



CONWAY

F r e e d o m f o r L i f e

USERS MANUAL

ISSUE 001



Freedom for Life

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Dear Owner,

Thank you for buying Conway, we trust the hints and information in this handbook will enhance your knowledge of the product, thereby giving you and your family many happy years of enjoyable camping.

This handbook is intended to be a general guide to the safe use, care and maintenance of your trailer tent or folding camper.

Due to a policy of continual improvements and updates of appliances fitted to Conway units such as fridges, cookers, heaters and electrical components, specific user instructions supplied by the appliance manufacturers have been enclosed in addition to this handbook. All trailers are inspected before leaving the factory. By now you should have inspected your unit along with the dealer to confirm its condition and contents before leaving his premises.

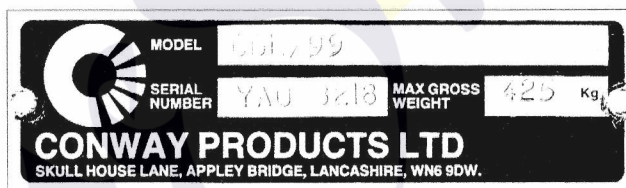
We regret that Conway cannot be held responsible for any expense incurred by failure to inspect the unit and its contents or to weather the canvas fully before use. Any queries you may have, which are not covered by this handbook should first be addressed to your Conway appointed dealer.

Any queries that your dealer cannot resolve should be placed in writing to Conway Products quoting dealer, model number and serial number, (which can be found on the chassis plate fixed to the chassis), and date purchased.

M.J. Robinson

Sales Director (Designate) - Conway Products Limited

Owners Information



A Chassis plate is fitted to the front chassis/drawbar, e.g. The model number indicates type and model year. The serial number is unique to your model. The maximum gross weight, i.e. trailer and contents must not exceed shown weight.

It is strongly recommended that the above information plus name, address and telephone number of your dealer, date of purchase and all key numbers are recorded for security, insurance and after sales purposes.

Conway Service Statement

1. Conway Products Ltd (hereinafter called 'the company') warrants that the owner of a trailer tent or folding camper (hereinafter called the trailer) manufactured by the company will, subject to the conditions specified before, receive the following service free of all charges (including labour charges) from the authorised Conway Products Ltd dealer from whom the trailer was purchased.

The repair or replacement of any part (except those mentioned hereinafter) of the trailer which as a result of defective material or workmanship in manufacture requires repair or replacement within twelve months from the date on which the trailer was released in a new and unused state by the dealer to its first owner.

the conditions mentioned above are:

- That the trailer has not been overloaded or used for hire or reward or otherwise misused.
- That the trailer has been maintained in accordance with Conway Products Ltd Owner's Handbook Maintenance Instructions supplied with each trailer.
- That neither the trailer or any part has been altered, modified or repaired without the company's prior written consent



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- d) That the chassis plate information on the trailer has not been removed or defaced.
- e) That the trailer has not been used on roads or in conditions not suitable for a trailer.
- F) That the owner notifies the dealer from whom the trailer was purchased of the alleged defect within two weeks of discovering it. The notification should be in writing and should specify the model, model number and serial number of the trailer and give sufficient details to enable the matter complained of to be identified.
- g) That the trailer is used only in the United Kingdom (other than temporary removals outside the United Kingdom for the purpose of a holiday or business tour).

The excepted parts referred to are tyres, hubs, couplings and proprietary products such as cookers, refrigerators and heaters normally covered by the respective manufacturer's own guarantee. The warranty terms do not cover the cost of returning the trailer to the place of repair.

- 2. The company's agents have no authority to vary the terms of this statement.
- 3. In this statement the words 'the owner' means the

purchaser or the hirer under a hire purchase agreement and the words 'authorised dealer' means a person, firm or company under contract with Conway Products Ltd to supply or service Conway trailers.

- 4. Nothing in this Conway Service Statement affects the owner's statutory rights in respect of the trailer.

Conway Mission Statement

Conway will meet the customers expectations in terms of product, quality and service whilst maintaining an acceptable profit margin.

WEATHERING - Essential Before Use

Any new trailer tent/folding camper that has a cotton canvas may possibly leak at the seams, roof tie tapes and curtain and door ties or let fine spray through the roof and walls when subjected to heavy rain for the first time. This is perfectly normal for a new un-weathered canvas.

Controlled weathering is needed to overcome this situation before use on holiday.

The canvas has been specially woven and dyed and finally impregnated by submersion in a waterproofing agent. However, it is not until the new fibres have been in contact with water, causing initial shrinkage and therefore tightening of the weave and needle holes along the seams that the canvas can be considered weathered.

Choose a calm but preferably not a very hot dry day. A showery day is ideal and following the step by step instructions erect the whole unit in any convenient area and securely peg out the canvas.

NOTE: It is important to extend the cabin frame fully (see the relevant section on pitching).

Now thoroughly soak the canvas. In the absence of rain use a hosepipe with a fine spray. Two or three soakings with a slow drying period between them should be accomplished within the day if possible and is all that is normally necessary to weather a canvas. Ensure the canvas is thoroughly dry before packing away especially under zip flaps, tape edges and main seams.

THINGS TO DO - During The Drying Period

Groundsheet Fitting

Lay out the groundsheet evenly, ensuring the edges lay **on top** of the internal mudwall which is sewn to the bottom edge of the walls. If the groundsheet has corner eyelets fitted then pegs can be pushed through these **and** the Conway mudwall material itself. If on your model this material is a coated polyester (PVA) it will not tear easily and the rough and ready holes you make will be sufficient, although some people may wish to complete the job by fitting DIY plastic or brass eyelets (available from camping retailers). During this task you will notice that the extension or awning frame legs stand on either groundsheet or mudwall material, if you wish to change this then slit the mudwall only with a sharp DIY knife at these points allowing the foot of the leg to rest directly on the ground below.

Important:

If your model had mudwalls made from unsupported PVC then greater care is needed. Use plastic eyelets only. Your dealer will advise you of the type of mudwall material used for your model.

Framework - Extension or Awning

Although many of the poles will be spring linked together you may wish to put identifying marks on these and also the loose sections of poles, once they are assembled correctly. This is also an ideal opportunity to ensure that the frame is the correct one for your unit and that it is complete and undamaged before you intended to use it on holiday.

Underbed Tents (Optional)

Lay the underbed tent on the ground, between the bed supporting legs and the trailer body with the entrance 'out'. Tension the sewn-in groundsheet and peg down at each corner lug. Lift the roof and sides and clip the corner clips onto the bed edge for trailer tents and into the metal brackets fitted under the bed board for folding campers.

NOTE: When packing up - pull the pegs and not the pegging lugs - they will tear if this is done!

**THE FOLLOWING IS A SIMPLE CHECK LIST
OF ESSENTIALS TO BE COMPLETED
BEFORE YOU MOVE OFF.**

HITCH WEIGHT AND LOADING

Hitch weight or nose weight is the downward force your stationery trailer places on your tow vehicle tow-bar/tow-ball.

The trailer tent is designed so that the hitch end is nose heavy, thus preventing snaking, so ensure you pack your goods in the trailer and the kitchen unit to maintain a nose heavy condition. If your model is the deluxe with the kitchen unit fitted, ensure you do not exceed the maximum weight shown on the kitchen unit. It is not recommended that the gas bottle be carried in the kitchen unit, unless your kitchen has been designed by Conway to have a specific gas bottle section, with a restraining strap and base plate.

The same rules apply to your folding camper, distribute the load evenly to achieve a nose weight of 100 - 120lbs. The nose weight can be reasonably checked on bathroom scales, with the trailer level.

It is advisable to check your tow vehicle's handbook for recommended maximum hitch weight.

THINGS TO CHECK

Most of the things are straight forward, this list is just a reminder:

- a. **BRAKED MODELS** - check the hitch is correctly engaged and the breakaway cable is connected to the towing vehicle.
UN-BRAKED MODELS - check the hitch is correctly engaged and the secondary coupling (safety cable), if fitted, is connected to the towing vehicle.
- b. Connect the 7 pin plug(s) and ensure your lights and indicators are working properly. The metal cups (if fitted) should only be used to hold the 12n and 12s plugs whilst at home, in storage, or on site if not in use. They will not hold the plug securely whilst on tow. Please secure the plug and cable if not in use on tow to prevent damage.
- c. Check tyre pressures, it is important to have correct minimum pressure. (See Tyre Pressure Table).
- d. Check wheel nuts/wheel bolts (see wheels section).
- e. Check that the corner steadies and jack legs are wound up fully and secured properly. A corner steady brace is supplied with each unit.
- f. Ensure the jockey wheel, if fitted, is wound up securely, then lifted up fully and securely clamped.
- g. If brakes are fitted, ensure they are properly released, with the handbrake completely off.

- h. If a cover is fitted, make sure it is properly secured.
- i. Where a deluxe kitchen is fitted, make sure the unit is secured and the 7 pin plug is connected for the road lights.
- j. With a folding camper, close all cupboards, secure gas cylinders and in the case of a solid roof, make sure the roof is properly secured and roof vent closed and internal lights switched off.
- k. Check your wing mirrors

**HAVE A SAFE JOURNEY AND ENJOY
CONWAY CAMPING**

COMMON TERMS

Unladen weight = the weight of the trailer (ex works) in standard format without optional extras or customers own load.

Maximum gross Weight (M.G.W.) or Maximum Authorised Mass (M.A.M.) new EC terminology = the maximum permissible weight of both the trailer and its load (carry or capacity) combined. It is illegal to exceed this figure.

Carry Capacity (payload) = the difference between the unladen weight and the maximum gross weight = customers permissible loading capacity.

NOTE: The maximum gross weight on certain Conway trailer tents can be legally increased to a maximum of 500kg depending on the towing vehicle's legal towing limit. This service is free at time of ordering new units and will incur our current minimum charge (£10.00) for exchanging the original chassis plate at all other times. Under no circumstances will Conway upgrade a chassis plate without the return first of the original undamaged chassis plate.

Towing Vehicle Kerb Weight = the weight of the vehicle without driver, passengers or load, but including all fluids, e.g. full petrol tank, required for operation. The kerb weight is normally printed in the vehicle's handbook.

GENERAL INFORMATION FOR ALL MODELS

To comply with the law (UK) for towing up to the maximum speed of 60mph YOU MUST ENSURE THAT:

- a. The maximum gross weight being towed does NOT EXCEED the vehicle manufacturers towing weight specified in the towing vehicle handbook. A good general guide for towing a braked trailer is that the trailers max gross weight - should not exceed 85% of the tow vehicles kerb weight. Legally the braked trailer must not exceed the vehicles kerb weight.
- b. If brakes are NOT fitted to the trailer, the gross weight of the trailer should not exceed 750kg and also that the towing vehicle kerb weight must be at least twice the gross weight of the trailer.
e.g. Car kerb weight - 1000kg
Maximum gross trailer weight - 500kg
- c. If brakes are fitted to the trailer, comments in point 'a' apply.
- d. The trailer must be fitted with a plate on the nearside permanently marked with the gross maximum trailer weight, as on our chassis plate.
- e. When towing on a motorway or dual carriageway you observe the maximum speed of 60mph unless a lower speed limit is in force.

- f. When towing on any other road you observe the maximum speed limit of 50mph unless a lower limit is in force on that road.
- g. It is illegal to tow in the outside lane of a three or more lane motorway.

HINTS ON TOWING

TOWING A TRAILER TENT OR FOLDING CAMPER SHOULD PRESENT NO PROBLEMS IF YOU:

- a. Allow yourself time to get used to the feel of the tow vehicle's handling now that it is towing the extra weight of the trailer.
- b. Allow extra time and distance for braking and overtaking.
- c. Equip your tow vehicle with extending wing or door mirrors when towing the longer and wider folding camper models.
- d. Practice reversing the trailer, in some quiet 'off road' location - not on a camp site.

WARNING

Owners towing with diesel engine vehicles, particularly 4x4's, Land Rovers etc, may require a tail pipe deflector to avoid diesel exhaust fumes/smoke contaminating the trailer canvas/cover/body.

GENERAL

Wherever possible, choose a level pitch, avoid low lying areas that could hold water after or during heavy rain.

Avoid pitching directly underneath trees, they hold dust which is washed off when it rains, secrete sticky sap and continue to shed water long after the rain has stopped, all to the detriment of your canvas.

Never unfold or wrap canvas directly onto the ground, no matter how dry or clean it appears, use your groundsheet or a sheet of plastic. This is a main cause of a contaminated canvas and subsequent cause of future leaking. Oil drips from vehicles, cooking oil, fat spills, grease of any kind, carelessly discarded washing up water or water containing detergents, even children's blow-bubble residue can adversely affect your canvas.

Check the pitch site for the above plus any sharp stones, sticks, discarded or un-pulled pegs, they can all damage your canvas and groundsheet.

Walls, hedges, trees, all make excellent windbreaks.

TRAILER TENTS

Wherever possible, point the drawbar end to the prevailing wind, this way the extension canvas with its main doorways is less exposed.

Because of the basic need for a stable trailer unit before the canvas and frame are erected it is necessary to overcome the natural flexing of the trailer suspension unit i.e. the rubber in torsion axle unit.

NOTE: With or without the benefit of a jockey wheel or wind down corner steadies, assistance will be needed at certain points of the procedure.

The easiest way to do this is as follows:

- a. Having chosen the exact spot for pitching, with the trailer as level as can be across its width, using blocks to achieve this if necessary.
- b. Supporting the front end of the trailer, manually or by using the jockey wheel, if fitted, drop the front jacklegs on to the pads provided with the trailer until the trailer is approximately 2" lower than level at the front (front end of the trailer down).
- c. Drop the rear jacklegs onto the pads provided and tighten the jackleg screws.
- d. Return to the front of the trailer and manually lifting the drawbar for leverage, or simply winding the jockey wheel if fitted, raise the front end until it is level with the rear end. Drop the front jacklegs and tighten the jackleg screws.
- e. The whole trailer should now be 2" higher than normal with the weight equally distributed between the four jacklegs and the two wheels. Conway owners who have trailers fitted with wind down corner steadies may modify this procedure to obtain the same end result.
- f. Remove the kitchen unit from D/L trailers at this point. Drop the four kitchen jacklegs until they are approximately 1"

from the ground. Tighten the jackleg screws. Release the fixed Protex / otop adjustable catches which clamp the unit to the trailer and disconnect the 7 pin plug from the socket beneath the kitchen. Due to ground clearance of the kitchen legs you are now able to slide the kitchen unit away from the trailer body. Continue to slide the kitchen unit along the two kitchen support bars that extend from the rear of the trailer body. When the retaining brackets which are fitted to the underside of the kitchen unit are free from the support bars you may then lift the kitchen unit away from the trailer body. Adjust the kitchen legs to a safe working height once the trailer is erected. Release the kitchen support bar locking screws and push in both support bars.

If at this point the kitchen unit is not required i.e. a quick overnight stop en-route, then it can be stored along side the trailer body, under cover below bedboard level, before the trailer is erected.

- g. This is now your stable platform for erecting your trailer tent by following the step by step instructions.

THE MAIN AIM

Taut Canvas

Whenever you erect your Conway trailer tent your canvas should be 'as tight as a drum skin'.

Both roof and walls, in height, width and length should have this appearance - nothing less will do, the benefits are both visible and long term.

PITCHING

A taut canvas will:

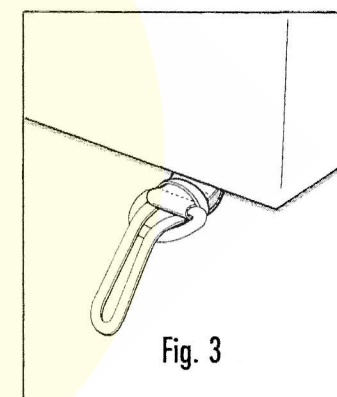
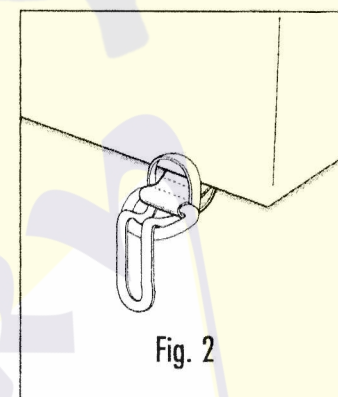
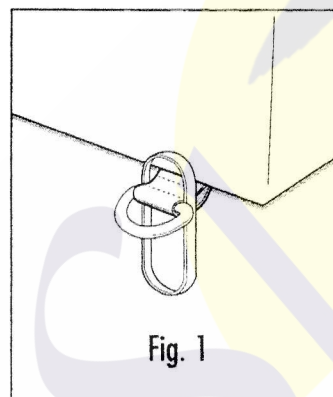
- Shed rainwater quicker and therefore dry sooner.
- Withstand high winds better than slack, flapping canvas.
- Resist natural shrinkage - giving a longer, serviceable canvas life.
- Eliminate chafing on the frame - upholding its appearance.
- Maintain a safe distance between itself, and your sleeping compartments when wet.

The Conway cabins poles, extension legs and the bed legs are independently adjustable to help you achieve your aim despite uneven ground. It is important to extend the cabin frame fully i.e. fifth hole, on every outing. It can of course be reduced to suit ground variation, but always attempt to achieve the highest setting possible.

A level trailer with level beds is ideal but there may well be times when to pitch on a severe slope is unavoidable. It is safer to allow the trailer to follow the line of the slope, end to end to ensure the canvas is taut when pegged. It may mean you have to sleep at a slight angle, but your unit will be securely pegged.

Before Pegging Out:

With the cabin frame extended as far as possible, check that the canvas is sitting correctly over both cabin and extension frames. Check that zip flaps are covering the zips as intended and that all zipped doors are closed.



Conway Pegging Points:

There are loops of tape sewn into the bottom edge of all the canvas walls, within each tape loop are both a rubber ring and a plastic 'D' shaped ring. It is important that only the pegging rubber is used when pegging the canvas to the ground. It is both flexible and hard wearing in normal use but eventually you may have to replace a damaged pegging rubber.

The plastic 'D' ring is used only when a replacement pegging rubber is to be fitted. Do not use them for pegging. Replacement pegging rubbers (available from Conway dealers) are longer than normal pegging rubbers. After removing the damaged rubber this extra length allows you to:

- Fig.1 - Place the new rubber over both the sewn in tape loop and the 'D' ring.

- Fig. 2 - Thread the bottom of the new rubber back through the centre of the 'D' ring.

- Fig. 3 - Pull tight and peg as normal.

Knock pegs in at approximately 45 degrees to the ground for the best possible hold against the pull of the canvas. Only place pegging rubber on the peg once it is knocked in or damage may occur to rubber or canvas. General purpose pegs are supplied with the trailer and your dealer will advise on the many other types available to suit all types of ground variations. Use the larger pegs supplied on all corners and guy lines and use smaller pegs on intermediate pegging points.

Peg out as per instruction diagram supplied with trailer.

Two types of guy lines are provided, short ones which fasten to the eyeleted triangular flaps fitted to the cabin walls around bedboard level and longer ones which fasten to the taped 'D' rings fitted at the roof corners.

The cabin wall guy points are not strengthened and therefore not intended to hold the tent in storm conditions and require only slight tensioning. Correctly tensioned they will prevent wet canvas from touching the inner tents and mattresses in wet and windy conditions.

The 'D' ring guy points are strong points, the tape which holds the 'D' ring continues through the seam to the inside of the canvas where it must be tied to the frame. This method ensures that both canvas and frame are held securely in storm conditions.

Guy points are not normally fitted where frame spikes protrude through eyelets fitted in the canvas e.g. extension fronts, kitchen extensions and sun canopies. It is intended that guy lines be fitted directly over the spike itself.

As when pegging the canvas, pegs for the guy lines should be knocked in first before fitting guy line to the peg and adjusting by use of the sliding tensioner.

In extreme conditions 'storm props' and internal guy lines are recommended. Your dealer can advise on the types available.

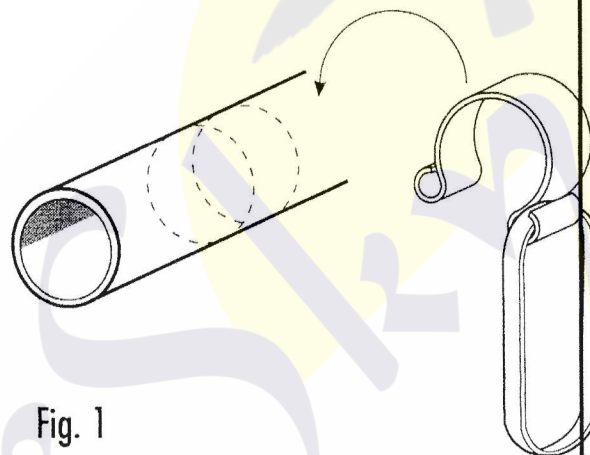


Fig. 1

INTERNAL

When fitting inner tents, roof linings and toilet and wardrobe compartments it is important that the clips (metal or plastic) which suspend them are fitted over the frame, not under. If fitted incorrectly the end of these clips will be in contact with the canvas and damage will result. When fitted correctly only the smooth rounded face of the clip will be in contact with the outer canvas. DO NOT leave dry-pack nylon mattress covers under the inner tents - they must be rolled up to the outer edge of the bedboard. Failure to do this will cause condensation with possible mildew attack on the inner tents. / mattress.

FOLDING CAMPERS AND AWNINGS

Most of the suggestions in the previous chapters are applicable to

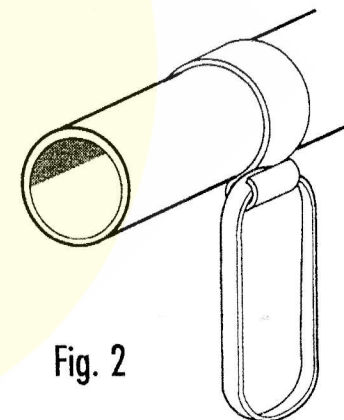


Fig. 2

folding campers and awnings. However, it is essential that the 'step-by-step' instructions for your unit are followed closely.

LEVELLING

It is important to achieve an almost dead level unit, both side to side and end to end. Now that fridges are standard equipment in units, this is essential if the fridge is to work correctly (see suppliers instructions).

Whilst end to end levelling is relatively easy to obtain using the jockey wheel, the level from side to side must be obtained using blocks or proprietary caravan levellers (available from Conway dealers), not the corner steadies.

PITCHING

GUY POINTS

Hard Top Folding Campers

Bright steel eye bolts are fitted at each corner of the roof. They are for storm guys, do not use for awning roof pole attachment.

DOOR OPENING

Folding Campers

Over excessive use of the corner steadies can flex the trailer body causing the door to bind. This can also happen to the door on hard top models when the optional awning is fitted, by inadvertently pulling the roof toward the door side when pegging the awning out. To counteract this the roof can be guyed out so that it remains vertical.

NOTE: Do not attempt to lift or support the unit on the corner steadies alone, they are to steady the unit when level.

TROUBLESHOOTING - All Models

Condensation

- Location - Check under mattresses **daily**.
Remedy - Lift **daily** and air to prevent mildew forming, insulating mats will cut this drastically but check even so.
- Location - Usually visible on framework and inside the outer canvas in wet weather - do not confuse with leaking canvas.
Remedy - Extra ventilation

Difficult Zips

- Location - Main doors and side roll up sections.
Remedy - cross peg rubbers at start of zip to relieve zip tension.
Rub zip teeth lightly with hard wax candle to lubricate.
Ensure zip ends are equally and fully home before pulling sliders (moulded zips).

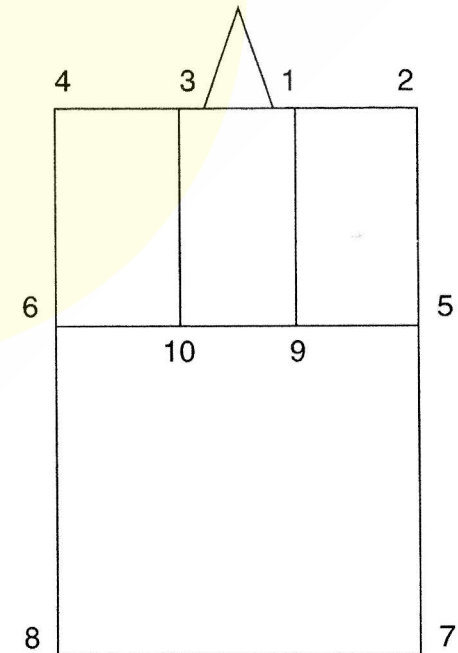
Loose Canvas

Incorrect pegging or loose pegs / Frame setting incorrect.

- Location - Check pegs and guy lines daily.
Remedy - Try a different type of peg(s).
 - Change the angle of the peg(s) or relocate the peg(s).
 - On hard ground - use an old screwdriver or pointed metal bar for the pilot for peg(s).
 - Adjust poles to a higher position.

RECOMMENDED PEGGING SEQUENCES

Trailer Tents



Ensure all zips are closed, before pegging out. Peg all intermediate as soon as possible after 10 points above.

ALL MODELS

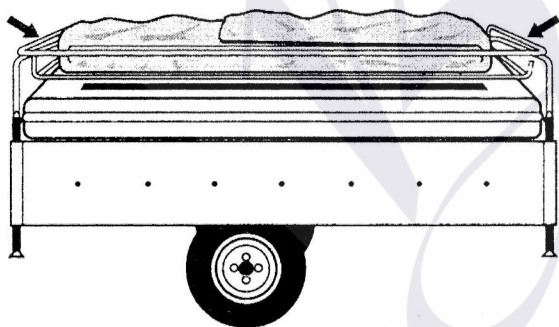
It is essential to follow the 'step-by-step' instructions for your model to avoid damage.

Wipe down the mudwall and base panel where necessary. Run through section 3 'Preparing for the Road'.

Carry sturdy plastic bags for your groundsheet and pegs - they will both be soiled and the groundsheet possibly damp underneath. Excess soil on angle pegs should be scraped off now.

TRAILER TENTS

If the canvas is wet, shake off the excess water. Wet or dry ensure the waterproof cover is between the canvas and bedboard (older models use the groundsheet or a plastic sheet) place the folded extension canvas(s) on top with the extension frame(s) **across** the front. This helps to ensure the trailer is nose heavy. Check that no



canvas is trapped in the cabin side frames (see arrows on diagram) or under the extension frames as this will cause chaffing in transit and is not covered under the warranty terms.

Inner Tents

Unclip them from the frame, fold neatly on the mattress and they can be folded in with the mattress and bedboard.

FOLDING CAMPERS

If the canvas is wet shake off the excess water. Turn the mattresses vinyl side up or fit the waterproof nylon cover provided (depending on model). Ensure that no canvas is trapped in the frame or bed runners.

Inner Tents

Unclip them from the frame/brackets, fold neatly and they can be left on the mattress, if the canvas is dry. Do not leave inner tents or roof linings clipped to the cabin frame when folding.

IMPORTANT

Don't forget to make one last check of the pitch before leaving the site.

SHRINKAGE

This does occur with cotton materials, even the best materials do so especially in the early period of service. Fortunately the characteristics of good quality canvas are well known to experienced campers and are easily dealt with. Shrinkage is more noticeable in new canvas, and after soaking and drying it out a few times the fibres will stabilise and any variations will become negligible. The greatest cause of shrinkage is wet cloth in a relaxed state and not under tension. To correct shrinkage erect the canvas, peg out tautly and thoroughly wet. Allow the canvas to dry out under tension, making sure all zips are closed.

WET PATCHES

After a period of use it is possible to find wet patches appearing in an otherwise perfectly waterproof canvas. Do not immediately blame the proofing, there could be other causes.

A prime culprit is detergent such as washing up liquid or childrens blow bubble mixture contaminating the canvas which breaks down the proofing. Proofed cotton relies on surface tension to keep out the water and still allows the canvas to breathe. Detergents are 'wetting agents' designed to break down surface tension and as the advertisement says 'a little detergent will go a long way'.

SOILING

Try not to camp under trees, sap from the leaves will cause the proofing to break down. Bird droppings or soiling by a dog or cat has the same effect.

In all cases wash the area with a warm, mild soapy solution using pure soap or soap flakes, then thoroughly rinse with water until you are satisfied it is clean, allow to dry. Re-proof the area with a silicone proofer, e.g. Fabsil or similar, and allow to dry, ensuring the canvas is taut at all times. Repeat if necessary.

CLEANING AND RE-PROOFING

Do not allow household aerosols, e.g. fly spray, air fresheners, to come into contact with the canvas. To clean mud and marks from the canvas, handbrush when the canvas is dry. NEVER USE DETERGENTS

Your canvas will eventually require re-proofing. A regularly proofed tent will resist fading and mildew. How often should you re-proof? It is hard to specify a time. Reproof every 3 years as a general guide. It depends on usage, three weeks near the beach with sea air and bright sunlight can be as severe as three seasons normal use. Your dealer should be able to recommend when it is necessary and usually offer a re-proofing service and a regular repair service.

INNER TENTS, LININGS, CURTAINS, AND LOOSE COVERS

Dry clean only - new clips are available from your Conway dealer for these items.

MILDEW

This is the main enemy of your canvas, curtains, inner tents, roof linings and mattresses. This destructive parasitic fungus mould can

spread from the smallest canvas section and quite quickly wreak havoc throughout your unit.

It is caused by only one thing - a failure to completely dry out, or at least expose to the air, damp or wet items within 48 hours. Don't overlook items subject to condensation.

The first signs of mildew are:

The distinct mouldy smell.

The appearance of purple spots which turn black, which in turn spread to black patches which disintegrate when touched.

If caught early enough they can be treated by either solutions of 'Milton' sterilising fluid or a solution of diluted bleach i.e. one desert spoon of bleach to a gallon of water or proprietary stain removal aids which are available from your Conway dealer or chemist. The treated area would also require re-proofing when dry.

NOTE: Prevention is better than cure, and a cure may not always be possible!



Freedom for Life

FRAME CARE

To provide strength and stability the frame parts are made of steel and either zinc passivated or polyester epoxy resin powder coated to protect the outer surface.

Zinc passivated finished frame parts are used on frames which need to be extended. It is a long lasting, hard wearing finish under normal conditions and requires minimum care and maintenance. Wipe down after use and (protecting the canvas) apply any automotive wax finish to the frame only and buff lightly, **do not** use canvas waterproofing liquid on the frame parts. Restore the finish on old frames with zinc based metal paint.

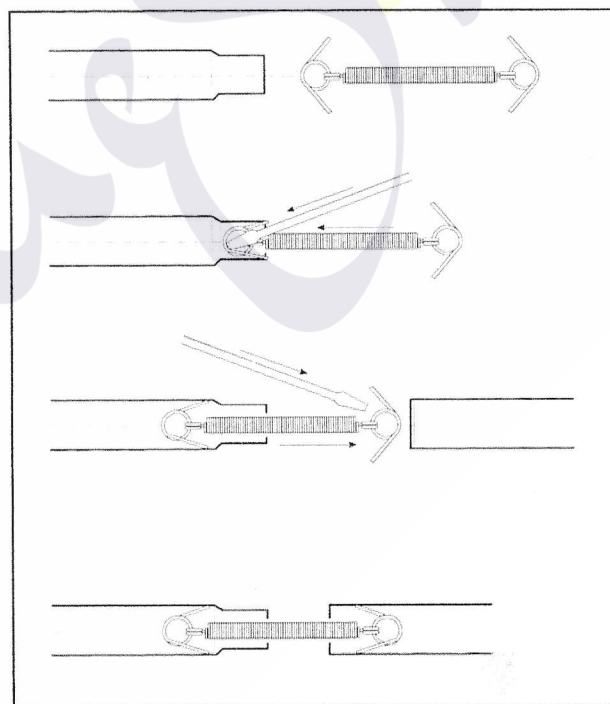
Polyester epoxy resin powder coated frame parts are generally used where they are expected to be in permanent contact with totally enclosed outer canvas i.e. canvas which is not normally removed for winter storage. Treat as zinc passivated with automotive wax after use or winter storage, treat chips or scratches with zinc based metal paint.

Due to environmental considerations cyanide is no longer used in the Conway plating process and therefore oxidation (white rust) can be evident after a period of use. Remove the white powder with a cloth or wire wool and treat with automotive wax, as normal.

FRAME MAINTENANCE

POLE CONNECTING SPRINGS

Are intended for the ease of assembly of a series of poles only. If stretched or damaged in use replacements can be obtained from your Conway dealer. Due to the risk of injury when removing a damaged spring it is advisable to ask your dealer to demonstrate the method of replacing pole connecting springs.



ALL MODELS

Important:

Keep all cleaners and detergents away from the canvas.

TRAILER TENTS (and certain Folding Camper Models)

Body Panels

OUTSIDE - Wash with proprietary automotive cleaners which are non abrasive. For extra protection use automotive wax.

INSIDE - Wipe down with a damp cloth and household cleaners on the pre-painted body panels, lockers and vinyl floor. Dry thoroughly before storing.

Chassis and Drawbar

Painted - clean as per outer body panels. Check for stone chips and touch in with a zinc based metal paint or 'Hammerite' where needed.

Galvanised - clean as per the outer body panels. Remove with a hard bristle brush any excess oxidation (white rust) and rinse with clean water. White rust is a natural reaction of galvanising and is no detriment except visually. Use zinc based metal paint on scratches penetrating the galvanised surface.

Upholstery and Carpets

These should be vacuumed regularly as in your own home, to remove grit and sand. A mild solution of warm soapy water can be used to remove day to day marks or stains.

FOLDING CAMPERS

Body Panels

Are acrylic pre-painted aluminium bonded sides and/or fibreglass (GRP), or ABS plastic moulded body outer panels.

OUTSIDE - clean with proprietary automotive cleaners which are non abrasive **and** safe for acrylics. Avoid cleaners with a high alcohol content.

INSIDE - The furniture and wall panels have an easy clean finish and only require a wipe down with warm soapy water or general household cleaner solution to maintain a clean smart finish.

Chassis and Drawbar

Galvanised - clean as per trailer tents.

Upholstery and Carpets

Clean as trailer tent.

W I N T E R S T O R A G E

TRAILER TENTS

All Conway trailer tents have an easily removable cabin canvas for repairs or winter storage. They simply untie from the cabin frame. Wherever possible remove all canvas parts, inner tents, roof liners and mattresses and store in a warm, dry environment.

FOLDING CAMPERS

Whilst the cabin canvas can be removed for easy repair situations it is not as simple as the trailer tents. We recommend that other items such as inner tents, roof liners and upholstery be stored where possible in a warm, dry environment.

NOTE: Whether or not the canvas, inner tents, roof liners or upholstery have been removed for winter storage from the trailer tent or folding camper something soft and non-abrasive, e.g. an old pillow/cushion placed as near to the centre of the trailer as possible immediately below the transit cover will help to prevent condensation by creating a gap between the P.V.C. cover and the trailer canvas/mattress/bedboards and help with the recommendations in section d (all models) except Cardinal.

When the canvas, inner tents, roof liners etc; are not removed from the trailer tent or folding camper we would recommend frequent checks are made, including opening and airing the unit to prevent damage from condensation and possible mildew.

ALL MODELS

- a. Jack up the unit using a suitable vehicle jack, located under the axle beam until the wheels are clear of the ground. Do one side at a time with the handbrake on or with the wheels chocked.
- b. Place blocks of timber under the axle beam where it joins the chassis or use axle stands to support the weight of the trailer. Lower the jacklegs or corner steadies to steady the unit only.
- c. Release the handbrake, if fitted and leave it off, spin the wheels from time to time during the storage period to ensure the wheel bearings are coated in grease, preventing rust spots. Lubricate all brake linkages.
- d. Rain water, ice and snow should not be allowed to accumulate on the transit cover. This will lead to discolouration and deterioration of the cover.
- e. Trailer tents should be slightly rear end down to prevent water entering at the rear trailer door on standard models or the kitchen on deluxe models.
- f. Protect 7 pin plug(s) with a liberal application of petroleum jelly.
- g. It is important to drain ALL water systems to prevent frost damage.

Remember: The winter period is the ideal time for both you and your dealer if required, to attend to damage, defects or servicing of the unit before the season starts again.

GAS INFORMATION

Gas appliances fitted to Conway trailer tents and folding campers are of the LOW PRESSURE type and require a regulated gas feed. Liquid petroleum gas (LPG) should be used with a regulator giving the following pressures:

28m.bars (11.2 ins w.g.) for Butane (LPG)

37m.bars (14.8 ins w.g.) for propane (LPG)

NOTE: Propane (LPG) continues to operate at a lower ambient temperature than Butane (LPG).

GAS SYSTEMS

- a. Never look for a leak with a match. Always check for leaks on connections with a soap solution. If the leak is not obvious check with your dealer.
- b. Avoid naked lights when connecting or changing a cylinder.
- c. Gas is heavier than air therefore in the event of a leak gas will accumulate at floor level.
- d. A fire extinguisher is advisable and they are fitted as standard in certain models. The extinguisher should be of the dry powder type and should be kept in a readily accessible position. Extinguishers of the vapourising liquid type should NOT BE USED.
- e. in case of fire get everyone out of the unit, turn off the container valve if possible and STAY OUT.

TRAILER TENTS – COOKERS

Deluxe models (D/L) of trailer tents are fitted with a double burner and grill. The gas connector is situated under the cooker unit and requires a push on gas hose connection. The hose should have a hose clip fitted to give a secure gas tight fit.

Full operating instructions for your cooker are included with this manual.

Towing with the fridge

When the camper is being towed it is recommended that the fridge is operated electrically, i.e. from the 12V battery of the towing vehicle and not by bottled gas. If the fridge is well frozen before starting your journey and your tow vehicle is fitted with a relay unit then the 12V power supply is adequate to keep the fridge 'topped up' only.

MAINTENANCE AND USE OF THE STAINLESS STEEL HOT PLATE AND SINK BOWL/DRAINER

A separate user instructions leaflet is also included.

1. Any spillages should be removed from the stainless top as soon as possible after use. This can be done with hot soapy water and a nylon scouring pad (steel scouring pads should not be used). Stubborn marks can be removed by using a mild type of proprietary cleansing powder or cream. Care should be exercised to see that the burners do not become choked with excess powder or cream as this will result in uneven burning and flame spread, permanent discolouration of the stainless steel and 'sooting' of the burners.
2. The brilliance of the polished finish on both the cooker and

the sink unit can be maintained by wiping over with a soft cloth immersed in warm soapy water immediately after use. The surfaces should then be polished with a dry cloth. An extra lustre can be given to the stainless steel by occasionally polishing with french chalk on a clean dry cloth. During use, it is normal for 'blueing' of the burners and pan support to take place. This discolouration will remain, despite cleaning, but will prove no detriment except visually.

Use

1. The hot plate is designed to operate with either BUTANE GAS at a pressure of 11.2W.G. (28m.bar) or PROPANE GAS at a pressure of 14.8W.G. (37m.bar), or both. The gas pressure regulator must be fitted at the outlet of the gas bottle to provide the correct working pressure. Check suppliers instruction sheet for type(s) of gas to be used.
2. The control taps are self locking in the OFF position and are all operated by depressing the knob and turning in an anti-clockwise direction.
3. ADJUSTMENT - the mixture between gas and air to the burners is preset on assembly and should not require adjustment.

NOTE: A small bright blue white flame could mean too much air in the gas/air mixture. A yellow topped flame and sooting occurring means too little air in the mixture. If in doubt please contact your dealer for advice.

G A S A P P L I A N C E S

USE AND MAINTENANCE



4. Ensure at all times that the 'ports' around the burners are clean and free from obstructions from spillages or excess cleaning cream. A small wire brush will quickly clear any obstruction which may be present.
5. **SAFETY** - As with any gas appliance normal safety precautions should be observed at all times but particular care should be exercised when the appliance is used in a confined area.

DO NOT make any attempt to alter the injectors, taps, burners or line pressure.

DO NOT use the hot plate as a space heater.

PLEASE NOTE:- it is recommended that in normal use a window or vent should be opened to provide ventilation. It should always be recognised that with the burners on and without ventilation the air in the folding camper will rapidly become exhausted.

DO NOT allow any combustible material e.g. curtains, kitchen towels, to come into contact with the appliance during the cooking process.

DO turn off the gas supply at the cylinder if you detect any unburnt gas.

Current units, i.e. 'Suter' type FIL-2GV5AB have loose top burner parts that may move whilst in transit - it is advisable to store them in a kitchen drawer before moving off:- BEWARE they may still be hot if used in the previous half an hour!

NOTE: Other cookers will have fixed burner tops - please check. The Suter cookers are also fitted with a flame failure device (FFD) to both burners and the grill. These are intended to stop the flow of gas should the flame at the burner/grill be extinguished accidentally. Both burners and grill have independent control knobs. To light, push in the control knob and turn anti-clockwise to the high flame position, apply a light to the burner. You may need to keep the knob depressed for a few seconds once lit or the flame may go out. Turning the cooker knob further anti-clockwise means that the flame variation is adjustable between the high flame symbol and the low flame symbol (simmer). To turn off, return the knob to the original off position.

It is not intended that the sink lid be used in the closed position whilst the cooker is in use. The heat deflection around the base of pans/kettles can damage the sink lid edge.

FOLDING CAMPERS - COOKERS

Previous models and the current Challenger, Countryman and Cruiser have cooker units similar to the models described in the previous trailer tent section. The only differences are that the gas supply is piped from the front gas pipe connection point below and behind the gas bottle storage box and that the supply distribution is controlled by a three or four tap manifold located in one of the kitchen base cupboards.

The hob and grill units - currently the Stoves Vanette 4000/2 model surfaced in blue/green vitreous enamel, with 3/4 burners and grill, all with flame safety devices (F.S.D) is fitted.

The control knobs are fitted to the top surface of the hot plate. To ignite burners, turn knob anti-clockwise to high flame, apply light and keep knob depressed for a few seconds or it may go out. Turning the control knob further anti-clockwise will vary the flame to simmer. Full, user, safety, cleaning instructions from the manufacturer are supplied with each unit

NOTE: Certain current fixed and hinge over cooker units will have burner tops that are loose and you may wish to store them in a drawer unit whilst in transit. BEWARE they will still be hot if used in the previous half an hour.

Other cooker units will have fixed burner tops - please check.

OVENS - FOLDING CAMPERS ONLY

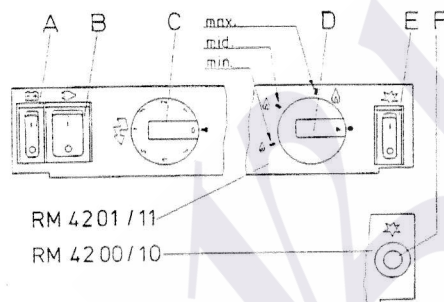
The current Crusader and Cardinal Clubman models have the Stoves, Vanette 2200 oven as an optional extra/standard. This is also finished in blue/green vitreous enamel with a glass front door panel. To ignite - open the glass panel door and turn the control knob anti-clockwise to the required gas mark ($\frac{1}{2}$ - 8). Push in the control knob and apply a light, preferably with a hand held gas igniter, to the gas burner bar, hold the control knob pushed in for a few seconds until flame is established, then close the oven door.

If the flame goes out wait for three minutes and then repeat as above. To turn off - push in the control knob and turn clockwise to off. Full user, safety and cleaning instructions from the manufacturer are supplied with each unit. Please read before use.

FRIDGES

The current fridge fitted to Countryman 11, Cruiser, Crusader and the Cardinal Clubman is the Electrolux model RM4200CD (three way fridge). The words 'three way' refer to the various modes of operation, i.e. mains (240v), - 12v D.C and LPG. Changing between these modes of operation is carried out by means of the controls of the control panel (fig.3) fitted vertically to the side of the fridge.

OPERATING INSTRUCTIONS (CONTROLS) Fig 3



The refrigerator can be run on either 240v, 12v or LP gas. Changing between these modes of operation is carried out by means of the controls of the control panel shown in fig 3. The rocker switches are used to select the electric power supply, one for 240v (B) and one for 12v (A). Refrigerator temperature is controlled by a thermostat (C) when the unit runs on 240v. The gas supply is turned on/off by means of the knob (D). It also serves to

select one of three different gas inputs. The refrigerator is fitted with a safety device which automatically shuts off the supply of gas if the flame goes out. The safety device can be opened manually by depressing knob (D).

In models RM 4201/11, the gas flame is electronically lit, monitoring and relit if necessary. For this the toggle switch (E) should be "on" during gas operation. An indicator lamp in the switch flashes when the automatic igniter attempts to light the burner. Otherwise this lamp is off.

In models RM4200 /10 a manual piezo-electric igniter is used. When the button (F) is pressed, sparks are generated at the burner. Inside the refrigerator at bottom left is a sight glass for the burner. A blue light can be seen through it when the flame is alight (RM 4200 /10).

STARTING THE REFRIGERATOR

The position numbers refer to fig. 3.

Caution! Only use one source of energy at a time

LP GAS OPERATION

After initial installation, servicing, or changing gas cylinders etc., the gas pipes may contain some air which should be allowed to escape by briefly turning on the refrigerator or other appliances. This will ensure that the flame lights immediately.

To start gas operation:

1. Open the shut-off valve of the gas bottle (check that there is enough gas). Open any on-board shut-off valve

2. Check that the switches for the mains and 12V operation are off.

3. Turn on the gas control (D) to position 'max'.

- 3.1 This Knob also serves to select one of three different gas inputs.

4. Depress the knob (D) of the flame failure device and hold it down while depressing the piezoelectric igniter button (F) several times in succession.

5. Check the sight glass that the flame is alight.

6. Keep the knob (D) depressed for a further 10 to 15 seconds.

7. Release the knob and again check that the flame stays alight.

To terminate gas operation, turn knob (D) to • and (when applicable) set switch (E) to 0.

230V OPERATION

- Turn off gas and 12V operation.

- Turn the knob (C) of the thermostat to its highest (coldest) position.

- Set switch (B) to position (I). ~~The switch will light up green when the power supply is connected.~~

12V OPERATION

1. Turn off gas at control panel, knob (D) and 230V at switch (B).

GAS APPLIANCES

FRIDGE OPERATION CONTINUED



2. Turn off 230V rocker switch (b) to position (a). This will light up red when the power supply is connected.

The fridge will be kept in a cool condition.

NOTE: Only operate the refrigerator when the engine of the vehicle is running - otherwise your battery will soon be discharged.

Ensure that your touring vehicles equipped with an ignition isolator relay, your Conway dealer can advise on this.

WINTER OPERATION

Please check that the ventilation on the grills on the flue outlet are not blocked by snow, leaves etc.

ELECTROLUX ventilation grills A 1620 (fig 2) (*Electrolux handbook) can be fitted with winter covers, model WA 120, to protect the cooling unit against cold air. The covers can be fitted when the outside temperature is below approx. 10°C and should be fitted when the temperature is below freezing point.

We suggest that you fit the winter covers also in the case that the vehicle is laid up during the winter months.

REGULATING THE TEMPERATURE

The position numbers refers to fig. 3. (*Electrolux Handbook)

It will take a few hours for the refrigerator to reach normal operating temperature. So we suggest that you start it well in advance of a trip and if possible store it with precooled foodstuffs.

On 230V operation the refrigerator is controlled by a thermostat and the thermostat knob (C) should be set at 4-5. If a lower (colder) temperature is desired, set the thermostat to a higher figure.

On 12V operation the refrigerator works continuously.

LP gas operation should always be initiated with the knob (D) at the 'max' position. If the ambient temperature is above 25°C and/or the door of the refrigerator is frequently opened the knob should be left at that position. Below 25°C the knob should be set at 'mid' and below 10°C at 'min' to avoid temperatures below freezing in the main compartment.

TRAVEL CATCH

Make sure that the travel catch is engaged when the caravan is on the move, (fig 1). (*Electrolux handbook).

The travel catch at the top of the door can be set in two different positions. In one position the door is held tightly shut. In the one position the door is held tightly shut. In the other position the door is secured ajar so that the refrigerator can be aired when not in use.

DEFROSTING

Frost will gradually accumulate on the refrigerating surfaces. It must not be allowed to grow too thick as it acts as an insulator and adversely affects performance.

Check the formation of frost regularly every week and when it gets about 3mm thick, defrost the refrigerator.

To defrost the 'fridge, turn it off and remove the ice tray and all food items. Warning: normally the temperature of items frozen foods would rise unduly during defrosting and so they should be consumed within 24h or discarded.

Do not try to accelerate defrosting by using any kind of heating appliance as this might damage the plastic surfaces of the refrigerator. Neither should any sharp objects be used to scrape off the ice.

The defrosted water runs from a collector channel to a receptacle at the rear of the refrigerator where it evaporates. Defrost water in the freezer compartment should be mopped up with a cloth.

When the ice has melted, wipe the refrigerator dry and restart it. Place the food items back inside but wait until the refrigerator is cold before making ice cubes.

CLEANING THE REFRIGERATOR

Clean the inside of the refrigerator regularly to keep it fresh and hygienic.

Soak a cloth in a solution consisting of a teaspoon of bicarbonate of soda to half a litre of warm water. Wring out the cloth and use it to clean the interior of the refrigerator and its fittings.

Never use detergents, scouring powder, strongly scented products or wax polish to clean the interior of the refrigerator as they may damage the surfaces and leave a strong odour.

The exterior of the refrigerator should be wiped clean now and again, using a damp cloth and a small quantity of detergent. But not the door gasket, which should only be cleaned with soap and water and then thoroughly dried.

TURNING OFF THE REFRIGERATOR

If the refrigerator is not to be used for some time:

1. Set any switches to 0.
2. The gas supply is turned off by means of the knob (D). Also shut off any on-board valve in the gas line to the refrigerator.
3. Empty the refrigerator. Defrost and clean it as described earlier. Leave the doors of the refrigerator and a frozen food compartment ajar.
4. Check that the interior lighting (not available on all models) stays disconnected. If necessary take out the bulb.
5. When the vehicle is laid up for a long period of time (e.g. during the winter months), we suggest fitting the winter covers WA 111, fig. 2, onto the vent grills.

IF THE FRIDGE FAILS TO WORK

Check the following points before calling a service technician:

1. That the STARTING THE REFRIGERATOR instructions have been followed.
2. The refrigerator is level.
3. If it is possible to start the refrigerator on any of the connected sources of energy.
4. If the refrigerator fails to work on gas, check:
 - That the gas bottle is not empty.
 - That all LP-gas valves are open.
5. If the refrigerator fails to work on 12V, check:
 - That the 12V supply is connected to the refrigerator.
 - That the fuse on the 12V supply is intact.
 - That the 12V switch is on.
6. If the refrigerator fails to work on 240V, check:
 - That the 240V supply is connected to the refrigerator.
 - That the fuse is intact.

If the refrigerator is not cold enough it may be because:

1. The ventilation is inadequate owing to reduced area of the ventilation passages (partial blockages of grills from wire mesh etc).
2. The evaporator is frosted up.
3. The temperature control setting is incorrect.
4. The gas pressure is incorrect — check the pressure regulator at the gas container.
5. The ambient temperature is too high.
6. Too much food is loaded at one time.
7. The door is not properly closed or the magnetic sealing strip is defective.
8. More than one source of energy is used at the same time

If the refrigerator still does not work properly, call a service technician.

The sealed cooling system must not be opened, since it contains corroding chemicals under high pressure.

GAS APPLIANCES - TRUMA-BLOWN AIR HEATER

MAINTENANCE

Inspect the gas hose periodically for cracks or deep chafing marks. Connections can be tested for leaks using a soap solution. Do not use a naked flame! If there is any suspicion or damage, call for a service technician.

We recommend that a service technician check the refrigerator once a year.

GUARANTEE AND SERVICE

The refrigerator is guaranteed for one full year on condition that it is used in a correct manner and in accordance with these operating and installation instructions.

Service and spare parts are obtainable from your dealer or Electrolux – consult the telephone directory.

It is also embraced by a European guarantee as described in the brochure supplied with the refrigerator.

Some useful Hints

Make sure that:

- The refrigerator is not operating on 12v when the vehicle is parked, otherwise you will drain the car battery in a short time.
- Defrosting is carried out periodically.
- The refrigerator is left with the door(s) ajar when it is not to be used for some time.

- Liquids or items with a strong odour are well packaged.
- The ventilation openings are unobstructed.
- The door is secured by means of the travel catch when the caravan is on the move.
- Only one mode of operation at a time is used to run the refrigerator.

BLOWN AIR HEATER

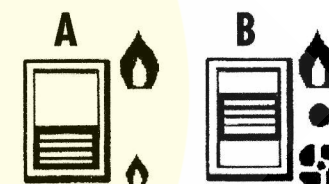
An optional space heater on folding campers only, powered by L.P.G. with 12v fan/electronic control, built in air distribution and thermostat - type - Trumatic E2400.

Operating Instructions

Always observe the operating instructions and "Important operating notes" prior to starting! The vehicle owner is responsible for the correct operation of the appliance.

The installer or vehicle owner must apply the yellow sticker with the warning information, which is enclosed with the appliance, to a place in the vehicle where it is clearly visible to all users (e.g. on the wardrobe door!) Ask Truma to send you stickers, If necessary.

Control Panel with thermostat



A = Slide valve. Heating-Off-Ventilation

B = Slide valve for high setting (large flame symbol) and low setting (small flame symbol)

Switching on the Heating

- 1) Remove cowl cap
- 2) Turn on gas cylinder and open quick-acting valve in the gas supply line.
- 3) Adjust the desired room temperature at rotary knob.
- 4) Switch the slide valve (A) to heating and the slide valve (B) to the desired output setting. If the outside temperature is low, switch to high setting.

Note: The Trumatic E heater has been tested and approved for operation. The burner with fan assistance guarantees satisfactory operation, even under extremely windy conditions.

Switching on the Ventilation

Switch the slide valve (A) to ventilation switch the slide valve (B) to high setting or low load.

Switching Off

Move the slide valve (A) to middle position. If the application is

switched off after a heating phase, the fan can continue running in order to make use of the residual heat.

If the appliance is not used for a prolonged period of time, mount the cowl cap, close quick-acting valve in the gas supply line and turn off gas cylinder.

Green indicator lamp Operation (Under rotary control knob)

When the appliance is switched on (heating or ventilation) the green indicator lamp must be illuminated (the fan is running). If the indicator lamp is not illuminated, possibly check the (main) switch. For this purpose observe respective instructions of the vehicle manufacturer.

During the heating operation, while the flame is burning, the green indicator lamp lights up with twice the intensity. This also makes it possible to determine the instantaneous switching point of the room temperature.

Fuses

The appliance fuses are situated on the electronic P.C. board on the appliance.

Important note: Only replace the miniature fuses F1 and F2 with a fuse of the same type: F1 = 3,15 AF EN 60127-2-1 (Fast). F2 = 1,25 AF EN 60127-2-2 (Fast)

Red indicator lamp failure

Should a failure occur, the red indicator is illuminated permanently.

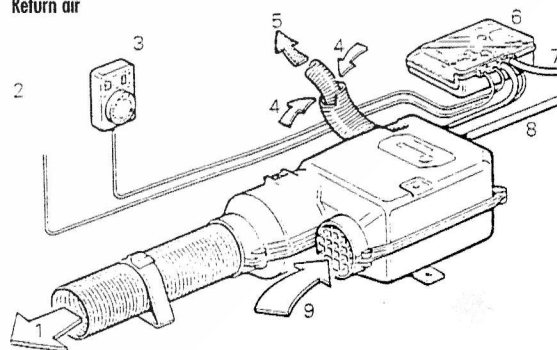
Possible causes for the failure can be e.g. no gas, insufficient combustion air, heavily soiled rotor, defective fuse etc.. Deactivate by switching off then switching on again.

Flash operation indicates that the operating voltage is too low or too high for the appliance (charge battery, if necessary).

In event of faults, in Germany, always contact the Truma Service Centre, Tel: (089) 46 17-142. For other countries please refer to the International Service.

Installation example

- 1 Warm air
- 2 Time switch (special accessory)
- 3 Control panel (of your choice)
- 4 Combustion air
- 5 Flue gas
- 6 Electronic control unit
- 7 Power supply
- 8 Gas connection
- 9 Return air



Technical Data

Type of gas: Liquid gas Propane Butane

Operating pressure: 30 or 50 mbar (refer to nameplate)

Rated thermal output

High setting: 2400W

Low setting: 1200W

Gas consumption

High setting: 200 g/h

Low setting 100 g/h

Air flow rate

High setting: approx 130 m³/h

Low setting approx 77 m³/h

Current input at 12V

High setting: 1.1 A Low setting: 0.6 A

Current input at 24V

High setting: 0.7 A Low setting: 0.4 A

Standby: 0.01 A

Weight: Approx. 4.7 kg

CONTROL PANEL (GAS OPERATION)

a) Slide switch On/Off

b) Rotary knob for water temperature (illuminated by green indicator lamp "Operation")

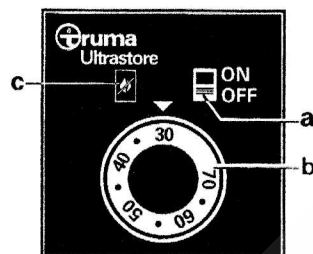
c) Red indicator lamp "Failure"

Gas operating instructions

Attention: Never operate the water heater without water in it!

If the wall cowl is positioned close to an opening window (or hatch) - in particular directly under it - it must remain closed when the water heater is in use (see warning plate).

- 1) Remove cowl cover.
- 2) Open gas cylinder and open quick-acting valve in the gas supply line.
- 3) Select required water temperature at rotary knob (b) infinitely variable from approx. 30° to 70°C.
- 4) Switch on water heater at the slide switch (a) on the control panel, green indicator lamp 'operation' lights up.
- 5) 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 'Failure' during this period, switch off the appliance - wait 5 minutes - and switch on again!



Switching off (gas operation)

Switch off the water heater at the slide switch (a).

Drain the water heater if there is a risk of frost!

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 quick acting valve in the gas supply line and close the gas cylinder.

There shall be no claim under guarantee if this point is not observed. Always remove the cowl cover prior to operating the water heater!

Red indicator lamp 'Failure'

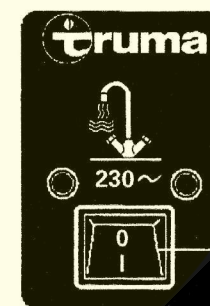
The red indicator lamp (c) lights up if there is a failure.

The reason for such an indication is, for example, no gas available or air in the gas supply system, triggering of the excess temperature monitor etc. To unlock, switch off the appliance, wait 5 minutes, and switch on again.

In the event of faults, always contact the Truma Service

Truma control panel

(Electrical operation 230V, 450W)



d) Switch On/Off

When using the vehicle switches

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

Electrical operating instructions

Switch the switch marked water heater to 'on'. The indicator lamp indicates that the electrical water heater is switched on.

Attention: Never operate the Ultrastore 230 volt heating element without water contents! Don't forget to turn the appliance off when the vehicle is not being used.

If the element fails to operate 'switch off' at the mains switch to reset.

Note: The water temperature cannot be selected, automatic temperature limitation at approx 70°C! For a faster heating up period the appliance can be simultaneously operated with gas and electrical power.

GAS APPLIANCES - TRUMA- ULTRASTORE WATER HEATER

MAINTAINANCE

Use Wine vinegar for de-scaling the water heater, this being introduced into the water supply. Allow the product to react and then thoroughly flush out the appliance with plenty of fresh water. To sterilise the water we recommend 'Certisil-Argento'. Other products, particularly those containing chlorine are unsuitable.

Note: The water tank in the Truma-Ultrastore is of high quality food-proof stainless steel VA. The plastic elbow water connections and the safety/drain valve fulfil the EC guideline for food quality in plastic parts (90/128/EEC).

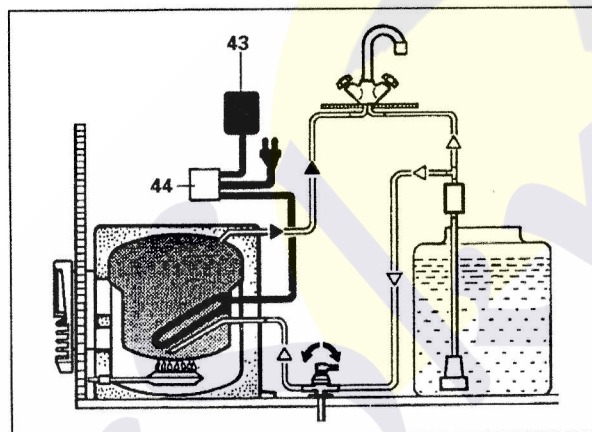
However, in order to avoid the colonisation of microorganisms, we recommend heating up the tank to 70°C at regular intervals and not using the water as drinking water.

Fuses

The water heater fuse is on the electronic control unit on the water heater.

Important note: only replace the miniature Fuse on the p.c.b. with a fuse of the same type: 1,25 AT EN 60127-2-3 (slow action). If there is a defect in the electronics, return the control p.c.b. well padded. If you fail to pack it correctly the guarantee shall no longer be valid.

Only use original Truma-Ultrastore control p.c.b.'s as spare parts!



Technical Data

Water contents

10 litres

Water pressure

Up to max 2.8 bar

Type of gas

Liquid gas (propane/butane)

Operating pressure

30 mbar (or 28 mbar butane/37 mbar propane)

Rated thermal output

1500 W

Gas consumption: 120 g/h

Heating time up to approx. 70° C Gas operation: approx. 35 min. electrical operation: approx. 70 min. Gas and electrical operation: approx. 20 min.

Power consumption 12 V Ignition: 0.17 A

Heating up: 0.08 A Standby: 0.04 A

Power consumption 230 V

Heating up: (2 A) 450 W

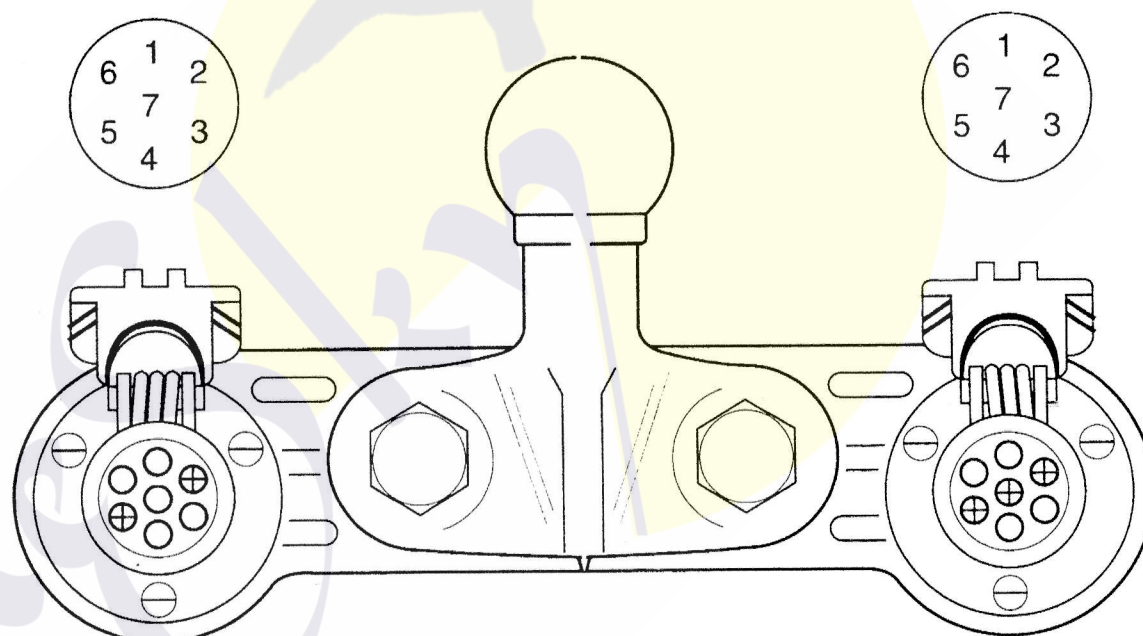
Weight (empty) approx. :6.7 kg

ELECTRICS - 12V WIRING 12N & 12S

Important: The wiring on the grey 12S socket and the black 12N socket, whichever is applicable to your unit, is wired exactly as the above standards using the same colour coding and connection. For several years now since 1979, it became law for all trailers over 1.3 metres wide to require fog lights. The 12S socket was introduced for the accessories in the unit and the 12N was used solely for the roadlights.

From 1999 Conway trailer tents have the 12n plug and harness only fitted to operate the trailer road lights, i.e. side, brake and indicators. Fog lights are only fitted to trailers **over** 1.3M wide. Conway folding campers have the 12n system as above and in addition the 12s system is fitted to operate the trailers internal 12v appliances, i.e. lights, 12v sockets, water pump and reversing lights **when fitted**, via the towing vehicles electrics.

On folding campers **without** mains(240v) systems fitted a 12s **socket** is fitted to a front 'A' frame member to receive the 12s plug when the trailer is on site. Fitting the 12s **plug** into the 12s socket will complete the 12v power circuit from the auxiliary battery (not supplied) to the 12v internal appliances. In 1999 the 12s cable changed from a 7 core cable to a 5 core cable with increased load capacity. The cable designations were changed to the ones shown in the current diagram. Towing vehicles pre 1999 will require wiring alterations to suit. All Conway foldings campers - 1999 On - have a built in 12v relay fitted to the 12s system. This will control a) the charger supply from the tow vehicle whilst the ignition is on, i.e. on tow and b) the supply of 12v power when the ignition is off, i.e. on site



Always check road lights prior to starting your journey.

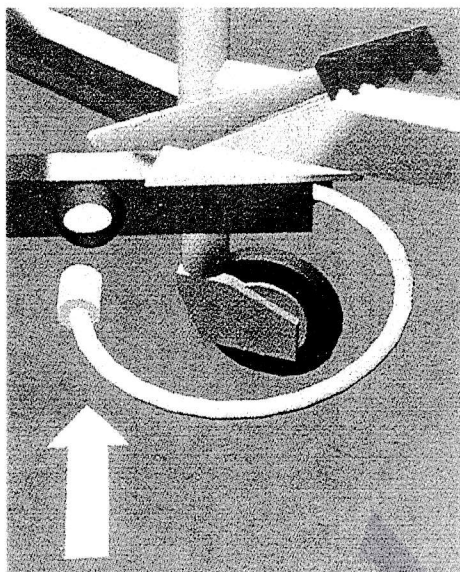
12S SOCKET

NO.	CONNECTION	COLOUR
1	REVERSE LIGHTS	YELLOW
2	-	-
3	EARTH	WHITE
4	CONSTANT LIVE/CHARGER	GREEN
5	-	-
6	FRIDGE	RED
7	FRIDGE EARTH	BLACK

12N SOCKET

NO.	CONNECTION	COLOUR
1	LH INDICATOR	YELLOW
2	FOG LAMP	BLUE
3	EARTH	WHITE
4	RH INDICATOR	GREEN
5	RH SIDE LIGHT	BROWN
6	BRAKES	RED
7	LH SIDE LIGHT	BLACK

NOTE: N^o plate light(s) power from L/H or R/H side light



Front 'A' frame 12s **socket fitted** on folding campers **without** mains (240v) When at site plug the grey cable into the socket, this will allow the battery to feed the internal 12v electrics.

12s Internal Wiring - (12v) - Not 12s cable

The colour codes for internal wiring harness are as follows

Note: see also 12v information contained in mains 220/240v section.

CONWAY CABLE COLOURS (12 VOLT SYSTEM)

Cable colour	Circuit	Abbreviation
Brown/Blue	Van positive	N/U
Brown/Red	Switch return	N/R
Brown/Green	Car positive	N/G
Yellow/White	12v socket & TV amp	Y/W
Red/Yellow	Fridge positive	R/Y
Purple	Pump	P
Purple/Black	Pump switch	P/B
White/Orange	12s negative	W/O

WARNING - MAINS 240V EQUIPMENT

Before connecting your unit to the mains supply it is advisable to check with the site operator that the incoming mains polarity is correct.

In case of difficulty consult an approved electrical installation contractor (who may be the local electricity board). It is dangerous to attempt modifications and additions yourself. Lampholders, plugs (bayonet-cap adaptors) should not in any circumstances be used.

Preferably not less than once a year, the electrical installation should be inspected and tested and a report on its condition obtained as prescribed in the Regulations for Electrical Installations, published by the Institute of Electrical Engineers.

MAINS UNIT

Power management systems - PMS4

This unit from "Plug-in-Systems" receives, distributes and controls the mains power input. A 40 amp/2 pole residual current device (R.C.D) gives protection against earth faults with resettable trip switch. This is also the main switch for this unit.

Adjacent to this main switch is a test button - pressing this button with mains power connected should trip the main switch (off-down) this can then be reset (on-up) if the system is safe.

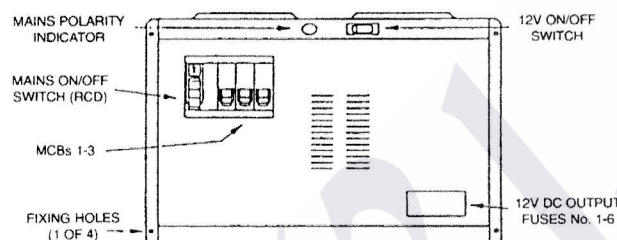
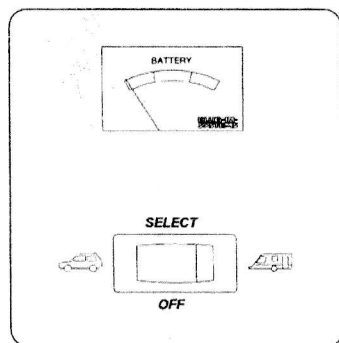
Also on this unit are three (3) miniature circuit breakers (trip switches) controlling (left to right)

- 1) 2 x mains outlet sockets (max' allowed) - 10 amp
- 2) Water heater (if fitted) and/or fridge - 5 amp
- 3) Charger unit and/or fridge - 5 amp

These M.C.Bs will be labelled as to functions and are normally on in the up position (re-settable if tripped). If when the mains power is connected and the main switch is on, the mains polarity indicator light is illuminated this then indicates that the main power 'live' and 'neutral' are reversed from the site connection and should be corrected by the site operator. Due to the double pole R.C.D. protection this unit is safe to use in this condition but it is not recommended.

ELECTRICS - P.M.S. 4 UNIT 240/12V DISTRIBUTION + MAINS WATER HEATER

KT9CON DISTRIBUTION PANEL BATTERY INDICATOR/SWITCH PANEL



POWER SUPPLY / CHARGER UNIT
P.M.S.4.

P.M.S. 4 (Power Management Systems)

Note: See additional notes supplied on new 12s cable legislation/re-designation and P.M.S. 4 owners handbook.

- 1.On Tow** - with 12s plug connected to car.
- battery indicator switch to off (for extra safety)
- with engine running - power supply will be -

- a) 12v power supply to charge van (leisure) battery (not supplied)
b) 12v power supply to fridge - only via red (live) + black (earth)

- 2.On Site** - with 12s plug connected to car
- battery indicator switch to car
- with engine not running - power supply will be

- a) 12v power supply from car to van to -
b) Interior lights - if fitted.
c) water pump
d) 2 pin socket(s)

NOTE: The inbuilt relay in the P.M.S 4 unit will control the supply in 1 and 2 above.

- 3.On Site** - 12s plug disconnected from car
- with leisure battery fitted to van
- battery indicator switch set to van
12v power supply will be as per 2 above (b,c and d only)

- 4.On Site** - with 240v supply from site mains connection
- with leisure battery fitted (highly recommended)
- with main RCD and MCB switches on
- with P.M.S 4 main switch on (light on)
•• Mains polarity indicator light off ••

Then power supply will be-

- a) Interior lights - if fitted - 12v
b) Water Pump - 12v / Max' 5 amps
c) 2 Pin sockets - 12v
d) 1/2 x 13 amp sockets - 240v / 10 amps
e) Fridge - 240v / 5 amps

- f) Charger unit will automatically charge the leisure battery (Maximum 5 amps)

•• NOTE: If mains polarity indicator light is on. This indicates that "live" and "neutral" are reversed on the mains input (site connection).

This must be corrected before using this unit on site

- 5.On Site** - as 4 - without leisure battery fitted
- battery indicator switch to off

Power supply will be as 4 (except f)

For optimum performance the fitting of a leisure battery is highly recommended.

Charger - 12v Distribution

The PMS4 unit will also provide a 12v power supply via a fully automatic transformer to charge the (optional) auxiliary battery if fitted and/or supply the trailers 12v equipment (internal) i.e. lights, water pump etc. See also KT9CON battery indicator switch panel. The 5 amp M.C.B. gives overload and short circuit protection.

Fuses - 12v D.C.

The PMS4 unit also has 6 x 10 amp x 12v D.C. fuses for individual circuit protection. These are spade type automotive fuses commonly available.

12v Main Switch

Is located on the top of the PMS4 unit and should be illuminated when on. NOTE: A manufacturers handbook is enclosed with each unit and full step by step Conway instructions for use are fitted adjacent to the PMS4 unit.

ELECTRICS

TRUMA-THERME WATER HEATER-MAINS ONLY

Battery Indicator/Switch Panel KT9CON

(Only when mains unit fitted). This panel indicates the state of charge of any auxiliary battery fitted to the system. To charge a battery when on site the switch must be towards "van". If no auxiliary battery is fitted then 12v supply is available with switch off. When on tow the switch must be towards "car" to provide power from the towing vehicle.

Auxiliary 12v Battery (not supplied by Conway)

It is strongly recommended that a battery of the correct type is used with the PMS4 charger unit for optimum performance. Your dealer will advise you on type and sizes available. NOTE: A 12v wiring harness list of colour codes is contained in the 12v section of this handbook.

12v Sockets (outlets)

Fitted to folding campers. The corresponding plugs-12v/two pin - are supplied for the customers own use/accessories. Please note that they are polarised - + to + (live) and - to - (negative)

MAINS WATER HEATER

Truma 'therme' (220/240v only) operates in Conway folding campers via mains (230v) only - and not allied to the blown air heater.

Operating Instructions

Always observe operating instructions prior to starting! The vehicle owner is responsible for the correct operation of the appliance.

Note: Never operate the Truma Therme electrically without water contents! Don't forget to turn the appliance off when the caravan is not being used! Drain in event of frost! There shall be no claims under guarantee for damage caused by frost!

Filling the Truma-Therme with water.

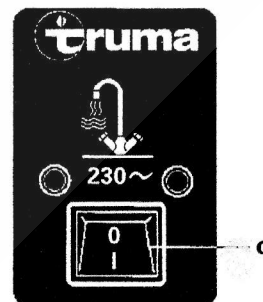
With pre-mixing valve: Turn control knob (2) of pre-mixing valve to stop on red symbol (hot).

With pre-selecting mixing tap(s): Open hot water tap with pre-selecting mixing taps set single lever mixer to "hot".

Leave the tap(s) open to let air escape and let the Truma-Therme fill up with water until water flow out of the tap.

Electrical Operation

Switch the switch (d) on the control panel to "on". The indicator lamp indicates that the appliance is switched on. The water temperature is regulated at 60°C by the thermostat. When using the vehicle switches: refer to operating instructions of the vehicle manufacturer.



Using the water

The water temperature is mixed according to the position of the pre-selecting mixing tap(s) or pre-mixing valve. Make sure that the water pump is switched off when you have finished using the water.

Draining the Truma-Therme

If the caravan is not being used during the frost period, always make sure to drain the Truma-Therme via the drain valve (4).

- 1) Interrupt current for water pump (main switch or transformer).
- 2) Open taps in kitchen (or) bathroom and set pre-mixing valve(s) - if available - to hot
- 3) Open drain valve(s) (4).
- 4) Check that water drains out.

There shall be no claims under guarantee for damage caused by frost!

Technical Data

Water content: 5 litres

Operating pressure: max. 1.2 bar (only use pump without non-return valve)

Power Supply: 230v ~, 50 Hz

Power Consumption: 300 Watt

Thermal cut-out: 60°C

Over - Temperature protection: 85°C

Weight (without contents): approx. 2 kg complete with drain valve

Dimensions: Length 37cm, Height 23cm, Width 22cm

W A T E R S Y S T E M S - C A S S E T T E T O I L E T

WATER SYSTEMS

The basic requirement for using the water systems are - a) A clean drinking water container and - b) a waste water container. Your Conway dealer will advise on the various types available to suit your needs.

Trailer Tents

Classic and Century models will have as standard, other models offered as an option when ordered from new, a Whale handpump, model V pump MK6, fitted to the deluxe kitchen models only. To operate, pump the handle up and down, water will be discharged on both strokes. The height of the pump can be adjusted by loosening the small cross head screw (no' 731.74) adjacent to the handle in the clamp block. See Whale leaflet enclosed with each unit. Ensure the pump is fully lowered in height when packing up the kitchen/trailer and that the water outlet spout does not foul the opening and closing of the kitchen lids in use. For winter storage, ensure that the pump and pipes are drained completely to avoid frost damage.

Folding Campers

2000 models have the standard Whale watermaster 12v submersible pump. Place the pump into the water container and lifting the water inlet flap, connect the pump plug (male) into the water inlet socket (female). This connects both inlet and 12v power to the pump. Open a cold tap inside the trailer and switch on the water pump isolator switch (labelled). Assuming that the main 12v supply is available from either the mains 12v converter, an

auxiliary battery on the towing vehicle then water should flow from the tap. Close the tap and the pump should stop. Opening the tap will release the pressure in the system and will automatically start the pump.

12v Isolator Switch

As the water system is a pressurised system and will pump water automatically when a tap is opened or should a leak occur then the isolator switch will cut off the 12v supply to the water pump if and when required. Remember to switch it off when packing up the trailer.

Water Pressure Adjustment

The water pressure adjuster is located on the Whale water inlet socket. Please consult the manufacturers users instruction leaflet enclosed with each unit for helpful hints, fault finding and maintenance details including pressure adjustment.

Drain Tap

These are fitted to all Conway Folding Campers to prevent frost damage to the water system during periods of frost and winter storage.

THETFORD CASSETTE TOILET

Standard in Clubman and Crusader only.

Introduction

By buying a Thetford Cassette you can be sure you have bought a Thetford quality product. The thetford Cassette design is functional

and incorporates modern sculpture styling with home like features making it aesthetically compatible with the caravan bathroom decor. The unit is an integral part of the caravan bathroom.

The Cassette is constructed of high quality plastics for durability and has a high gloss finish that is easy to clean and maintain. The unit consists of two sections, a permanently installed toilet system and a slide out waste holding tank.

The toilet section includes a seat and a cover, flush and valve blade opener knob, toilet tissue compartment and holder waste level indicator, built in toilet fluid storage compartment, a drip tray - a draitube assembly also level indicator for the fresh water tank and a fresh water tank. The unique waste holding tank section is located underneath th toilet and is removed for emptying from outside the caravan through an access door. cassette section is located underneath the toilet and is removed for emptying from outside the caravan through an access door. A rotating pour out spout, automatic holding tank vent, air release valve, valve blade, carrying handles and hand grips are incorporated into the waste holding tank.

Other features include a safety sensor switch that guards against adding water to the bowl without the waste holding tank being in proper position. The Thetford Cassette is a unique solution to a caravan's sanitary problem.

WATER SYSTEMS

- CASSETTE TOILET

PREPARING FOR USE

1. Open access door on the outside of the caravan and swing out the fresh water fill funnel.
2. Add given amount of Aqua Rinse through the water fill funnel, which results in a better flush and improves the hygiene of the toilet. Then fill the watertank with fresh water using a hose or jerrycan until water funnel level reaches neck. Tank capacity is 15 litres.
3. Replace cap. Swing water fill funnel inward until it touches side of tank. Note: 150ml of water will remain in fill bottle when fresh water tank is empty.
4. Remove the waste holding tank by pressing the retaining slip down.
5. Pull the waste holding tank straight out. When the waste holding tank hits stop, tilt downward slightly and remove (stop for safety when waste holding tank is full).
6. Position tank vertically and swivel pour out spout upward.
7. Remove the dosage cap from the pour out spout and add required amount of Thetford toilet fluid into the dosage cup. (fig 7) Then add approx. 2 litres of water through spout to cover holding tank bottom. Replace cap onto the pour out spout. Note: The cap of the pour out spout is packed together with the instructions for use. Caution: Never add toilet fluid through the valve blade or the toilet bowl.
8. Slide the waste holding tank, pour out spout facing outside, into the caravan through access door. Be aware that sliding

cover is replaced correctly: the two arrows on top have to be pointing towards each other. Never force insertion as this can cause severe damage to the toilet.

9. Make sure the waste holding tank is locked with the retainer clip. Close and lock the access door.

OPERATION

Flushing

10. Add water to the bowl by pressing the flushknob.
11. To flush after use press the flush knob down while turning in anti-clockwise direction. The turning motion opens the valve blade, emptying the toilet bowl. This procedure results in the best bowl rinse and most efficient use of water. After flushing, turn the knob in anti clockwise direction to close valve blade. The toilet can also be used with the valve blade open, which allows the waste to go directly into the holding tank.

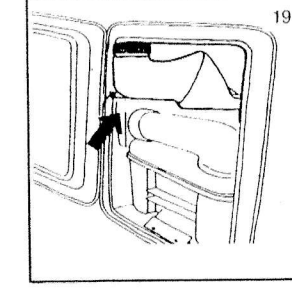
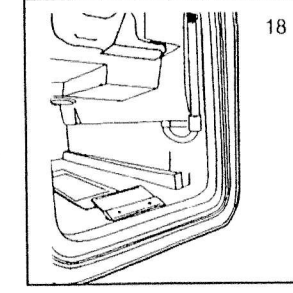
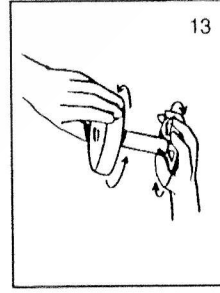
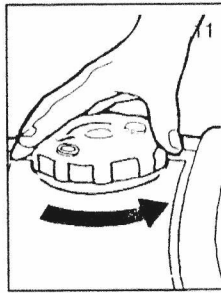
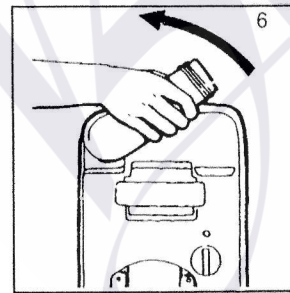
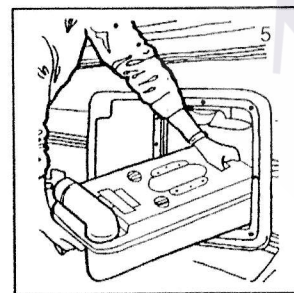
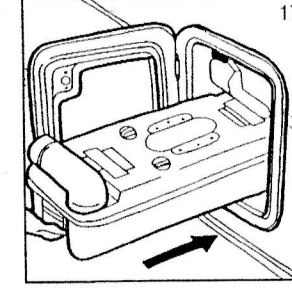
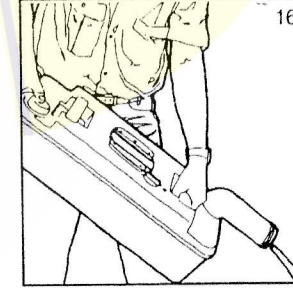
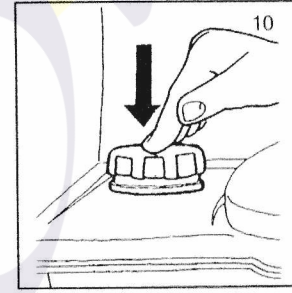
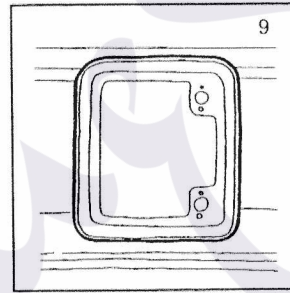
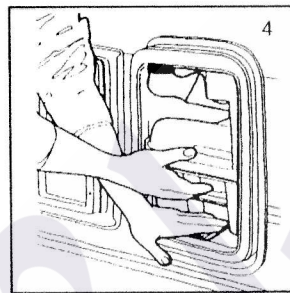
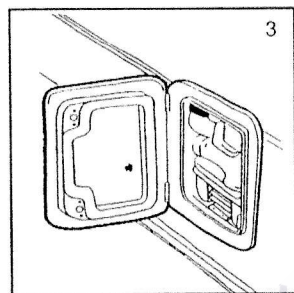
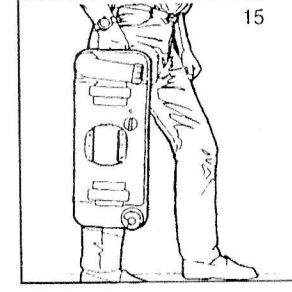
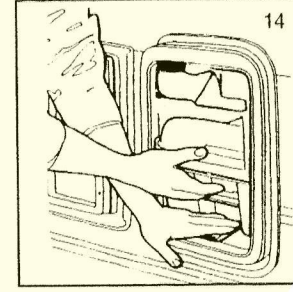
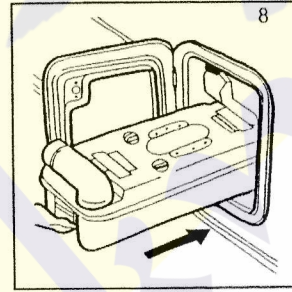
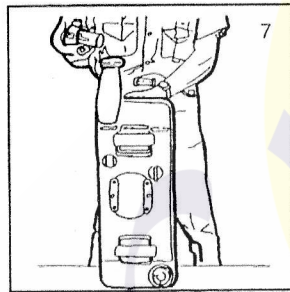
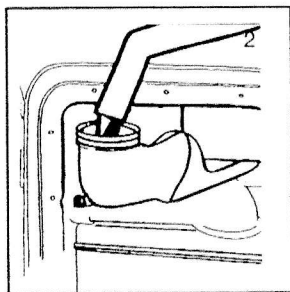
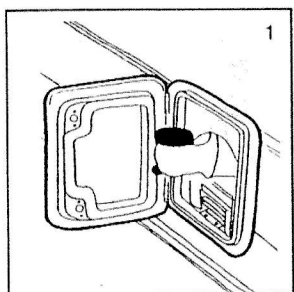
Toilet Tissue

12. Toilet tissue is stored in the specially designed storage compartment that helps keep tissue clean and dry. Tissue can also be suspended on a tissue holder using the special wall mount bracket, if desired.
13. To replace tissue, remove tissue holder from compartment by pulling up on tissue cover. Hold bottom of tissue holder in one hand and cover in the other, and turn in opposite directions until you hear a click. Pull apart. Place tissue on holder and twist in opposite direction until locked. Aqua Soft toilet tissue is recommended for best results.

EMPTYING THE WASTE HOLDING TANK

The waste holding tank capacity is 20 litres and should be emptied when the waste level gauge indicator goes from green to full red. The gauge does not begin to move to red until tank is over half full. The gauge does not begin to move from red until the tank is over 3/4 full. CAUTION: Do not allow cassette to become overfilled, see trouble shooting section for emergency emptying procedure.

14. To empty waste holding tank be sure that the valve blade is in the closed position. Open the access door on side of caravan. Depress the retainer clip, pull cassette until stop tilt and remove the waste holding tank.
15. Carry the waste holding tank using the lower carrying handle, pour out spout up, to a normal household type of toilet or other authorised disposal point. Set waste holding tank in vertical position on the ground and rotate pour out spout upward.
16. Remove spout cap. Grasp until by upper carrying handle nearest to pour out spout. Place other hand upper on rear hand grip so that the air relief valve button can be depressed with thumb wheel emptying, to ensure smooth outflow of tank contents. When empty remove the sliding cover manually by sliding it towards the pour out spout, rinse tank and valve blade area with water. Note: Depress air release valve button only when pour out spout is pointed downwards.
17. If necessary make the toilet ready for use (see nr.1 up to nr.7) Slide the waste holding tank into the toilet and lock the access door.



W A T E R S Y S T E M S - C O N T I N U E D

WINTERISING AND STORAGE

The Thetford Cassette is easily winterised for storage or cold weather use.

18. Empty the fresh watertank using the drain tube / fresh water tank level indicator. Pull level indicator / drain tube down from top plug position outward through door open to drain water from tank.
19. Empty the water fill funnel by pulling the bottle away from the tank. Remove small water cap at fill bottom, allowing water to drain from water funnel. Note: Do not tighten caps, this helps in keeping unit dry. Waste holding tank: leave cap off and the blade open.

Cold weather use

The Cassette can be used during cold weather when the caravan or motorhome is heated. When the vehicle is not heated for more than a day (or a night) winterise the Cassette.

CHASSIS AND RUNNING GEAR MAINTENANCE

SERVICING

Servicing Philosophy

The Conway lightweight chassis has been designed to be maintained at an optimum performance level with minimal servicing. Servicing philosophy embraces lubrication inspections and adjustments carried out in accordance with a schedule based on mileage. However, if the mileage is not attained, servicing should be carried out on a periodic basis.

Servicing Schedule

After first 20 miles

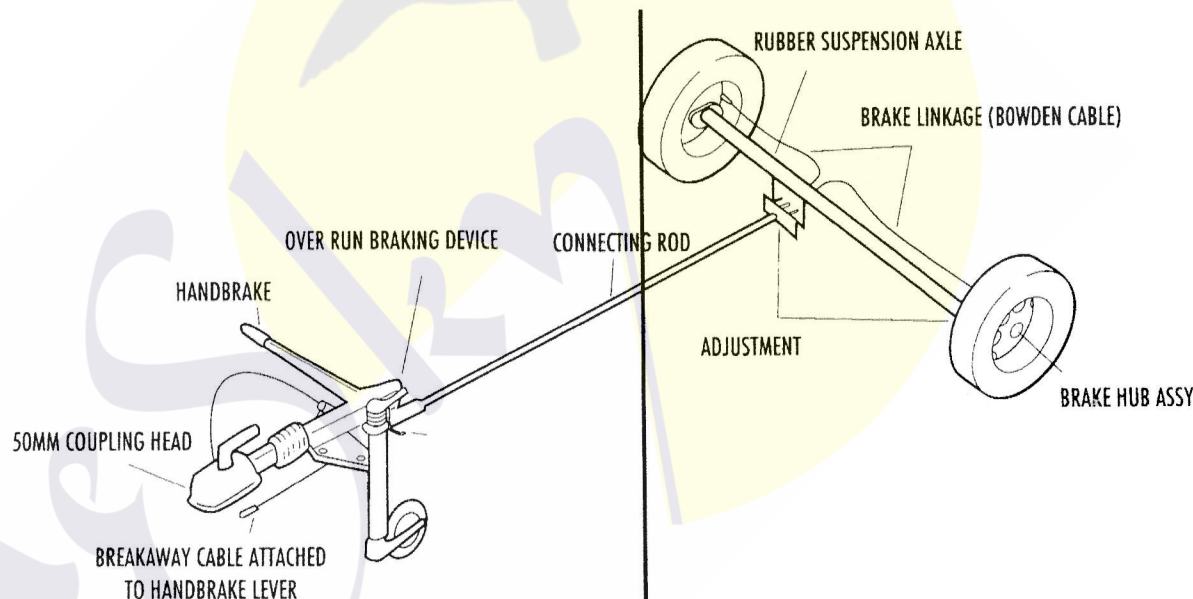
Check wheelbolt/nuts torque

After first 500 miles

Check wheel bearing adjustment
Check and adjust the brake shoes and the brake linkage
Check wheelbolts/nuts torque

Every 500 miles or 2 monthly

Inspect all wheels
Examine and lubricate the ball coupling
Inspect and lubricate the overrunning device
Lubricate the jockey wheel
Lubricate the brake linkage
Lubricate the corner steadies



Every 1500 miles or 6 monthly

Grease the overrun coupling
Check wheel bearing adjustment
Visually check the axle for damage
Check wheelbolt/nuts torque

Every 3000 miles or annually

Check wheel bearing adjustment
Measure the towing ball
Grease the overrunning device
Check and adjust the brake shoes and the brake linkage

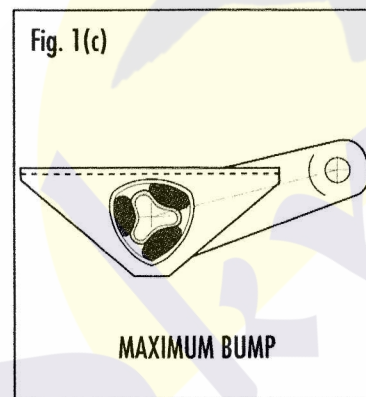
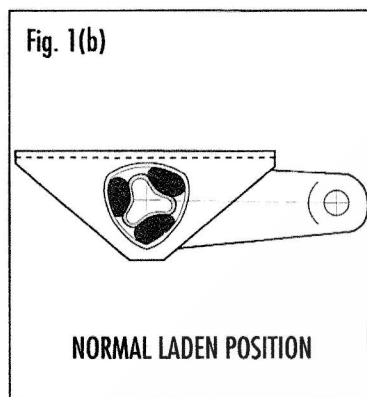
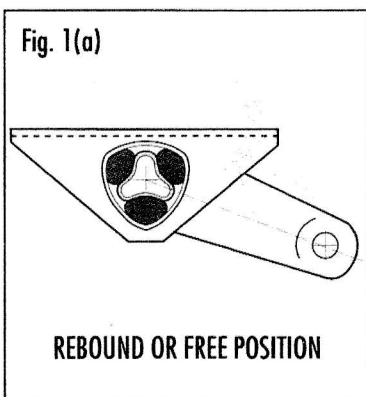
Every 6000 miles or biannually

Repack the wheel bearing hubs with grease
Adjust the axial play of the wheel bearing hubs
Check the brake linings for wear or fatigue
Check and adjust the brake shoes and the brake linkage
Lubricate the pivot pins of the running brake system

After use servicing - Chassis

After journeys during winter, hose down to wash the salt off. After the trailer has been immersed in water, hose down to remove any corrosive substances which may attack the chassis.

THE AXLE & COUPLING



THE AXLE

The AL-KO rubber suspension axle has been designed for new standards of spring comfort and is maintenance free.

Three rubber elements are contained within an hexagonal axle tube. These provide suspension and have inherent damping characteristics.

Figures. 1(a), (b), and (c) show the deformation of the rubber elements at the extremes of suspension movement.

The axle is designed to ride with the suspension drop arm at, or slightly below, the horizontal position.

THE COUPLING

The coupling is a standard 50mm. The cup of the coupling should be greased to prevent rattle and road noise. All other moving parts of the coupling should be lightly oiled occasionally. (Figure. 2)

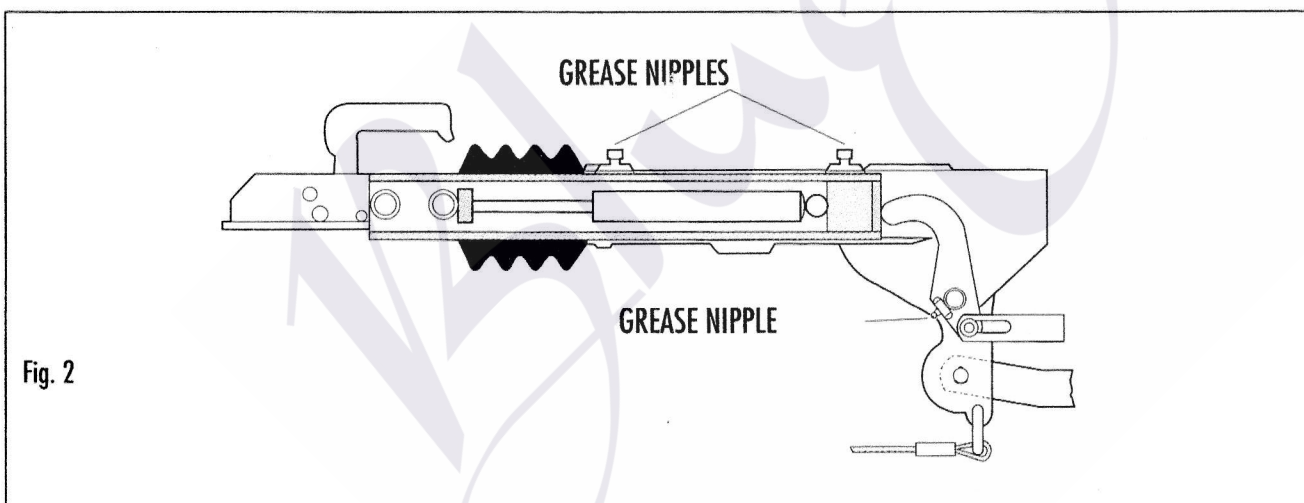
Braked Coupling

Examine all pivot pins and levers for correct operation and lubricate with oil.

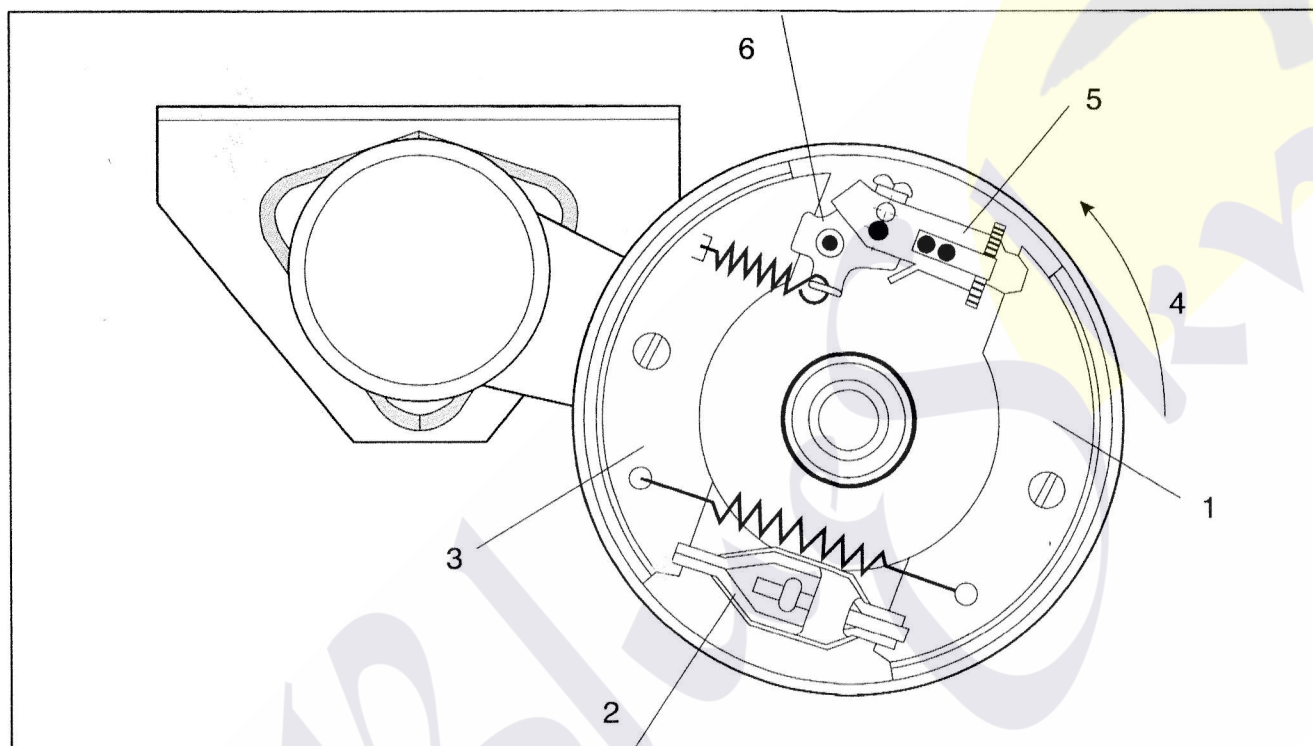
Braked Models Only

Check the handbrake ratchet for correct operation and lubricate with oil.

Grease the overrun shaft bearings via the grease nipples provided every 1500 miles or 6 monthly.



BRAKING SYSTEM (Braked models only)



FORWARD BRAKING

In the free position, with the overrunning device extended, handbrake lever fully forward 'off-position' the wheel brake shoes are clear of the drum and there is no friction.

During braking, travel on the main shaft of the overrunning device is transmitted via the overrun lever, brake rod and bowden cables to the expander mechanism inside the wheel brake. The fully

floating expander mechanism (2) forces the leading brake shoe (1) and by reaction the trailing brake shoe (3) into contact with the brake drum.

The friction between brake shoes and drum creates a tendency for both shoes and expander to move with the forward rotation (4) against the solid abutment of the adjuster box (5) which ensures both shoes remain in braking position.

Very Important

When parking it is vital that the handbrake handle is fully applied i.e. VERTICAL, to override the auto-reverse system.

AUTO-REVERSING

During reversing the shaft of the overrunning device is subjected to its full travel which is transmitted in the normal manner to the expander mechanism inside the wheel brake.

The expander (2) forces both brake shoes (1 and 3) into contact with the drum as normal except with the backward rotation of the wheel the friction between brake shoes and drum is immediately relieved.

The friction between brake shoes and drum ensures that both shoes plus the expander mechanism show a definite tendency to move in the direction of rotation, i.e. reverse. The pressure generated by this action is applied to the spring loaded reverse lever (6) causing it to collapse.

The collapse of the reverse lever virtually eliminates the friction between brake shoes and drum thus allowing easy reversing. With only slight forward movement, the reverse lever returns to its normal position by virtue of the coil spring attached and normal braking is immediately available.

B R A K I N G S Y S T E M

PARKING - HANDBRAKE OPERATION

Very Important:

When the handbrake is correctly applied it should be almost in a vertical position. Full application of the handbrake lever compresses a coil spring inside a steel cylinder and should any movement of the camper occur following uncoupling the energy stored in the spring is immediately released to lock the wheel brakes.

The AL-KO automatic brake system incorporates a patented device for added safety when parking on a reverse sloping site or a steep hill.

A spring cylinder has been added to the link between handbrake lever and centre brake rod.

It should be noted that it is good common practice to chock the wheels of a camper when parking on steep slopes, or under adverse weather conditions such as loose or slippery surfaces.

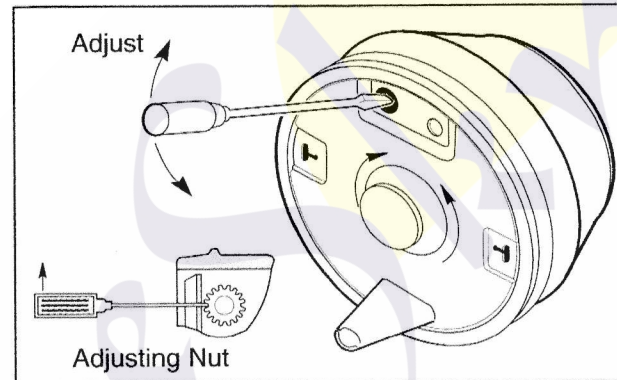
WHEEL BRAKE ADJUSTMENT

The AL-KO automatic reversing brake system and its linkage should be periodically adjusted to compensate for wear of the brake shoe lining and subsequent stretching of the bowden cables.

The trailer brake will be subject to greater wear when used on continuous mountain journeys.

The corner steadies should never be used to jack up the unit. When jacking becomes necessary, use a bottle, screw or scissor type jack.

(AL-KO Part NO. 356858 with axle shaped head is recommended.) Place the jack plate under the axle as near as possible to the main longitudinal member.



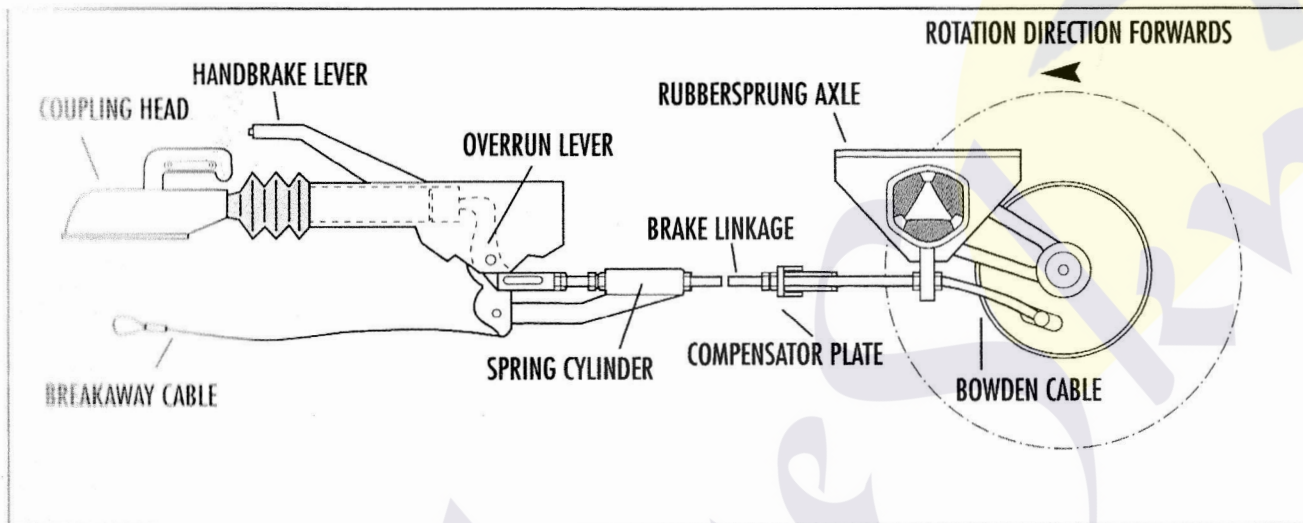
Recommended Adjustment Procedure:

- Jack up the axle to raise the road wheel clear of the ground. Place a chock under the grounded wheel.
- Ensure that the drawshaft is fully extended (in the towing position) and the handbrake is OFF (fully forward position).

Confirm that there is some end float in the rod and spring cylinder.

The brakes must be adjusted first and then, but only if necessary, the brake linkage. During wheel brake adjustment, the drum must only be turned in the direction of forward rotation. Do not use excessive force during adjustment.

- Remove the plastic bung at the rear of the brake back plate and insert a suitable screwdriver into the hole.
- Adjust the starwheel in the direction of the arrow until there is resistance to wheel movement.
- Slacken until the brake drum turns freely in the forward direction.
- Check for correct adjustment at the chassis end of the bowden cable. When pulled, the cable should extend between 5 and 8mm.
- Check for uniform response by both wheel brakes when the handbrake is operated. Adjustment must be made on the wheel brake, not on the brake linkage.



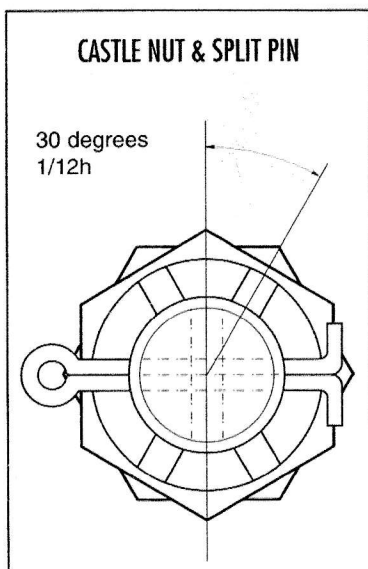
Important:

Reversing will be difficult if either wheel brake or brake linkage is over-adjusted.

BRAKE LINKAGE ADJUSTMENT

- Apply the handbrake two or three times to ensure that the brake shoes are centralised on the drum. Recheck shoe clearance at the wheel brake.
- Centre brake rod - check that there is full thread engagement in the fork end of the overrunning device. Secure the locking nut.
- At the axle, ensure that the compensator plate is parallel to the axle by adjusting the nuts on the bowden cables. Lock the nuts.
- Adjust the centre brake rod at the rear nut so that there is no clearance between the overrun lever and the drawshaft and plate. Secure the locknuts.
- Correct adjustment of the linkage is checked by operating the handbrake lever so that it engages the second tooth of the ratchet and confirming that a slight braking force is felt at the wheels.
- On completion, tighten the self locking nut to give 1mm clearance between the nut and the spring cylinder. (Ignore this instruction if gas strut type handbrake lever is fitted).

WHEEL BEARINGS AND SERVICING

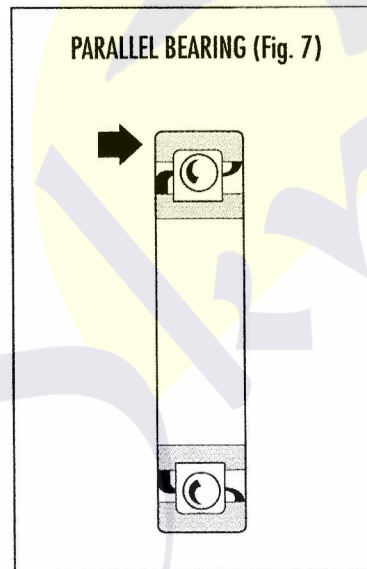
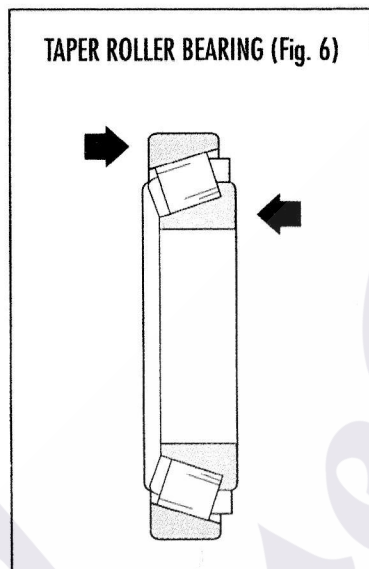


TAPER ROLLER BEARINGS 1982 on

After the first 500 miles and at intervals of 1500 miles or 6 months thereafter, examine the wheel bearing hubs for side play.

Adjustment (Fig. 6)

- Remove the push-in grease cap. (It may be freed by tapping lightly around its edge).
- Remove the split pin and tighten the castle nut (right hand thread) until free rotation of the drum is impaired.



- Slacken off the castle nut 1/12th of a turn (30 degrees) until one of its slots is aligned with cross hole in the middle of the stub axle.
- Using a new split pin, secure the castle nut.
- Ensure the drum is free to rotate.
- Refit the push-in grease cap.

Recommended Lubricants

Mobilgrease MP is recommended for all greasing routines. A good all-purpose oil recommended for general use.

PARALLEL BALL BEARINGS 1982 - ONWARDS

After the first 500 miles and at intervals of 1500 miles or 6 months thereafter, examine the wheel bearings for side play.

CERTAIN ALKO & VLKON AXLES - Adjustment (Fig. 7)

- Remove the push-in grease cap. (It may be freed by tapping lightly around its edge).
- Remove the split pin and tighten the castle nut, or nylock nut if fitted, by use of a torque wrench as follows:
Tighten initially to 30lbs/ft.
Back off and re-tighten to 15lbs.
- If the castle nut is fitted - re-secure with a split-pin.
- Ensure that the drum is free to rotate.
- Refit the push-in grease cap.

Important:

Incorrect adjustment will result in bearing damage or excessive wear.

Note: Ref. Alko Euro - Axle

Double Row Ball Bearings fitted to some models from March 1994 - see info sheet or contact Conway for details. These units are not serviceable by customers identifiable by 'Gold' coloured back plate.

TYRES AND ROAD WHEELS

Tyre Size	Type	Circa	PSI Min Press (cold)	Bar
400x8	Crossply	Pre '88	45	3.1
400x8	Crossply	'91, 92, 93	33	2.3
400x8	Crossply	'94 On	55	3.8
440x10	Crossply	Pre '88	45	3.1
145 SR 10	Radial	'88 On	32	2.2
155 SR 13	4Ply Radial	'82 On	35	2.4
155 R 13	Reinforced Radial	'94 On	39	2.7
165 R13	Reinforced Radial	2000 On	40	2.8

TYRES

It is dangerous to drive with underinflated tyres. The pressure (cold) recommended by tyre manufacturers should be regarded as minimal.

Check the tyre size fitted to your trailer.

Pressure checks, including spare tyre should be made with the tyres cold, before each journey and at regular intervals during storage using an accurate pressure gauge.

TYRE WEAR AND DAMAGE

The legal requirements for tread depth on motor vehicles apply also to trailer tents and folding campers.

In order to equalise wear, it is suggested that wheels can be balanced and changed around from time to time.

It is dangerous to neglect tyre damage and should you detect a blister, rupture or cut exposing the casing or if it has suffered a violent impact (for example against a kerb) such that there is a risk of internal damage, it must be demounted and examined by a tyre specialist as soon as possible.

WHEELS

The condition of the wheels should be checked regularly particularly for distortion of flanges and the wheel dish.

Wheels damaged or distorted, or having wheel bolt seatings cracked or deformed must not be repaired or used in service.

Note: 400x8 tyre pressures should be checked during fuel stops on long journeys

Note: Both 155 13 Tyres can be used on same axle with min. tyre pressure of 35psi (2.4 bar)

Important: Wheel bolts should always be tightened using a Torque Wrench, spider or similar tool (not the corner steady brace) to our recommended torque setting:

Wheel bolts - 65lbs/ft (9.0kg/m)

Wheel nuts - 62lbs/ft (8.0kg/m)

The torque setting should be re-checked after the first 20 miles of use then after the next 50 miles of use and then every 1500 miles or 6 monthly.

Many experienced campers check them at the start of every journey.

T Y R E S A N D R O A D W H E E L S

PUNCTURES/WHEEL CHANGING

In every case try to ensure, for safety's sake, as much clearance as possible between you and passing traffic.

Wherever possible leave the trailer connected to the tow vehicle. This will aid stability when on the jack. If this is not possible, lower the jockey wheel and chock this and the road wheels. If the trailer is braked, apply the handbrake fully.

Lower the jacklegs or wind-down corner steadies until they are touching the ground as a safety measure only. Do not use them to jack up the trailer. A scissors, bottle, or screw type jack should be used.

Locate the jack beneath the axle beam or mounting plate only. Do not use the chassis as a jacking point.

Slacken the wheel bolts/nuts - maximum one turn only, using a suitable spider or wheel brace.

Slacken the bolts of the underslung spare wheel carrier (if fitted) and if space permits remove the spare from its carrier.

Jack up the trailer, remove the wheel bolts/nuts and change the wheel, it is recommended that you examine the new wheel before fitting. Refit the wheel bolts/nuts and tighten gradually in a North, South, East, West sequence.

Raise the corner jacks or wind up the corner steadies and then lower the jack fully and remove.

Using the sequence above, fully tighten the wheel bolts/nuts. Remember to check them after the first 20 miles preferably with a torque wrench where possible.

If the trailer is braked, remove the handbrake before moving off.