

XL13

OFFROAD CARAVAN

OWNER'S MANUAL

EDITION: 2021 - Version 1



www.marketdirect.com.au



Phone: 1300 494 494

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DISCLAIMER: This manual is provided in good faith and Market Direct Group Pty Ltd. may amend or update this owner manual from time to time.

Use of Product

The intent and purpose of this manual is to assist owners in the correct use and operation of the product and outline the servicing schedule to be followed, ensuring the correct maintenance of the product.

Servicing

Servicing information contained in this owner manual is provided for those who have appropriate technical skills and relevant to the subject matter the publication deals with in regard to maintenance and repairs. The servicing content of this manual assumes a satisfactory technical knowledge and mechanical skills and experience. It is not suitable for people who are not trained or qualified in the subject matter it deals with. If you do not have the appropriate skills and experience, or if you do not have access to appropriate tools and equipment, you may injure yourself or others around you and/or you may cause damage to the Caravan you are working on, including making it unsafe. Users of this owner manual must:

- Read all content thoroughly. It is especially important to have a good understanding of all the contents shown in the INTRODUCTION and SAFETY Sections of this publication.
- Use only the correct tools and equipment for all repairs and servicing.
- If part replacement is necessary, replace the part with the same part number or equivalent part.
DO NOT replace it with a part of inferior quality.
- Observe all 'Cautions' and 'Notices' to reduce the risk of personal injury during service or repair, or improper service or repair that may damage the Caravan or render it unsafe.
- Understand that the 'Cautions' and 'Notices' in this publication are not exhaustive because it is impossible to warn of all possible hazardous consequences that might result from failure to follow the instructions in this publication.
You must carry out your own risk assessments as you work.

Market Direct Group Pty Ltd. does not accept any and all liability which may arise because a user of this publication fails to follow directions in the publication or safe work methods associated with use and maintenance of the product.

Those without the required skills, knowledge, tools, and experience to work on and maintain this product should seek the services of a suitably qualified person or business. This publication is based on the latest product information at the time of release. However, specifications and procedures are subject to change without notice.

My XL13 Hybrid Caravan

OWNERS NAME	
ADDRESS 1	
ADDRESS 2	
MODEL	
VIN	
BUILD DATE	
TARE	
ATM	
TYRE SIZE	
DEALER	

DISCLAIMER: By receiving this handbook, you confirm there you have read and agree to all the terms and conditions and understood the use and maintenance care of AusRV®

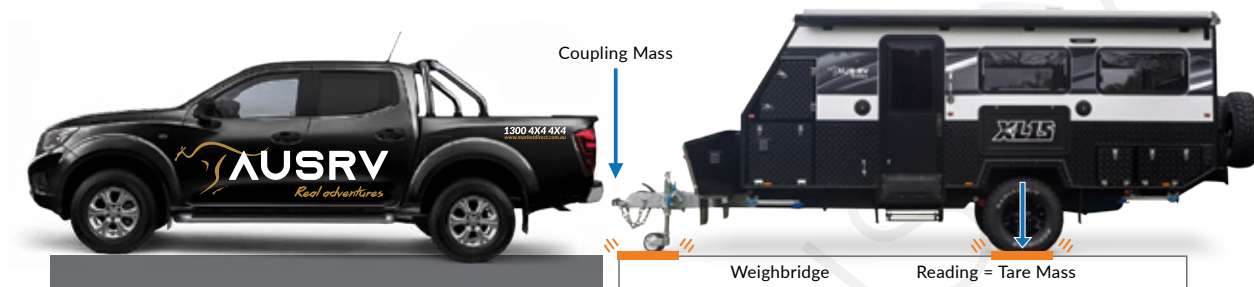
Section 1. Introduction

WELCOME TO AUSRV

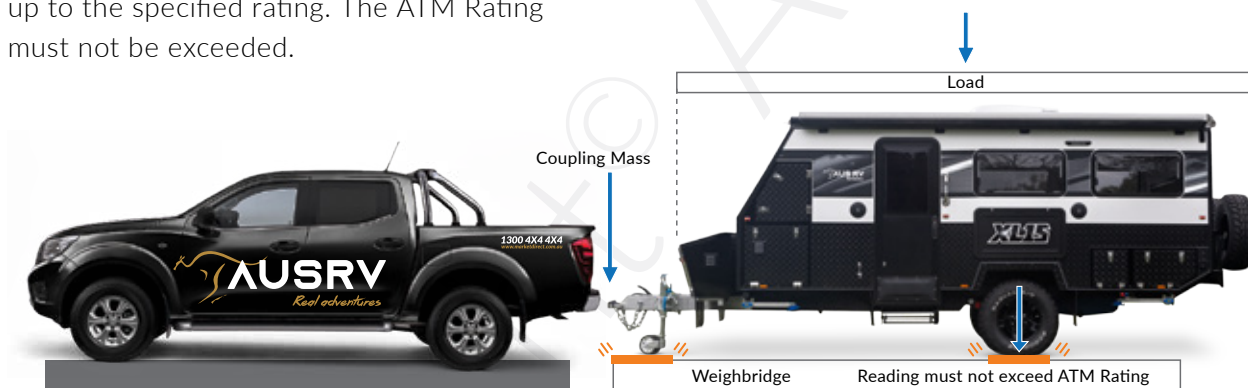
Off road caravanning is a rewarding way to travel and see our great country. Owning an AusRV Caravan will afford you the opportunity to travel to remote places and stay in comfort. It is the intention of AusRV for you to have the best possible owner experience and enjoy the great outdoors.

Terminology & Abbreviations

Tare Weight: The total weight of the trailer (load on tyres plus coupling load) with all options and fittings as supplied by the manufacturer, with empty water tanks, excluding fluids not essential for operation on public roads, and without luggage or personal effects.



ATM (Aggregate Trailer Mass) Rating: The total permissible mass of the Trailer. This includes the coupling mass and whatever you add as payload (e.g. water, gas, luggage) up to the specified rating. The ATM Rating must not be exceeded.



GTM (Gross Trailer Mass) Rating: The total permissible mass that can be supported by the wheels/ tyres of the Trailer. This includes whatever you add as payload (e.g. water, gas, equipment and luggage), but does not include the mass supported by the tow vehicle. The GTM Rating must not be exceeded.



Caravans for illustration purposes only.

Terminology & Abbreviations

Ball Weight: The downward load exerted on the tow point of the vehicle by the trailer.

GCM: (Gross Combination Mass): This is the total allowable combined mass of tow vehicle and trailer as determined by the tow vehicle manufacturer.

Camber: **Camber** angle is the measure in degrees of the difference between the **wheel's** vertical alignment perpendicular to the surface. If a **wheel** is perfectly perpendicular to the surface, its **camber** would be 0 degrees. **Camber** is described as negative when the top of the tyre begins to tilt inward towards the chassis rail.

Toe In/out: Negative **toe**, or **toe** out, is the front of the wheel pointing away from the centreline of the vehicle. Positive **toe**, or **toe** in, is the front of the wheel pointing towards the centreline of the vehicle.

Toe can be measured in linear units, at the front or rear of the tyre, or as an angular deflection. In the case of AusRV products, the "toe in" is measured in millimetres at the front of the tyre from the chassis rail.

Tow vehicle and Trailer Compatibility

Your tow vehicle manufacturer has applied a maximum towing capacity to the vehicle which is the Aggregate Trailer Mass (ATM) and a maximum Gross Combination Mass (GCM). These specifications **MUST NOT** be exceeded. It is your responsibility to know, understand and follow these specifications. Vehicle manufacturers may also specify or recommend "Weight Distribution Bars" when towing under certain conditions. You **MUST** ensure this is compatible with the vehicle and trailer combination.



DANGER

DANGER – Exceeding manufacturer weight and combination limits can result in loss of control leading to death or serious injury. Your tow vehicle and hitch must be rated for the Gross Vehicle Weight of the trailer.

Specifications

DIMENSIONS (CLOSED)	2230mm W x 6100mm L x 2600mm H (Incl. Air Conditioner & TV Aerial)
TOWBALL WEIGHT	195kg
TARE WEIGHT	2260kg
ATM	3000kg
BERTH	2
CHASSIS	120mm x 50mm x 3mm - Q345 Galvanised Steel RHS
DRAWBAR	150mm x 50mm x 4mm - Q345 Galvanised Steel RHS
BODY CONSTRUCTION	Combination of welded 75 x 25 RHS and 50 x 25 RHS and 25 x 25 square aluminium alloy + bonded composite panels
STONEGUARD	Front mounted Toolbox with forward facing integrated mudflap protection
SUSPENSION	Independent trailing arm with 4x shock absorbers and coil springs
WHEELS & TYRES	265/75 R16 Goodride radial mud terrain + 2x Spare Wheels
COUPLING	Cruisemaster™ DO35 hitch
BRAKES	4WD 12" electric with hand brake
GAS CYLINDERS	2 x 4.5kg/9kg adjustable gas cylinder holders
JERRYCAN HOLDER	Secure Mounting Points to hold 2 x 20L jerrycan holders
KITCHEN CONSTRUCTION	Stainless steel slide out 4 burner stove & sink. 12V electric water
WATER TANK	120L + 80L fresh water & 80L grey water
WATER DELIVERY	12V electric pump x 1
HOT WATER SYSTEM	Truma UltraRapid Boiler 14L (gas + electric)
INTERNAL ENSUITE	Thetford C400 Cassette Toilet + Hot/Cold Shower
EXTERNAL ENSUITE	Hot/cold external shower includes van side mounted ensuite tent
AWNING	Electric
BATTERY	Enerdrive (EPL-200BT-12V-G2) B-TEC 12V 200Ah G2 Lithium Battery
AIR CONDITIONER	Standard Inclusion. Truma Aventa Comfort, 2400W cooling output and 1700W Heating Output (Reverse Cycle)
AC CHARGER	Enerdrive (EN31240) ePOWER 12V 40A Battery Charger
DC CHARGER	Enerdrive (EN3DC40+) 12V 40A DC2DC + Battery Charger
INVERTER	Enerdrive (EN1120S-X) EPOWER 2000W True Pure Sinewave, 12V W/RCD & AC Auto Transfer
OUTLETS	Multiple 12V, 240V x 3
JOCKEY WHEEL	ARK XO 750, 10" swing up and lockable
STABILISER LEGS	4 x heavy duty lockable and adjustable drop down
LIGHT CONNECTION PLUG	7 pin flat as standard
MATTRESS	200mm custom pillow top King size innerspring
SOUND	Head unit with internal & external speakers
SOLAR	3 x 100W solar panels included
ANNEX	Included, Roof, Walls, and Floor
FRIDGE SLIDE (L X W X H)	1000mm x 540mm x 500mm

AUSRV Contact Details and Stores

QUEENSLAND		
Brisbane 3/711 Beaudesert Rd Rocklea QLD 4107	Caboolture 4 Boeing Place Caboolture QLD 4510	
NEW SOUTH WALES		
Sydney 1/12 Avalli Road, Prestons NSW 2170	Newcastle Unit 1, 2364 Pacific Hwy Heatherbrae NSW 2324	
VICTORIA		
Melbourne 126 Canterbury Rd Kilsyth South VIC 3137	Campbellfield 1551 Sydney RD Campbellfield VIC 3061	
WESTERN AUSTRALIA		
Welshpool 18 Bellows Rd Welshpool WA 6106		
SOUTH AUSTRALIA		
Adelaide 1246 South Rd Clovelly Park SA 5042		
NATIONAL TOLL FREE	WARRANTY HOTLINE	SPARE PARTS
1300 4X4 4X4 1300 494 494	1300 AUSRV CARE 1300 632 2273	1300 AUSRV PARTS 1300 632 72787



Safety Information

WARNING - Before using this product, you should read this manual, and those manuals supplied by component manufacturers applicable to this product.

This manual is supplied as a reference to required maintenance of the product. Failure to use and maintain the product in accordance with what is outlined in this manual may affect your warranty.

Incorrect and/or insufficient maintenance may cause product failure resulting in property loss, damage or injury or death. Maintenance intervals are critical for normal use, extreme use may require shorter or additional maintenance intervals. Manual content does not imply express or other any warranty, the owner should read the limited warranty terms included in this booklet.

Before using this product, you should be certain your tow vehicle is suitably rated and equipped to tow the product safely and legally. The trailer and vehicle pairing must be within the safe **“Maximum Towing Capacity”, “Ball Weight Capacity” and “Gross Combination Mass”** as stated by the vehicle manufacturer.

This caravan is fitted with electric brakes and a “Breakaway System”. Requirements for breakaway systems can vary from state to state. It is mandatory to supply a maintenance charge to the breakaway battery source while driving. You MUST ensure this capability is fitted to your vehicle. The maintenance charge is supplied to the caravan via the Anderson plug on the drawbar.

WARNING: BALL LOADING (DOWNWARD LOAD ON TOW HITCH) MUST NOT EXCEED 350KG OR THE MAXIMUM ALLOWABLE LOAD BY THE VEHICLE MANUFACTURER OR TOW BAR RATING, WHICH EVER IS THE LOWEST. Exceeding these limits may result in an accident causing serious injury or death and/or property damage.

It is important to load your caravan correctly to distribute weight evenly and achieve a suitable ball weight load and prevent loading in a manner that can cause a Caravan to sway and/or roll excessively left and right. The industry optimum ball weight on a caravan is between 9 and 11% of the total Caravan weight. AusRV Caravans fit into this category and 10% should be used as the starting point.

Modifications to The Product

Gas Systems

The installed gas system on this product is an approved and certified installation. Any changes, modifications or adjustment may render the system non-compliant and dangerous. Market Direct Group Pty Ltd does not condone, recommend, or otherwise consent to any modifications, adjustment, addition or tampering in any way with the installed gas system on any and all products.

Chassis

All AusRV chassis are fully engineered and verified using Finite Element Analysis (FEA) software. This ensures that the chassis for each model passes the relevant regulations and design rules as originally provided to the customer. Any modification to the chassis or drawbar whatsoever (no matter how minor) will inevitably change this – whether it impacts the towing dynamics, expected loads and stress points, safety chain attachment points, overall trailer length etc.

Market Direct Group Pty Ltd does not condone, recommend, or otherwise consent to any modifications, adjustment, addition or tampering in any way with the drawbar, safety chains or safety chain attachment points.

Jacking Your Caravan

Your trailer is fitted with purpose built jacking points and from January 2021 supplied with a suitable jack. An appropriately rated bottle jack is an acceptable alternative, however when using the jacking point beneath the trailing arm ensure the jack is of a retracted height that will fit under the jacking point when the tyre is deflated. A suitably rated "High Lift" jack may be used on the jacking points on the side of the body behind the wheels provided it has the correct positive engagement fitting to match the trailer.

To ensure safe usage the following must be followed:

- The jack is to be used on level firm ground wherever possible.
- The wheels of the trailer should be chocked, and no person should remain inside the trailer whilst it is being jacked.
- No person should place any portion of their body under a trailer that is supported by a jack.
- The trailer should be attached to the towing vehicle whilst being jacked.
- When performing maintenance ensure suitably rated jack stands are used.

Do not rely on the trailer being supported by the jack.








Under the chassis



Warning




Failure To Follow These Instructions May Result In Death Or Serious Injury!

-  When working with electrical equipment or lead acid batteries, have someone nearby in case of an emergency.
-  Study and follow all the battery manufacturer's specific precautions when installing, using, and servicing the battery connected to the inverter.
-  Wear eye protection and gloves.
-  Keep unit away from moist or damp areas.
-  Avoid dropping any metal tool or object on the battery. Doing so could create a spark or short circuit which goes through the battery or another electrical tool that may create an explosion.



Warning

Shock Hazard! Keep Away From Children

-  Avoid moisture. Never expose unit to snow, water, etc.
-  Unit provides 230 VAC, treat the AC output socket the same as regular wall AC sockets at home.
-  **Read and understand the information in the Enerdrive manual before operating this equipment**

The 240v electrical system in your caravan has been certified by a trade qualified person. Under no circumstances should an unqualified person interfere with, modify, or repair this system. An RCD safety device is fitted to this caravan for your safety.

- Always use a 15amp lead to connect to mains power.
- Do not modify the earth pin to accommodate a lesser lead.
- When connecting to 10amp mains, always use an approved adapter.
- Never coil power leads when in use. Lay the lead out in lengths in a safe manner that prevents creating a trip hazard.

Electrical Safety

The 240v electrical system in your caravan has been certified by a trade qualified person. Under no circumstances should an unqualified person interfere with, modify, or repair this system. An RCD safety device is fitted to this caravan for your safety.

- Always use a 15amp lead to connect to mains power
- Do not modify the earth pin to accommodate a lesser lead
- When connecting to 10amp mains, always use an approved adapter
- Never coil power leads when in use. Lay the lead out in lengths in a safe manner that prevents creating a trip hazard.

Vehicle Electrical Requirements

Brake Controller

All AusRV Caravans require an electric brake controller to be fitted to the tow vehicle by law. There is a wide range of controllers available that are suitable.



Correct Vehicle Wiring for AusRV Caravans

To comply with national laws on breakaway systems, you must supply a maintenance charge to the battery/batteries that power the system should it be activated. In all AusRV products, the breakaway is powered by the house batteries in the caravan. For this purpose and Anderson plug connection is fitted to all AusRV caravans on the drawbar. Your vehicle will need to be fitted with a power supply to a 50 amp Anderson plug near the towbar so the trailer can be connected. The vehicle only needs to supply power while it is running so a voltage sensitive relay or switching device may be used to protect the start battery when the car engine is stopped.



Caravans - Trailer Lights

Plug type – 7 Pin Flat (7 pin round by request)

Pin 1 Yellow Left Indicator

Pin 2 Black Reversing Signal

Pin 3 White Earth Return

Pin 4 Green Right Indicator

Pin 5 Blue Service Brakes

Pin 6 Red Brake Lights

Pin 7 Brown Taillights, clearance lights and side markers

7 Pin Flat Plug & Socket

PIN No.	CIRCUIT	COLOUR
1	Left-hand turn	Yellow
2	Reversing signal	Black
3	Earth return	White
4	Right-hand turn	Green
5	Service brakes	Blue
6	Stop lamps	Red
7	Rear lamps, clearance & side marker lamps	Brown



7 Pin Plug



7 Pin Socket

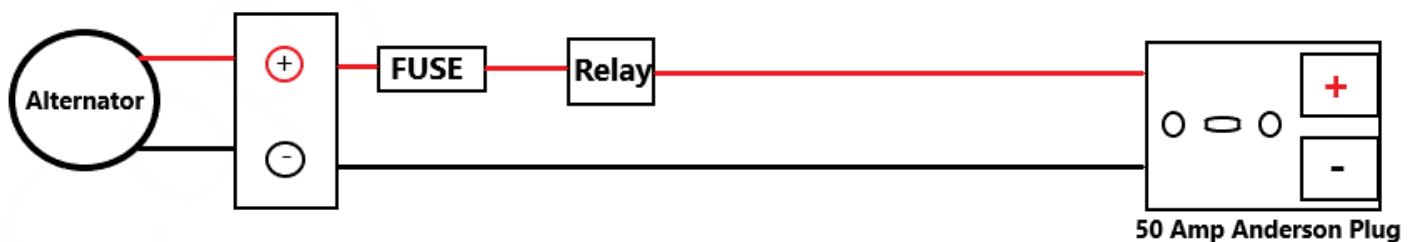
Charging Caravan

Plug Type – 50 amp Anderson Plug.

All Vehicles:

The Anderson plug can be connected to the start battery on the vehicle and should include the following to protect the start battery.

1. 50 amp relay to stop power supply when vehicle is not running.
2. 50 amp fuse or circuit breaker at the battery



Gas & Appliance Safety

Gas Certification

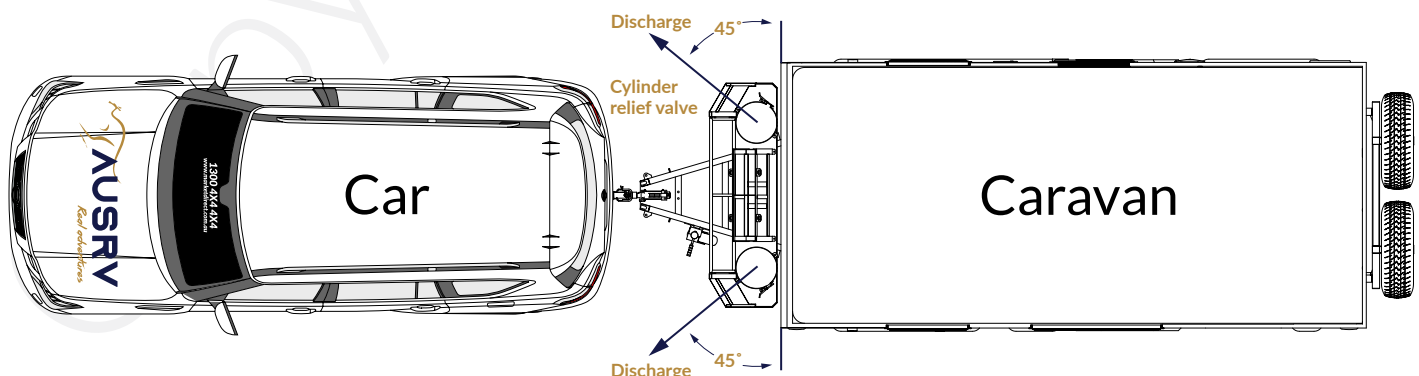
Your Caravan has been supplied gas tested and certified. Any additions or alterations to the gas system must be performed by an authorised person and will require re-certification and testing. Also note any alterations may affect your warranty on both the system and appliances.

General Safety

- Your Caravan may have a number of gas safety labels affixed throughout containing important information. All instructions are to be followed and the labels shall not be removed for any reason.
- Make sure to close appliance valves before opening the cylinder valves.
- Where readily accessible, check connections at the appliances, regulator, hoses and cylinders periodically for leaks with soapy water (or an equivalent) – this should be done every time a cylinder is changed or at least annually. **CAUTION – the ammonia present in some soaps and detergents can react with brass fittings and cause such fittings to crack after a short period of time. Therefore, caution should be exercised when using soap solutions on brass fittings and all connections should be rinsed thoroughly with fresh water as soon as possible after the application of the soap solution.**
- Never use a match or flame when checking leaks.
- Never use cooking appliances for comfort heating.
- In the event of a fire, immediately close cylinder valve if safe to do so.
- Appliances must not be altered without the authorisation of the manufacturer.
- In the event of an accidental gas leak, close cylinder valve and ventilate the area using a safe method until the air is clear.
- Flexible hoses are used between the LP Gas Cylinder and regulator as well as between your slide-out kitchen cooker (if fitted) and the gas bayonet. These flexible hoses are easily accessible and shall be inspected regularly by a competent person.

Gas Cylinder Safety

- LP Gas cylinders have a 10-year lifespan between inspection and re-certification. Always use gas cylinders that are within their compliance date.
- For drawbar mounted cylinders (if applicable), orient the cylinder relief valves of both cylinders discharge away from both the trailer and towing vehicle as shown.
- For gas cylinders stored in a dedicated LP Gas Locker ensure the locker is kept closed at all times unless changing or operating the cylinders.
- Close cylinder valves when appliances are not in use or while refuelling is in progress.
- Ensure cylinder valves are closed to prevent the unintended release of gas from a cylinder.



Gas Appliance Safety

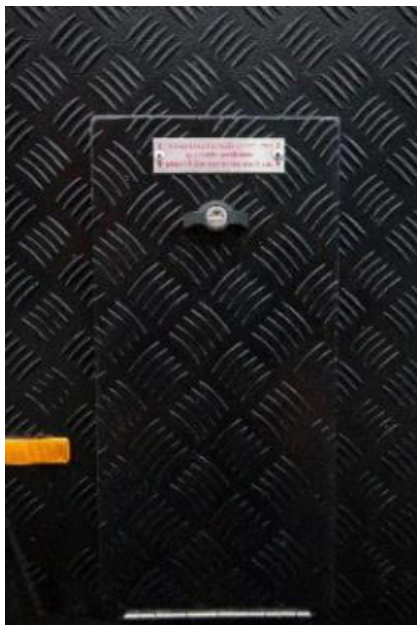
- Gas appliances are certified and have a flame safeguard feature to stop gas flow in the event of the flame going out. Never interfere with this function or replace appliances with a non-certified type.
- Slide-out kitchens with cookers should only be operated with an annex fully erected. Failing to do so may affect the safety and operation of the gas appliance.
- Slide-out kitchens with cookers must only be used with a flexible connecting hose that is disconnected from the gas bayonet fitting when in its stored position. Under no circumstances permanently connect this appliance.
- Only approved and suitable gas appliances with flame safeguard systems shall be connected to the gas bayonet (if fitted).

Removing the Hot Water System Flue Cover

To use your inbuilt Truma hot water system, the external flue covers must be removed prior to starting the unit.

Removing Door Vent Cover

The door vent must be uncovered at any time the caravan is occupied.



First, open the flue dust cover shown.



Second, remove the Truma factory cover by placing thumbs in the middle of the cover and pulling the top towards you with your fingers.



The flue should look like this when ready to use



Caution

To use your inbuilt Truma hot water system, the external flue covers must be removed prior to starting the unit.

Ventilation and Flues

- Check all permanent ventilators, flues (if applicable) and vents to ensure they are clear, open and unrestricted.
- Any supplied or 3rd party vent cover(s) (e.g. low level door vent) should only be used for covering the vents during storage between use with all LP gas system valves closed. All vents (e.g. low level door vent) shall be uncovered at all times the Caravan is in use.

Isolating Appliances

Internal gas appliances have an isolation valve fitted in the gas line. During travel these should be turned to the off position where practical and always turn the valve on the active gas bottle off when towing or refuelling.

Truma Rapid How Water System

Operating Instructions

General Safety

*Read the included Truma operation manual supplied with you trailer.

The use of upright gas cylinders from which gas is taken in the gas phase is mandatory for the operation of gas regulators, gas equipment and gas systems. Gas cylinders from which gas is taken in the liquid phase (e.g. for forklifts) must not be used, since they would result in damage to the gas system. In the event of leaks in the gas system or if there is a smell of gas:

- extinguish all naked flames
- do not smoke
- switch off all appliances
- shut off the gas cylinder
- open the windows and doors
- do not actuate any electrical switches
- have the entire system checked by an expert!

Repairs may only be carried out by an expert.

- This device may be used by children aged 8 years or above and by persons with reduced physical, sensory, or mental capabilities or lack of experience and / or knowledge, only if they are supervised or have been given instruction with regard to the safe use of the device and have understood the potential risks. Children must not use the device as a toy.
- To avoid the risk of accidental resetting of the over-temperature guard, the device may not be supplied with power via an external contactor, such as a timer, nor may it be connected to a power circuit that is regularly switched on or off via a device.



DANGER

Failure to operate the P&T safety valve (Fig. 1 - 4) at least once every six months may result in the water heater splitting. Continuous leakage of water from the valve may indicate a problem with the water heater!

- Water may drip from the discharge pipe of the P&T safety valve and this pipe must be left open to the atmosphere.
- The P&T safety valve is to be operated regularly to remove lime deposits and to ensure that it is not blocked.
- Any discharge pipe connected to the P&T safety valve is to be installed in a continuously downward direction and in a frost free ambient.
- Always remove the cowl cover prior to operating the water heater.
- Do not place articles on or against this appliance.
- Do not use or store flammable materials near this appliance.
- Do not spray aerosols in the vicinity of this appliance while it is in operation.
- Do not modify this appliance.
- Any modifications to the unit, including accessories and cowl, or the use of spare parts and accessories that are important to the operation of the system that are not original Truma parts and failure to follow the installation and operating instructions will void the warranty and release Truma from any liability claims. It also becomes illegal to use the appliance, and in some countries, this even makes it illegal to use the vehicle.

- Any work involving connection or interconnecting wiring must be carried out by a licensed electrician. If the mains cable (supply cord) is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Before accessing terminals, please ensure all supply circuits are disconnected (i.e. 230 V – 240 V and 12 V) and that the gas supply is securely turned off.
- The operating pressure for the gas supply is 2.75 kPa (AUS – Propane) and must correspond to the operating pressure of the appliance (see data plate).
- LPG systems and pressure regulators must comply with the technical and administrative regulations of the country in which the appliance is used. For your own safety it is absolutely necessary to have the complete gas installation regularly checked by an expert (at least every 2 years). The vehicle owner is always responsible for arranging the gas inspection.
- Do not operate when travelling.
- Do not operate the water heater when refuelling the vehicle and when it is in the garage.
- Items sensitive to heat (e. g. spray cans) must not be stored in the installation area, since excess temperatures may occur there under certain circumstances.
- During the initial operation of a brand new appliance (or after it has not been used for some time), an amount of fumes and a slight smell may be noticed for a short while.

Always observe the operating instructions prior to starting!

The vehicle owner is responsible for correct operation of the appliance.



Before using the product for the first time, it is essential to flush the entire water supply through with clean warm water. Always mount the cowl cap when the water heater is not being operated! Drain the water heater if there is a risk of frost! Warranty claims will not be accepted for frost damage.



Always remove the cowl cover prior to operating the water heater.

If connecting to a central water supply (rural or city connection) or when using more powerful pumps, a pressure reducer must be used which prevents pressures of greater than 400 kPa occurring in the Truma UltraRapid.

Filling the Truma UltraRapid with Water

Check that the drain valve (3) and the P&T safety valve (Fig.2a - 4) in the cold water intake are closed.

- Close drain valve (Fig. 2 - 3). Lever in the “e” position (close).
 - Test lever (Fig. 2a - 4a) of the pressure relief valve (4) must be in the “close” position.
- Open hot tap in bathroom or kitchen, with pre-selecting mixing taps or single-lever fittings set to “hot”.
 – Switch on power for water pump (main switch or pump switch).
 – Leave the tap open to let air escape while the water heater is filling. The heater is filled when water flows out of the tap.

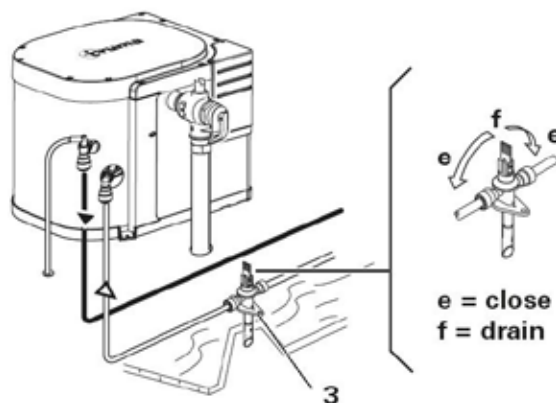


Fig. 2

Residues of frozen water can prevent filling if there is a frost. The water heater can be defrosted by switching on the heater for a short period (max. 2 minutes). Frozen pipes can be defrosted by heating the room.

- If just the cold water system is being used, without water heater, the heater tank is also filled up with water. In order to avoid damage through frost, water must be drained by means of the drain valve, even if the heater has not been used. As an alternative, two shut-off valves, resistant to hot water, can be fitted in front of the cold and hot water connection.

Pressure and Temperature Relief Valve (P&T safety valve)

- Risk of scalding injury from hot water and/or tampering with the P&T safety valve!
- Do not actuate the P&T safety valve as long as the appliance is still hot.
- Do not place a plug or reducing coupling in the discharge pipe (Fig. 2a - 4b) of the P&T safety valve.
- Do not operate the water heater without a functioning P&T safety valve - this could cause an explosion.

The P&T safety valve (4) is a safety component and must not be removed for any reason other than replacement. The P&T safety valve is not serviceable; if defective it must be replaced (failure to reuse an old P&T safety valve). It must be replaced by a certified service technician.

Tampering with the P&T safety valve will void the warranty.

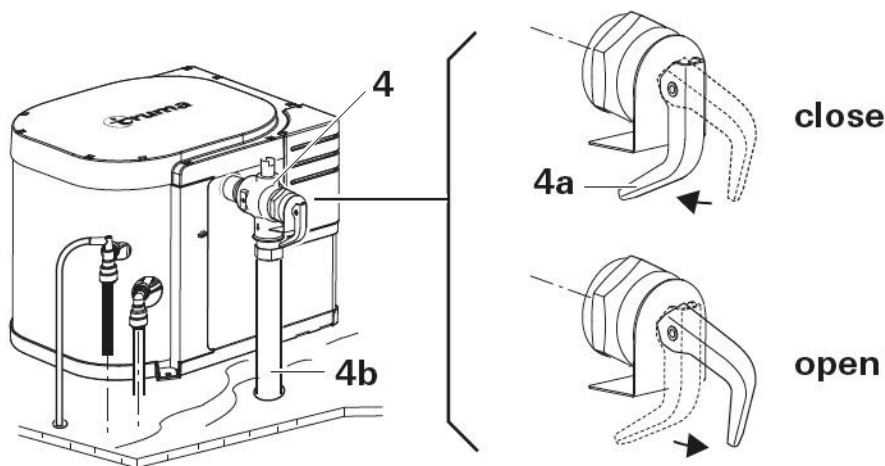


Fig. 2a

4 P&T safety valve

4a Test lever

4b Discharge pipe

Draining the Water Heater

- If the vehicle is not used during periods of frost, it is essential that the Truma UltraRapid be emptied.
- Disconnect power for water pump (main switch or pump switch).
- Allow the appliance to cool down.
- Open hot water taps in bathroom and kitchen.
- Open drain valve (Fig.2 - 3). Lever in the "f" position (drain). The water heater is now drained directly to the outside via the drain valve (3).
- Check that the water has been completely drained (14 litres).

Switching On Gas Operation

- ⚠ Never operate the heater without water in it!
- ⚠ If the wall cowl is positioned close to an opening window (or hatch) – in particular directly under it – the window must remain closed when the water heater is in use (see warning plate).

Removing The Cowl Cover

- Grab the handle of the cowl cover.
- Press the palm against the lid (Fig.3a - 1) while pulling the lid off the cowl (Fig.3a - 2).

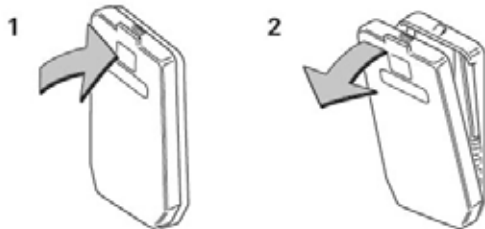


Fig. 3a

Select Water Heater Mode



Fig. 3b

Use the control panel to select the water heater mode

a = Red indicator lamp "Fault"

b = Water heater "On" 60 °C or 70 °C

c = Water heater "Off"

If there is air in the gas supply line, it may take up to a minute before the gas is available for combustion. If the appliance switches to "Fault" during this time, switch off the appliance – wait 10 minutes – and switch on again!

When using the vehicle switches

Refer to operating instructions of the vehicle manufacturer or see switch labels.

Switching Off Gas Operation

– Switch off the water heater to position (Fig. 3b - c).

If the water heater is not to be used for a longer period, mount cowl cover (non-observance of this point can lead to the function of the appliance being impaired through water, dirt or insects), close stop cock valve in the gas supply line and close the gas cylinder.

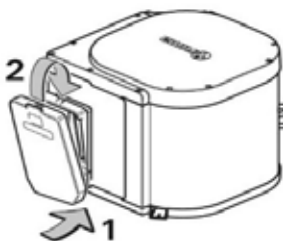


Fig. 4





Before setting off on any journey, fit cowl cap with the Truma UltraRapid switched off. Please ensure that it is secure and has locked into place (risk of accident). Defective cowl caps must not be used. Drain the water heater if there is a risk of frost! Warranty claims will not be accepted if this is ignored.

Red Indicator Lamp "Fault"

The red indicator lamp (a) lights up if there is a fault. For possible causes please refer to "Fault finding" on page 6. To unlock, switch off the appliance, wait 10 minutes, and switch on again.

Maintenance

-  Do not modify this appliance
-  Servicing should only be carried out by authorised personnel.

Only original Truma parts may be used for maintenance and repair work!

Please contact the Service Australia for service and repairs.

Decalcification

The Truma UltraRapid must be descaled on a regular basis (at least twice a year).

We recommend the use of suitable normal commercial products for the cleaning, disinfection and care of the Truma UltraRapid. Products containing chlorine are unsuitable.

- In order to avoid the colonization of micro-organisms, heat up the Truma UltraRapid to 70 °C at regular intervals.
- The drain valve (Fig. 2 - 3) and the P&T safety valve (Fig. 2 - 4) are to be operated regularly to remove lime deposits and to ensure that they are not blocked. Frequency: every 6 month.

Fuses

The water heater 12 V fuse is on the PCB on the water heater.

Important note

Only replace the miniature fuse on the PCB with a fuse of the same type: 1.6 A (slow action).

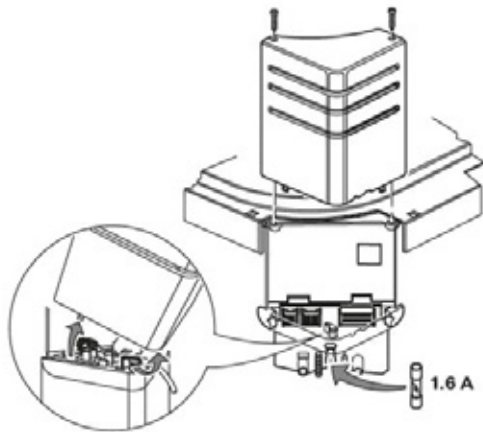


Fig. 6

Circuit Breaker

There is a circuit breaker allocated to the water heater circuit switch on the main electrical panel. To reset this breaker, push in.

Water Heater Trouble Shooting

Gas Operation

Symptom	Cause	Remedy
When switching on, the heater does not operate.	No 12 V DC supply voltage.	Check the power supply (operation voltage min. 10.5 V). Check the Truma UltraRapid fuse (refer to maintenance "Fuses").
When switching on, the heater does not operate and the red lamp lights up after approx. 30 secs.	<ul style="list-style-type: none"> - Cowl cover fitted. - Air in the gas supply. - No gas supply. - Incorrect gas pressure. 	<p>Remove cowl cover and / or clear any obstruction.</p> <p>Check gas valves and gas cylinder.</p> <p>To unlock (and purge air), switch off the appliance, wait 5 minutes, and switch on again.</p>
Heater operates for a prolonged time and then the red lamp lights up.	Excess temperature thermostat has responded.	<p>Check water level, refill if required (close drain valve).</p> <p>To unlock, switch off the appliance, wait 5 minutes, and switch on again.</p>

Water Supply

Symptom	Cause	Remedy
Water drips from the P&T safety valve.	<ul style="list-style-type: none"> - Water pressure too high. - Lime or dirt under the P&T safety valve seat. 	<p>Check water pressure (max. 400 kPa), use a pressure reducer when connected to central water supply.</p> <p>Allow the appliance to cool and then slowly raise the test lever (Fig. 2a - 4a) to flush the water system and attempt to force dirt or foreign matter out of the P&T safety valve seat.</p> <p>Replace P&T safety valve. This must be performed only by a certified service technician.</p>
When opening the cold water tap, hot water comes out.	- Hot water flows back through the cold water supply.	<ul style="list-style-type: none"> - Fit a non-return valve in the cold water supply (refer to installation instructions "Water connection"). - Non return valve faulty

Safety Chains and Shackles

Rated Shackles

Always use load rated shackles applicable to the weight of your trailer.

Attaching Chains

When attaching chains, you must always cross them and attach each chain to the diagonally opposite side of the towbar. Ensure chains are not too long and where necessary attach to links further back from the end. Periodically check the chains for visual wear or damage. If worn or damaged, arrange for these to be replaced with approved, certified and suitably rated chains.

Connecting the Electrics

When connecting ensure the electric cables to your tow vehicle cannot drag on the road or foul the coupling. If necessary, use zip ties or like keep them neat and safe from damage.

Connecting the Breakaway

The breakaway lanyard is connected to a simple switch on the drawbar. When connecting the lanyard to the tow vehicle it should be connected to a solid part of the vehicle. Do not incorporate its connection with the safety chains.



Using the Caravan

Weights and Payload Capacities

The information plate attached to the drawbar of your caravan displays the relevant weights and weight capacities of the van.

How to Load Your Caravan

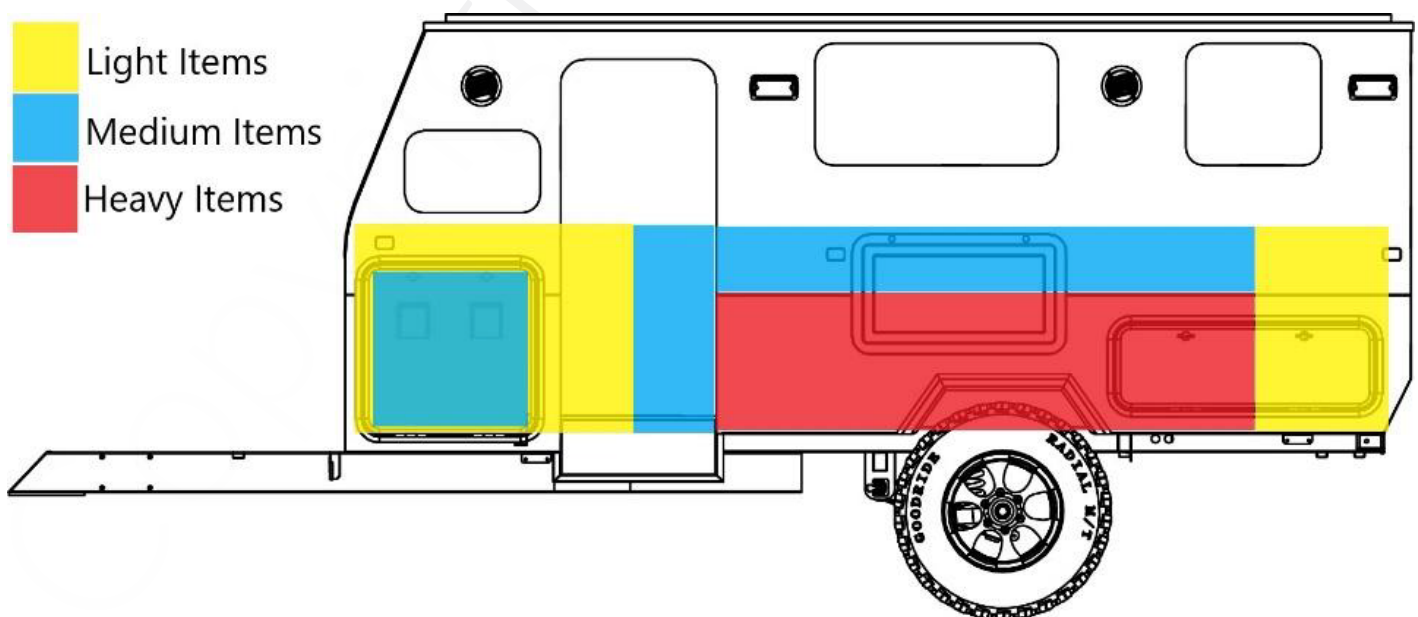
It is important to load your caravan correctly to distribute weight evenly and achieve a suitable ball weight load and prevent loading in a manner that can cause a Caravan to sway and/or roll excessively left and right. The industry optimum ball weight on a caravan is between 9 and 11% of the total Caravan weight. AusRV Caravans fit into this category and 10% should be used as the starting point.

WARNING: BALL LOADING (DOWNWARD LOAD ON TOW HITCH) MUST NOT EXCEED 350KG OR THE MAXIMUM ALLOWABLE LOAD BY THE VEHICLE MANUFACTURER OR TOW BAR RATING, WHICHEVER IS THE LOWEST. Exceeding these limits may result in an accident causing serious injury or death and/or property damage.

- Always load evenly to both sides of the caravan
- Load heavy weight over or as close to over the axle as possible and as low as possible
- Overhead cupboards should only be used for lightweight items such as clothes, personal items, bedding etc.
- Heavy cooking equipment should be stored in lower cupboards.
- Tinned food, bottled goods for cooking etc should be stored in the pantry cupboard.
- Never load in a manner that causes the ball weight to exceed the limit of the tow vehicle.
- Ensure no items can move during travel. Secure all items to prevent damage to the caravan.
- Consider water tank levels and how they may affect the balance front and back and the percentage of ball weight.
- Never store heavy items in overhead cupboards.

Load Distribution Guide

The diagram below illustrates best placements of items based on weight.



Ball Weight

When loading your caravan, the ideal ball weight once loaded is approximately 10% of the total weight of the caravan. Use a ball weight scale to identify the ball weight and load the caravan in a manner that achieves the desired 10%. Ideally, once loaded the first time, take the caravan to a weigh bridge, and measure the total weight loaded including the weight on the jockey wheel. When the total weight is known, adjust the load locations to meet the desired 10%.

Effects of Weight Distribution

The distribution of weight in a caravan can influence the handling and performance of the van. Overloading the front or rear may cause adverse handling and sway. Additionally, overloading the front or back can induce a pendulum effect that can cause dangerous sway and cause an accident.

Tyre Pressures

Tyre pressures have a large effect on the handling of your caravan. Tyres that are under the recommended pressure for the caravans' actual weight can cause a dangerous sway. It is important to follow the correct pressure guide. The guide below indicates pressure for the ATM which includes ball weight of 10%. Pressures are cold inflation applicable to the standard Goodride 265/75R16 tyres fitted.

Actual Weight	Pressure PSI Single Axle	Pressure Kpa Single Axle
2000kg	46psi	317Kpa
2100kg	49psi	338Kpa
2200kg	51psi	352Kpa
2300kg	53psi	366Kpa
2400kg	55psi	379Kpa
2500kg	58psi	400Kpa
2600kg	60psi	414Kpa
2700kg	63psi	434Kpa
2800kg	65psi	448Kpa
2900kg	68psi	469Kpa
3000kg	70psi	483Kpa

Pre-Trip Inspection

Tyres

Before any trip check the following

- Correct tyre pressures
- Tyres are in good condition free from damage and uneven wear.
- Tread is of legal and acceptable depth.

Wheel Nuts

- Ensure wheel nuts are tensioned to the correct torque using a torque wrench.
- All wheel nuts are in place.

Hitch and Chains

- Ensure hitch and chains are free of damage.
- Hitch locking mechanism functions correctly.
- Hitch is properly lubricated.
- Hitch articulates correctly.

Fire Extinguisher

- Extinguisher is properly mounted and within date.
- Extinguisher charge gauge is in green.

Brakes & Breakaway System

- Brakes operate correctly when both operated by manual control and via pedal.

Lights

- Ensure all trailer lights are functioning.

Gas

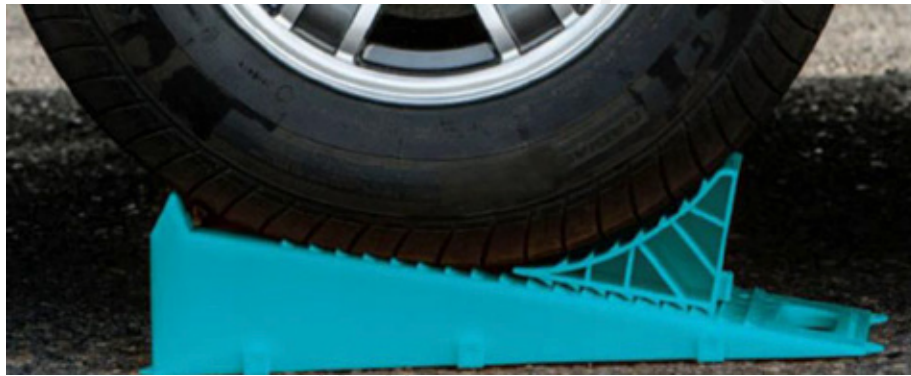
- Ensure cylinder valve(s) are closed and cylinders are restrained.
- Turn all gas isolation valves to the **OFF** position.

Finding a Suitable Spot

When choosing a spot to set up your caravan, start with a flat area with no overhanging trees. Birds and bats occupying trees can defecate leaving droppings on your caravan that can damage paint and leaves and sap can also stain the coating. Ensure you are not camping in an area prone to flooding or with bad drainage in the event of rain. Even the slightest hollow in the ground can put you in a mini lake. In hot weather if possible, set your caravan up so the sun's arc goes from front to back or back to front with the annex/awning in the general direction the sun is arcing across. Doing this will keep the bulk of the caravan in shade and the inside cooler as it will be shaded by the awning.

Using Wheel Chocks and Ramps

The stabiliser legs on your caravan are not designed for supporting the full weight of the trailer, they are there to stabilise it once it is level. Using your stabilisers as a lifting mechanism will void your warranty as will extending them with a "rattle gun" or "impact wrench". Levelling front to back can be done by raising and lowering the jockey wheel prior to adjusting the stabiliser legs. Getting the trailer level from left to right should be done with drive on stepped ramps as illustrated below. Once levelled the legs can be lowered to keep the trailer stable. On soft ground you may want to use timber sole boards under the stabiliser feet.



Operating the Jockey Wheel

The rated load capacity of a jockey wheel is achieved when the jockey wheel is retracted to its lowest position. When moving the trailer on the jockey wheel, always lower it as far as possible but still allowing the wheel to swivel as you steer the trailer.



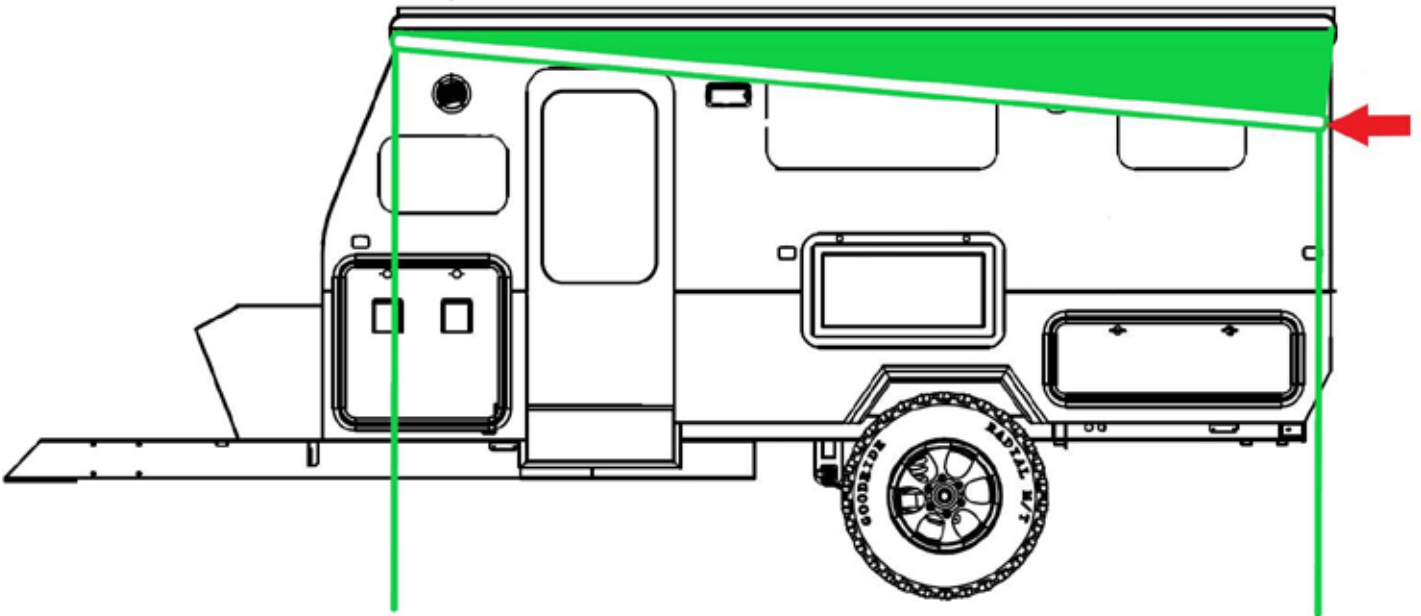
Stabiliser Legs

Stabiliser legs are installed to stabilise the Caravan when setup. Stabiliser legs should never be used to jack a trailer as they are comprised of small bevel gears held in place by small roll pins that will break if overloaded. Stabilisers are best set vertical or 90 degrees to the chassis where possible. When set at an angle the user must be careful not to overload them causing locking pins or the leg itself to bend. Never use impact wrenches to wind the legs, the impact may damage the gears. When using a power tool, use an electric drill with a safety clutch set low to medium to avoid injury or damage to the stabilisers.

Electric Awning/Annex

When extending the awning always support to front as it extends. Do not allow the awning to carry the full extended weight as this may damage the hinges. Support the end manually by hand or by using the extendable legs. Never allow water to pool on the awning, during rain lower one side to a level that allows the water to freely run off and not pool. In light to moderate breeze guy ropes should be used. In stronger winds the awning should be retracted completely. Always set the awning for wet conditions if leaving up overnight in case of unexpected rain. If high winds are possible, pack the awning away overnight. It is your responsibility to know the weather prediction.

During rain, the awning should be lowered on one side as illustrated below.

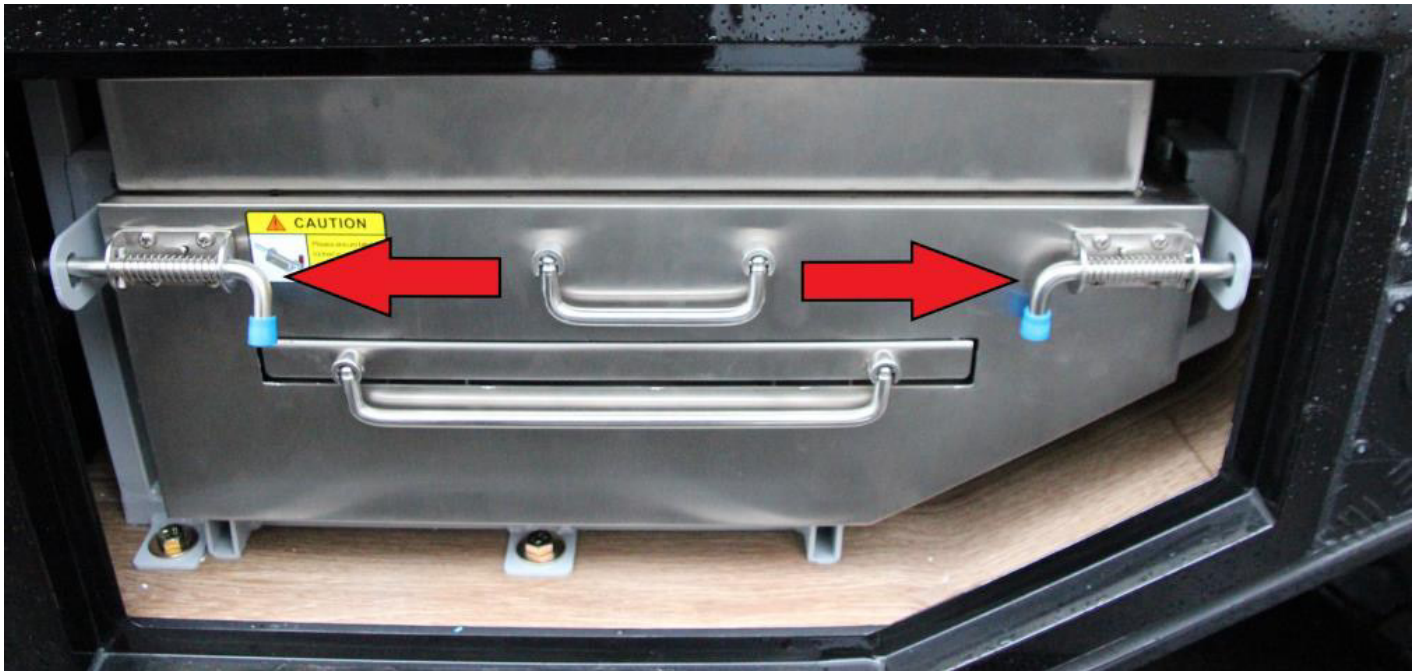


To use guy ropes with your awning you should purchase sail track inserts pictured below that slide into the sail track on the awning fascia. The displayed item is available from the brand Thule.

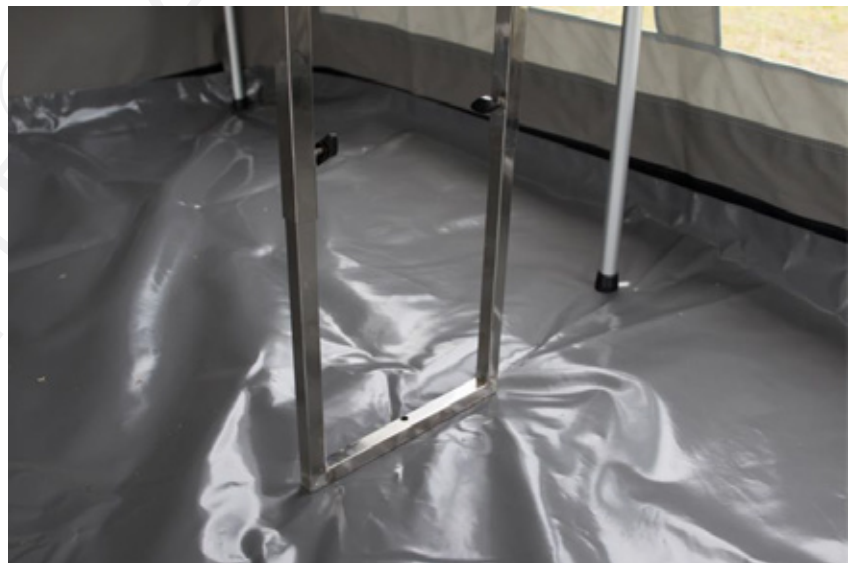


Kitchen

Before sliding out kitchen, pull back the pad bolts pictured and lock in the retracted position.



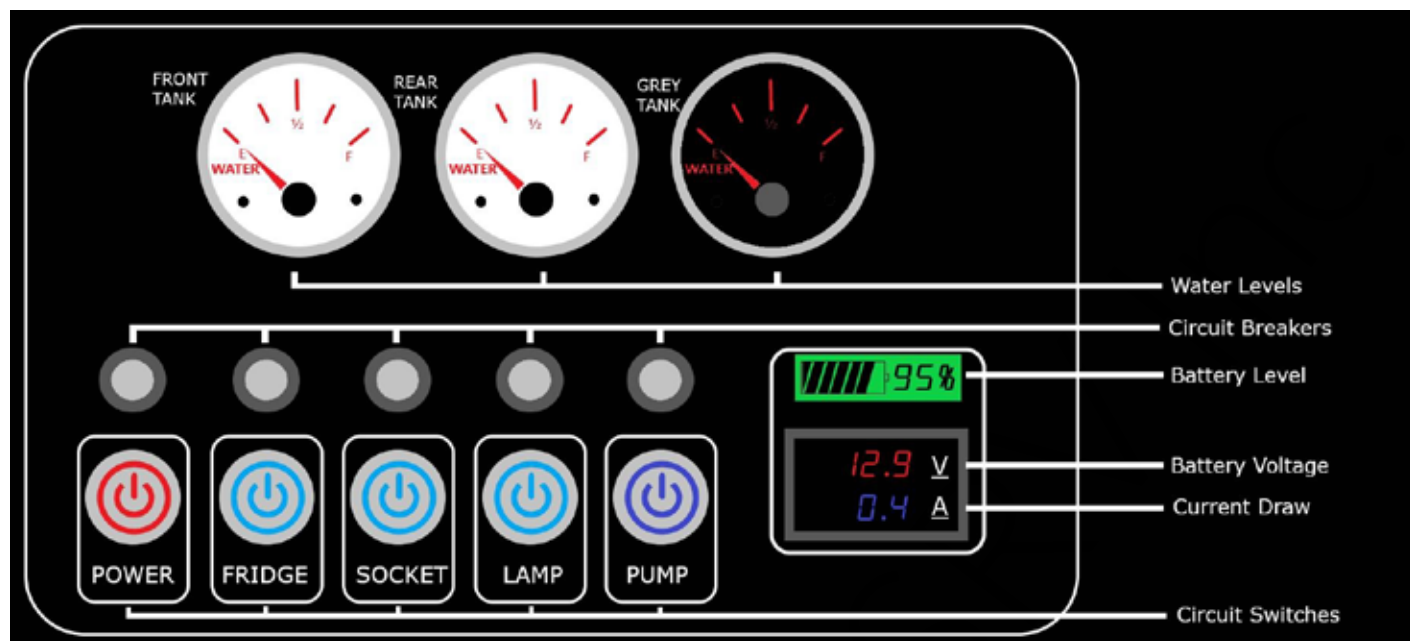
When kitchen is extended release the support leg by pressing the slide bolt release button
Extend support leg and secure locking screws



Caution

CAUTION - Use of the slide out kitchen cooktop without the annex or awning may adversely affect the safety and operation of the appliance.

Main Electrical Panel



* Voltmeter will indicate battery voltage when idle or charge voltage when charging.

* Amp meter will show current being used not charge current.

Connecting to Mains Power

The Enerdrive charger in your caravan is connected via the 15A exterior socket. To use site power, you will require a 15A power lead connected to a 15A outlet (figure 1). In the event a 15A outlet is unavailable you will need a conversion box that will step up from 10A to 15A with a safety switch. Never leave power leads coiled when in use, lay the lead out back and forward in a manner that won't be a trip hazard or risk damage to the lead.



Charging the Caravan

Mains Power

Your caravan will charge from mains power via the Projecta Enerdrive EN31240 multistage charger. Ensure the charger is plugged into its dedicated outlet in its bay and is switched on. The factory battery in your **XL13** is an Enerdrive EPL-200BT-12v-G2 lithium. Ensure the charger is always set accordingly.

Solar Power

The roof mounted solar panels will charge automatically through the Enerdrive EN3DC40+ DC to DC controller provided there is enough radiated energy from the sun.

Motor Vehicle

Your towing vehicle should be fitted with an Anderson plug connection to charge your caravan while towing. See "Correct Vehicle Wiring" section. Your trailer is fitted with an Enerdrive EN3DC40+ DC to DC controller which is smart alternator ready.

Packing Up the Caravan

When packing down your caravan ensure the following:

- All gas and electric appliances are turned off.
- Gas is turned off at the gas bottle.
- All loose items are secured and unable to move and damage themselves or the caravan.
- All cabinet doors are secured and locked along with all drawers closed.
- Roof is lowered, and over centre latches are locked with safety pin engaged.
- Site power lead is removed and stowed.
- Doorstep is raised and secured.
- All roof hatches lowered and secure.
- All windows closed and locked.
- Main door is closed and locked.
- All dust covers in place and secure.
- Secure Ensuite doors and close toilet.
- If the lithium battery has reached the low voltage disconnect, reset the battery to ensure supply for the breakaway system.

Storing Your Caravan

Power

Ideally when storing your AusRV caravan you should leave it connected to mains power.

The Enerdrive charger will keep the battery in tip top condition, fully charged and ready for use.

If mains power is not available during storage and the caravan is stored in full sunlight during the day, the solar charging will keep the battery at full charge. To maximise protection of the battery state of charge, turn the inverter off at the remote panel beside the door and all electrical systems turned off at the main electrical panel.



Note: If stored in poor sunlight, the MPPT charger may activate at low solar input but not have adequate power to charge the battery. In this state it is possible that the system will draw power from the battery and eventually drain the battery. In low light conditions the best practice is to disconnect the DC to Dc system by depressing the breaker release button so the DC to DC unit cannot draw from the system.

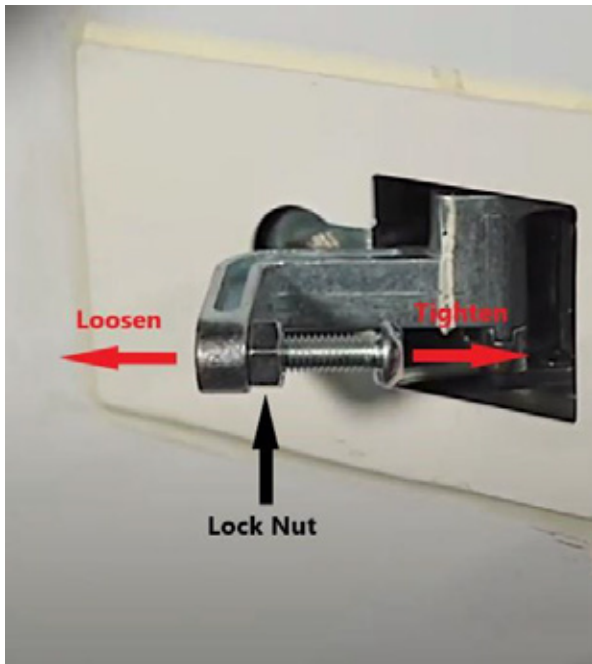


Locks and Latches

Locks and latches should be regularly checked to ensure the rubber seals are compressed correctly to maximise protection from dust and water. The rubber seal optimum compression is 30-50%. A lack of compression will result in poor sealing performance. Too much compression will result in the seals becoming flattened and damaged which will greatly reduce their effectiveness.

To adjust lock pressure:

- 1) Loosen lock nut.
- 2) Adjust bolt in desired direction to loosen or tighten lock pressure.
- 3) Tighten lock nut.
- 4) Test locking for 30-50% seal compression.



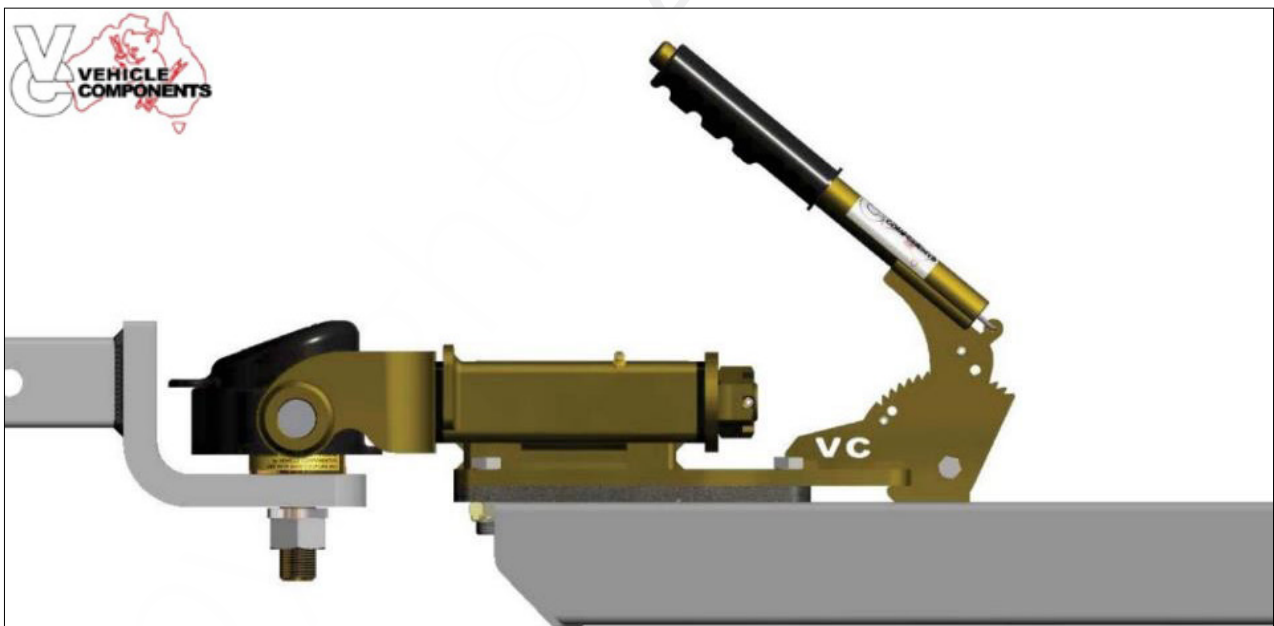
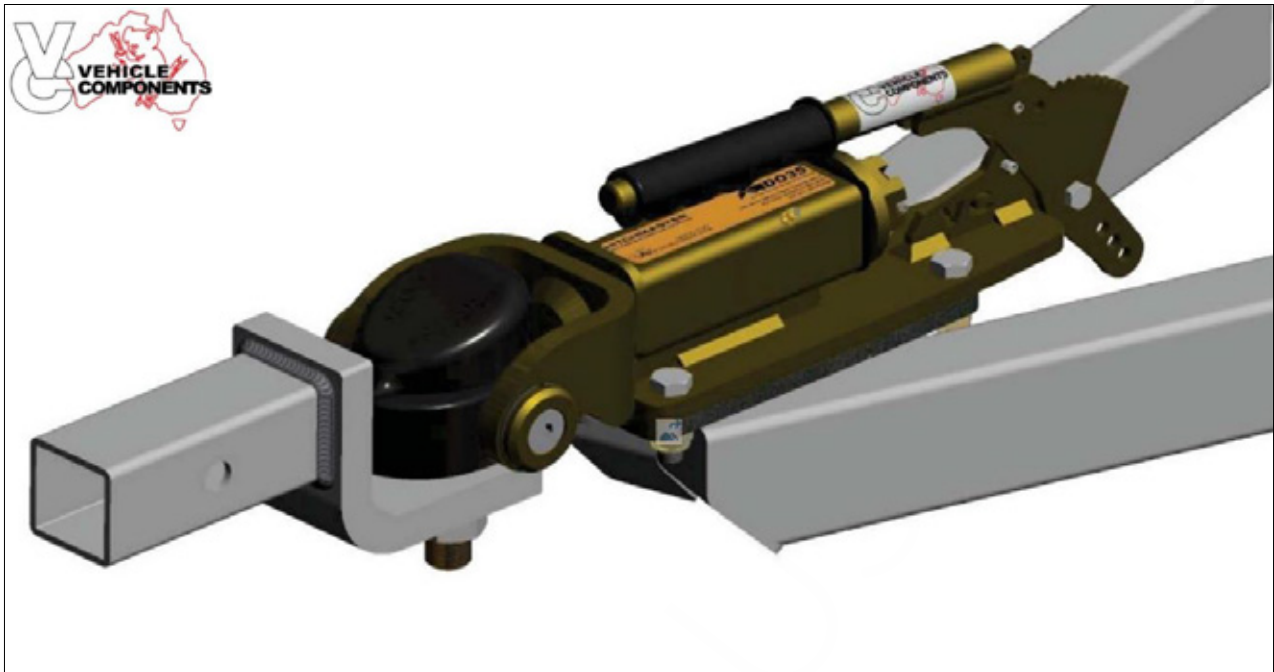
Gas and Appliances

The appliance manufacturer booklet must be read before operating any gas appliance and all safety and maintenance measures followed accordingly.

Towing the Caravan

Hitch - Connecting the Hitch

Here is a short guide on how to safely use your coupling to couple and uncouple the trailer from the towing vehicle.



Make sure the handbrake is applied prior to coupling and uncoupling.



Make sure the dust cap is securely connected to the bump cover. This is done by locating the rear lip on the dust cap onto the groove of the bump cover and then pushing it in a downward motion until the dust cover is secure (there should be a slight click when it has been assembled correctly) Test if the dust cover is connected to the bump cover by applying a slight upward force to the dust cover, it shouldn't separate. This procedure should be applied if you are uncoupling or coupling up.

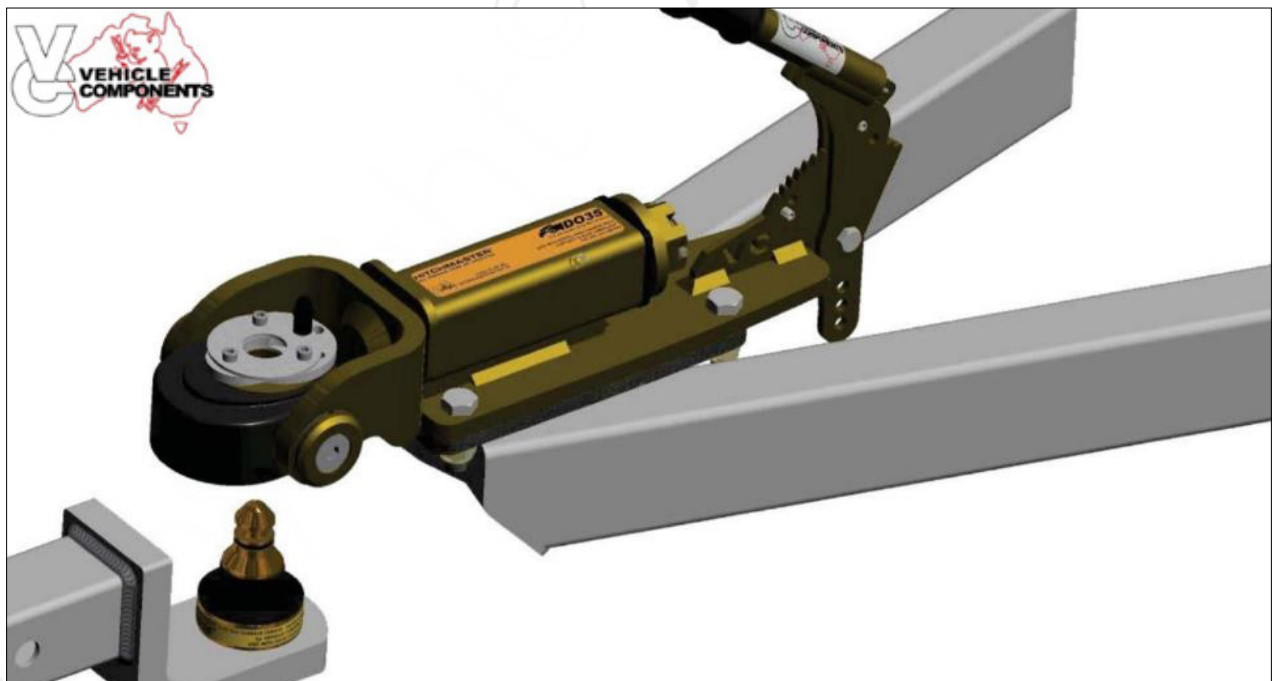
Coupling

STEP 1



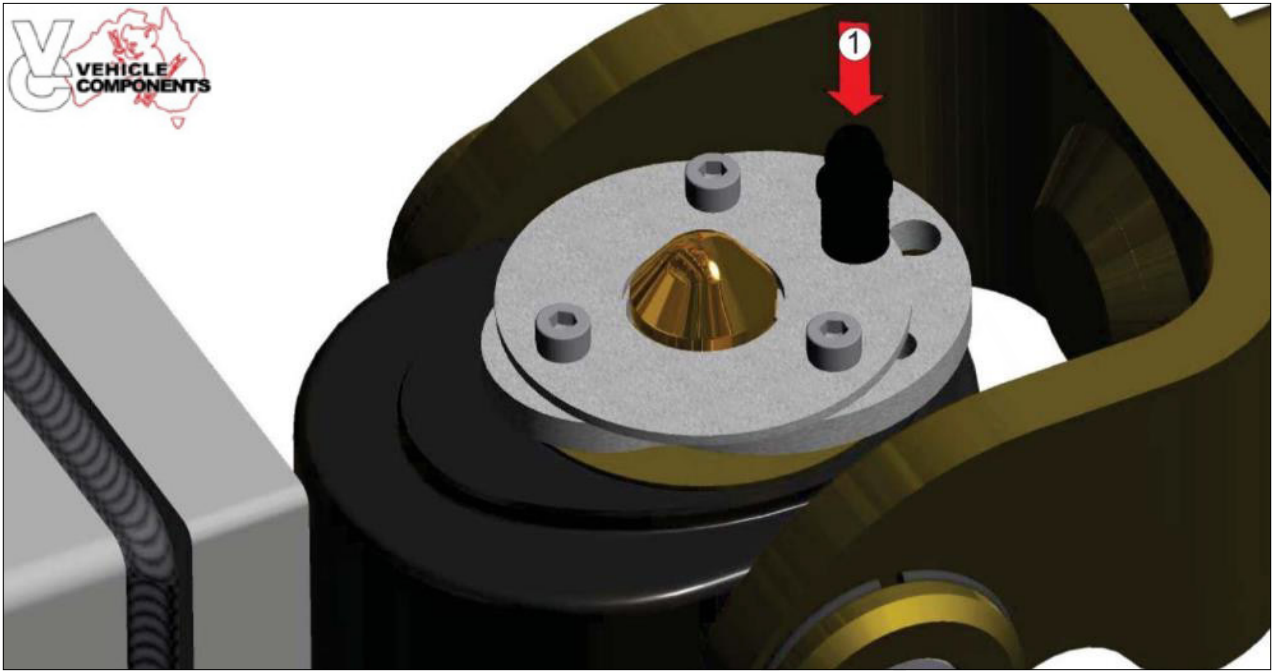
Push down the button (1) and push the locking mechanism back (2). When the locking mechanism (2) is all the way back, release the button (1) locking the plate in place

STEP 2

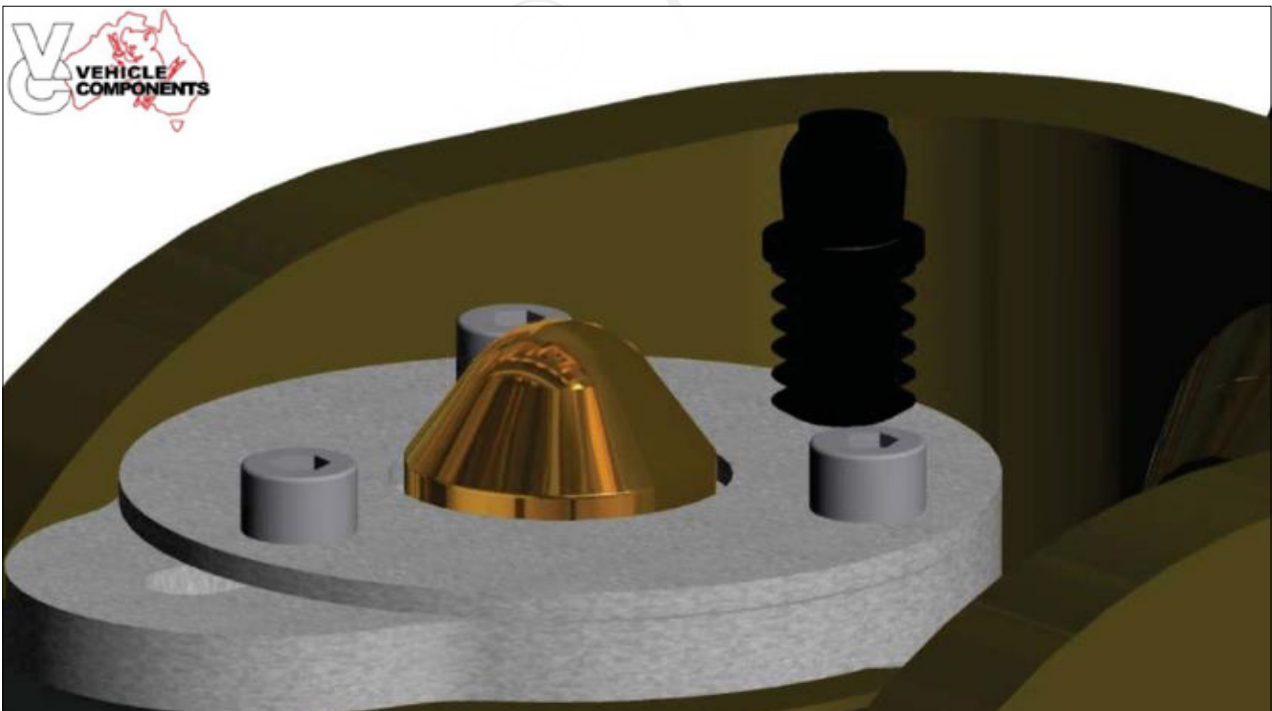


Offer up the tow pin to the coupling making sure the tow pin cover is removed and there is no visible debris on it. Locking plate should be in unlocked position as shown. Lower the coupling onto the tow pin.

STEP 3



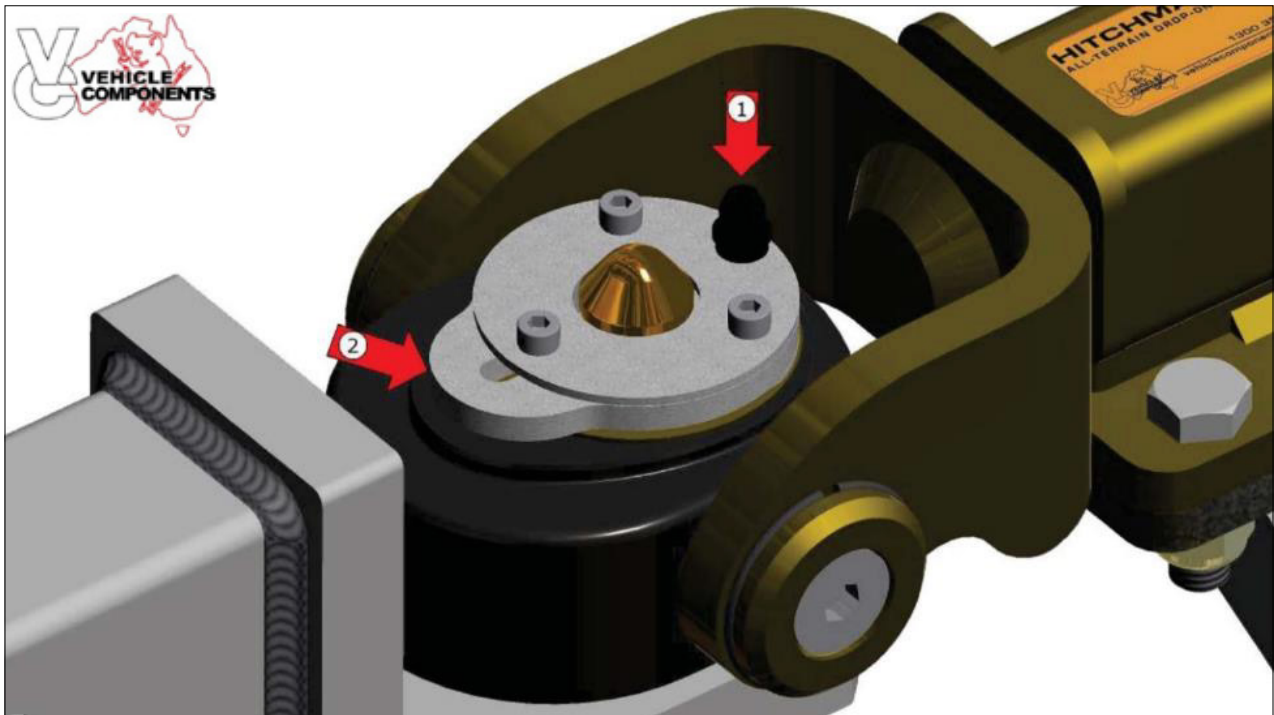
Make sure the tow pin is seated inside the universal and the tow pin top is sticking out of the locking mechanism (see below). Press the button (1) to release the locking mechanism there will be an audible locking noise at which point the mechanism will return to the initial position as shown in step 1. Verify the pin is correctly through the mechanism and assemble the cap. If the cap will not fit check the locking mechanism is in the correct locked orientation.



Detail view of pin through locking mechanism.

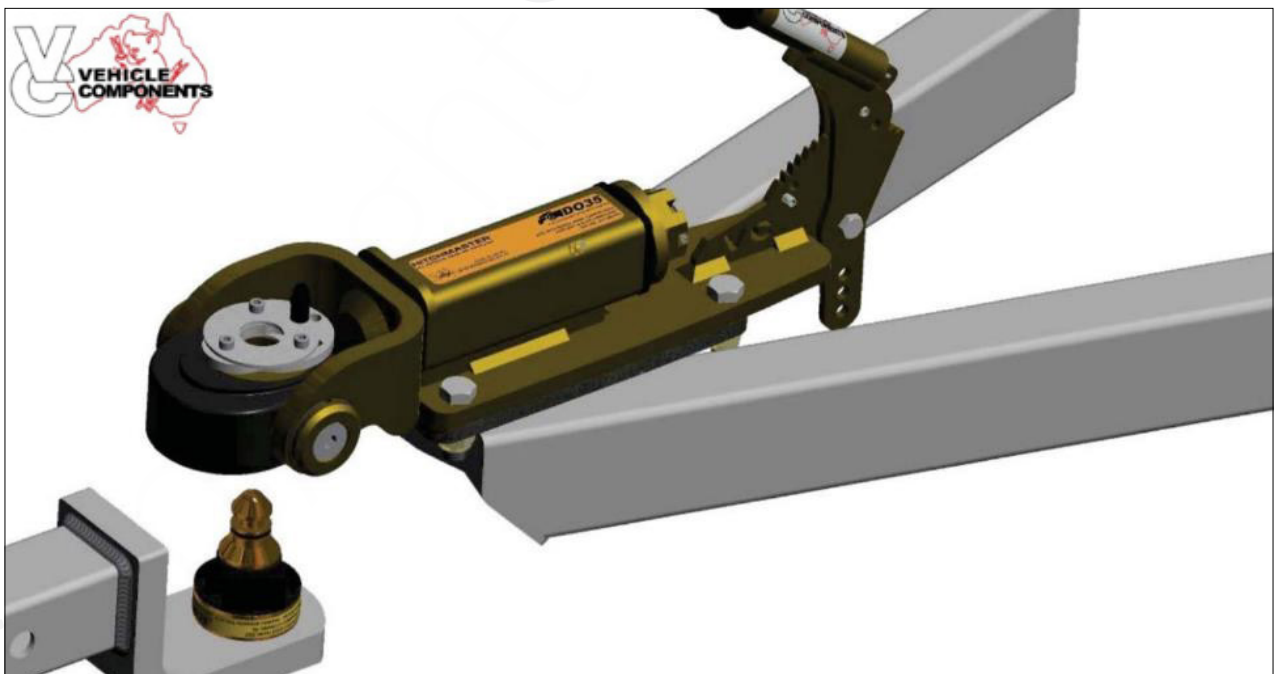
Uncoupling

STEP 1



Push down the button 1 and push the locking mechanism back 2. When the locking mechanism is all the way back release the button while holding the mechanism to ensure it does not spring back to the locked position.

STEP 2



Lift the coupling up off the tow pin.

Care and Maintenance of the Caravan

Protection of Finishes

Paint: The paint coatings on your caravan are no different to that of your car in that they need regular care and maintenance. Rubber seals and applied sealants on caravans can shed polymers and pigments that can stain paint finishes if your caravan isn't washed regularly.

Washing: Only use mild detergents free of ammonia when washing your caravan. Always check the label to ensure the washing solution is nonabrasive, contains no ammonia or caustics.

Polishing: New caravans should only be polished with wax-based polishes that are nonabrasive. When removing scratches from paintwork use a fine finishing compound. Cutting pastes are too abrasive and will expose the base material.

Protection: Carnauba wax is an excellent protection against oxidation. The paint on your caravan should be waxed annually regardless of being kept under cover to protect the surfaces from oxidation.

Acrylic Windows

Windows should be cleaned with a clean, soft, nonabrasive cloth to avoid scratches and soapy water.

Internal Finishes

Laminates and internal wall surfaces should be cleaned with a damp soft cloth. For stubborn marks use a mild detergent based cleaner. ****Do not use cleaners that contain ammonia or caustics****

Ensuite Finishes

Never use harsh detergents or bleach based products on the toilet or sealants in the ensuite. Use of such products will damage the seals and sealants.

Mirrors

Do not use solvents or chemicals when cleaning mirrors. Warm water and a soft clean cloth are the best method. Cleaners and solvents may affect the reflective backing causing what's known as "creep" where the edges of the mirror discolour.

Galvanised Finishes

Your galvanised chassis will need maintenance when used off road. The zinc coating although being tough is still susceptible to damage from stones chips to the coating should be maintained using a zinc rich coating.

High Tensile Bolt and Fittings

Zinc plated bolts and fittings should be coated with a protectant such as a lanolin based spray. The proprietary item "Lanotec" is recommended.

Stainless Steel

Do not use abrasive cleaners on stainless steel. Purpose made stainless steel cleaners are recommended as are solutions such as 10% white vinegar in water.

Fabrics

Fabrics may not be colourfast and should be washed gently by hand on their own or dry cleaned.

Corrosion Protection

Reasonable steps should be made by the customer to protect the product from corrosion. Seaside areas, areas with high salt contents in soil and roads that are salted during snow conditions can greatly accelerate corrosion. When used in these areas the product should be thoroughly washed after use and unpainted metal surfaces should be coated in a suitable protectant. Lanotec lanolin spray, Inox or similar are recommended.

Paint coatings should be regularly waxed to protect against oxidation in these areas.

**IMPORTANT NOTE!!! - Do not use solvent cleaners on any surfaces of your caravan.
Avoid bleach and ammonia based cleaners. Use only mild detergents.**

Roof Maintenance

Solar Panels

Accumulated dirt and soiling can affect the performance of the solar panels. Panels should be cleaned as necessary to prevent this. Sealants around solar panel mounts should be checked annually to ensure they are in good condition.

Sealants

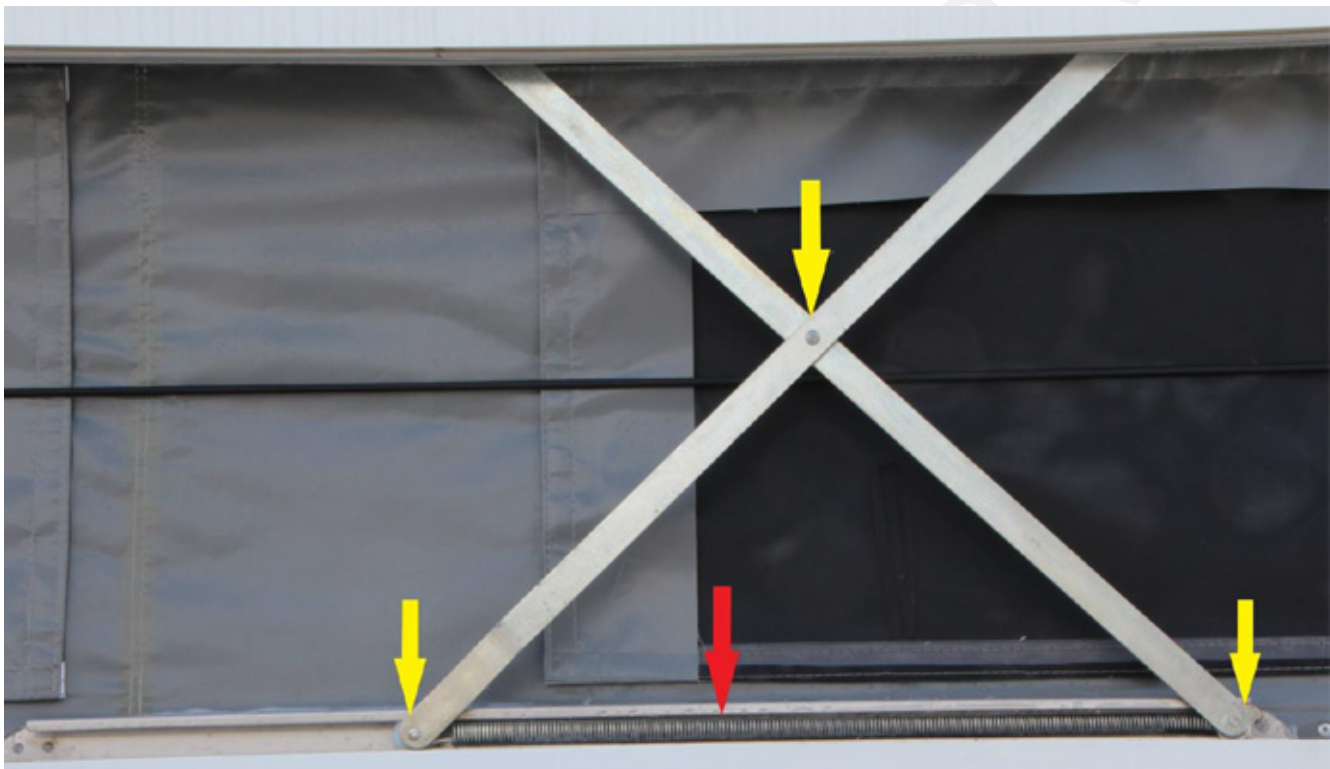
Roof sealants should be inspected every 6 months for condition. If the sealant has perished or adhesion has failed it should be repaired immediately.

Canopy Lifting Mechanism

The canopy lift mechanism requires maintenance as per the maintenance schedule.

Yellow arrows indicate light lubrication with lanolin based lubricant. (Every 6 months)

Red arrow indicates protecting the spring with a lanolin based lubricant. (Every 12 months)



Roof Skirt Elastic Cord

The elastic cord surrounding the PVC roof skirt is placed to ensure the skirt pulls inward when lowering the roof. This is an important function that protects the skirt from mechanical damage from the lifting mechanism and getting pinched by the roof. Regular inspection and replacement when necessary is part of the maintenance schedule. The illustrations below show the correct tension marked by a green ✓ and incorrect shown by the red ✗



Caravan Body Maintenance

Locks and Latches

Locks need regular maintenance to ensure they operate correctly and stay free from corrosion. Diligent use of WD40 or Inox will help in this regard. Both locks and latches need to be checked for adjustment to ensure correct seal compression.

Rubber Seals

Rubber seals are critical in reducing or eliminating dust and water ingress. Damaged or worn seals should be replaced immediately. Seals that are overly compressed will stay flattened and be less effective. (See maintenance schedule)

Sealants

Regular checking of sealants will help avoid any likelihood of water ingress on your caravan. Off road use can cause mechanical damage to seals from vegetation and stones striking the caravan body. 6 monthly inspections should be undertaken, and any necessary repairs made.

Mechanical Maintenance

Wheels and Tyres

Tyres should be checked for damage prior to each trip. Inspect for adequate tread depth and any damage particularly to sidewalls. Wheel nuts must be checked with a torque wrench. When picking up your new caravan check the wheel nut torque at 50, 100, 200 and 500km. Check before each trip and daily when travelling for longer periods. Do not over tighten, always use a torque wrench to ensure accuracy.

Brakes

The electric brakes on your caravan are a drum type. Drum brakes require regular adjustment to ensure even pad wear and proper performance. This is an important safety item. The recommended interval for checking adjustment is 5000km.

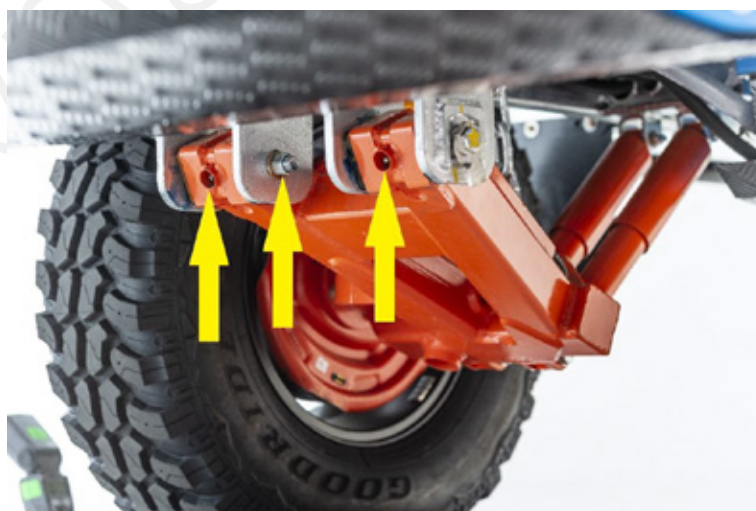
Bearings and Seals

Normal use without encountering water crossings is 5000km service intervals. Frequent water crossing may require shorter maintenance intervals.

Suspension

Suspension maintenance should be done as per the schedule contained in this booklet. Regular lubrication and inspection are critical, and the grease points are indicated below. Regular checks of the torque on the trailing arm bolts indicated will prolong correct wheel alignment.

Trailing arm suspension should not be reversed up gutters and obstructions in a heavy matter. Always use a ramp or similar if you are backing over high gutters and obstacles.



Handbrake

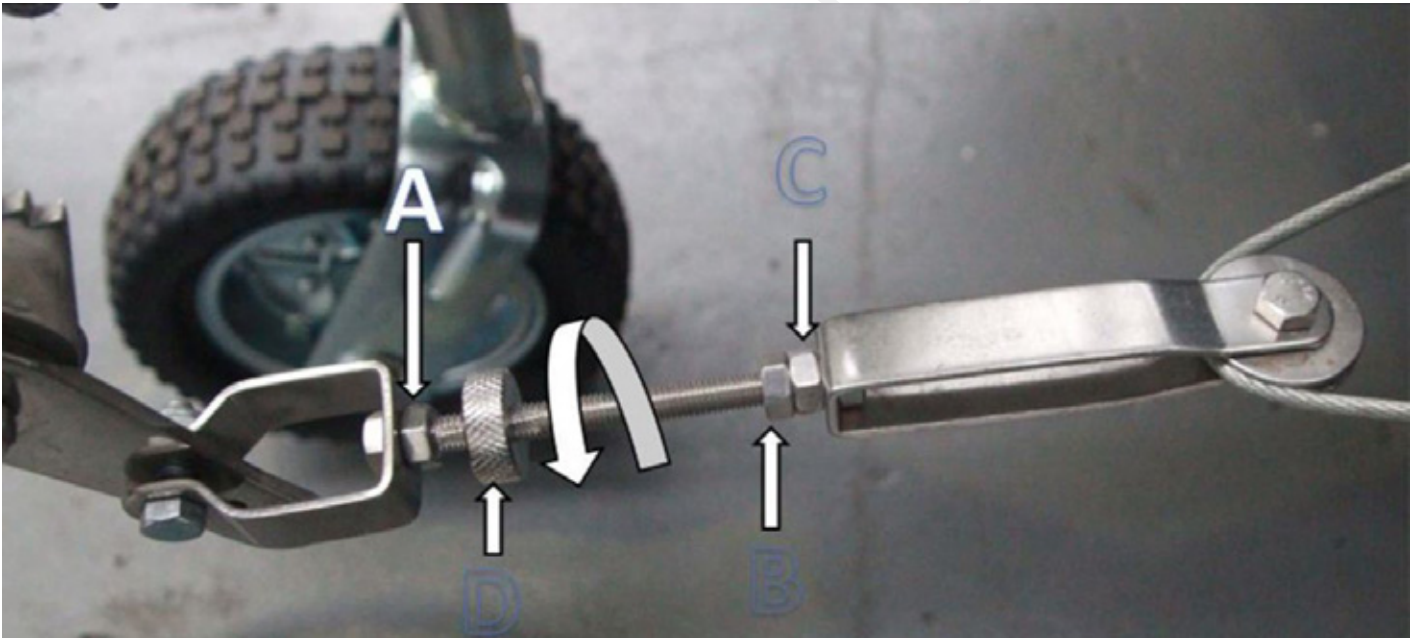
A correctly adjusted handbrake should raise $\frac{1}{3}$ to $\frac{1}{2}$ of the allowable range at the handbrake handle. Poorly adjusted handbrakes are dangerous. Under adjusted they may allow the trailer to roll and over adjusted can cause brake linings to drag and overheat the brakes while driving.

Parking brakes are mechanically operated by cable means. The cable attachment occurs outside of the brake backing plate. Cable force applied to the parking lever creates a torque through the pivot pin and cam assembly. Torque transferred to the parking cam results in a spreading force between the primary and secondary shoes. The shoes in turn, move towards the drum until contact is made. Friction generated between the drum and lining contact surface results in parking brake capability.

Use the cable adjuster to give enough tension to be able to set the handbrake lever on the last two notches of the coupling or handbrake is $\frac{1}{3}$ raised when unladen. This needs to be checked again when the trailer or caravan is loaded. If the cable is too tight, the brakes will be applied as the axle moves backward under spring deflection.

Adjuster

To adjust the handbrake cable tension release locknuts A, B and C in the diagram Handbrake Adjuster 1 below. To tighten the handbrake cable, turn the adjuster wheel D in a clockwise direction. Once adjusted retighten lock nuts and test. Always ensure that wheels turn freely when handbrake is off. Overtightened cables can cause brakes to drag and damage the brake linings.



Hitch

Cruisemaster DO35

To ensure a long service life we recommend the following periodic maintenance procedures.

1. Always keep Tow Pin and Universal mating surfaces clean and lightly lubricated.
2. Check condition of Tow Pin O-Ring and replace if necessary (Part No. 18D-DO35-101).
3. Regularly lubricate grease points with multi-purpose grease.
4. Periodic adjustment of Slotted Nut & Pin may be required if coupling head loosens excessively and should be a competent person.
5. Flush with clean water if locking mechanism does not open fully due to dirt ingress.

Ball Bearing Slides

To lubricate and protect from corrosion the ball bearing slides should be lubricated with a small amount of general purpose grease every 6 months.

Plumbing and Toilet

Truma Hot Water Heater

Your Truma hot water system should be de-scaled every 6 to 12 months depending on use. See the trauma manual for details or view the video on the link below.

Grey Water Tank

To keep the grey water tank fresh and remove smells it should be emptied and flushed regularly. Tank fresheners are available in various brands and are highly recommended.

Fresh Water Tanks

When used for drinking water regular tank maintenance is vital. By regularly using a product such as Camec Tank Clean you will reduce or eliminate bacteria and after taste. Always fill your tanks using a potable water grade hose. Fitting a filter that removes smell, taste and bacteria is highly recommended.

Toilet Care and Maintenance

Chemicals

Always use water treatment and conditioning products recommended by the manufacturer.

Thetford

Waste Holding Tank: The recommended product for the waste holding tank on Thetford toilet systems is Aqua Kem Blue or Aqua Kem Green for better environmental performance.

Cleaning Cassette Tank: "Cassette Tank Cleaner" is the recommended product for this application.

Flush Water Tank: Only suitable for AusRV models that have a toilet flush tank.

***Do not add to main water tanks! *** Thetford recommend "Aqua Rinse"

Grey Water Tank: Tank Freshener



Moisture and Mould Protection

Condensation

Condensation is caused by a difference in ambient temperature and a surface creating a dew point. If the surface is sufficiently colder than the ambient temperature and there is a degree of humidity, condensation will form on the surface. The higher the humidity and wider the difference in temperature the more dew/condensation will occur. The only means of stopping it is good ventilation, a heater or running air conditioning. When condensation occurs the caravan should be thoroughly aired and dried to protect finishes and avoid mould.

Protecting from Mould

Mould is very difficult to clean once a porous surface is affected. There are several ways you can prevent the occurrence of mould on your caravan. Never leave your Caravan packed away wet. If you must leave a campsite with wet canvas or a damp interior, be sure to open and dry out your tent thoroughly at the very first opportunity when you get home. Mould can develop in just a couple of days so don't take the risk. When packing up dry, it is important to check under the mattress that there is no build-up of condensation overnight. Body heat on a mattress can create enough temperature difference with the exterior for moisture to form under it. If left unchecked this can cause mould when your caravan is stored. An antibacterial mould killer such as Glen20 is recommended as a mould deterrent to be sprayed through the caravan prior to storage or on canvas during prolonged exposure to damp conditions.



Protecting Your Investment

Stone Stomper

This style of product will dampen stones and keep them low to avoid damaging your trailer when driving off road. The Stone Stomper will also greatly protect the rear window on wagon style 4WD's and SUV's as rocks may ricochet off the trailer stone guard and strike the rear window or the back of the vehicle.



Stone Stomper



Rock Tamer

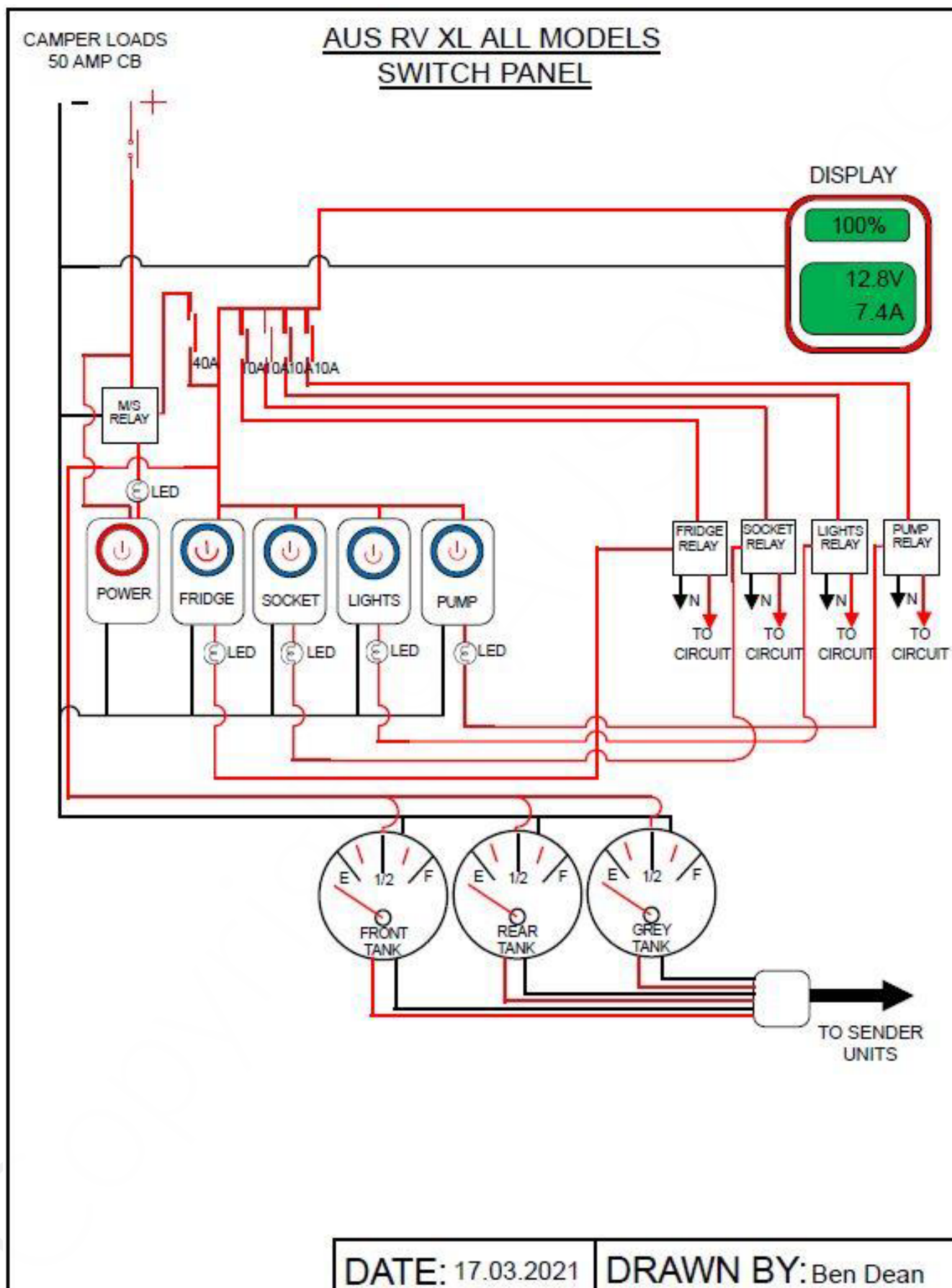
Anti-Theft Devices

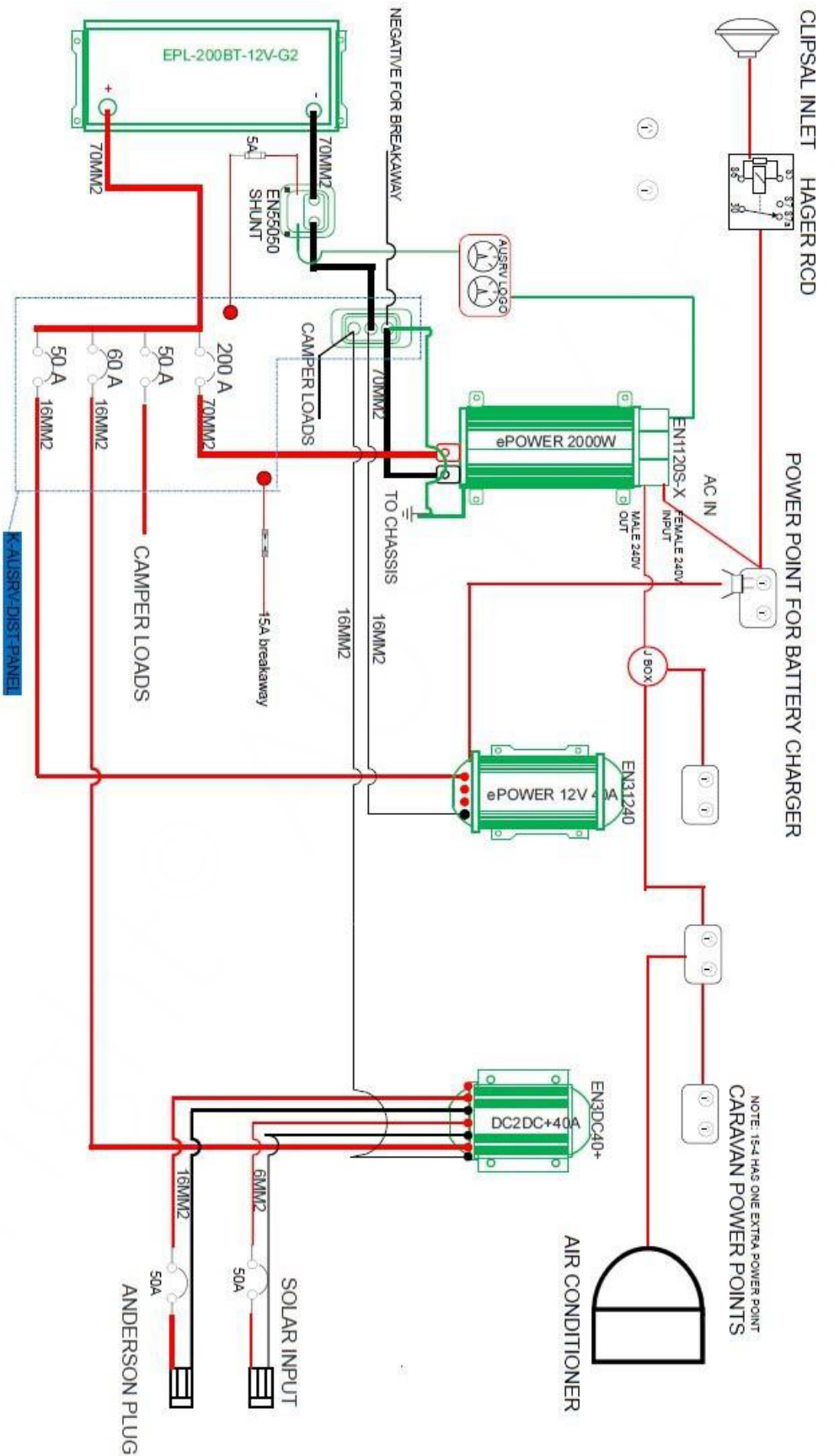
There are many types of theft protection devices available for caravans. We recommend using a device to protect your investment from theft. You may also be entitled to cheaper rates of insurance when this kind of product is installed.



Electrical

Wiring Diagram





PARTS LIST

EN1120S-X	ePOWER 2000w/12v w/RCD & AC Tfer Switch INVERTER
EN31240	ePOWER Smart Charger 40 amp /12v BATTERY CHARGER
EN3DC40+	DC 2 DC 40 +amp Battery Charger/ MPPT Reg SOLAR CONTROLLER
EN 55050	ePRO plus BATTERY MONITOR AND SHUNT
K-AUSRV-DIST-PANEL	BUS BAR / 4 C/B+ BACK BOARD + WIRING
EPL_200BT-12V-G2	B_TEC 200 amp/12v LiFePO4 Battery BT Gen2 LITHIUM BATTERY

1 NOTE: BATTERY TEMPERATURE SENSING WIRES ARE NOT REQUIRED FOR BOTH DC TO DC AND BATTERY CHARGER IN THE LITHIUM SYSTEM..DISCARD THEM.

2 NOTE: EARTH CONNECTION (BOLT) ON CHARGER AND DC TO DC NOT REQUIRED FOR THIS INSTALLATION

Original circuit from ENERDRIVE

DATE: 19/10/2020

1/12/2020

23/12/2020

19/1/2021

21/1/2021

DRAWN BY: B.G.

swapped order of breakers

BREAKAWAY ADDED

NOTES 1 AND 2 ADDED

NEGATIVE FOR BREAKAWAY ADDED

Trouble Shooting - 240v

Inverter and Error Codes

Error Code	Condition	Remedy
E01	When unit is in Battery (Inverter) mode, Input battery voltage is too low, and AC Output is shutdown.	Recharge the battery immediately and restart unit. Make sure the battery is connected to the unit.
	When unit is in By-Pass Mode the unit continues supplying AC-Output power.	Check the battery is connected to the unit. Although the unit still provides AC Output power from Utility, recharge the battery ASAP
E02	Input battery voltage is too high, and unit has shutdown	Check battery voltage or determine if any external charger is connected to the battery bank
E03	AC output is overloaded or short circuited and unit has shutdown	Check load connected to the output. Reduce load and restart the unit
E04	Internal temperature is too high, and unit has shutdown	Turn unit off and wait for 15 minutes before restarting. Check if any object has blocked the air flow of the unit
E05	Input battery voltage is low, and warning occurs	Recharge battery as unit will shut down shortly
E06	In Battery Mode, AC output load connected has been sensed high and is close to shutdown limit	Reduce load
E07	Internal temperature is high and is close to shutdown limit	Reduce load and check if any ventilation of the unit is blocked
E08-11	Not used	
E12	Internal transfer switch temperature is high, and shutdown occurs	Reduce load and check if any ventilation of the unit is blocked

Problem	Possible Cause	Solution
No AC Output. All the LEDs and the display are off.	The unit is turned off. Note: The power button On/Off action takes place at its release moment and after a "beep" is heard	Turn the unit ON by pressing the "Power" button (when the unit is in Battery/inverter mode, or in By-Pass mode if the PS4 parameter is set) otherwise the unit should always turn on automatically at the moment the AC-Input power is connected.
	No power coming into the unit	Check the battery DC fuse, the Disconnect Switch (if installed), the AC Input Source and the AC Input Branch Breaker is either tripped or turned OFF
No AC output on the front GPO or the side IEC-C19 socket and the Status LED is Green or Amber	The unit's thermal breaker/s and or RCD has tripped.	Check AC loads and reset the thermal breakers and or RCD.
AC Output turns ON and OFF.	Power Safe mode ("PS2") enabled and AC load	The load connected must be below the AC load sense threshold of 10W +/-25%
No AC Output. Status LED is red	The unit has shutdown, check Error code shown on display.	Verify the error condition and make correction

During AC Input Power Outage, there is no AC Output power when battery power is available.	The unit is set to "Non-Backup" mode ("PS0") and AC Input Power is not available.	Change the "PS0" setting to a different setting if you want to turn the inverter ON. With "PS0" setting, the inverter is completely OFF. When the AC Input Power is not available and the "Power" button is pressed once, the display and LEDs stay working for about 30 sec only. With this setting, the unit will provide AC Output Power only when the AC Input Power is available
"E01" or "E05" alarm in By-Pass (passthrough) mode 2	The unit is normal. The alarms indicate the battery voltage is low or the battery is not connected. Note: There may be external DC loads connect to the DC input terminals and its drawing current from the current-limited built-in trickle battery charger within the inverter. However, the unit continues supplying AC-Output power in despite of those alarms	Charge and/or connect the battery bank or disable all the audible alarms with the "ALO" setting when AC backup is not required. Note: The main purpose of the internal trickle battery charger is to keep the unit's control electronics working and can still provide AC Out when utility is available even without the battery connected. It is not intended to act as a real trickle charger for your battery bank. Therefore, do not rely on this small trickle charger as a source to charge your battery bank.
DC voltage is measured at the DC terminals without the battery being connected (EN1120x, EN1126X only)	This is normal. The voltage is supplied by a little built-in trickle battery charger with current limiting protection.	You can keep the battery disconnected. However, if the DC-Input terminals of the unit are connected to a common DC bus being shared by other DC loads, a 12V back feed to those DC loads can occur when the DC bus is disconnected from the common battery bank. In this case the corresponding drawing current may trigger the "E01" or "E05" alarms as per the problem 2 In cases where the back feed is not desirable, consider using a separate battery bank disconnect switch for the unit
The unit's 10A thermal breaker trips even when the unit is out of an overload condition	This happens mainly in By-Pass mode when the maximum rating of the unit's breaker is exceeded.	For maximum capacity use the 16A AC-Output socket which is out of the tripping influence of the unit's 10A thermal breaker. Otherwise, do not exceed 10A on the front AC outlet respectively.
The unit cannot be turned off using the power button when in "By-Pass" mode	This is normal. The unit has "PS1" (factory default) setting. Use the procedure on the right to turn off the unit. Note: The power button On/Off action takes place at its release moment and after a "beep" is heard	To turn the unit off while in By-Pass (passthrough) mode, first of all disconnect the AC Input that feeds the unit to force entering into Battery (inverter) mode. Then push and hold the power button for 1 sec. (after hearing a beep) the unit will turn off.
		Set unit to PS4 mode. With this setting, the power button can be used to turn the unit ON and OFF during By-Pass and Battery (inverter) mode.
The input battery under-voltage warning ("E05") and/ or shutdown alarm ("E01") occurs in advance even when the battery voltage seems to be OK	Make sure you are measuring the voltage directly at the DC-Input terminals of the unit so as to check the possible voltage drop between the battery posts and the unit input terminals	Excessive voltage drop between the battery bank and the inverter, due to high resistance of the DC wires, battery disconnect switch, fuse, or DC breaker if any. Make sure to use the recommended wire's gauge and length. Try to use fuses (or DC breakers) with very low voltage drop (i.e. Class T type fuses, etc.)

<p>The input battery under-voltage warning ("E05") and/ or shutdown alarm ("E01") occurs in advance even when the battery voltage seems to be OK</p>	<p>Battery bank with high internal resistance, resulting in a voltage drop proportional to the DC current draw from the unit.</p>	<p>Too much battery voltage drop due to excessive drawing current in relation to the battery bank capacity. Increase the battery bank capacity (i.e. adding more batteries in parallel) and/or reduce the load being fed by the inverter Battery damaged and not able to keep a good state of charge. Replace the battery (or batteries)</p>
	<p>Battery bank is getting discharged.</p>	<p>This is normal condition. The E05 warning and then followed by the E01 shutdown occur while the battery bank is getting discharged. Charge the battery bank.</p>
	<p>Make sure to measure the battery voltage just before the "E01" battery under-voltage shutdown in battery (inverter) mode occurs and compare it with the corresponding voltage threshold in the specifications table. (allow +/- 5% of tolerance)</p>	<p>Just after the E01 occurs, the battery voltage increases rapidly since the battery is not under load condition after the inverter shutdown. This is normal in all battery banks and can confuse the user thinking the under-voltage shutdown that triggered the E02 alarm occurs in advance at higher voltage thresholds than the ones specified.</p>
	<p>The E05 warning and E01 shutdown alarm occurs well in advance due to the "SdH" setting</p>	<p>If you want to extend the run time of the battery bank as long as possible without the need to keep enough battery state of charge for engine cranking purposes, make sure to set the under-voltage shutdown threshold to low values setting ("SdL" - factory default setting) rather than the "SdH".</p>
<p>The display doesn't work as expected (no display or showing "888") and the operation of the unit may be affected</p>	<p>Loose contact or pin-out problems in the RJ12 detachable display panel cable</p>	<p>A short (7") RJ12 cable is used when the detachable display panel is mounted on the unit (factory default). Alternatively a long RJ12 cable is provided for installing the display panel up to 7.5m away. Swap the cable you are using with the other one and check display for correct operation</p>
		<p>Check the pin-to-pin conductivity of the cable and the corresponding pin-out as shown in "Appendix II"</p>
	<p>Excessive EMI/RFI interference (electromagnetic induction or electromagnetic radiation) emitted from an external source</p>	<p>Avoid running the remote cable very close to motors, power contactors/relays, ballasts, transformers, or high voltage devices. In high EMI/RFI environments, consider using metal conduits or a shielded cable grounded at one end and/or reduce cable length</p>
<p>The RCD trips as soon as the load is connected to either outlet port</p>	<p>There is a Neutral to Ground (M.E.N) bonding on the AC load side of the IEC output socket</p>	<p>Locate and remove the Neutral to GND (M.E.N) bonding on the load side. If the output of the inverter is connected to an existing distribution panel/box, make sure the Neutral and GND connections inside the panel/box use separate bus bars, being the Neutral one isolated from the chassis ground. Otherwise consider using the 10A AC-Output socket on the front of the unit</p>

12 Volt Trouble Shooting

Problem	Possible Cause	Remedy
No 12 Volt Power	<ul style="list-style-type: none"> • Main isolator Turned Off • Batteries Flat • Main mega fuse tripped 	<ul style="list-style-type: none"> • Turn on main isolator • Charge Batteries • Reset Mega fuse
Batteries wont charge	<ul style="list-style-type: none"> • Battery needs to be reset after low voltage cut out. • Battery failed. • Charger not turned on. • Charger not plugged in • No mains power. • Faulty Charger 	<ul style="list-style-type: none"> • Press and hold reset button on battery. • Replace battery. • Turn on charger. • Plug in charger and turn on. • Connect mains power. • Replace charger
Solar power not charging	<ul style="list-style-type: none"> • Tripped circuit breaker • Faulty DC to DC unit • Night-time. • Parked in shade 	<ul style="list-style-type: none"> • Reset breaker. • Replace or repair DC to DC unit • Wait until daytime. • Park in sunshine
Batteries not charging from car	<ul style="list-style-type: none"> • No power from car • DC to DC trigger wire not activated • Tripped breaker 	<ul style="list-style-type: none"> • Check car power output. • Connect trigger wire through pin 12 to vehicle accessory power. • Reset breaker
Trailer lights not working	<ul style="list-style-type: none"> • Trailer plug pins not separated. • Car not providing power. • Bad connection in plug 	<ul style="list-style-type: none"> • Separate pins using the split in each pin to ensure good contact with car plug. • Check output from car trailer plug. • Check wire connections in plug
Lights or plugs not working	<ul style="list-style-type: none"> • Circuit not switched on at panel. • Batteries flat • Circuit breaker tripped 	<ul style="list-style-type: none"> • Switch on at control panel. • Charge batteries • Reset breaker
No Power to portable fridge	<ul style="list-style-type: none"> • Tripped circuit breaker • Faulty Socket 	<ul style="list-style-type: none"> • Reset circuit breaker • Test socket with test light or multimeter
Inverter not powering	<ul style="list-style-type: none"> • Mega fuse tripped. • Battery voltage too low 	<ul style="list-style-type: none"> • Reset mega fuse. • Charge batteries
Circuit breaker tripping during use	<ul style="list-style-type: none"> • Appliance load too high • Faulty breaker 	<ul style="list-style-type: none"> • Check appliance for fault. • Replace breaker

Plumbing

Hot Water System

Problem	Possible Cause	Remedy
No power	<ul style="list-style-type: none">• Turned off at control panel.• Tripped breaker	<ul style="list-style-type: none">• Turn on at control panel.• Reset breaker
Not lighting	<ul style="list-style-type: none">• Flue cover not removed.• No gas supply.• Air in gas line.	<ul style="list-style-type: none">• Remove flue cover.• Check bottle has gas and turned on.• Repeat start procedure until air is purged from the system

Water Pump

Problem	Possible Cause	Remedy
Not running (no sound)	<ul style="list-style-type: none">• Power off at control panel	<ul style="list-style-type: none">• Switch on power
Air and water spitting from tap	<ul style="list-style-type: none">• Water tank empty• Split hose	<ul style="list-style-type: none">• Fill tanks• Repair hose
Running but poor pressure	<ul style="list-style-type: none">• Gauze filter at pump blocked	<ul style="list-style-type: none">• Clear filter of debris
No water delivery	<ul style="list-style-type: none">• Water tank empty	<ul style="list-style-type: none">• Switch water tanks via selector valve

Driving Off Road

Towing your caravan off road adds many dimensions to the driver's responsibilities and factors to be considered. When travelling remote always carry enough spare parts and supplies to cater for a "worst case scenario." Always perform preventative maintenance and daily checks. Minimum trailer spares would consist of:

- Wheel Bearings
- Seals
- Wheel studs and nuts

These are available from AusRV Caravans

Wildlife

Australian outback roads are notorious for wandering stock and native wildlife which can be a serious danger to motorists. Due care must always be taken, and the possibility of an animal strike considered in regard to speed and time of day you are driving. Most animals in the outback are more active at night which greatly increases the likelihood of an animal strike between dusk and dawn. Towing a caravan increases braking distance and has inherent risk associated with aggressive and defensive manoeuvring to avoid a collision.

Corrugations & rough road

Corrugations are arguably the most taxing and damaging road conditions to vehicles. Constant vibration can loosen vehicle components and as a stress dynamic to vehicles and drivers well in excess of normal road driving. In these conditions take regular breaks to reduce driver fatigue and fatigue to vehicles. Shock absorbers can become extremely hot on corrugated roads which can cause damage to seals resulting in shock absorber fade (reduction in damping effect) and in extreme cases failure of the seal completely. On rough and corrugated roads, it's important to adjust tyre pressures on your car and trailer to soften the effect and extend the contact patch of the tyre on the road.

Bulldust

This phenomenon is common on outback roads. Fine dust can settle in large holes obscuring them from unsuspecting drivers. It is important to reduce speed in these conditions and drive carefully to avoid the possibility of damage or an accident.

Sand

When driving on sand it is important to lower tyre pressures on both the vehicle and trailer. By lowering the pressure you will effectively create a larger footprint for the tyre which will reduce how far it sinks in sand. Sand shape and compaction will vary around the country so necessary reduction in tyre pressure will vary. Always keep in mind the lower the pressure the lower the speed you should travel. When lowering pressures to 20psi or less you also increase the chance of rolling the bead of the tyre off the rim so sharp turns should be avoided. When driving these conditions, it is strongly advised you carry a tyre pressure gauge/deflator and a portable compressor to reinflate when back on the highway.

Causeways

Outback roads often have causeways to control water runoff and prevent erosion of the road. When travelling at speed these causeways can be a danger to motorists and vehicles so due care should be taken to reduce speed when approaching them. In very remote areas these often won't have signposts so special care should be taken in these areas.

Creek and River Crossings

These crossings can be extremely dangerous even in low water levels and should never be attempted in times of even mild flooding. Towing a caravan greatly elevates the risk in this situation and should never be attempted unless you are completely assured it is safe to do so. If there is any doubt about access in flood prone areas, you should contact the local authorities to find out conditions and dangers before you proceed.

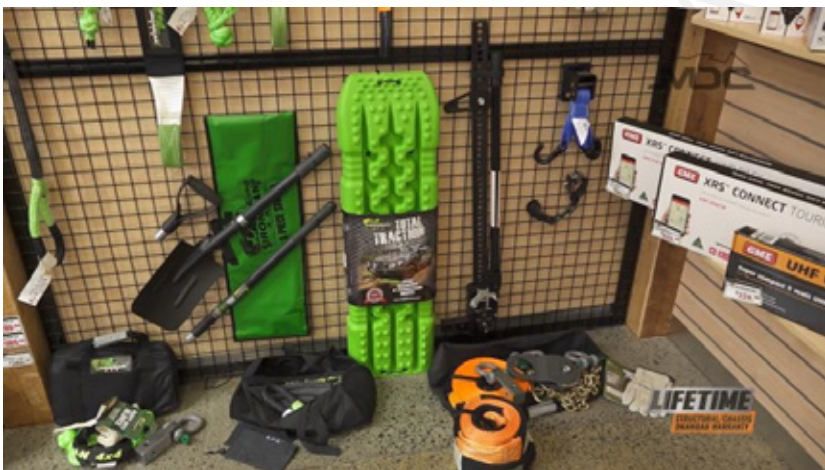
Recommended Recovery Products

Recovery points

Do not attempt to recover via points that aren't designated recovery point. Your vehicle must be fitted with rated points that exceed the safe load of any recovery straps or tow straps being used.

Hardware

Shackles are an integral part of any recovery kit. Soft shackles pictured below add a great deal of safety to any recovery situation as they are lightweight and a soft material reducing dangers of impact in the event of equipment failure.



Traction boards, shovel and high lift jack are extremely handy to have for recoveries.



Snatch straps should be rated for the entire load you are recovering.

Tyre repair kits are an excellent investment when travelling remote in the event you are unlucky enough to damage more tyres than you have spare.



A compressor is a must have to reinflate your tyres after deflating for rough and corrugated roads.



A tyre gauge is a must have to deflate your tyres to the correct pressure when travelling off road. Uneven inflation of tyres on the same axle can cause dangerous handling in the car or trailer.



Wheels and Tyres

Highway

Your caravan is fitted with 16" wheels and 265/75 R16 Goodride Tyres. The tyres are a "Light Truck" tyre with a mud terrain tread and a maximum load rating on single axle of 1550kg at 80psi. See the tyre pressure recommendation chart on page 16

Off Road

Off road driving requires lower tyre pressures and lower speeds. When driving on rough and corrugated road, a reduction of speed and controlled deflation of tyres is required to protect the caravan and its suspension from damage. In extreme circumstances tyre pressures may be reduced significantly. When lowering from highway pressure, a rule of thumb is to reduce your speed by the same percentage as the lowering of tyre pressure.

Because off road conditions can vary greatly, you must lower your pressures and reduce speed until vibration and shock through the suspension is at a moderate level to suit the conditions you are experiencing, and the loaded weight of your caravan.

WARNING: When returning to the highway or when increasing speed, you must reinflate the tyres to correct highway pressures. Failure to reinflate can cause severe handling problems resulting in injury or death.

Suspension

Your Caravan is fitted with quality independent trailing arm suspension with dual shock absorbers. This design is ideal for the full range of use on and off road however, there are limitations in prolonged use of corrugated and rough road.

Shock Absorbers & Bushes

The function of shock absorbers is to turn kinetic energy into heat and dampen the rebound in the suspension to keep the tyre in contact with the road. During prolonged periods on corrugated and rough roads it is possible to overheat shock absorbers to the point of failure (shock fade). Best practice is to take regular breaks and allow both the shock absorbers and suspension bushes to cool. Overheating the bushes through prolonged driving on corrugations can soften the thermoplastic and cause premature wear and/or deformation of the bush. On severely rough roads stop regularly up to every hour to allow components to cool.

Wheel Alignment

The wheels on your caravan are aligned at the factory. Refrain from backing up gutters and obstruction heavily. Always create a ramp when reversing obstacles to prevent premature misalignment of the wheels.

Service Record Booklet

Your caravan service record booklet and logbook will help you keep track of kilometres travels and service records.

[illegible]

First Service (500km or 3 months)

500 KM FIRST SERVICE		CHECKED
Hitch	<ul style="list-style-type: none"> • Check hitch bolts to 76Nm. • Lubricate with high temp bearing grease 	
Handbrake	<ul style="list-style-type: none"> • Inspect and adjust handbrake 	
Brakes & Bearings	<ul style="list-style-type: none"> • Inspect and adjust brakes. Check bearings are well greased and crown nut is correctly tightened. 	
Wheel nuts	<ul style="list-style-type: none"> • Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims) (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> • Inspect for abnormal wear, damage, and pressure 	
General fixings	<ul style="list-style-type: none"> • Ensure no loose fittings 	
Seals & Latches	<ul style="list-style-type: none"> • Check all seals on doors and hatches compress 30-50%. All seals in serviceable condition and free of damage. 	
Suspension	<ul style="list-style-type: none"> • Grease bushes and check for play. • Check torque on suspension hanger bolts (190nm) • Check retaining chain shackles tight. 	
Service Centre:	Notes:	

Every 6 MONTHS / 5,000KM SERVICE		CHECKED
Hitch	<ul style="list-style-type: none"> • Check hitch bolts to 76Nm 	
Handbrake	<ul style="list-style-type: none"> • Check cable and adjust if necessary 	
Hand winch	<ul style="list-style-type: none"> • Check brake function and webbing 	
Suspension	<ul style="list-style-type: none"> • Lubricate and check bushes for excess movement. • Torque bolts to 190Nm 	
Brakes	<ul style="list-style-type: none"> • Inspect and adjust. Check lining thickness and drum wear 	
Wheel bearings	<ul style="list-style-type: none"> • Remove, clean and re-lubricate. Inspect for wear and replace if necessary 	
Wheel Nuts	<ul style="list-style-type: none"> • Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims), (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> • Inspect for abnormal wear, damage, and pressure 	
Lights	<ul style="list-style-type: none"> • Check all lights are functioning 	
Battery	<ul style="list-style-type: none"> • Check terminals and voltage at full charge 	
Seals	<ul style="list-style-type: none"> • Check condition and correct latch/lock adjustment for correct 30-50% compression 	
General fixings	<ul style="list-style-type: none"> • Check all structural fixing are secure. 	
Seals & Latches	<ul style="list-style-type: none"> • Check all seals on doors and hatches compress 30-50%. All seals in serviceable condition and free of damage. 	
Suspension	<ul style="list-style-type: none"> • Grease bushes and check for play. • Check torque on suspension hanger bolts (190nm) • Check retaining chain shackles tight. 	
Service Centre:	Notes:	

12 MONTHS / 10,000KM SERVICE		CHECKED
Chassis and Suspension		
Hitch	<ul style="list-style-type: none"> Inspect for damage and lubricate. Check bolt Torque to 76Nm 	
Jockey Wheel	<ul style="list-style-type: none"> Inspect for condition and operation 	
Breakaway	<ul style="list-style-type: none"> Check for correct operation. Inspect lanyard and clip 	
Drawbar	<ul style="list-style-type: none"> Inspect wiring grommets and general condition 	
Suspension	<ul style="list-style-type: none"> Torque bolts to 190Nm Grease bushes and check for play. Check torque on suspension hanger bolts (190nm) Check retaining chain shackles tight. Inspect shock absorber for condition. Inspect shock absorber bushes 	
Brakes	<ul style="list-style-type: none"> Inspect and adjust. Check lining thickness and drum wear 	
Wheel bearings	<ul style="list-style-type: none"> Replace bearings, seals and lubricate. Check stub axle condition and wear. Replace split pin. 	
Wheel Nuts	<ul style="list-style-type: none"> Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims) (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> Inspect for abnormal wear, damage, and pressure. Check manufacturing date less than 5 years. Check sidewalls for perishing and damage. 	
12 volt electrical		
Lights	<ul style="list-style-type: none"> Check all trailer lights are functioning. Check plug pins have gap. Check for corrosion 	
Battery	<ul style="list-style-type: none"> Check terminals and voltage at full charge. Check batteries are secure in cradles 	
Charging	<ul style="list-style-type: none"> Check battery charger settings are correct. Check DC to DC charger settings are correct 	
Solar Panels	<ul style="list-style-type: none"> Check panels are free of damage. Inspect sealants on cable penetrations and junction boxes 	
Cables	<ul style="list-style-type: none"> Inspect cables under body for damage to conduits. Inspect cable glands and sealants on penetrations through floor 	
240 volt Electrical		
RCD Unit	<ul style="list-style-type: none"> Check operation of RCD via test button 	
Mains Input	<ul style="list-style-type: none"> Inspect mains input plug and cover are free of damage 	
Earthing	<ul style="list-style-type: none"> Carry out resistance check 	
Caravan Body		
Hatches & Doors	<ul style="list-style-type: none"> Check and lubricate locks 	
Seals	<ul style="list-style-type: none"> Check condition and correct latch/lock adjustment for correct 30-50% compression 	

Body	<ul style="list-style-type: none"> • Inspect joint sealants inside and out. • Ensuite joints checked for damage and adhesion. • Inspect for soft spots on floor 	
General fixings	<ul style="list-style-type: none"> • Check all structural fixing are secure. 	
Ventilation	<ul style="list-style-type: none"> • Inspect for obstruction and vents operating correctly 	
Fire Extinguisher	<ul style="list-style-type: none"> • Inspect extinguisher is charged and within service date 	
Smoke Alarm	<ul style="list-style-type: none"> • Test and inspect. • Replace battery 	
Window Blinds	<ul style="list-style-type: none"> • Inspect and adjust tension where necessary 	
Damp Check	<ul style="list-style-type: none"> • Inspect caravan for any dampness. 	
Plumbing		
Hot Water System	<ul style="list-style-type: none"> • De-scale hot water service 	
Water Tanks	<ul style="list-style-type: none"> • Treat tanks and entire system with bacteria killing tank cleaner and flush. 	
Grey Water Tank	<ul style="list-style-type: none"> • Treat with tank cleaner and flush. 	
Drain Fittings	<ul style="list-style-type: none"> • Check all metal drain fittings for corrosion 	
Water System	<ul style="list-style-type: none"> • Inspect for leaks. Turn on pump and ensure it doesn't start due to loss of pressure. 	
Service Centre:	Notes:	

18 MONTHS / 15,000KM SERVICE		CHECKED
Hitch	<ul style="list-style-type: none"> • Check hitch bolts to 76Nm 	
Handbrake	<ul style="list-style-type: none"> • Check cable and adjust if necessary 	
Hand winch	<ul style="list-style-type: none"> • Check brake function and webbing 	
Suspension	<ul style="list-style-type: none"> • Lubricate and check bushes for excess movement. • Torque bolts to 190Nm 	
Brakes	<ul style="list-style-type: none"> • Inspect and adjust. Check lining thickness and drum wear 	
Wheel bearings	<ul style="list-style-type: none"> • Remove, clean and re-lubricate. Inspect for wear and replace if necessary 	
Wheel Nuts	<ul style="list-style-type: none"> • Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims), (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> • Inspect for abnormal wear, damage, and pressure 	
Lights	<ul style="list-style-type: none"> • Check all lights are functioning 	
Battery	<ul style="list-style-type: none"> • Check terminals and voltage at full charge 	
Seals	<ul style="list-style-type: none"> • Check condition and correct latch/lock adjustment for correct 30-50% compression 	
General fixings	<ul style="list-style-type: none"> • Check all structural fixing are secure. 	
Seals & Latches	<ul style="list-style-type: none"> • Check all seals on doors and hatches compress 30-50%. All seals in serviceable condition and free of damage. 	
Suspension	<ul style="list-style-type: none"> • Grease bushes and check for play. • Check torque on suspension hanger bolts (190nm) • Check retaining chain shackles tight. 	
Service Centre:	Notes:	

24 MONTHS / 20,000KM SERVICE		CHECKED
Chassis and Suspension		
Hitch	<ul style="list-style-type: none"> Inspect for damage and lubricate. Check bolt Torque to 76Nm 	
Jockey Wheel	<ul style="list-style-type: none"> Inspect for condition and operation 	
Breakaway	<ul style="list-style-type: none"> Check for correct operation. Inspect lanyard and clip 	
Drawbar	<ul style="list-style-type: none"> Inspect wiring grommets and general condition 	
Suspension	<ul style="list-style-type: none"> Torque bolts to 190Nm Grease bushes and check for play. Check torque on suspension hanger bolts (190nm) Check retaining chain shackles tight. Inspect shock absorber for condition. Inspect shock absorber bushes 	
Brakes	<ul style="list-style-type: none"> Inspect and adjust. Check lining thickness and drum wear 	
Wheel bearings	<ul style="list-style-type: none"> Replace bearings, seals and lubricate. Check stub axle condition and wear. Replace split pin. 	
Wheel Nuts	<ul style="list-style-type: none"> Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims) (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> Inspect for abnormal wear, damage, and pressure. Check manufacturing date less than 5 years. Check sidewalls for perishing and damage. 	
12 volt electrical		
Lights	<ul style="list-style-type: none"> Check all trailer lights are functioning. Check plug pins have gap. Check for corrosion 	
Battery	<ul style="list-style-type: none"> Check terminals and voltage at full charge. Check batteries are secure in cradles 	
Charging	<ul style="list-style-type: none"> Check battery charger settings are correct. Check DC to DC charger settings are correct 	
Solar Panels	<ul style="list-style-type: none"> Check panels are free of damage. Inspect sealants on cable penetrations and junction boxes 	
Cables	<ul style="list-style-type: none"> Inspect cables under body for damage to conduits. Inspect cable glands and sealants on penetrations through floor 	
240 volt Electrical		
RCD Unit	<ul style="list-style-type: none"> Check operation of RCD via test button 	
Mains Input	<ul style="list-style-type: none"> Inspect mains input plug and cover are free of damage 	
Earthing	<ul style="list-style-type: none"> Carry out resistance check 	
Caravan Body		
Hatches & Doors	<ul style="list-style-type: none"> Check and lubricate locks 	
Seals	<ul style="list-style-type: none"> Check condition and correct latch/lock adjustment for correct 30-50% compression 	

Body	<ul style="list-style-type: none"> • Inspect joint sealants inside and out. • Ensuite joints checked for damage and adhesion. • Inspect for soft spots on floor 	
General fixings	<ul style="list-style-type: none"> • Check all structural fixing are secure. 	
Ventilation	<ul style="list-style-type: none"> • Inspect for obstruction and vents operating correctly 	
Fire Extinguisher	<ul style="list-style-type: none"> • Inspect extinguisher is charged and within service date 	
Smoke Alarm	<ul style="list-style-type: none"> • Test and inspect. • Replace battery 	
Window Blinds	<ul style="list-style-type: none"> • Inspect and adjust tension where necessary 	
Damp Check	<ul style="list-style-type: none"> • Inspect caravan for any dampness. 	
Plumbing		
Hot Water System	<ul style="list-style-type: none"> • De-scale hot water service 	
Water Tanks	<ul style="list-style-type: none"> • Treat tanks and entire system with bacteria killing tank cleaner and flush. 	
Grey Water Tank	<ul style="list-style-type: none"> • Treat with tank cleaner and flush. 	
Drain Fittings	<ul style="list-style-type: none"> • Check all metal drain fittings for corrosion 	
Water System	<ul style="list-style-type: none"> • Inspect for leaks. Turn on pump and ensure it doesn't start due to loss of pressure. 	
Service Centre:	Notes:	

30 MONTHS / 25,000KM SERVICE		CHECKED
Hitch	<ul style="list-style-type: none"> • Check hitch bolts to 76Nm 	
Handbrake	<ul style="list-style-type: none"> • Check cable and adjust if necessary 	
Hand winch	<ul style="list-style-type: none"> • Check brake function and webbing 	
Suspension	<ul style="list-style-type: none"> • Lubricate and check bushes for excess movement. • Torque bolts to 190Nm 	
Brakes	<ul style="list-style-type: none"> • Inspect and adjust. Check lining thickness and drum wear 	
Wheel bearings	<ul style="list-style-type: none"> • Remove, clean and re-lubricate. Inspect for wear and replace if necessary 	
Wheel Nuts	<ul style="list-style-type: none"> • Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims), (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> • Inspect for abnormal wear, damage, and pressure 	
Lights	<ul style="list-style-type: none"> • Check all lights are functioning 	
Battery	<ul style="list-style-type: none"> • Check terminals and voltage at full charge 	
Seals	<ul style="list-style-type: none"> • Check condition and correct latch/lock adjustment for correct 30-50% compression 	
General fixings	<ul style="list-style-type: none"> • Check all structural fixing are secure. 	
Seals & Latches	<ul style="list-style-type: none"> • Check all seals on doors and hatches compress 30-50%. All seals in serviceable condition and free of damage. 	
Suspension	<ul style="list-style-type: none"> • Grease bushes and check for play. • Check torque on suspension hanger bolts (190nm) • Check retaining chain shackles tight. 	
Service Centre:	Notes:	

36 MONTHS / 30,000KM SERVICE		CHECKED
Chassis and Suspension		
Hitch	<ul style="list-style-type: none"> Inspect for damage and lubricate. Check bolt Torque to 76Nm 	
Jockey Wheel	<ul style="list-style-type: none"> Inspect for condition and operation 	
Breakaway	<ul style="list-style-type: none"> Check for correct operation. Inspect lanyard and clip 	
Drawbar	<ul style="list-style-type: none"> Inspect wiring grommets and general condition 	
Suspension	<ul style="list-style-type: none"> Torque bolts to 190Nm Grease bushes and check for play. Check torque on suspension hanger bolts (190nm) Check retaining chain shackles tight. Inspect shock absorber for condition. Inspect shock absorber bushes 	
Brakes	<ul style="list-style-type: none"> Inspect and adjust. Check lining thickness and drum wear 	
Wheel bearings	<ul style="list-style-type: none"> Replace bearings, seals and lubricate. Check stub axle condition and wear. Replace split pin. 	
Wheel Nuts	<ul style="list-style-type: none"> Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims) (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> Inspect for abnormal wear, damage, and pressure. Check manufacturing date less than 5 years. Check sidewalls for perishing and damage. 	
12 volt electrical		
Lights	<ul style="list-style-type: none"> Check all trailer lights are functioning. Check plug pins have gap. Check for corrosion 	
Battery	<ul style="list-style-type: none"> Check terminals and voltage at full charge. Check batteries are secure in cradles 	
Charging	<ul style="list-style-type: none"> Check battery charger settings are correct. Check DC to DC charger settings are correct 	
Solar Panels	<ul style="list-style-type: none"> Check panels are free of damage. Inspect sealants on cable penetrations and junction boxes 	
Cables	<ul style="list-style-type: none"> Inspect cables under body for damage to conduits. Inspect cable glands and sealants on penetrations through floor 	
240 volt Electrical		
RCD Unit	<ul style="list-style-type: none"> Check operation of RCD via test button 	
Mains Input	<ul style="list-style-type: none"> Inspect mains input plug and cover are free of damage 	
Earthing	<ul style="list-style-type: none"> Carry out resistance check 	
Caravan Body		
Hatches & Doors	<ul style="list-style-type: none"> Check and lubricate locks 	
Seals	<ul style="list-style-type: none"> Check condition and correct latch/lock adjustment for correct 30-50% compression 	

Body	<ul style="list-style-type: none"> • Inspect joint sealants inside and out. • Ensuite joints checked for damage and adhesion. • Inspect for soft spots on floor 	
General fixings	<ul style="list-style-type: none"> • Check all structural fixing are secure. 	
Ventilation	<ul style="list-style-type: none"> • Inspect for obstruction and vents operating correctly 	
Fire Extinguisher	<ul style="list-style-type: none"> • Inspect extinguisher is charged and within service date 	
Smoke Alarm	<ul style="list-style-type: none"> • Test and inspect. • Replace battery 	
Window Blinds	<ul style="list-style-type: none"> • Inspect and adjust tension where necessary 	
Damp Check	<ul style="list-style-type: none"> • Inspect caravan for any dampness. 	
Plumbing		
Hot Water System	<ul style="list-style-type: none"> • De-scale hot water service 	
Water Tanks	<ul style="list-style-type: none"> • Treat tanks and entire system with bacteria killing tank cleaner and flush. 	
Grey Water Tank	<ul style="list-style-type: none"> • Treat with tank cleaner and flush. 	
Drain Fittings	<ul style="list-style-type: none"> • Check all metal drain fittings for corrosion 	
Water System	<ul style="list-style-type: none"> • Inspect for leaks. Turn on pump and ensure it doesn't start due to loss of pressure. 	
Service Centre:	Notes:	

42 MONTHS / 35,000KM SERVICE		CHECKED
Hitch	<ul style="list-style-type: none"> • Check hitch bolts to 76Nm 	
Handbrake	<ul style="list-style-type: none"> • Check cable and adjust if necessary 	
Hand winch	<ul style="list-style-type: none"> • Check brake function and webbing 	
Suspension	<ul style="list-style-type: none"> • Lubricate and check bushes for excess movement. • Torque bolts to 190Nm 	
Brakes	<ul style="list-style-type: none"> • Inspect and adjust. Check lining thickness and drum wear 	
Wheel bearings	<ul style="list-style-type: none"> • Remove, clean and re-lubricate. Inspect for wear and replace if necessary 	
Wheel Nuts	<ul style="list-style-type: none"> • Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims), (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> • Inspect for abnormal wear, damage, and pressure 	
Lights	<ul style="list-style-type: none"> • Check all lights are functioning 	
Battery	<ul style="list-style-type: none"> • Check terminals and voltage at full charge 	
Seals	<ul style="list-style-type: none"> • Check condition and correct latch/lock adjustment for correct 30-50% compression 	
General fixings	<ul style="list-style-type: none"> • Check all structural fixing are secure. 	
Seals & Latches	<ul style="list-style-type: none"> • Check all seals on doors and hatches compress 30-50%. All seals in serviceable condition and free of damage. 	
Suspension	<ul style="list-style-type: none"> • Grease bushes and check for play. • Check torque on suspension hanger bolts (190nm) • Check retaining chain shackles tight. 	
Service Centre:	Notes:	

48 MONTHS / 40,000KM SERVICE		CHECKED
Chassis and Suspension		
Hitch	<ul style="list-style-type: none"> Inspect for damage and lubricate. Check bolt Torque to 76Nm 	
Jockey Wheel	<ul style="list-style-type: none"> Inspect for condition and operation 	
Breakaway	<ul style="list-style-type: none"> Check for correct operation. Inspect lanyard and clip 	
Drawbar	<ul style="list-style-type: none"> Inspect wiring grommets and general condition 	
Suspension	<ul style="list-style-type: none"> Torque bolts to 190Nm Grease bushes and check for play. Check torque on suspension hanger bolts (190nm) Check retaining chain shackles tight. Inspect shock absorber for condition. Inspect shock absorber bushes 	
Brakes	<ul style="list-style-type: none"> Inspect and adjust. Check lining thickness and drum wear 	
Wheel bearings	<ul style="list-style-type: none"> Replace bearings, seals and lubricate. Check stub axle condition and wear. Replace split pin. 	
Wheel Nuts	<ul style="list-style-type: none"> Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims) (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> Inspect for abnormal wear, damage, and pressure. Check manufacturing date less than 5 years. Check sidewalls for perishing and damage. 	
12 volt electrical		
Lights	<ul style="list-style-type: none"> Check all trailer lights are functioning. Check plug pins have gap. Check for corrosion 	
Battery	<ul style="list-style-type: none"> Check terminals and voltage at full charge. Check batteries are secure in cradles 	
Charging	<ul style="list-style-type: none"> Check battery charger settings are correct. Check DC to DC charger settings are correct 	
Solar Panels	<ul style="list-style-type: none"> Check panels are free of damage. Inspect sealants on cable penetrations and junction boxes 	
Cables	<ul style="list-style-type: none"> Inspect cables under body for damage to conduits. Inspect cable glands and sealants on penetrations through floor 	
240 volt Electrical		
RCD Unit	<ul style="list-style-type: none"> Check operation of RCD via test button 	
Mains Input	<ul style="list-style-type: none"> Inspect mains input plug and cover are free of damage 	
Earthing	<ul style="list-style-type: none"> Carry out resistance check 	
Caravan Body		
Hatches & Doors	<ul style="list-style-type: none"> Check and lubricate locks 	
Seals	<ul style="list-style-type: none"> Check condition and correct latch/lock adjustment for correct 30-50% compression 	

Body	<ul style="list-style-type: none"> • Inspect joint sealants inside and out. • Ensuite joints checked for damage and adhesion. • Inspect for soft spots on floor 	
General fixings	<ul style="list-style-type: none"> • Check all structural fixing are secure. 	
Ventilation	<ul style="list-style-type: none"> • Inspect for obstruction and vents operating correctly 	
Fire Extinguisher	<ul style="list-style-type: none"> • Inspect extinguisher is charged and within service date 	
Smoke Alarm	<ul style="list-style-type: none"> • Test and inspect. • Replace battery 	
Window Blinds	<ul style="list-style-type: none"> • Inspect and adjust tension where necessary 	
Damp Check	<ul style="list-style-type: none"> • Inspect caravan for any dampness. 	
Plumbing		
Hot Water System	<ul style="list-style-type: none"> • De-scale hot water service 	
Water Tanks	<ul style="list-style-type: none"> • Treat tanks and entire system with bacteria killing tank cleaner and flush. 	
Grey Water Tank	<ul style="list-style-type: none"> • Treat with tank cleaner and flush. 	
Drain Fittings	<ul style="list-style-type: none"> • Check all metal drain fittings for corrosion 	
Water System	<ul style="list-style-type: none"> • Inspect for leaks. Turn on pump and ensure it doesn't start due to loss of pressure. 	
Service Centre:	Notes:	

54 MONTHS / 45,000KM SERVICE		CHECKED
Hitch	<ul style="list-style-type: none"> • Check hitch bolts to 76Nm 	
Handbrake	<ul style="list-style-type: none"> • Check cable and adjust if necessary 	
Hand winch	<ul style="list-style-type: none"> • Check brake function and webbing 	
Suspension	<ul style="list-style-type: none"> • Lubricate and check bushes for excess movement. • Torque bolts to 190Nm 	
Brakes	<ul style="list-style-type: none"> • Inspect and adjust. Check lining thickness and drum wear 	
Wheel bearings	<ul style="list-style-type: none"> • Remove, clean and re-lubricate. Inspect for wear and replace if necessary 	
Wheel Nuts	<ul style="list-style-type: none"> • Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims), (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> • Inspect for abnormal wear, damage, and pressure 	
Lights	<ul style="list-style-type: none"> • Check all lights are functioning 	
Battery	<ul style="list-style-type: none"> • Check terminals and voltage at full charge 	
Seals	<ul style="list-style-type: none"> • Check condition and correct latch/lock adjustment for correct 30-50% compression 	
General fixings	<ul style="list-style-type: none"> • Check all structural fixing are secure. 	
Seals & Latches	<ul style="list-style-type: none"> • Check all seals on doors and hatches compress 30-50%. All seals in serviceable condition and free of damage. 	
Suspension	<ul style="list-style-type: none"> • Grease bushes and check for play. • Check torque on suspension hanger bolts (190nm) • Check retaining chain shackles tight. 	
Service Centre:	Notes:	

60 MONTHS / 50,000KM SERVICE		CHECKED
Chassis and Suspension		
Hitch	<ul style="list-style-type: none"> Inspect for damage and lubricate. Check bolt Torque to 76Nm 	
Jockey Wheel	<ul style="list-style-type: none"> Inspect for condition and operation 	
Breakaway	<ul style="list-style-type: none"> Check for correct operation. Inspect lanyard and clip 	
Drawbar	<ul style="list-style-type: none"> Inspect wiring grommets and general condition 	
Suspension	<ul style="list-style-type: none"> Torque bolts to 190Nm Grease bushes and check for play. Check torque on suspension hanger bolts (190nm) Check retaining chain shackles tight. Inspect shock absorber for condition. Inspect shock absorber bushes 	
Brakes	<ul style="list-style-type: none"> Inspect and adjust. Check lining thickness and drum wear 	
Wheel bearings	<ul style="list-style-type: none"> Replace bearings, seals and lubricate. Check stub axle condition and wear. Replace split pin. 	
Wheel Nuts	<ul style="list-style-type: none"> Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims) (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> Inspect for abnormal wear, damage, and pressure. Check manufacturing date less than 5 years. Check sidewalls for perishing and damage. 	
12 volt electrical		
Lights	<ul style="list-style-type: none"> Check all trailer lights are functioning. Check plug pins have gap. Check for corrosion 	
Battery	<ul style="list-style-type: none"> Check terminals and voltage at full charge. Check batteries are secure in cradles 	
Charging	<ul style="list-style-type: none"> Check battery charger settings are correct. Check DC to DC charger settings are correct 	
Solar Panels	<ul style="list-style-type: none"> Check panels are free of damage. Inspect sealants on cable penetrations and junction boxes 	
Cables	<ul style="list-style-type: none"> Inspect cables under body for damage to conduits. Inspect cable glands and sealants on penetrations through floor 	
240 volt Electrical		
RCD Unit	<ul style="list-style-type: none"> Check operation of RCD via test button 	
Mains Input	<ul style="list-style-type: none"> Inspect mains input plug and cover are free of damage 	
Earthing	<ul style="list-style-type: none"> Carry out resistance check 	
Caravan Body		
Hatches & Doors	<ul style="list-style-type: none"> Check and lubricate locks 	
Seals	<ul style="list-style-type: none"> Check condition and correct latch/lock adjustment for correct 30-50% compression 	

Body	<ul style="list-style-type: none"> • Inspect joint sealants inside and out. • Ensuite joints checked for damage and adhesion. • Inspect for soft spots on floor 	
General fixings	<ul style="list-style-type: none"> • Check all structural fixing are secure. 	
Ventilation	<ul style="list-style-type: none"> • Inspect for obstruction and vents operating correctly 	
Fire Extinguisher	<ul style="list-style-type: none"> • Inspect extinguisher is charged and within service date 	
Smoke Alarm	<ul style="list-style-type: none"> • Test and inspect. • Replace battery 	
Window Blinds	<ul style="list-style-type: none"> • Inspect and adjust tension where necessary 	
Damp Check	<ul style="list-style-type: none"> • Inspect caravan for any dampness. 	
Plumbing		
Hot Water System	<ul style="list-style-type: none"> • De-scale hot water service 	
Water Tanks	<ul style="list-style-type: none"> • Treat tanks and entire system with bacteria killing tank cleaner and flush. 	
Grey Water Tank	<ul style="list-style-type: none"> • Treat with tank cleaner and flush. 	
Drain Fittings	<ul style="list-style-type: none"> • Check all metal drain fittings for corrosion 	
Water System	<ul style="list-style-type: none"> • Inspect for leaks. Turn on pump and ensure it doesn't start due to loss of pressure. 	
Service Centre:	Notes:	

66 MONTHS / 55,000KM SERVICE		CHECKED
Hitch	<ul style="list-style-type: none"> • Check hitch bolts to 76Nm 	
Handbrake	<ul style="list-style-type: none"> • Check cable and adjust if necessary 	
Hand winch	<ul style="list-style-type: none"> • Check brake function and webbing 	
Suspension	<ul style="list-style-type: none"> • Lubricate and check bushes for excess movement. • Torque bolts to 190Nm 	
Brakes	<ul style="list-style-type: none"> • Inspect and adjust. Check lining thickness and drum wear 	
Wheel bearings	<ul style="list-style-type: none"> • Remove, clean and re-lubricate. Inspect for wear and replace if necessary 	
Wheel Nuts	<ul style="list-style-type: none"> • Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims), (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> • Inspect for abnormal wear, damage, and pressure 	
Lights	<ul style="list-style-type: none"> • Check all lights are functioning 	
Battery	<ul style="list-style-type: none"> • Check terminals and voltage at full charge 	
Seals	<ul style="list-style-type: none"> • Check condition and correct latch/lock adjustment for correct 30-50% compression 	
General fixings	<ul style="list-style-type: none"> • Check all structural fixing are secure. 	
Seals & Latches	<ul style="list-style-type: none"> • Check all seals on doors and hatches compress 30-50%. All seals in serviceable condition and free of damage. 	
Suspension	<ul style="list-style-type: none"> • Grease bushes and check for play. • Check torque on suspension hanger bolts (190nm) • Check retaining chain shackles tight. 	
Service Centre:	Notes:	

72 MONTHS / 60,000KM SERVICE		CHECKED
Chassis and Suspension		
Hitch	<ul style="list-style-type: none"> Inspect for damage and lubricate. Check bolt Torque to 76Nm 	
Jockey Wheel	<ul style="list-style-type: none"> Inspect for condition and operation 	
Breakaway	<ul style="list-style-type: none"> Check for correct operation. Inspect lanyard and clip 	
Drawbar	<ul style="list-style-type: none"> Inspect wiring grommets and general condition 	
Suspension	<ul style="list-style-type: none"> Torque bolts to 190Nm Grease bushes and check for play. Check torque on suspension hanger bolts (190nm) Check retaining chain shackles tight. Inspect shock absorber for condition. Inspect shock absorber bushes 	
Brakes	<ul style="list-style-type: none"> Inspect and adjust. Check lining thickness and drum wear 	
Wheel bearings	<ul style="list-style-type: none"> Replace bearings, seals and lubricate. Check stub axle condition and wear. Replace split pin. 	
Wheel Nuts	<ul style="list-style-type: none"> Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims) (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> Inspect for abnormal wear, damage, and pressure. Check manufacturing date less than 5 years. Check sidewalls for perishing and damage. 	
12 volt electrical		
Lights	<ul style="list-style-type: none"> Check all trailer lights are functioning. Check plug pins have gap. Check for corrosion 	
Battery	<ul style="list-style-type: none"> Check terminals and voltage at full charge. Check batteries are secure in cradles 	
Charging	<ul style="list-style-type: none"> Check battery charger settings are correct. Check DC to DC charger settings are correct 	
Solar Panels	<ul style="list-style-type: none"> Check panels are free of damage. Inspect sealants on cable penetrations and junction boxes 	
Cables	<ul style="list-style-type: none"> Inspect cables under body for damage to conduits. Inspect cable glands and sealants on penetrations through floor 	
240 volt Electrical		
RCD Unit	<ul style="list-style-type: none"> Check operation of RCD via test button 	
Mains Input	<ul style="list-style-type: none"> Inspect mains input plug and cover are free of damage 	
Earthing	<ul style="list-style-type: none"> Carry out resistance check 	
Caravan Body		
Hatches & Doors	<ul style="list-style-type: none"> Check and lubricate locks 	
Seals	<ul style="list-style-type: none"> Check condition and correct latch/lock adjustment for correct 30-50% compression 	

Body	<ul style="list-style-type: none"> • Inspect joint sealants inside and out. • Ensuite joints checked for damage and adhesion. • Inspect for soft spots on floor 	
General fixings	<ul style="list-style-type: none"> • Check all structural fixing are secure. 	
Ventilation	<ul style="list-style-type: none"> • Inspect for obstruction and vents operating correctly 	
Fire Extinguisher	<ul style="list-style-type: none"> • Inspect extinguisher is charged and within service date 	
Smoke Alarm	<ul style="list-style-type: none"> • Test and inspect. • Replace battery 	
Window Blinds	<ul style="list-style-type: none"> • Inspect and adjust tension where necessary 	
Damp Check	<ul style="list-style-type: none"> • Inspect caravan for any dampness. 	
Plumbing		
Hot Water System	<ul style="list-style-type: none"> • De-scale hot water service 	
Water Tanks	<ul style="list-style-type: none"> • Treat tanks and entire system with bacteria killing tank cleaner and flush. 	
Grey Water Tank	<ul style="list-style-type: none"> • Treat with tank cleaner and flush. 	
Drain Fittings	<ul style="list-style-type: none"> • Check all metal drain fittings for corrosion 	
Water System	<ul style="list-style-type: none"> • Inspect for leaks. Turn on pump and ensure it doesn't start due to loss of pressure. 	
Service Centre:	Notes:	

78 MONTHS / 65,000KM SERVICE		CHECKED
Hitch	<ul style="list-style-type: none"> • Check hitch bolts to 76Nm 	
Handbrake	<ul style="list-style-type: none"> • Check cable and adjust if necessary 	
Hand winch	<ul style="list-style-type: none"> • Check brake function and webbing 	
Suspension	<ul style="list-style-type: none"> • Lubricate and check bushes for excess movement. • Torque bolts to 190Nm 	
Brakes	<ul style="list-style-type: none"> • Inspect and adjust. Check lining thickness and drum wear 	
Wheel bearings	<ul style="list-style-type: none"> • Remove, clean and re-lubricate. Inspect for wear and replace if necessary 	
Wheel Nuts	<ul style="list-style-type: none"> • Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims), (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> • Inspect for abnormal wear, damage, and pressure 	
Lights	<ul style="list-style-type: none"> • Check all lights are functioning 	
Battery	<ul style="list-style-type: none"> • Check terminals and voltage at full charge 	
Seals	<ul style="list-style-type: none"> • Check condition and correct latch/lock adjustment for correct 30-50% compression 	
General fixings	<ul style="list-style-type: none"> • Check all structural fixing are secure. 	
Seals & Latches	<ul style="list-style-type: none"> • Check all seals on doors and hatches compress 30-50%. All seals in serviceable condition and free of damage. 	
Suspension	<ul style="list-style-type: none"> • Grease bushes and check for play. • Check torque on suspension hanger bolts (190nm) • Check retaining chain shackles tight. 	
Service Centre:	Notes:	

84 MONTHS / 70,000KM SERVICE		CHECKED
Chassis and Suspension		
Hitch	<ul style="list-style-type: none"> Inspect for damage and lubricate. Check bolt Torque to 76Nm 	
Jockey Wheel	<ul style="list-style-type: none"> Inspect for condition and operation 	
Breakaway	<ul style="list-style-type: none"> Check for correct operation. Inspect lanyard and clip 	
Drawbar	<ul style="list-style-type: none"> Inspect wiring grommets and general condition 	
Suspension	<ul style="list-style-type: none"> Torque bolts to 190Nm Grease bushes and check for play. Check torque on suspension hanger bolts (190nm) Check retaining chain shackles tight. Inspect shock absorber for condition. Inspect shock absorber bushes 	
Brakes	<ul style="list-style-type: none"> Inspect and adjust. Check lining thickness and drum wear 	
Wheel bearings	<ul style="list-style-type: none"> Replace bearings, seals and lubricate. Check stub axle condition and wear. Replace split pin. 	
Wheel Nuts	<ul style="list-style-type: none"> Inspect condition and torque to 125Nm (12mm studs) (140Nm 14mm studs alloy rims) (200Nm 14mm studs steel rims) 	
Tyres	<ul style="list-style-type: none"> Inspect for abnormal wear, damage, and pressure. Check manufacturing date less than 5 years. Check sidewalls for perishing and damage. 	
12 volt electrical		
Lights	<ul style="list-style-type: none"> Check all trailer lights are functioning. Check plug pins have gap. Check for corrosion 	
Battery	<ul style="list-style-type: none"> Check terminals and voltage at full charge. Check batteries are secure in cradles 	
Charging	<ul style="list-style-type: none"> Check battery charger settings are correct. Check DC to DC charger settings are correct 	
Solar Panels	<ul style="list-style-type: none"> Check panels are free of damage. Inspect sealants on cable penetrations and junction boxes 	
Cables	<ul style="list-style-type: none"> Inspect cables under body for damage to conduits. Inspect cable glands and sealants on penetrations through floor 	
240 volt Electrical		
RCD Unit	<ul style="list-style-type: none"> Check operation of RCD via test button 	
Mains Input	<ul style="list-style-type: none"> Inspect mains input plug and cover are free of damage 	
Earthing	<ul style="list-style-type: none"> Carry out resistance check 	
Caravan Body		
Hatches & Doors	<ul style="list-style-type: none"> Check and lubricate locks 	
Seals	<ul style="list-style-type: none"> Check condition and correct latch/lock adjustment for correct 30-50% compression 	

Body	<ul style="list-style-type: none"> • Inspect joint sealants inside and out. • Ensuite joints checked for damage and adhesion. • Inspect for soft spots on floor 	
General fixings	<ul style="list-style-type: none"> • Check all structural fixing are secure. 	
Ventilation	<ul style="list-style-type: none"> • Inspect for obstruction and vents operating correctly 	
Fire Extinguisher	<ul style="list-style-type: none"> • Inspect extinguisher is charged and within service date 	
Smoke Alarm	<ul style="list-style-type: none"> • Test and inspect. • Replace battery 	
Window Blinds	<ul style="list-style-type: none"> • Inspect and adjust tension where necessary 	
Damp Check	<ul style="list-style-type: none"> • Inspect caravan for any dampness. 	
Plumbing		
Hot Water System	<ul style="list-style-type: none"> • De-scale hot water service 	
Water Tanks	<ul style="list-style-type: none"> • Treat tanks and entire system with bacteria killing tank cleaner and flush. 	
Grey Water Tank	<ul style="list-style-type: none"> • Treat with tank cleaner and flush. 	
Drain Fittings	<ul style="list-style-type: none"> • Check all metal drain fittings for corrosion 	
Water System	<ul style="list-style-type: none"> • Inspect for leaks. Turn on pump and ensure it doesn't start due to loss of pressure. 	
Service Centre:	Notes:	

Warranty Statement

The following information relates to warranties offered by AUSRV. Please read all the information carefully, and should you have any questions relating to any aspect of this section, then please contact AUSRV. By purchasing an item from AUSRV, you hereby agree to all terms and conditions of warranty as set out herein.

Validity of Claims

- Warranties are only valid to the original purchaser of the item in question and are valid from the original date of purchase only.
- Warranties apply only to items sold as “new” and do not extend to any items sold via auction, or deemed to be “factory seconds”, “ex-demonstration” or “damaged” unless specifically stated otherwise by AUSRV in writing. (Please see further on this page for more information).
- Warranties are not transferable under any circumstances. Similarly, if an item is sold to a third party by the original purchaser, then all warranties become null and void, and the original purchaser shall make no claims or be eligible for any claims on behalf of the new owner.
- Warranties do not apply to products purchased from AUSRV and then used in hire schemes or as rentals.
- AUSRV does not cover damage due to unauthorised modifications, misuse, abuse, incorrect assembly, improper and irregular maintenance, or accident or collision.
- Any work performed under an authorised warranty claim approved by AUSRV must be performed by AUSRV, or an authorised representative of AUSRV and only with the express written permission of AUSRV.
- Any affiliates, representatives, associates, agents, suppliers, resellers or similar of AUSRV shall have no authority to authorise or deny warranty claims on behalf of AUSRV.

AUSRV shall not be liable, (in part or whole) for any warranties, either express or implied, made by agents or resellers on behalf of AUSRV without the knowledge or express written permission of AUSRV. Such unauthorised claims shall be the responsibility of the agent or reseller only.

Caravans

Unless stated otherwise, caravans & trailers only are covered by a 12 month limited manufacturer’s warranty from the original date of purchase.

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.

Items not covered under warranty include:

- Rust
- Wheels and Tyres
- Paint
- Travel Covers and Straps
- General consumables (e.g. bearings, light bulbs etc)
- Zips and mesh or screens are not covered.

In addition to AUSRV 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

Tents

Tents are guaranteed to be in new merchantable condition at the time of purchase. A limited manufacturer's warranty period of 12 Months applies to AUSRV canvas components, poles and fittings. General wear and tear excepted.

Factory Seconds, Ex-Demonstration and Damaged Goods

From time to time, AUSRV may offer for sale items deemed to be "factory seconds", "ex-demonstration", or "damaged".

Any items sold as "factory seconds", "ex-demonstration" or "damaged" items are sold on an "as is" basis.

There are no warranties, refunds, credits, exchanges or similar associated with such items. In the sale of such items, AusRV Caravans will attempt to provide all relevant information regarding the item, including faults, defects, or similar, however, there may be instances where minor defects or imperfections have been overlooked. This is PURELY UNINTENTIONAL and in no way alters the nature of the sale.

Due to the nature of such items, i.e., being "ex-demonstration", "factory seconds" or "damaged", it is reasonable to expect that some imperfections or flaws may exist even where it is not initially apparent. By purchasing such an item, you agree to this statement in full and accept that there are no warranties implied or expressed.

Goods Bought at Auction

From time to time, AUSRV, may, at its discretion, offer items for auction, either independently or via a third party. Whilst every effort will be made to provide all relevant information regarding the item on auction, as per Australian law, any and all goods bought at auction subsequently do not carry any statutory warranty. Unless specifically stated in writing, and goods sold at auction by, or on behalf of AUSRV shall carry no warranty.

Lodging a Claim

All warranty claims MUST BE LODGED through our website using our online Warranty Claim Form.

Contact

If you have any further questions relating to warranties, or are unsure about any aspect of this section, then please contact us.

Phone: 1300 865 397

Supplier Details

Dometic https://www.dometic.com/en-au/au/contact-us	Thetford Australia Address: 41 Lara Way, Campbellfield VIC 3061 Phone: (03) 9358 0700 Email: infoaus@thetford.com.au
Cruisemaster Address: 352B Bilsen Road, Geebung QLD 4034 Phone: (07) 3624 3800 Email: sales@cruisemaster.com.au	Leisure-Tec Australia Pty Ltd (Truma Hot Water) 50 Metrolink Circuit Campbellfield VIC 3061 Phone: 1300 072018
Statewide Bearings	
Coopers Plains Address: 902 Beaudesert Rd Coopers Plains QLD 4108 Phone: (07) 3717 4444 Email: coopersplains@statewidebearings.com.au	Cairns Unit3, 49 Cook St Cairns QLD 4870 Phone: (07) 4035 1800 Email: cairns@statewidebearings.com.au
Virginia Unit 2, 90 Pritchard Rd Virginia QLD 4014 Phone: (07) 3265 2666 Email: virginia@statewidebearings.com.au	Mackay 59 Central Park Drive, Paget QLD 4740 Ph: (07) 4952 6660 Email: mackay@statewidebearings.com.au
Rockhampton 67 Denham Street Rockhampton, QLD 4700 Ph: (07) 4927 2677 Email: rockhampton@statewidebearings.com.au	Townsville Unit 2, 502 Woolcock Street, Garbutt QLD 4814 Ph: (07) 4758 8855 Email: townsville@statewidebearings.com.au
Beresfield 11 Yilen Close, Beresfield NSW 2322 Ph: (02) 4041 6444 Email: beresfield@statewidebearings.com.au	Smithfield Unit 4, 8 Cooper Street Smithfield, NSW 2164 Ph: 02 9616 0000 Email: smithfield@statewidebearings.com.au
Wollongong Unit 4, 222 Berkeley Road, Unanderra NSW 2526 Ph: (02) 4272 2377 Email: wollongong@statewidebearings.com.au	Kewdale 67 Kewdale Road, Kewdale WA 6105 Ph: (08) 9352 2200 Email: kewdale@statewidebearings.com.au
Albany 80 Chester Pass Road, Albany WA 6330 Ph: (08) 9842 2488 Email: albany@statewidebearings.com.au	Bibra Lake Unit 6, 30 Salpietro Street, Bibra Lake WA 6163 Ph: (08) 9434 9555 Email: bibralake@statewidebearings.com.au
Belmont 5 Hargreaves Street, Belmont WA 6104 Ph: (08) 9478 2444 Email: belmont@statewidebearings.com.au	Bunbury 42 McCombe Road, Davenport, WA 6230 Ph: (08) 9724 9100 Email: bunbury@statewidebearings.com.au

Handover Video



Scan the code or go to
https://youtu.be/dEOKqIUxy_Y

Annex Setup Tuition



Scan the code or go to
<https://youtu.be/YejDDYCX9p0>

Setup Tuition



Scan the code or go to
<https://youtu.be/8wEHmdZHBrQ>

External Ensuite Setup



Scan the code or go to
<https://youtu.be/UEASY5IZZvA>

Pack Down Tuition



Scan the code or go to
<https://youtu.be/cKIXK5UgkGE>

Coming Soon