These
 should be tightened with a torque wrench to the correct torque
 and they should be tightened after each 100km for the first
 400km and they should be checked every 1000km
 or six months.
- Ensure that the water tank has been filled and that the locking cap is secured.
- Check that all traffic lights on the vehicle are operating correctly from the car.
- Ensure that the refrigerator door lock is secured in place.
- Ensure that the gas cylinders are secured.
- Ensure that the rear vision mirrors on your car are correctly adjusted.
- Check that electric brakes on your caravan are working.
- The jockey wheel must be removed from its clamp and stored in the boot of the caravan or locked in the travelling position if of a swivel mount type.
- Ensure that front and rear corner stabilisers are in the up position.
- Ensure that the handbrake on the caravan has been correctly released.
- Ensure that the 240 V electrical lead is disconnected from the caravan.
- Ensure that the safety chains are correctly connected between the caravan and the car.
- The 12 V power lead for the caravan lights must be correctly connected and the towing aids or level rides must be correctly connected and adjusted.
- Ensure that the roll out awning is stored away and locked in the travel position.
- TV antenna should be securely stored.

AIR CONDITIONERS

All manufacturers provide operating instructions with their product and it is recommended that these be read carefully to ensure correct operation. Also, complete and return your Warranty Card/ Certificate as this will assist you should a problem occur at a later date.

Roof Top Models

These units are virtually maintenance free except for return air filters, which should be kept clean for optimum performance. (Wash in warm soapy water).

Approximately six months after installation you should check the hold down bolts as they may require tightening. Do not be alarmed if, when the unit is in operation you see water running from the roof as this will be the condensate from the air conditioner. In humid conditions there will be more condensate than normal.

Ducted/Split Systems

As with roof top models, ensure the return air filters are kept clean. Some models of split systems require holes cut in the floor for the condenser fan to draw air. Regular on road travel will not cause any problems to the condenser with dust/dirt/water entering the unit. It is important that these holes are not covered in any way, or the operation of the unit will be seriously affected and could in fact seize the motor.

Should you be travelling on non-sealed roads where excessive dirt or water (creek crossings) can enter, it is recommended you contact the manufacturer for advice.





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- Air conditioners should not be run at full thermostat for long periods of time, this setting is used mainly for testing purposes. Also note that if the outside temperature is only 22° 23° the unit may not switch on to cooling as this is deemed to be a "comfortable temperature." So if you take delivery of your RV in winter and wish to test the operation of the air conditioner, it will be necessary to firstly warm the RV interior to above 23°C.
- With reverse cycle units, the air conditioner should be turned off for 3 minutes before switching to the opposite operation e.g. cooling to heating.
- Always assist the "heat load" inside your RV by parking
 in the shade if possible, using roll out awnings to shade
 windows and closing curtains. Try also to eliminate
 other areas where heat can infiltrate i.e. hatches etc. The
 following information has been supplied by Dometic Pty Ltd
 who have service agents throughout Australia.

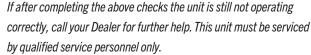
Maintenance

Air Filters: Periodically remove the return air filters located above the removable panels in the air box for rooftop units (or located on the unit for underbunk systems). Most filters can be washed with soap and warm water, left to dry and then reinstalled. NOTE: Never run the air conditioner without return air filters in place. This may plug the unit evaporator coil with dirt and may substantially affect the performance of the unit.

Service (Unit does not operate)

If your unit fails to operate or operates improperly, check the following before calling your service centre.

- a. Take note of any fault codes displayed and consult the manual for appropriate actions.
- b. If the RV is connected to a generator, check to be sure the generator is of an adequate size, is running and producing power.
- c. If the RV is connected to a power supply by electrical lead, check to be sure the lead is of 15AMP capacity to run your air conditioner load and that it is plugged into the power supply.
- d. Check your fuse or circuit breaker
- e. Check external airways for any items restricting or blocking free airflow (leaves, rubbish, mud etc.)



When calling for service, always give the air conditioner Model Number, Product Number, Serial Number and any fault codes being displayed. Model information can be found on the data plate located on the air conditioning unit itself (generally the base pan for rooftop units or on the top for underbunk). You may need to remove the filters and/or airbox with rooftop units to find the data plate. It may also be recorded in your manual.

Note:

One of the biggest advantages to your new air conditioner is that the maintenance needed to keep the unit in good condition. In fact, about the only thing that you, the owner, must take care of is the cleaning and replacement of the filter. The filter is a vital part of every air conditioning system. If the filters are not cleaned at regular intervals they may become partially clogged with lint, dirt, grease etc. A clogged filter will produce a loss of air volume and may eventually lead to the icing up of the cooling (evaporator) coil.

Important

Do not operate the air conditioner for extended periods of time without the filter installed, otherwise lint, dirt, grease etc that is normally stopped by the filter are now accumulating in the cooling coil. This not only leads to a loss of cooling volume and a possible icing up of the cooling coil, but could also result in serious damage to the operating components of the air conditioner.

We recommend that filters be replaced or cleaned at least every two weeks when the air conditioner is in operation.

Cleaning and/or changing the filters

Please consult the appliance owners manual for further details.



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Short Cycling

When an air conditioner is in operation, its compressor circulates refrigerant under high pressure. Once off, it will take two to three minutes for this high pressure to equalise.

The air conditioning compressor is unable to start against high pressure. Therefore, once the air conditioner is turned off, it is important to leave it off for two to three minutes before restarting. Short cycling the compressor (or starting it before pressures have equalised) will in some instances, trip the circuit breaker or overload. **Note:**

- Should icing-up occur, it is necessary to let the cooling (evaporator) coil defrost before normal cooling operation is resumed. During this time, operate the unit in the "HIGH FAN" position with the system at maximum airflow. When an increased to full airflow is observed, the cooling coil should be clear of ice.
- The air conditioner should be inspected periodically to be sure that the bolts that secure the unit to the roof are tight and in good shape.

ALUMINIUM

The aluminium sheeting on the outside of your RV should only be cleaned with warm soapy water. Never use abrasive materials or cutting compounds as this could seriously deteriorate the baked paint finish on the aluminium. Build up of road tar or bird droppings can be removed with a diluted solution of mineral turps. This should be applied only to the surface that needs cleaning and it should be immediately rinsed off with warm soapy water. (See Exterior Care & Maintenance).

ANTENNAS

Antennas should always be securely stowed away while travelling and although there are many types of antenna on the market quite often the simpler types are very effective for television reception and are much easier to store when travelling. In the case of high winds, antennas should be removed and stored away as the structures are not designed to withstand strong wind conditions.

BATTERIES

Batteries installed in Recreational Vehicles should be charged regularly. Ensure the batteries are charged and maintained (if required) in accordance with the manufacturer's specifications.

BATTERY CHARGERS

As per above, batteries should be charged regularly (via the battery charger) as per the manufacturers specifications. Make sure to refer to the battery charger's user manual for further information on correct use.

BRAKES AND WHEEL BEARINGS (Excludes motorhomes)
RV trailers are fitted with electric brakes. These brakes may from
time to time need adjusting. It is suggested that all RV trailers be
returned to the dealer after approximately 1000km to check the
brake adjustment. If brake adjustment is required during or prior to
this time you should contact the nearest dealer to ensure that this
brake adjustment is carried out by an authorised person. THIS IS
A SERVICE FUNCTION NOT A WARRANTY ITEM. You should consult
the electric brake handbook as supplied with the RV trailers at the
initial time of delivery. The warranty card on the brakes should be
filled out and returned to the brake supplier in order that your
warranty is registered.





How your electric brakes operate

The electric trailer brakes perform a similar function to the brakes on your car. The major difference is that the car brakes use hydraulic pressure to expand the brake shoes, whilst the trailer brakes use an electro magnet and lever system. Activation of the electric brake is via a controller mounted inside your towing vehicle. The controller provides both manual application of the trailer brakes or automatic braking synchronised to that of your towing vehicle (when you push the brake pedal in the car, the brakes on the trailer are also activated via the brake controller.) When the controller is activated high capacity electro magnets are energised and attract to the inside surface of the brake drum. Due to the rotation of the drum, the magnets move the lever arm in the same direction. This movement causes the actuating block at the top of the brake to push the front shoe against the drum. The force of the front shoe in turn pushes the back shoe into contact with the drum. Brake performance is proportional to the load of the towing vehicle and the trailer. ENSURE AT ALL TIMES THAT THE TOWING CAPACITY OF THE CAR AND THE MANUFACTURERS RECOMMENDED LADEN WEIGHT OF THE TRAILER IS NOT EXCEEDED.

How the brake controller works

Once properly installed and adjusted the brake controller can be operated both automatically and manually. When the brakes are applied the controller's electric circuit is operated automatically. As the towing vehicle slows down a sensor inside the controller reacts to the deceleration and increases the power to the trailer brakes, thus providing smooth and proportional braking of the trailer. For manual operation, the controller is provided with a sliding control. This activates the stop lights and the brakes, and the indicator light on the front of the controller panel glows from dim to bright the further the control is moved, indicating an increase in braking power.

Warning

There are several different types of brake controllers sold, some with motion sensors and some without a motion sensing device. If a brake controller without motion sensor is used the trailer brakes will not be applied in proportion to the vehicle and smooth synchronised braking will not be achieved.

More detailed information on the operation of the controller is available in the installation instructions contained with each unit.

Brake Performance

Electric trailer brakes when used and adjusted properly provide many kilometres of smooth, dependable braking operation.

Electric trailer brakes must have a complete electrical circuit, any broken or poor wire connections will prevent or interfere with the flow of electrical power resulting in poor or no braking.

All electrical wiring joints should be of a type to ensure positive connection.

On new trailers a break-in period may be required to achieve maximum braking performance.

Proper brake balance between your vehicle and trailer

The brakes on your towing vehicle are designed to stop in a safe effective manner, similarly the electric brakes fitted to your trailer are designed to effectively stop the weight of the trailer to which they are fitted.

It is important that the performance of the brakes on both the towing vehicle and the trailer are balanced so that neither are overloaded. If the correct balance is not obtained between the braking systems, then overheating of either system may occur with a deterioration in brake performance. Correct brake balance is obtained when the trailer brakes have a slight lead over the brakes on the towing vehicle. This can be accomplished by the adjustment of the controller in the towing vehicle. When correctly adjusted there will be no sensation of the trailer pushing the vehicle, nor any excessive pull during braking.



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General Maintenance

In order to maintain the safe reliable stopping power of your brake system it is most important that the brakes be serviced at regular intervals.

The following list of general maintenance items should be carried out as a periodic maintenance check.

- Brake Adjustment Procedure It is essential that any brake adjustment is performed strictly in accordance with the manufacturer's instructions.
- 2. Brake Drum/Hub The brake drum should be checked for excessive wear in accordance with the periodic maintenance check list in the Alko service manual provided. Note: Anytime the drum is replaced a new magnet should also be installed.
- 3. Wheel bearings Bearings must be inspected and lubricated periodically to ensure reliable, safe operation of your trailer.

 We recommend that your trailer be taken to your local

 Service Centre where a correct wheel bearing service can be undertaken.

Note: It is recommended to replace the bearings and cups in sets.

- Always lubricate the bearings on your trailer with high quality wheel-bearing grease
- Every time the wheel hub is removed, the wheel bearings must be adjusted.

To Adjust the Wheel Bearings

Turn the hub slowly to seat the bearings while tightening the slotted nut until firm.

Loosen the slotted nut and then re-tighten by hand (not with a wrench) to a "finger-tight" condition to align the first notch with the hole in the shaft and insert the split pin. It is recommended that bearing adjustment be carried out by your local Service Centre to ensure that correct bearing adjustment is maintained.

4. Brake Linings

Periodic inspection for lining wear or contamination from oil or grease should be undertaken by your local Service Centre.

5. Wheel Mounting

It is important to maintain proper torque specifications to provide safe and secure attachment of the wheel to the hub drum.

- Start all nuts by hand to prevent cross threading.
- Tighten nuts in three stages using a cross star pattern.
- Whenever wheels are removed and refitted the wheel nut torque should be checked. Wheel nuts should be tightened to a torque specified by the wheel or trailer manufacturer. Always use a quality torque wrench to check wheel nut torques.

It is recommended that the wheel nut tension be checked every 100km for the first 400km of your initial trailer use and then as per the periodic maintenance check list.

6. Park Brake Cable Adjustments

In the laden condition it is imperative that the park brake lever engages and secures the brakes in the 5th or 6th notch of the coupling from the tow-ball end - not closer.

Failure to adjust the cable tension in this manner will, through suspension movement on both independent suspension and beam axle with leaf springs, cause the brake shoes to be partially actuated and excessive heating of the brake and drums to occur. Prolonged use, if incorrectly adjusted, will initially cause the back (secondary) shoes to overheat to the extent of disintegration of the brake lining and will result in deterioration of brake performance until eventual brake failure.





PERIODIC MAINTENANCE

Suspension and brake suppliers have different recommended maintenance periods. Mileages and travelling conditions of individual caravans can vary considerably and this needs to be taken into account when determining required servicing schedules. For example, under extreme off-road conditions wheel nuts should be checked daily and undercarriage inspected for problems.

Maintenance should only be carried out by qualified personnel. In general:

New vans Check wheel nuts every 100km for first 400km, adjust brakes and check suspension mounting bolts at 300-400km.

Weekly Check Tyre Pressures, condition and operation of brakes.

3 Monthly Check wheel nuts.

6 Monthly Bearing check, brake adjustment, shock absorber inspection and suspension lubrication.

Annually Full Brake, bearing and suspension inspection including wheel rims, rotate wheels and tyres.

For more information on Brakes and Wheel Bearings contact the following: AL-KO Victoria

67-91 Nathan Road, Dandenong, VIC 3803

Telephone: (03) 9767 3700 Email: info@alko.com.au Website: www.alko.com.au

SUSPENSION

The suspension systems fitted to caravans are becoming more sophisticated. Latest developments include independent units using leaf springs, torsion rubber, coils and air bags. These developments aim to provide improvements in ride and handling especially under changing conditions. Use of shock absorbers is becoming more common. Maintenance of these units needs to be carried out in accordance with manufacturer's specifications. Please note that wheel alignment is part of your periodic maintenance and not covered under you RV warranty.

BULBS

It is advisable to carry spare bulbs for interior & exterior lights. Bulbs which are subject to vibration can give trouble and spare bulbs on hand are a must for the experienced RV traveller

BUMPER BARS

It is important that in the case of bumper bars you continually check for cracks which can appear due to the transmission of vibrations from the RV through to the back bumper bar. This position is sometimes accentuated when a spare wheel or tyre is carried on the bumper bar as this weight can lead rear bumper bars to crack or fail. So it is important that if a spare wheel and tyre or any additional items are mounted on the bumper bar that it is only done after consultation with the original manufacturer to ensure that the bumper bar is designed to carry the weight of such items.

Approval from the manufacturer must be obtained prior to adding additional weight to rear bumper bars.

CHASSIS

It is advisable to regularly have a thorough check of the chassis on your Recreational Vehicle. This includes the running gear, suspension, tyres, wheels and brakes and coupling. The chassis is such an important part of your RV you cannot afford to overlook the general maintenance and serviceability of the chassis for the long term viability of your vehicle. If in any doubt you should contact your dealer immediately to arrange a chassis inspection.



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CLEANING AND CARE - INTERIOR

Care should be taken when cleaning the interior. A soft damp cloth gently wiped over surfaces should be all that is required.

Furniture and plywood walls

Care should be taken when cleaning internal furniture and the plywood lined walls. Excessive moisture and vigorous rubbing can damage the plywood's decorative veneer. A soft damp cloth gently wiped over surfaces should be all that is required. The use of abrasive cleaners of solvent based chemicals can damage the plywood's decorative veneer.

Upholstery - Cloth

Regular Care

- Protect from direct sunlight.
- Rotate reversible cushions regularly.
- · Vacuum regularly using low suction with soft brush accessory.

General cleaning

Hot Water Extraction Method

[Professional Cleaning Strongly Recommended]

- Use only proprietary brand upholstery detergent.
- Do not use dishwashing or laundry detergents.
- Do not wet the filling.
- For pile fabrics, gently vacuum to restore pile.
- Dry in shade away from direct heat and sunlight.
- Allow to dry thoroughly before re-use.

Blinds

The blackout material can be cleaned on the outside with a not too damp cloth. Dust on the inside can be vacuumed. However, care should be taken not to stain the inside surface as it cannot be otherwise cleaned without causing permanent and unsightly damage to the material.

Curtains

Remove all hooks etc. Vacuum to remove dust. Hand wash in warm suds. Do not use bleach or chlorine. Rinse in warm water and drip dry. Do not ring or machine dry. Use low to medium steam iron on fabric side only.

Floor coverings

Floor coverings, carpets and vinyls should be maintained in a similar way to maintaining these items in a domestic household situation. They should be regularly cleaned and vacuumed and in the case of vinyl it should only be washed with warm soapy water.

Mattresses

Mattresses should only be cleaned with warm soapy water to remove any stains and in the case of foam mattresses, a considerable amount of time needs to be allowed for the drying of the foam in the sun prior to storing away in the RV if they have been wet after cleaning. The foam inside the mattress can deteriorate if it is stored away wet and it can also cause a damp smell to continually come from the mattress.





CLEANING AND CARE - EXTERIOR

The exterior of your RV should be regularly cleaned with soapy water. A weak solution of a proprietary line car washing liquid (eg Kitten, Turtle etc) or a weak solution of a mild dishwashing detergent is appropriate using a chamois, soft brush or soft broom. Do not use laundry detergents or commercial carwash product. Extra care should be taken when cleaning windows (see below). Ensure that a harsh brush is not used on these surfaces.

Aluminum Panels

The front, rear, walls & roof on your RV are constructed of aluminum sandwich panels. As stated above, a proprietary line car washing liquid (eg Kitten, Turtle etc) or a weak solution of a mild dishwashing detergent is appropriate using a chamois, soft brush or soft broom. Avoid using commercial car washing agents.

Fibreglass Care

The motorhome nose cone and 'pillars' behind the driver/passenger doors and the moulded shell boot of a caravan consist of fibreglass with an exterior Gel Coat. The outer surface is a high quality marine grade Gel Coat which protects the fibreglass panel beneath and provides a smooth exterior surface.

The fibreglass is designed to last the life of your RV without the need for extensive care and is highly resistant to weathering caused by environmental effects associated with normal use. However it is important to maintain it to keep the Gel Coat looking like new.

We recommend the following procedures to maintain your Gel Coat finish:

Wash regularly with a weak solution of a proprietary line car washing liquid (eg Kitten, Turtle etc) or a weak solution of a mild dishwashing detergent using a chamois, soft brush or soft broom.

- Avoid using commercial car washing agents
- Avoid strong alkaline cleaners and abrasives.
- Wax your fibreglass panels once every one to two years, depending on the degree of exposure to, and harshness of the environment. Note that RVs kept in sheltered conditions away from coastal air and pollutants will require less frequent waxing than RVs subjected to greater exposure.
- Only use waxes expressly designed for fibreglass.
- Do not use chlorine and ammonia products to clean as these may harm the colour of the gelcoat.
 To Remove Stains & Light Scratches
- Wash the area with a mild cleanser such as a weak solution of dishwashing soap.
- · Rinse with water.
- Buff with a fine rubbing compound.
- Wax.

Do not use acetone or other solvents to remove stains.
[Note that rubbing alcohol is also effective in removing stains].
More severe gouges and scratches will require professional attention. Your Avan dealer should be able to help you find a suitable repairer.



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CLEANING AND CARE - EXTERIOR (Continued)

AWNINGS

The cleaning of vinyl material on awnings should only be done with warm soapy water. Never use any strong detergent or mineral based cleaners to clean the vinyl on your awning as it could lead to discolouring. The aluminium supporting arms to the awning should not need greasing or oiling and when storing your awning away for any period of time the awning should be completely and thoroughly dry to avoid mildew build up on the vinyl surfaces.

Awning or rope tracks fitted will greatly benefit from the occasional application of sprayable silicone to aid the sliding in and out of your awning or annexe.

CASSETTE STYLE AWNINGS & CANVAS INNER

It is advisable, that when in use the awning be set up using the tie down kit provided and packed away at night or in situations of windy weather to prevent damage.

To clean the canvas use warm soapy water and a soft brush or sponge.

It is advisable when taking delivery of a new canvas annexe or an RV equipped with canvas coverings that this canvas be soaked with water and left to dry twice before using the camper trailer or annexe on an extended trip. The reason for soaking the canvas twice is to allow the stitching to expand into the holes caused by the needle stitching of the canvas and therefore it will tend to make your annexe or canvas cover of your camper trailer more waterproof.

ALL CANVAS ANNEX

Canvas annexes should be treated in a similar way to awnings and they should always be stored away in a perfectly dry condition. They should be carried in your car not in the front boot or inside on the floor of your RV. This can upset the towing of your RV due to the additional load being placed in the incorrect position.

WINDOWS

The windows have a tinted finish and the sliding windows have fly-screens. The tint aids privacy and helps the RV stay cooler on sunny days. Window arrangements may be varied according to customer preference.

The windows are of a plexiglass composition. It is important that abrasive cleaners or plastic soluble solvents not be used on the windows. Vinegar based glass cleaners, (plexiglass cleaner) or a weak solution of a mild dishwashing detergent may be used. Use a soft cloth or chamois to prevent scratching. It is important not to rub windows when dust is present; Hose off dust before washing windows with a clean wet soft cloth or chamois to avoid scratching. Minor scratches and grazes may be polished out with plexiglass polish or toothpaste. Use a soft, clean, damp cloth. If windows are sticking or stubborn, lightly spray tracks with silicone spray.

We recommend and use Meguiars Mirror Glaze No.17 to clean and polish windows and skylights.



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CLEANING AND CARE - EXTERIOR (Continued)

SKYLIGHTS

Minimizing Scratching

Wash the skylight with a weak solution of a mild dishwashing detergent in lukewarm water using a chamois, clean sponge or soft cloth. Rinse well with clean water. Dry thoroughly with a chamois or moist cellulose sponge to prevent water spots. Do not scrub or use brushes on skylights.

• Minimizing Hairline Scratches

Scratches and minor abrasions can be minimized by using a mild automobile polish i.e. Mirror Glaze plastic polish. It is suggested that a test be made on a small inconspicuous spot of the skylight with the product selected and that the polish manufacturer's instructions be followed.

SOME IMPORTANT DON'TS

- DO NOT ever use abrasive or highly alkaline cleaners on the skylight.
- DO NOT ever scrape the skylight with squeegees, razor blades or other sharp instruments.
- DO NOT ever use benzene, gasoline, acetone or carbon tetrachloride on the skylight.
- DO NOT ever use butyl cellosolve on the skylight.

CAUTION: Avoid exposure of the skylight to solvents such as toluene, acetone or methylene chloride. Many sealants contain these solvents that prevent in-tube curing of the sealant. Before exposing sealants to the skylight, check the suitability of the product with the sealant manufacturer.

If the skylight is exposed to solvents mentioned above, it could chemically attack the skylight causing a material failure that will not be covered by your warranty.





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CONDENSATION

Your RV is well insulated. At times you may experience condensation on the ceiling or windows in the evenings. To minimise this we recommend you open the roof vent slightly [Motorhomes & campers] or create a cross draught using the windows [poptops & hardtop] before going to bed.

COUPLING

Couplings should be regularly checked for any sign of loose bolts connecting the coupling to the chassis as the two leading bolts on the coupling are always under a lot of strain and it is important to ensure that they are tight.

It is not advisable to grease the ball of the coupling as this can lead to a build up of dust and thereby create a lot of wear due to abrasion. A silicone spray from a pressure can will be sufficient lubrication for the ball. Light machine oil will also be effective without accumulating dust which could cause excessive wear.

DOOR HANDLES AND LOCKS

Door handles are usually made from plastic, with the key and barrel made from cast steel and zinc materials. The door handles made from plastic do not require lubrication, but most key barrels are greased prior to installation. Please note that any barrel that is lubricated MUST then be maintained every 6 months, with cleaning by air of the inner barrel plates and then lubrication afterwards. You should continually check to ensure that your door lock is operating properly and after closing the door that the door is not likely to spring open during travel. This can lead to the door being torn off the vehicle or could cause an accident. So continually check to see that the door lock functions properly.

Multiple locking points offer additional security but also mean that there are points that can fail. Before going on any holiday, ensure your door handle, door lock and door latches are working correctly. Most door locks have a manual unlock pin or latch on the inside of the door (inside the caravan). If the door lock does lock, this pin or latch can be used to allow exit from your caravan.







ELECTRICAL & ELECTRICAL SAFETY

Do not make any changes to the circuitry or add on fixed appliances without first consulting the manufacturer. All 240v electrical repairs or additions must be carried out by a licensed electrician. All 12v electrical repairs or additions must be carried out by a qualified auto electrician. Your local dealer can help you with the names of suitable contractors to carry out any of this work. Any work carried out by persons other than those authorised above may void the warranty on your RV.

Connecting 240v Power

All RVs are fitted with a 15 AMP 240V power inlet. A suitable 15 AMP extension lead is required, as a normal 10 AMP domestic lead will not fit this inlet. DO NOT attempt to modify the normal domestic plugs or sockets for this purpose.

Wiring chart 12v

 $^{\scriptsize{\scriptsize{\scriptsize{\scriptsize{\scriptsize{\scriptsize{\scriptsize{\scriptsize{\scriptsize{\scriptsize{}}}}}}}}}}}$

White Earth

Brown Park lights, side lights, number plate lights

Yellow Left indicator
Green Right indicator

Green/Yellow Used to earth cabin 12 volt

Red Stop lights
Blue Electric brakes
Purple Cabin lights
Brown Marking lights
Orange Water Pump

Wiring chart 240v (3-Core 240 Volt Cable)

Red Active
Black Neutral
White Earth

Fuses Bladed type

*Do not tamper with the 12 volt or 240 volt systems.

ELECTRIC BRAKE CONTROLLERS

This controller is fitted in your car and is usually of the pendulum type. That is the type that recognises when you apply the brakes in your car and applies an equal amount of braking to your RV automatically. Electric brake controllers should only be serviced and maintained by an authorised auto electrician and you should refer to the manufacturer's warranty book for further information on servicing.

ESC (ELECTRONIC STABILITY CONTROL)

This is a recent innovation designed to automatically apply the ALKO electric brakes on the caravan or trailer in a controlled manner when lateral movement exceeds set parameters.

The ESC is located on the caravan, mounted under the floor and just behind or between the axles where it constantly monitors the sideways movements of the caravan. Should an excessive sideways manoeuvre or a sway be identified by the control, it automatically and instantly applies just the AL-KO caravan brakes and maintains that brake application until the situation is assessed as being under control again.

Traditional sway control and weight distribution devices must be retained as the ESC is designed to activate in circumstances when control is about to be lost.

This safety system is only available to be fitted by certified trained installers and should not under any circumstances be tampered with by unqualified people.



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ELECTRIC ROOM SLIDE

Operation

To operate your room slide push and hold the out switch until the room slide stops moving then release the switch.

To bring the room slide back in press and hold the in switch until the room slide has moved all the way in and stops.

Trouble shooting

Room slide is stuck in or out

How to manually override (reset)

- 1. Press The button (A) 6 times and hold down on the 7th.

 Press until the light starts to flash.
- 2. Use the normal slide control switch located inside van to retract room slide.

How to manually push slide out

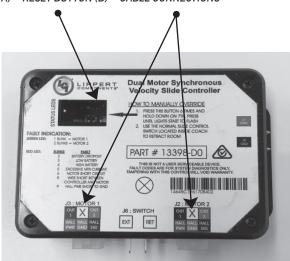
- 1. Press The button (A) 6 times and hold down on the 7th. Press until the light starts to flash.
- 2. Once unit is in manual mode as above unplug both motors (B cable connectors) from the bottom of the control board.
- 3. Push or pull room slide in the desired direction.
- 4. When the room slide is completely back in reconnect both motors to the control board. (this applies the brake for travel) (if this fails, move on to the manual disconnect proceedure)

Motors running out of Sync 1.

Slowly work the slide in and out unit the room slide is all the way in.

- 2. Remove the cable conections (B) from MOTOR1 and MOTOR2.
- 3. Reverse the conections and use the normal switch in the van to drive the room slide in and out.
- 4. Once completed swap them back to the original position.

(A) - RESET BUTTON (B) - CABLE CONNECTIONS











Manual disconnection proceedure

1. Pull back the black coverstrip adjacent to the slideout mechanism on the outside of the van.



2. Remove the screw located at the top of the unit slide mechanism.



3. Pull back the sealing strip to expose the motor and insert a screwdriver between the slide track and the motor and leaver up to release the motor.



4. Repeat process on the other side.

Once completed the slide out section can be manually pushed in. Ensure that you 'lock' chock, or secure the slide out in the closed position prior to driving.

Please note that you must take the van back to your closest Avan dealer to have the motor reconnected prior to attempting to reuse the slide mechanism (other than manually).







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FIRE SAFETY

Ventilation

Do not obstruct the permanent ventilation openings which are fitted, as your safety depends on them.

In Case of Fire:

- 1 Get everyone out.
- 2. Turn off outside gas valve at gas cylinder.
- 3. Disconnect the mains electricity supply.
- 4. Raise the alarm and call the fire brigade.
- 5. Attempt to extinguish fire if safe to do so.

FIRE PRECAUTIONS

Children: Do not leave children alone

Means of Escape:

- 1. Make sure you know the location and operation of exits.
- 2. Keep all escape routes clear.

Combustible Materials

Keep them clear of all heating and cooking appliances.

Fire Fighting

Your unit has been fitted with a dry powder fire extinguisher.

Familiarise yourself with the location and the instructions for use on your fire extinguisher and the local fire precaution arrangements.

GAS CYLINDERS

Gas cylinders generally have a life of ten years after which time they have to be re-stamped and certified by an authorised company to ensure that your gas cylinders are in a safe condition. Where possible, in exposed salty conditions, they should be covered to avoid the build up of rust and you should always ensure that the valve on the gas cylinder is turned off when storing your RV for any length of time and when the vehicle is in motion.

GAS LEAKS

Never attempt to find a gas leak with a match. You should only detect gas leaks with soapy water and observe any bubbles that are caused by the liquid being applied to the gas joint. Gas leaks can occur due to vibration, particularly underneath the vehicle or where pipes can be damaged by stones or rocks. In the event you smell any gas you should immediately:

- 1. Extinguish all open flames, pilot lights and smoking materials.
- 2. Keep bystanders away.
- 3. Do not touch electrical switches
- 4. Shut off the gas supply at the cylinder valve.
- 5. Disconnect 240V electricity supply at the main inlet.
- 6. Open doors and any other ventilating openings.
- 7. Leave the area until the odour clears.
- 8. Have the gas system checked and leakage source corrected by an authorised gas installer before using the system again.
- 9. Ensure vents remain permanently open, clean and unrestricted to provide ventilation.







GAS SAFETY

Gas system

For all vehicles fitted with gas cylinders or appliances the following procedures must be followed:

- 1. Close appliance valves before opening cylinder valve.
- Check connection at the appliances, regulators and cylinders periodically for leaks with soapy water or its equivalent. This should be done at least annually.
- 3. Never use a match or flame when checking leaks.
- 4 Close cylinder valve when appliances are not in use
- 5. In the event of an accidental gas leak, close cylinder valve and ventilate the RV until air is clear.
- 6. Never use cooking appliances for comfort heating.
- 7. In the event of fire, immediately close cylinder valve.
- 8. Close valve and fit sealing plug to all spare cylinders not connected, whether full or empty.
- All additions or alterations to the LP Gas system must be performed by an authorised person. (Consult your LP Gas supplier)
- 10. Appliances must not be altered without authorisation of the manufacturer.
- 11. Everyone must familiarise themselves with the odour of unburnt LP Gas to assist in the early detection of leaks.
- 12. All permanent ventilators, flues and vents should be checked regularly to ensure that they are clear.
- 13. After disconnecting a gas cylinder ensure gas line to regulator is covered with tape to stop dirt from entering the gas lines.
- 14. After connecting a gas cylinder always check connection with soapy water for gas leaks.

NEVER USE COOKING APPLIANCES FOR COMFORT HEATING

Cooking appliances need fresh air for safe operation. Before operating any cooking appliances open the hatch or in the case of a pop-top ensure the top is open or in the case of a camper trailer that the top is folded out into its normal operating position. Open windows and doors where possible.

LPG Gas Cylinders

Always handle LPG cylinders with extreme care. When disconnecting the regulator from the cylinder for refilling purposes be aware that the connecting nut to the cylinder is a left hand thread. ALWAYS COVER GAS PIPES AND REGULATOR INLET WITH TAPE AFTER DISCONNECTING GAS CYLINDERS.

Gas Connections

All gas connections are subject to vibration and therefore all gas connections should be checked with a soapy water solution at least annually.

Refrigerator

If an absorption refrigerator is fitted to this Recreational Vehicle it will operate off 240V, 12V and LP Gas.

Note:

Never refill a gas cylinder with Auto Gas. Auto Gas is a mixture of gases especially formulated for cars and if used in an RV cylinder it could be a health hazard due to the incorrect burning qualities of the gas. RV gas cylinders should only be refilled by authorised refillers using liquid propane gas.

REGULATOR

A pressure regulator is fitted to the gas cylinder. It will not be necessary to adjust the pressure of that regulator at any future time. Should you feel the regulator needs adjusting it must be carried out by an authorised gas installer who has the necessary equipment to readjust the regulator.

STOVES

Stoves must be operated in accordance with the stove manufacturers printed instructions as supplied to you when the RV is originally delivered. Ensure that when RVs are stored that all appliances are turned off and cylinder valves closed.



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The handbrake is located on the coupling on the front of your RV and it is essential that you remember to release this handbrake prior to travelling on every occasion. Should you fail to do so it will cause overheating of the brakes and the hubs and this could deteriorate the grease in the bearings, leading to bearing failure. Further, overheating of the brakes may cause a fire. IT IS ESSENTIAL THAT THE RELEASE OF THIS HANDBRAKE BE CARRIED OUT PRIOR TO TRAVELLING.

HANDBRAKE ADJUSTMENT

HANDBRAKE - (Trailer Vehicle)

When stationery, it is imperative that the park brake lever engages and secures the brakes in the 5th or 6th notch of the coupling from the tow-ball end. If not, ensure it is adjusted at your local service centre. Failure to adjust the cable tension in this manner will allow suspension movement on both independent suspension and beam axle with leaf springs, cause the brake shoes to be partially actuated and excessive heating of the brake and drums could occur. Prolonged use, if incorrectly adjusted, will cause initially the back (secondary shoe) to overheat to the extent of disintegration of the brake lining and will result in deterioration of brake performance until eventual brake failure.

HATCHES

Ensure that your hatch is completely closed at all times prior to travelling as this could not only let in excess dust and water but could also cause damage to the hatch due to excessive vibration when the hatch is open.

HOSES

In the case of waste water hoses, ensure that they are disconnected prior to moving off. The same advice applies to high pressure water hoses that are connected to the outside of the RV.

HOT WATER SYSTEMS

Hot water systems can be electric or LP gas and it is important to refer to the handbook of that appliance for all servicing details.

Safety

The water heater thermostat is constructed with a built-in safety shut-off device. The gas supply to the main burner and pilot light will be cut-off in the event that the pilot flame is extinguished for any reason. The thermostat is also equipped with a high temperature limit energy cut-off switch (ECO). The energy cut-off switch will shut off all gas supplied to the burner and pilot light in the event of the water temperature exceeding 82 degrees celsius. The energy cut-off switch is a single fuse switch and is not field replaceable. Should the ECO function be used the thermostat must be replaced before the water heater can be placed in operation again.

Contact your dealer for service.

All service work must be done by a qualified service agent









INTERIOR LIGHTS

In the case of pop-top or camper, when the vehicle is connected to 240V the roof should be in the up position. If any lights were left switched "on" they could cause the vinyl or canvas to burn. It is also essential to switch off 12V interior lights before lowering the roof. If the 12V lights were left switched on they also could burn the vinyl or canvas after the 12V lead was connected to your car.

JACKS

Your vehicle is supplied with a suitable approved jack, a matching spare wheel/tyre, and a suitable wheel-nut brace.

Warning

The use of a jack requires extreme care to be exercised.

Ensure the dealer explains the correct procedure for using the jack, before undertaking your first journey. Written instructions are supplied on the side of the jack.

Your vehicle has a "specified jacking point" on each side of the chassis or under the trailing arm. This is to securely locate the top of the jack, so as to prevent it from being dislodged in any direction.

Never attempt to use the jack unless it is supported on a firm and level base.

Always ensure that wheels are chocked and the caravan/camper-trailer is coupled to the tow-vehicle, before using the jack.

JOCKEY WHEEL

In the case of pneumatic tyres on jockey wheels, these should be pumped up to a pressure which maintains the tyre in a condition that avoids a flat surface on the bottom of the tyre. If left under inflated long term damage to the tyre could result. The pressure depends upon the weight carried on the draw bar. It is advisable to keep that tyre pumped to a pressure which avoids the bulging of the tyre on the bottom. It is possible to grease the internal thread of the jockey wheel. This can be done by removing the jockey wheel from its clamp and unwinding the jockey wheel so that the top section of the jockey wheel comes away from the bottom tubular section and you can then grease the internal thread of the jockey wheel.

LEVELLING DEVICES (When Travelling)

In most situations your RV will not need any form of levelling devices to function correctly.

Levelling devices or level rides can be fitted to most caravan/tow vehicle combinations. It is advisable that you seek professional advice from your RV dealer as to the type of levelling device you should use depending upon the type of tow-vehicle and the type of vehicle being towed.

MICROWAVES

Microwaves should be firmly fixed into position before moving your RV to ensure the microwave cannot move or fall out of the allocated area. You may wish to remove or fix into position the glass plate / or equivalent inside the microwave to ensure it is not damaged during transport. You should also refer to the owner's guarantee and the maintenance card as supplied with your microwave.





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PAYLOAD

UNDER NO CIRCUMSTANCES SHOULD YOU EXCEED THE MAXIMUM ALLOWABLE PAYLOAD FOR YOUR RECREATIONAL VEHICLE

Manufacturers allow sufficient load carrying capacity (payload) taking into account all equipment and/or accessories fitted. There is a maximum allowable payload of a Towable Recreational Vehicle = ATM Rating — Tare Mass. (see page 28 for further details). If you don't understand or are confused about calculating the loads in your RV please contact your RV dealer and they will explain this for you.

POLE CARRIERS

Tubular pole carriers are only intended to carry the weight of annex poles. Do not overload pole carriers. They are usually attached to the front drawbar or rear bumper bar. Every 500km you should check the fixing bolts or screws as a great deal of vibration can be transmitted to these pole carriers. Before travelling you should ensure that the screw-on cap is tightened and where a locking pin is fitted, this pin must be in place.

POP-TOPS

When raising the roof of a pop-top or campervan it is advisable to leave the main door open. If the main door is closed during this raising operation it can cause a vacuum inside the RV and make the roof difficult to raise. Leaving the door open will allow air to come into the campervan or pop-top whilst the roof is being raised and therefore make the raising operation much easier.

RANGEHOOD

Refer to the manufacturers warranty and maintenance details as supplied with your RV.





REFRIGERATORS

Gas/electric refrigerators need at least 24 hours continuous running before they will attain their design operating temperatures.

It is essential that you always have your refrigerator level when operating from either gas, 240V or 12V. Whilst the vehicle is travelling and is slightly out of level this will effect the amount of refrigeration produced but the affect should be minimal. If you wish to operate your refrigerator whilst your RV is stationary or at an overnight camping spot it is essential that your RV is level. If you cannot level your vehicle then you should switch the refrigerator off as continual operation in an out of level condition can damage some parts of the refrigerator. You should refer to the warranty and instruction manual as supplied with your vehicle for further information.

When your RV is stored for any period of time your refrigerator should be completely dry inside and the door should be left slightly open to allow air circulation, otherwise mould could build up on the inside surfaces.

It is important that the ventilation fitted to your RV refrigerator must at all times be clear of any blockage and these vents must not be taped over or blocked for any reason. In the case of camper trailers and pop tops, the refrigerator should not be operated whilst the vehicle is stored with the top closed.

The refrigerator in your Recreational Vehicle is designed to operate from LP Gas, 12V or 240 V. In the case of absorption refrigerators it is extremely important to ensure that all ventilation to the refrigerator is maintained in a clear and unblocked condition. Overheating of the refrigerator components can lead to poor refrigeration in the cabinet.

The vehicle must be level in both directions (length & width) for your RV refrigerator to operate efficiently. If parking your vehicle for more than 15 minutes ensure that the vehicle is level. If it is not level then switch off the gas or 12 V supply as the refrigeration system will not operate.

Never allow the refrigerator to operate from 12 volt for more than 30 minutes with the engine of your car switched off otherwise you could flatten the battery of your car.



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Refrigerator Fault Finding

Cause/Remedy Owner's Observation No sound from refrigerator • There are no moving parts in 3 way absorption type refrigerators/freezers. No sound will be detected during operation. Some models use 12 volt ventilation fans which can be heard. Refrigerator fails to operate · Controls set incorrectly. Check that thermostat is set to maximum, power is switched on and on AC power controls are set to obtain 240 volt operation. Break in electrical circuit. Check fuses, switches and plugs. Drop in supply voltage. Check that the supply voltage to the refrigerator/freezer is maintained at full rate. Refer to the refrigerator operating instructions. Refrigerator fails to operate • Controls set incorrectly. Check that the 12 volt switch is on, and the controls are set on 12V DC correctly to obtain 12 volt operation Break in electrical circuit. Check fuses. Drop in supply voltage. Check that the supply voltage to the refrigerator/freezer is maintained at full rate. Refer to the refrigerator operating instructions. Refrigerator fails to operate on Gas • Controls set incorrectly. Check that the thermostat is set to maximum, gas is turned on and controls are set to obtain gas operation. • Gas supply restricted. Check that the gas cylinder is not empty, all LP gas valves are open, ensure gas jet is clean and burner is alight.

Poor performance

• Refrigerator/freezer not levelled. The refrigerator/freezer must be levelled in both directions to operate correctly

• Incorrect lighting procedure. Check that flame failure safety valve has not been prematurely released. Refer to the refrigerator operating instructions.

- Ventilation/installation inadequate. The refrigerator/ freezer must be ventilated, installed and flued in accordance with manufacturer instructions. Refer to the refrigerator installation and operating instructions.
- Drop in supply voltage. Check that the supply voltage to the refrigerator/freezer is maintained at full rate.
- · Controls not set correctly or thermostat incorrectly used. In hot weather the thermostat setting should be closer to maximum than usual.
- Door is not closed properly or magnetic sealing strip is defective.
- Gas system restricted or flame has gone out. Depending on use, gas system should be periodically serviced.
- Evaporator heavily coated with ice. Refrigerator/freezer should be defrosted at frequent intervals.
- The gas pressure is incorrect. Check the pressure at both the gas cylinder and burner. This requires special equipment and should only be done by an authorized gas fitter.

For further information please refer to your operating instruction manual.

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ROOF

RAISING AND LOWERING THE POP TOP

To Raise

- Open the door so as not to create a vacuum making it harder to raise
- Unfasten the roof latches and push up and lock in from the front end first.

To Lower

- Ensure the shower door is closed (if applicable)
- Lower from the front end first.

Note: When the pop top is lowered in wet conditions, make sure that you dry off the vinyl with a towel first.

RAISING AND LOWERING THE A FRAME CAMPER To Raise

- Unfasten the roof latches. [These latches may require periodic adjustment. To adjust simply screw or unscrew the latches.
 They should be adjusted so that the front roof compresses the rear roof seal approximately 1/8" (3mm).
- Raise the roof from the door side of the camper by pushing upwards on the roof section (to the right of the door as you face the van) till it locks into position at the apex. Use caution and common sense when raising the roof in windy conditions. In severe winds ask someone to apply light pressure to the front roof section to hold the two roof sections in place at the apex while you raise the A-panel otherwise the wind may disengage the two roof sections at the apex.
- Open the lower and upper door sections step in and raise the A panels, first securing the front locks then the rear barrel locks.

To Lower

• To lower the roof reverse the procedure — first "split" the door, then lower the offside 'A' panel down towards you (over the sink). Then lower the near side 'A' panel remembering to hold the upper section of the door 'open' until the panel is lowered, then 'close' it back into the panel. Next, step out on to the ground, close the bottom section of the door and finally, by applying pressure to the roof section to the right of the door, bring roof sections down; and secure the latches.

Note 1: Ensure that you place the 'packing' foam in the correct positions between the two A panels and between the near side A panel and the roof (as shown to you by your dealer at pick-up orientation). Incorrect placement can cause damage to the panels.

Note 2: When the camper is folded down in wet conditions, although the smooth construction does not hold much water, there will be moisture present which could dampen the curtains on contact. Make sure the curtains are allowed to dry off before storing the RV.

ELECTRICAL

You should not connect the 240V supply until the camper or pop-top is fully erected. If power was connected before being erected, any internal lights that have been left switched on may cause damage or a fire to the vinyl or canvas section of your pop-top or camper trailer.

SPEED LIMITS

The major concern is not how fast you can travel with your RV but how safe can you travel. Irrespective of road speeds signs, you should travel only as fast as the road conditions, wind speed & direction, rain, type of tow vehicle etc., permit. NEVER travel in excess of the towing speed regulations for each state of Australia. NEVER exceed any speed limits stated by the tow-vehicle manufacturer.

STABILISERS

DESIGNED RV LEVELLING RAMPS.

Corner stabilisers are designed so that they stop the RV from tipping towards one end as you walk inside the vehicle. They should be lowered to the point where they touch the ground in a firm manner without taking any weight of the vehicle. Remember THEY ARE NOT JACKS and should never be used to take even partial weight of the vehicle. As you move inside the vehicle from end to end you cause more weight to be applied to the stabiliser. Therefore you should never use force on the stabiliser handle to force the stabiliser to the ground thereby taking the weight of the vehicle. Stabilisers that are bent due to excess weight being applied to them are NOT COVERED UNDER WARRANTY.

*TO LEVEL YOUR RV, WE RECOMMEND YOU USE SPECIFICALLY



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TOILETS

It is only permissible to dispose of the contents of a chemical toilet in approved dumping stations or through a normal household sewerage system. This can often be done at caravan parks with the permission of the park owner. However it is advisable to check with the park owner before discharging any toilet material into sewerage lines as the chemical deodorant contained in the toilet can sometimes have effects on the sewerage or septic system of the caravan park. You should refer to the brochure supplied with all chemical toilets for further information on their care and maintenance.

Different chemical packs allow for different removal options. Make sure you read carefully the contents of the material as to where you can dispose of waste.

TOWING EQUIPMENT

It is important to take advice from your RV dealer as to the type of towing equipment and tow bar that should be fitted to your car. It is essential that the tow bar has a rating at least equal to the aggregate trailer mass of the vehicle being towed. Hitches in many cases are a distinct advantage and these should be used in accordance with the recommendations of your RV dealer.

TOW BAR (MOTORHOMES)

If your motorhome is fitted with a tow bar you must always observe the overall tow rating and ball weight listed on the manufacturer's compliance plated fitted to the tow bar.

APPROVAL FROM THE MANUFACTURER MUST BE OBTAINED PRIOR TO ADDING ADDITIONAL WEIGHT TO THE TOW BAR.

TRAVELLING OFF BITUMEN

Many RV's are being used for travel off the bitumen. Due to the variable nature of road conditions these caravans must be designed accordingly and be fitted with appropriate equipment. When travelling off the bitumen safety checks including wheel nuts, tightness of suspension bolts and wheel bearings need to take place more often than when travelling on the bitumen. Please refer to RV Warranty in Schedule 1 for further details on what is covered under these conditions.

TYRES

Selecting the correct tyres for an RV is extremely important and requires consideration.

Tyres must be marked "Made in Australia", or have an "E-Mark" or (U.S.) DOT marking.

The law requires the tyres to have a **Speed Rating** of at least 120 km/h, which relates to the symbol "L" on the tyre sidewall. A rating in excess of this provides a good safety margin.

More important is the **Load Rating**... especially when caravanners inadvertently over-load their vehicle.

It is imperative that the load-carrying capacity of any tyre is always greater than the load that it is carried when the vehicle is fully loaded.





WARRANTY PROCEDURES

You must complete the warranty registration online at www.avan.com.au so that your warranty will be registered with the manufacturer and the dealer. Further procedures on warranty should be in accordance with Schedule 1, hereto. It is essential to understand the difference between warranty and service & maintenance. All RVs need to be maintained and serviced and this cost must be borne by the owner as it is part of your cost of travel. Warranty procedures are those items which are stated in the warranty and you should carefully consider whether an item is a service and maintenance item prior to contacting the dealer to make a warranty claim.

WATER SYSTEM

The water system in your RV is designed to be operated by a hand pump or 12 V pump at the sink or a mains pressure connection to a tap at the sink.

It is important that the tank of your RV be drained when the RV is stored for any long period of time and the system is flushed out with clean fresh water at least once per year.

At times the hose connecting the tank to the pump can become damaged or kinked and under these circumstances it will be difficult to operate the pump. Check that no kinks have occurred and free the line from the tank to the pump.

Additionally, if the vent pipe to the tank becomes blocked or damaged or kinked it can slow down the process of withdrawing water from the tank via the pump. In these cases again check to ensure that the vent pipe connected to the top of your tank is clear of all obstructions.

WATER PUMP (12 VOLT)

Your pressurised 12 V Water System should give years of trouble free service. The modern pumps are both quiet and reliable.

Pumps should be isolated from power at the switch on the control panel whilst travelling and when not in use such as at night and during the day when away from the RV. Your hand pump is also maintenance free. Replacement parts are readily available for worn washers and seals. Check these items prior to each trip to make sure they are in good working order.

WATER TANKS

The Water Tank is manufactured from high quality non-toxic, non-tasting Polyethylene featuring screw in barbs and breathers for easy replacement and or drainage. When filling tanks it is recommended that you use a food grade hose which is stored in a cool place away from sunlight. When your van is not in use for extended periods, it is recommended that your water tank and lines be completely drained until ready for use again.

WINDOWS AND DOORS

Refer to Care & Maintenance.



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It is essential that your caravan is never over-loaded, and that the ball-loading is always around 10% of the mass of the caravan. Heavy items must be secured, and positioned low down and as close as possible to the axle(s), and never at the extreme front or rear of the caravan. Prior to going on a trip, you should use a weigh-bridge and have the total mass of the caravan - and the ball-loading - accurately measured.

HITCHING AND UNHITCHING

It is essential that when carrying out the hitching and unhitching operations you should do so without interruption as this can lead to some essential items being missed, such as the handbrake being left on or safety chains not being correctly attached. When carrying out this operation you should run through a check list similar to the following.

- Ensure that the coupling is correctly seated over the top of the ball and the handle above the coupling is down in the correct position.
- 2. The 12 V electrical plug is connected between the caravan and the car securely and safely.
- 3. Ensure safety chains are attached to the vehicle in such a manner to allow normal lateral movement between the caravan and the car.
- 4. Load levelling devices or level rides must be correctly attached.
- 5. The jockey wheel must be removed from the clamp.
- 6. Release the handbrake.

After this hitching operation has taken place it is essential to walk around the vehicle to ensure that the electrical lead has been disconnected, that the water supply hose and drainage hose have been disconnected and that the door is closed.

RATINGS & MASSES

The **GTM** (gross trailer mass) and **ATM** (aggregate trailer mass) are ratings... supplied by the caravan or camper-trailer manufacturer.

ATM Rating:

The total permitted mass of the laden caravan when carrying the maximum load recommended by the manufacturer. This includes the mass imposed on the tow-vehicle.

GTM Rating:

The total permitted mass of the laden caravan transmitted to the ground by the caravan tyres, when carrying the maximum load recommended by the manufacturer, when coupled to a towvehicle. This rating must not exceed the axlegroup (wheels/tyres/suspension/axle) rating stated by the chassis manufacturer.

Tare Mass:

The actual mass of the caravan with all OEM (original equipment manufacturer) items fitted.
The tare mass is weighed with empty water tanks, empty gas cylinders, and without any luggage or personal effects.

Fluid not essential for the caravan to operate on public roads can be excluded from the tare mass, as it is considered to be part of the loadcarrying capacity, which is included in the Gross Trailer Mass (GTM). Fridges, stoves, hot water service, water tanks and gas bottles are considered to be standard equipment on most caravans and do not need to be filled to a nominal fluid capacity in the tare mass.

The tare mass is stamped on the Consumer Information Plate which is affixed to the vehicle. With reference to the section in this handbook entitled "Load- carrying Capacity", items fitted to the caravan after it leaves the manufacturer's factory are not considered to be part of the tare mass.





Ball-loading: The ball-loading is the actual load (or force), in kg, that is exerted onto the tow-bar of the tow-vehicle at any time. It is an accepted Australian RV industry "standard" that the ball-loading should be around 8 - 15% of the caravan mass. This is measured at tare weight and will increase when the RV is loaded.

After the vehicle is sold, it is obviously the responsibility of the driver to always ensure that they maintain a safe ball-loading, and load their vehicle so that heavy items are positioned near the axle(s), and not at the extreme ends of the vehicle.

Load-carrying Capacity: The total permitted load (kg), stated by the manufacturer, that may be legally carried in the caravan or camper-trailer. It is the difference between the ATM Rating and the Tare Mass. Note: Any options or accessories added by a dealer, or the owner, will obviously reduce the available load-carrying capacity accordingly.

The GVM (gross vehicle mass) and GCM (gross combination mass) are also ratings... supplied by the tow-vehicle manufacturer. "Combination" means the tow-vehicle plus the caravan/trailer.

The Ball-loading exerted onto the tow-vehicle is part of the loadcapacity of the tow-vehicle; this load is applied quite some distance behind the rear axle. Along with ensuring that you do not exceed the GVM Rating of the tow-vehicle, it is important that you do not exceed the Rear axle Rating of the tow-vehicle.

The tow-vehicle - and the tow-bar - must both have a Towing Rating that exceeds the ATM Rating of the caravan/trailer. The tow-vehicle - and the tow-bar - must both have a Maximum Ball-load Rating that exceeds the actual ball-loading of the caravan at any time.

* It is the responsibility of the driver to always ensure that they do not ever exceed any of these Ratings when they have the caravan or camper-trailer partly or fully loaded. (see page 29 & 30 for further details).







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Know Your Weights?



The GVM (Gross Vehicle Mass) is the maximum allowable total mass of a fully loaded motor vehicle as specified by the manufacturer. Consisting of the tare mass (bass weight/mass of the vehicle) plus the load. The load would inlude fuel, all occupants, cargo and any add-on accessories.



PAYLOAD All the extra bits on board including water, gas cargo, food, clothes, accessories and add-ons. The industry standard for a single axle is 300kg and for dual axle is 400kg. This does depend on make and model. Payload is the ATM minus the Tare Weight.

WEIGHBRIDGE

TOW BALL WEIGHT

Tow ball weight (ball load or tow ball mass is the load exerted on the tow ball of the tow vehicle. In Australia, Ball weight is generally around 10% of the ATM (Aggregate Trailer Mass).



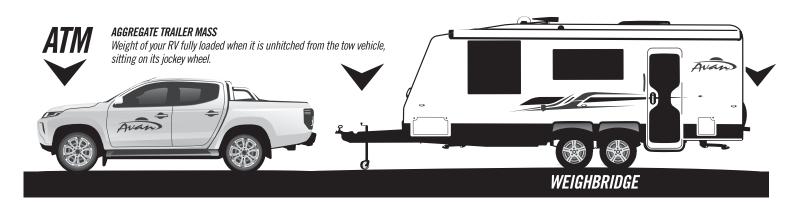


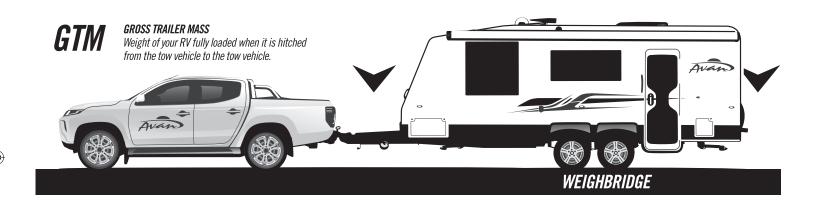


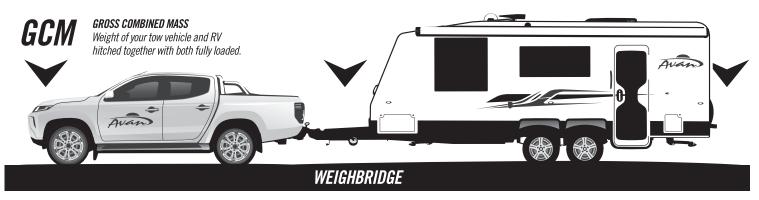




Know Your Weights?







Information provided is of a general nature and is a guideline only. Always check with your manufacture to be sure of what your RV or vehicle is capable of doing. Information sourced from the web and is correct at time of printing.



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VEHICLE IDENTIFICATION PLATE [VIN]

Your RV has a VIN plate affixed to the front end of the chassis. The number is unique to your RV and provides the following:

- Manufacturer the manufacturer's name
- Date of manufacture
- VIN the 17 digit ID number unique to your recreational vehicle.
- · Vehicle Model.
- Tow Ball (Weight) The unladen weight at the coupling.
- ATM (Aggregate Trailer Mass) The maximum total allowable weight of your RV when loaded.
- Tare Mass (Weight) The unladen weight of your RV. Axle/Axle Group Load Capacity — The maximum load capacity of the axles.

- Axle/Axle Group Load Capacity The maximum load capacity of the axles.
- Rim Size/Profile (Wheel) the dimension of the rims (standard).
- Tyre Size The dimensions of your tyres (standard).
- Tyre load rating
- Tyre Pressure (Cold) Your recommended pressures.
- Tyre speed rating

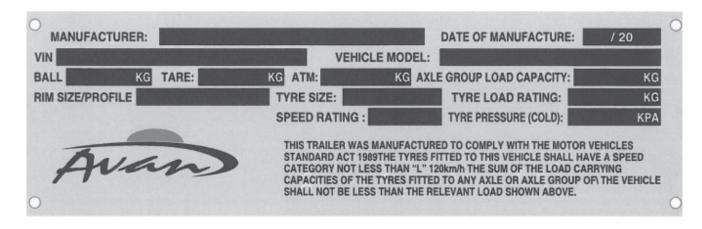
Motorhomes

- GVM (Gross Vehicle Mass) The maximum total allowable weight of your motorhome when loaded (including passengers).
- Kerb Mass (Weight) The unladen weight of your motorhome.

PLEASE NOTE

Failing to adhere with the above may render the RV unsafe and risk voiding your warranty and insurance cover.

VEHICLE IDENTIFICATION PLATE [VIN]













RVWARRANTY

AVAN CAMPERS AUSTRALIA





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SCHEDULE 1

AVAN CAMPERS AUSTRALIA ACN 076 605 402

RV WARRANTY

COMPETITION & CONSUMER ACT 2010 Sch 2 – Section 102 NOTICE

The attached Warranty is provided by AVAN CAMPERS AUSTRALIA ACN 076 605 402 of 9 Webster Way, Pakenham, Victoria 3810 (Avan). Email admin@avan.com.au Tel (03) 5945 4500.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

The warranty sets out, inter alia:

What Avan must do to honour the warranty

- What you must do to be entitled to claim
- The period/s within which the defect in the goods to which the warranty relates must appear if you are to be entitled to claim the warranty.
- The procedure for claiming under the warranty including the address to which a claim may be made/sent.
- [Where applicable] who will bear the expense of claiming the warranty and if to be borne by the person giving the warranty how you can claim such expenses.

Unless otherwise stated the benefits conferred in this warranty are additional to all other warranties, conditions, guarantees, rights and remedies granted pursuant to the provisions of the Competition Consumer Act 2010 and the Fair Trading Acts and like legislation in the States and Territories of the Commonwealth of Australia and any other legal obligations and liabilities of the manufacturer or supplier of the goods and nothing contained in this express warranty shall restrict or modify such rights, remedies, obligations or liabilities.





A. DATE THIS WARRANTY COMMENCED.

of	20	(Dealer to
insert date of Purchase)		
(the Commencement Date)		

B. WHAT YOU MUST DO.

You must care for and maintain your Recreational Vehicle in accordance with the instructions set out in this warranty, the accessory warranties and the Owners Handbook that were provided to you at the time of purchase. To ensure your warranty is not invalidated we recommend that you maintain the vehicle through your selling dealer, one of our authorised dealers or other properly qualified service personnel. It is essential that the vehicle be serviced at the recommended intervals set out in Clause I.

C. WARRANTY PERIOD.

The Avan New Vehicle Warranty applies to the original purchaser of all new Avan Recreational Vehicles sold in Australia and New Zealand. The warranty period is 24 months. The warranty period commenced on the commencement date being the date the vehicle was first purchased or that it was put on the road by Avan or by an Avan dealer as a demonstration vehicle.

Unless otherwise stated the benefits conferred in this warranty are additional to all other warranties, conditions, guarantees and rights granted pursuant to the provisions of the Competition and Consumer Act 2010 (Cth) and the Fair Trading Acts and like legislation in the States and Territories of the Commonwealth of Australia and any other legal obligations and liabilities of the manufacturer or supplier and nothing contained in this express warranty shall restrict or modify such rights, remedies, obligations or liabilities.

D. WHAT IS COVERED BY YOUR WARRANTY

During the warranty period Avan will repair or replace, at its discretion, any original Avan parts found to be defective under normal use and operation in Australia and New Zealand. If during the Warranty Period a warranted part fails and as a result of which your Recreational Vehicle is unsafe to tow, transport of your Recreational Vehicle to the nearest Avan or authorised Service Centre is covered under the Warranty.

E. ACCESSORIES

(a) General.

These include products fitted in your vehicle and supplied by other manufacturers such as oven, cooktop, microwave, air conditioner, refrigerator, television and the like. Each accessory has its own manufacturer's warranty and in some instances the warranty period is longer than the Avan Warranty.

It is important to follow the care and servicing requirements set out in the individual manuals supplied so that your warranty for these products is protected. All warranty claims should generally be submitted to your dealer, but for practical purposes can be submitted directly to the supplier in accordance with the supplier's warranty requirements. If in any doubt, please consult your selling dealer who will be pleased to

assist if you have any difficulty with the manufacturer/importer. (b) Tyres.

Tyres are not covered by the RV New Vehicle Warranty but are covered by the tyre manufacturer's warranty. This does not mean you are deprived of any statutory rights in respect of these items. It is important that you maintain the tyres in accordance with the procedures set out in the Owner Manual. Your Avan Dealer will be able to help you if you have any questions on tyre warranty. (c) Battery

A defective original battery will be replaced free of charge in the 6 month period following the Commencement Date regardless of usage.

It is important that your battery should be kept charged even while stored away and general maintenance on the battery should be carried out, any corrosion around the terminals being removed. You must follow the instructions set out in the battery maintenance section contained in the Owner Manual in order to protect your battery warranty.



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- Maintenance Services are regular inspections carried out during the life of the vehicle. At the time, adjustments can be made as well as checks and lubrication and replacement of normal wearing parts.
- A Warranty Repair is carried out during your warranty period to rectify any problem caused by faulty materials and/or workmanship at the time of manufacture of the vehicle. This is normally free of charge.

G. WHAT YOU ARE NOT COVERED FOR IN YOUR AVAN NEW VEHICLE WARRANTY.

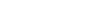
- Repairs and Servicing required due to misuse
 (off-road use of the vehicle, overloading, careless driving
 on unmade roads etc.), negligence, water ingress, salt water,
 improper adjustment or repairs by a non-approved Avan
 repairer, alterations, tampering, disconnection,
 accident or modifications;
- Scratches or surface corrosion caused by normal wear and tear caused by stone or other chips to the panels, window surfaces, undercarriage or running gear. Also, damage or breakage of the windows caused by normal wear and tear, such as stone impacts;
- Tyres (refer to paragraph E);
- Environmental damage, such as hail, storm, fire, flooding, lightning or airborne fallout (chemicals, tree sap, bird and insect droppings etc) or damage arising to tenting, curtains or plywood/veneer finish from condensation remaining untreated;
- Any damage or defect caused by the fitting of a non Avan approved part or accessory, or add on parts;
- Damage arising from improper or lack of maintenance or servicing;
- Normal wear and tear including fading or deterioration of fabrics, flooring, sealants and other materials (these are warranted only against defective workmanship or material):

- Fading, soiling, shrinkage, softening, tears or punctures to fabric items including cushions, curtains, drapes, mattress covers, canvas, canopies and vinyl and window screenings;
- Damage to and/or soiling of fabrics and internal fittings arising from dust and other airborne substances.
- Water damage arising from creek crossings or flooding;
- Damage arising from movement of appliances and fittings resulting from use on corrugated or uneven surfaces;
- All damage arising from use on roads defined below as unsuitable;
- Any vehicle used for commercial or rental purposes:
- Premature wear and tear where the vehicle is used for permanent residential purposes. (Vehicles have been designed for recreational purposes only);
- Impact damage, whether static or in transit;
- Normal deterioration due to exposure or fair wear and tear;
- Any promises, warranties or undertakings made by any person beyond those set out in this warranty and not subsequently endorsed in writing by the manufacturer (Avan); and
- Consequential Damage That is, further damage caused by your failure to report and have remedied a fault at the earliest opportunity. For example, a water leak could cause further considerable damage to the RV interior if not attended to promptly.

H. UNSUITABLE ROADS

Recreational vehicles are not designed to travel on rough or corrugated roads and damage caused by vibration resulting from inappropriate driving on a rough or corrugated road is not covered by your warranty. This includes the 'Adventure Pack' range.





ADVENTURE RANGE POLICY

Avan's Adventure Plus and Adventure Pack range of RVs have been designed and manufactured to give you added ground clearance and added physical strength. This allows you limited unsealed road usage.

Avan's Adventure range is not designed for going cross-country or for use on 4WD-only tracks and roads.

When towing you are strongly advised to travel at a speed suited to the conditions and with extra care and attention on rutted, corrugated or uneven surfaces.

The RVs should not be towed on rough or badly corrugated roads at all. The Adventure range is not designed for hard impact or bumps on rutted roads or tracks. If you find yourself with no alternative, slow your speed to a minimum and if necessary, reduce your tyre pressures. This will help minimize any damage and any expensive repair bills.

Gas Regulations relating to vents and other construction rules restrain the effectiveness of RVs against ingress of dust and water. Your RV should not be exposed to water at crossings or above underfloor level under any circumstances.

The following damage is not covered under the Adventure range or the standard warranty:

- Water damage owing to exposure from below. e.g. water crossings, floods etc.
- Dislodgement and/or damage to appliances or fittings arising from impact, hard knocks etc, rutted roads or tracks
- Damage to body, chassis or running gear arising from impact, stones etc.
- Damage to and/or soiling of fabrics and internal fittings arising from dust and other airborne substances.
- Any other damage caused by or arising from general misuse of the RV.

TYRE PRESSURE

It is imperative that you maintain your tyre pressure at the recommended levels set out on the Vehicle Identification Plate (VIN). Incorrect pressures can lead to considerable damage occurring to the RV. Pressure must be varied in accordance with the load and road conditions. Should you require any further information your dealer will be pleased to assist you in this regard. WARNING — pressures on towable RVs are generally much lower than those in your car tyres!

ELECTRIC BRAKED AXLES

Your RV is fitted with Electric Braked Axles. Extra care is required to ensure the system is maintained in peak condition. The brakes are a vital part of your recreational vehicle. If not serviced at the recommended intervals considerable damage can occur. Failure to service may jeopardise your warranty rights.

Your first brake service is required at 300km.

Details of service agents and full service schedules are set out in the Electric Brake Axle booklet.

I. HOW TO MAKE A WARRANTY CLAIM

Before undertaking any repairs or alterations to your RV you must contact your selling dealer to arrange an appointment to bring the vehicle in for inspection. Unless the defect requires urgent rectification your dealer may recommend that you wait and have it attended to at the time of service (but ensure you report it prior to the warranty expiring). If you are travelling, your dealer can make arrangements for urgent repairs to be carried out sufficient to get you home when full rectification can be made by your selling dealer if necessary. You are responsible for returning the vehicle to the selling dealer and for any cost involved save where the vehicle is unsafe to tow as referred to in Clause D.

Save the above exception, Avan shall not be liable for incidental or consequential damages such as transportation, lodging, damage to or loss of personal property, loss of use of your product, inconvenience or loss of income.

J. WHEN YOU SHOULD GET YOUR AVAN SERVICED

Your Recreational Vehicle should be serviced every 6 months or 5000 kilometres, whichever occurs first. Failure to carry out proper and regular servicing may invalidate your warranty.

Additional service requirements may apply if the recreational vehicle is driven under abnormal conditions. Your Avan Dealer is the person best to advise you of the maintenance requirements to suit your driving conditions.

We carry out a thorough inspection of your new recreational vehicle before it is delivered and it is highly unlikely that you will find any problems with your new vehicle. However, should you have any concerns or questions we recommend that you refer these to your selling dealer at the first service.



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SERVICE RECORDS & NOTES

Date of Service:
Dealer Stamp:
Dealer Starrip.
Summary of Work Carried Out:





SERVICE RECORDS & NOTES (continued).
Date of Service:
Dealer Stamp:
Summary of Work Carried Out:



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SERVICE RECORDS & NOTES (continued).	
Date of Service:	
Dealer Stamp:	
Summary of Work Carried Out:	

