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WELCOME & INTRODUCTION

Thank you for selecting your new motorhome.

Before you drive off, please familiarise yourself with the motorhome and read this owners' handbook. This will help you to obtain the maximum pleasure from your vehicle and avoid endangering yourself and others, refer to the base vehicle user handbook supplied with your motorhome.

Additional information and detailed appliance instruction manuals are also contained in your Owner's Information Pack.

Your new motorhome has been designed as a recreational vehicle and is intended for recreational use only. It is not intended for business use or for permanent habitation. Elddis accepts no liability if the motorhome is used for any purpose other than recreational/holiday use. Any use other than recreational/holiday use will invalidate your warranty.

Please note: All Elddis motorhomes are classified as Grade 3 and therefore meet with the thermal insulation and heat levels for specific climatic conditions as specified within the British and European Standard BS EN 1646 part 1.

By following the instructions provided in this handbook and maintaining your motorhome in a first class roadworthy condition, you are sure to have many years of carefree use. To ensure the very best quality and reliability all motorhome designs and new developments are rigorously tested. Therefore Elddis will accept no liability or uphold the warranty if the motorhome is altered or modified in any way.

IMPORTANT

The VIN number of your motorhome must be quoted in all correspondence, it can be found on a plate fixed next to the chassis plate within the engine compartment.

The vehicle VIN number should be quoted in any communications with the base vehicle manufacturer.

Changing market and supply situations may prevent us from maintaining the exact specification details in this guide and we

therefore reserve the right to alter specifications as materials and conditions demand and if necessary supply an alternative.

Enjoy your new motorhome.

IMPORTANT: Register your vehicle with us

In order to fully protect your valuable purchase, we would kindly ask you to take a few moments to complete our online Warranty Registration.

Registering your vehicle will ensure that we always have the most accurate and up-to-date contact information and all of your vehicle details to hand, should you ever need our assistance.

Your feedback is incredibly important to us and helps shape the future of our leisure vehicles. We would be delighted if you would also complete our accompanying online Customer Questionnaire.

Both our **Registration** form and our **Customer Questionnaire** can be found on our Homepage: www.elddis.co.uk

Please note that this is not for warranty purposes, warranty registrations must be done by the selling retailer.

End Of Life Vehicle Directive

Your new motorhome fully complies with the European Directive on the End of Life Vehicles. In order to obtain information on how to dispose of your motorhome at the end of its life please visit the base vehicle manufacturer website. The base vehicle manufacturer website contains full details on all base vehicle manufacturer products together with details of their environmental and recycling policies.



Elddis Technical Approvals

All Elddis Motorhomes have been European Commission Whole Vehicle Type approved. In order to ensure your new motorhome is safe to use Elddis are members of and have been inspected by the following bodies.

NCC who operate a certification scheme to ensure compliance with the European safety standards for motorhomes.

Elddis has also obtained ISO 9001:2015 accreditation and this is periodically audited.

Please note: Elddis Motorhome model year.

Elddis model year starts on the 1st September and runs to the 31st of August.



GENERAL SAFETY

Please read before using your new motorhome.

In order for you to get the most out of your new motorhome it is necessary for you to be aware of the following:

- (i) Do not obstruct ventilators (See Safety Section - Ventilation)
- (ii) Inspect the flexible gas hose regularly for deterioration and renew as necessary, with approved type, as and in any case no later than the expiry date stated on the hose.
- (iii) Never use portable cooking or heating equipment inside your motorhome. Do not use your fitted cooking equipment as heating at any time.
- (iv) Never allow modification to your gas or electrical system unless qualified persons carry them out. A Gas Safe Register™ approved gas fitter should carry out all modification to the gas system. Any modifications carried out on the electrical system should be carried out by a suitably qualified electrician.
- (v) Never exceed your motorhome's Maximum Technical Permissible Laden Mass.
- (vi) Never exceed the front or rear axle maximum load as specified by the weight plate under the bonnet.
- (vii) Pull out/lift up worktop extensions, where fitted, are only designed to take maximum weight of 6kgs.
- (viii) Please ensure extra care when young children use high level bunks and always use the safety nets and lift up flaps provided.
- (ix) Do not leave children under 14 years of age unattended in your motorhome.
- (x) Please ensure all gas appliances are turned off while you are travelling.
- (xi) If you suspect there is a gas leak please open all the windows then vacate the motorhome. Switch off the gas supply if it is safe to do so. Then contact your nearest Elddis Retailer to arrange for them to check the gas system.

- (xii) Only those seats designated for travelling should be occupied when the motorhome is in motion.
- (xiii) Please note that motorhomes are covered by the seat belt regulations, which came into force in October 2006. These require children that are under 12 years old and also under 135cm in height to be seated in either child seats or on bolster cushions.
- (xiv) Before travelling in your motorhome: Ensure all the tables have been stored in their designated table storage position.
- (xv) Ensure you remove all items from the microwave before travelling.
- (xvi) It is essential that you have securely closed and locked the habitation door before setting off on any journey.
- (xvii) Where a dividing curtain is fitted or provided, please ensure when not in use it is stored in the position furthest away from any cooking equipment or in the storage housing if provided.

Proper And Safe Use Of Storage Areas In Motorhomes

The storage areas provided in your motorhome are designed solely for the purpose of carrying personal possessions; these areas must not be used:

- As a habitation area (e.g. living, sleeping or cooking).
- To carry passengers, animals or livestock.
- For the installation (or use) of any LPG gas operated appliances, (unless supplied fitted by the manufacturer).
- For carrying LPG gas bottle cylinders, (unless designated by the manufacturer).
- To carry any flammable liquids, (unless properly stored, sealed and secured).
- For the operation of an electrical generator.
- In such a way that the loading exceeds the payload limit, as defined by the manufacturer.
- Such that the weight distribution of the vehicle means non-compliance with the vehicle axle loads.



VENTILATION

All motorhomes manufactured by Elddis are ventilated at both high and low level in accordance with BS EN 721 Safety Ventilation. The fixed ventilation points fitted in your motorhome must not be blocked under any circumstances as your safety may depend upon them. It is advisable that the fixed ventilation points are checked and cleaned (where necessary) on a regular basis.

High-Level Ventilation

This is mainly provided by fixed ventilation within the fitted roof skylight. These roof skylights should be cleaned annually by use of a small brush to remove any dust that may have accumulated around the mesh fitted. On some roof skylights the mesh can be easily removed to aid cleaning. On fan-assisted roof skylights it is essential that the fan is switched off prior to cleaning.

High level ventilation may also be provided by additional fitted mushroom vents.

Low-Level Ventilation

All Elddis Motorhomes have fixed low level ventilation provided. These ventilators are covered with plastic covers designed to prevent them from being obstructed by items placed within the bed box. These covers can be removed by undoing the two screws in order to facilitate cleaning the ventilators, however these covers must be replaced once cleaning is completed.

It is essential for your safety that these ventilators are not blocked at any time.

Ventilation in Separate Bedrooms

In motorhomes with separated sleeping areas, separate ventilation is required and is provided via a roof skylight at high level and a ventilator at low level.

Gas Dispersal Holes

All appliances and gas unions have a gas dispersal hole within the same compartment.

It is essential that these are not blocked or made ineffective.

FIRE SAFETY

Fire Extinguishers

It is recommended that one dry powder fire extinguisher complying with EN 3-7 of at least 1kg capacity or equivalent is provided by the main door, and a fire blanket next to the cooker. Familiarise yourself with the instruction on your fire extinguisher and the local fire precaution arrangements.

In Case Of Fire

- (i) Get everyone out of the motorhome as quickly as possible using whichever exit is quickest including windows. Do not stop to collect any personal items.
- (ii) Raise the alarm. Call the fire brigade.
- (iii) Turn off gas container valve if safe to do so.
- (iv) Retreat to a safe distance.

Fire Retardant Foams

All motorhomes are equipped with polyurethane (PU) foam which are combustion modified foam cushions, foam mattresses and fire retardant fabric. All furnishings and fabrics used by Elddis comply with the Furniture and Furnishings (Fire Safety) Regulations. In addition all upholstery is made of fire retardant fabric.

Habitation Door

Note: Please ensure you only remove the key from the door with the key in the vertical position (12 o'clock).



PREPARING FOR THE ROAD

Before venturing out on to the road with your motorhome, it is important that you prepare correctly.

MOTORHOME WEIGHTS EXPLAINED

Mass in Running Order

The weight of your motorhome as it leaves the factory, as new with standard fixtures and fittings, plus an allowance for the driver of 75kgs, the mass of the fuel when the tank is full and an allowance of 10kgs per gas bottle, the number of gas bottles equal to the number of connections provided at the regulator.

Maximum Technically Permissible Laden Mass

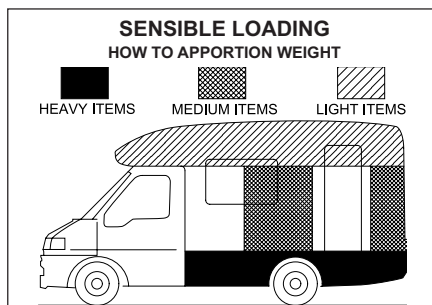
The maximum mass the vehicle can be when fully laden for use on the road.

User Payload

The load margin (payload), this represents the difference between the Mass in Running Order and the Maximum Technically Permissible Laden Mass. It shows the maximum weight that can be loaded into your motorhome, covering items such as food, crockery, cutlery, clothing, bedding, etc.

Loading

It should be noted that even weight distribution is a major factor in making your motorhome an easy and pleasant vehicle to drive. Care should therefore be taken in balancing the load, ensuring that heavy items are well spaced and are in as low a position as possible, for example, low cupboards and bed boxes.



Note: Light items are considered as clothing and bedding. It is not recommended to travel with tinned items in overhead lockers.

IMPORTANT: Do not exceed maximum technical permissible laden mass for your motorhome.

BEFORE MOVING OFF

Whenever making a journey with your motorhome, either setting off on holiday or returning home, it is good practice to run through this simple checklist.

- (i) Close and secure all cupboards and drawers and secure any loose articles.
- (ii) Do not store tins, bottles, etc. in overhead lockers.
- (iii) **Close and secure all windows and roof lights.**
- (iv) Leave all curtains and blinds open to aid visibility.
- (v) Check that gas cylinders are securely fastened and that the valve on the gas cylinder is turned off. Also ensure that the gas locker door is securely locked.
- (vi) Turn off all gas appliances.
- (vii) Switch off 240volt supply at source; disconnect mains cable and store in an appropriate place.
- (viii) Check that the battery is secure and that the battery box door is locked.
- (ix) Ensure the fridge is on 12V operation and door lock is set. (Note: the electrical relays will allow the fridge to be run on the vehicle battery when the engine is running.)
- (x) Remove any external fresh water connections etc.
- (xi) Make sure any heavy articles are stored in accordance with the loading procedure.
- (xii) Lock habitation doors when travelling. We would recommend that all exterior doors, including the entrance door and access doors are firmly closed and locked prior to your departure.
- (xiii) Check your external rear view mirrors and adjust if necessary.



- (xiv) If a step is used, ensure it is put away before moving off.
- (xv) Your new Elddis motorhome has been designed to carry passengers in designated passenger seats only. The fitting of a 3-point seat belt can identify these seats. Any seat not fitted with a 3point seat belt is not designated as a passenger seat.
- (xvi) Ensure all tables have been stored in their designated table storage position.
- (xvii) Ensure you remove all items from the microwave (if fitted).
- (xviii) Check all the road lights are operational.
- (xix) Ensure the hob lid is in the closed position.

Pulling Off

- Pull away smoothly.
- Avoid wear and tear on clutch and transmission by taking extra care.
- Change gears smoothly.
- Try not to jerk the clutch.

Bicycle Racks

Your motorhome is fitted with bike rack rails. The rails are compatible with the Fiamma carry-bike pro M.

Fitting a bicycle rack to the rear panel of a motorhome will affect how weight is distributed. There are restraints to be aware of with such fitments.

The maximum loading allowed on the back panel is 60 kgs including the weight of the bike rack and bicycles.

The motorhome must also be balanced to take into account the new weight distribution. Weight must be distributed evenly.

Elddis cannot be held responsible for problems related to a bicycle rack fitted by a third party.

Tow Bars

Your new Elddis motorhome has been designed to accept a type approved tow bar. Full details on fitment are available upon request from Elddis.



MOTORWAY HANDLING

Best Practice

To gain the most enjoyment and ensure a long life for your motorhome, the following should be observed:

- Do not bump kerbs with wheels.
- When overtaking ensure sufficient clearance is given to other vehicles.
- Your Motorhome will not accelerate as quickly as a car, so take this into account when attempting to overtake other vehicles.
- Carry out all manoeuvres as smoothly as possible.
- Use the wing mirror to check your motorhome has cleared the other vehicle.
- Slow down and take care when driving over raised speed bumps, 'sleeping policemen' or when embarking/disembarking ferries.
- In high or cross winds, travelling downhill or in conditions of poor visibility reduce your speed.
- High-sided vehicles can cause air buffeting so extra care must be taken when passing or being passed. Leave as much space as possible when overtaking these types of vehicles

Speed Limits

Be sure to observe all statutory speed limits and adapt your speed to take account of prevailing weather and road conditions.

Towing Your Motorhome

In the unlikely event that you have to tow your motorhome. Please refer to the base vehicle information for details on where to find the tow point and tow hook.



ARRIVING ON SITE

CHECK SITE REGULATIONS

On arrival at a campsite, you should always check the site regulations. This will help avoid any unnecessary conflict with site management and other site users.

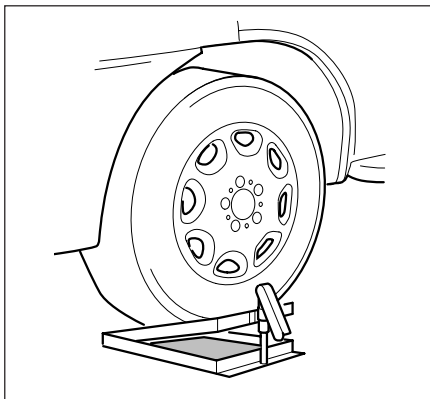
SELECTING A PITCH

Carefully select where you wish to place your motorhome. The site should be as level as possible, preferably not under or near trees, well drained and away from possible boggy areas. Consider how you will move the motorhome when it is time to leave the site. On sloping ground it is better to pitch facing downhill, especially during wet weather.

LATERAL LEVELLING (SIDE TO SIDE)

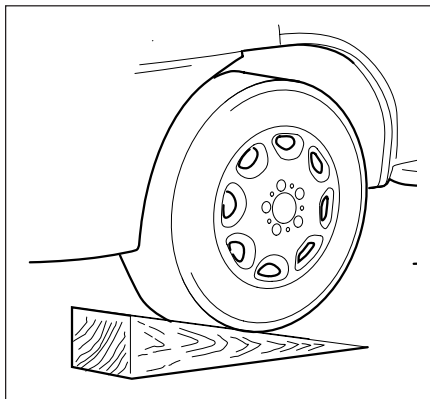
A quick glance at your pitch should tell you if you are likely to need side to side leveling i.e. levelling across the axle. On uneven ground lateral levelling is accomplished by the use of a leveler jack or ramp and a spirit level placed 'across' the motorhome floor.

LEVELLER JACK



Place the leveller jack, folded flat, in front of the wheel that is to be raised to level the axle. Drive the motorhome onto the leveler jack and adjust the height until the spirit level shows that the motorhome is laterally level.

RAMP



Reverse onto your pitch about a foot further back than you wish to end up. Then place the levelling ramp in front of the wheel that needs to be raised.

Place a spirit level parallel to the axle or just inside the motorhome door. It helps to have two people at this point. One should drive the motorhome very slowly forward moving the wheel up the ramp and the other should indicate when the spirit level bubble is in the middle.

Whichever method you use, once level, apply the motorhome handbrake and chock the motorhome wheel if necessary.



GETTING STARTED

You have arrived at your destination and now want to start to enjoy your new motorhome. The following is a step by step guide to connecting your services and getting everything in your motorhome working.

ELECTRICITY

Power Supply Charger

Your motorhome is fitted with a power supply/charger. This will charge the leisure battery "where supplied" when fitted and also power the 12V systems.

A leisure battery must be fitted to the motorhome at all times when in use.

The Charger is fully automatic and will not overcharge the leisure battery.

12v Systems:

When connected to the 230V site supply the automatic Power Supply/Charger will charge the leisure battery and power the 12V systems.

When the ignition is switched on the 12V system in the motorhome is automatically switched off, vehicle power is supplied to the refrigerator.

GENERATOR/CHARGER

When connecting to a generator, always switch off the RCD, start the generator and allow running for a few minutes to stabilise. When this has happened, switch the RCD to the ON position.

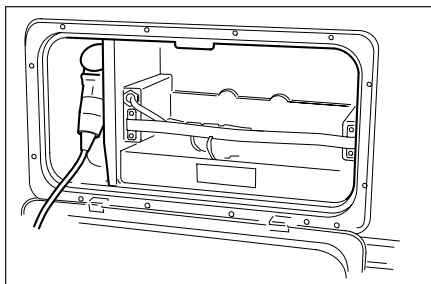
ELECTRICITY MAINS SUPPLY

Your motorhome's main electrical installation is designed to run on 230V at 50 hertz AC supply.

CONNECTING TO MAINS SUPPLY ON ARRIVAL AT SITE

Before connecting the motorhome installation to the mains supply, check that:

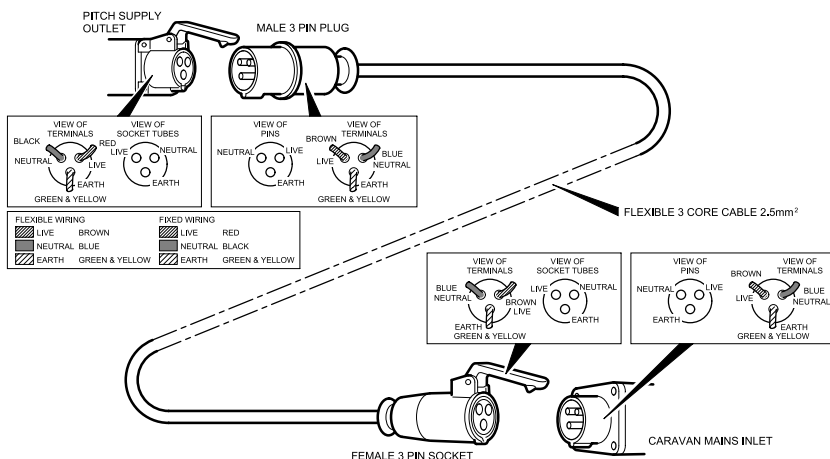
- (i) The mains supply is suitable for your installation and appliances, i.e. whether it is AC or DC and whether it is at the correct voltage and frequency.
 - (ii) Your motorhome is properly earthed. Never accept a supply from a socket outlet or plug having only two pins, or from a lighting outlet.
 - (iii) Any residual current device (earth leakage circuit breaker) in the mains supply to the motorhome has been tested within the last month. In case of doubt, consult the site owner or their agent.
 - (iv) Make sure that the switch at the site supply point is off and that all electrical equipment in the motorhome is switched off by ensuring your motorhome mains isolating switch on the MCB is in the 'OFF' position.
- Once the above checks have been made:
- (v) Remove any cover to the electricity inlet provided on the motorhome and insert the female connector of the flexible orange supply cable as shown.



- (vi) Locate the site supply and remove any cover from the socket outlet provided at the supply point. Insert the male plug at the other end of the flexible orange supply cable. Switch on the main switch at the site supply point (if appropriate).
- (vii) Place any surplus cable under the motorhome. Ensure that the surplus cable is not coiled up as it could overheat.
- (viii) The MCB main electricity supply switch should be put in the 'ON' position.
- (ix) Check the RCD is working by pressing the test button. Once pressed all electrical lights and appliances should cease to operate. Reset and then check the electrical system is operational.



WIRING OF CONNECTING CABLE AND MOTORHOMES MAINS INLET



WARNING: It is essential that connections are made exactly as shown. If terminal markings are not in accordance with the above diagram they must be ignored.

- (x) Finally in order to get your 12V system operational, ensure the master 12V switch is in the 'ON' position.

DISCONNECTING MAINS SUPPLY WHEN LEAVING SITE

- Switch 'OFF' the RCD in the motorhomes distribution unit.
- Remove the male 3 pin plug from the site supply.
- Disconnect the female 3 pin plug from the motorhome and store the cable in an appropriate locker.

OVERSEAS ELECTRICAL CONNECTION

Please note: Connection to a mains voltage supply OVERSEAS requires particular attention.

Care must be taken when connecting supplies abroad since the supplies can be of REVERSE POLARITY.

The significance of REVERSE POLARITY is that when equipment is switched off, it may not be electrically isolated. The only certain way of making equipment safe is to unplug it.

A means of checking the polarity of the mains supply when overseas is recommended. There are available several proprietary makes of equipment for the purpose.

If it can be achieved, it is preferable to connect live to live and neutral to neutral to maintain full electrical protection.

CHECK all motorhome equipment is set-up to accept the site supply before actually switching on.



GAS SUPPLY






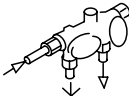
Your motorhome is designed to operate using either propane or butane liquefied petroleum gas at 30M/bar. Gas can be obtained from your motorhome dealer. Your motorhome is designed to accept a maximum 2 x 6-7kg gas bottles.

Connection

Make sure that heating and cooking appliances and gas cylinders are switched off.

Each gas appliance is connected to its own gas isolation valve. These are identified on the tap via a label. Below is a key to identify each label.

To operate the tap the arrow on the tap shows the direction of flow for the gas.

 Water Heater	 Cooking Appliance
 Space Heater	 Hob
 Refrigerator	 Gas On/Off

Changing a Gas Cylinder

Before commencing to change a gas cylinder ensure that the valve on the cylinder is turned fully off. Turn off all gas operated appliances.

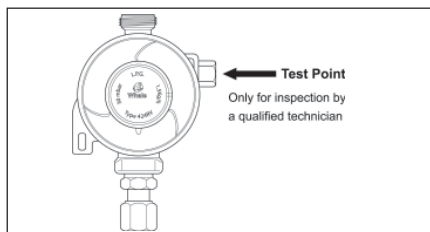
Remove the gas hose from gas cylinder.

Before refitting a gas cylinder, ensure that all gas operated appliances are turned off - particularly after winterisation. Ensure all connections are secure.

When the cylinder is connected please ensure that the high pressure hose is not placed under any strain.

WARNING: If cylinders other than those recommended are used, ensure that the cylinders are adequately supported, do not block ventilation openings and care to be taken not to cause damage to fixtures and fittings located in the compartment.

Gas Regulator



Your new motorhome has been fitted with a fully approved gas regulator designed to operate with both Butane and Propane gas at a gas pressure of 30mBar. Your regulator is fitted with a test point, which is accessed via the inlet at the side of the regulator. This access point is only for carrying out gas pressure tests and **must not** be used for any other purpose.

Please note: Only Gas Safe Register™ or STGW approved gas fitters can carry out any work on your motorhome gas installation. This regulator is not designed for vehicle in motion.



High Pressure Gas Hoses

You should only connect to this regulator using a length of approved high-pressure hose not exceeding 450mm from the gas cylinder to the regulator. These approved high-pressure hoses are available from your Elddis Retailer. These hoses are connected using screw thread fittings, which will make a seal if connected and tightened using a spanner. Once the hose is securely connected turn on the gas tap above the regulator, then turn on the gas bottle to allow gas to flow into the motorhome.

In order to make all your motorhome gas appliances operational it is necessary to open each appliance gas tap as detailed in previous column. All your gas appliances should now be operational. Instructions on how to use each appliance are detailed later in your handbook.

WARNING: Aerosols and highly flammable liquids must not be stored in the compartment behind, or adjacent to, any gas appliance. Some industrial LPG appliances operate at high pressure and require a 'high pressure' regulator. This often has an adjusting handle on it. NEVER use such a regulator on a motorhome.

Ventilation holes must be clear at all times.

WATER SYSTEM

Filling your fresh water tank

Your motorhome is fitted with a standard water inlet which can be filled using a hose pipe connected to a tap placed into the water filler point.

Please take care not to over fill your tank it is advised that someone monitors the water level in the tank while filling is in progress.

Waste Water Tank

Your new motorhome is also fitted with a waste water tank. All waste water excluding the toilet waste will run into the waste water tank. The level of water in the tank can be monitored using the control panel. Opening the grey waste outlet provided on the outside of the motorhome empties the tank. Open the tap when the outlet is over a drain and the water will run out of the tank.

Draining Down Your Water System

- (i) It is essential that you drain down your motorhome water system when it is not in use. This is most important during winter months to protect against frost damage
- (ii) Disconnect the water pump and switch off power supply.
- (iii) Open the safety drain valve on the water heater located next to the water heater.
- (iv) Open all taps and remove all plugs from sinks and showers. Lever operated taps should have the lever put into the up and central position.
- (v) Open both the blue and grey drain outlets on the outside of your motorhome.
- (vi) Adjust the level of the motorhome to ensure that the drain outlet is at the lowest point of the motorhome.



GAS SAFETY ADVICE

In the event of a suspected gas leak the gas must be turned off using the isolation valve on the gas bottle. A competent gas fitter should then check the system before it is used/reused.

Regularly check flexible gas hose, joints and connections for tightness. Finally, make sure that each gas appliance is working efficiently to the recommendations of the appliance manufacturers.

See Index - Ventilation

FACTS ABOUT LPG

- LPG is not poisonous.
- Bi-products of incomplete combustion are harmful to health.
- LPG is dangerous if all air and oxygen is excluded.
- LPG has been given a smell by the manufacturers in order to identify leaks.
- The gas is heavier than air and therefore sinks to the lowest point.

AWNING SPACES, LPG AND APPLIANCE EXHAUST

Using a refrigerator on gas which vents into an enclosed awning space must only be done if there is sufficient ventilation to prevent the build up of CO₂.

Space and Water heaters may produce sufficient amounts of CO₂ to pollute the awning space, if it is totally enclosed and therefore **MUST NOT BE** used on gas when an awning is attached.

Please note: Ventilation holes must be clear at all times.

LPG GAS SYSTEM

Elddis does not recommend the use of any external cylinders. All cylinders in use should be within the gas locker provided.

Please ensure that you have read the operating instructions for each gas appliance contained in your Owners Information Pack.

Please ensure that any gas hose left unconnected is protected from dirt or other foreign bodies entering the hose.

WARNINGS

- **Fresh air circulation should be allowed below the motorhome when appliances are in use and when flues terminate below the floor to allow free evacuation of the products of combustion. At least three sides of the underfloor space should always be kept open and unobstructed especially by snow. Do not make any additional openings in the floor.**
- **No appliance shall be used outside when connected to an internal outlet.**
- **Maintain adequate spacing of combustible materials from sources of heat or naked flame.**
- **Do not use additional independent gas appliances inside the motorhome.**



ELECTRICAL SYSTEM 12V POWER SUPPLY

Battery Installation

Your motorhome will be fitted with a charging and power distribution unit.

When installing the leisure battery please ensure that it is placed on the battery tray supplied with your motorhome. Then place the tray in the battery locker fitted to the side of your motorhome. Connect the battery to the clamp fittings connected to the connection leads within the battery box.

We recommend that you refer to the NCC approved battery scheme, which can be found at www.thencc.org.uk.

Battery Maintenance

Storage

Ensure that the leisure battery is fully charged before placing the vehicle into storage.

Check the battery state every month, if the terminal voltage drops below 12.07V then re-charging is necessary.

Charging should be carried out in a cool, dry well ventilated area.

CAUTION: Your Thatcham alarm system is powered by the leisure battery. Therefore it is recommended that a battery is installed at all times. Failure to do so could void your insurance policy.

Do not place the battery onto cold surfaces such as concrete as this will affect the battery's ability to charge.

Points to remember

- Prolonged discharge causes harmful sulfation and may damage a battery.
- For peak performance never let a battery sit discharged for long periods of time.
- Over discharged batteries are permanently damaged and need to be replaced.

Note: Do not over discharge the battery. One of the most common causes of battery failure is when the battery is discharged below the recommended level of approximately 12.2v - ref table. Discharging a battery below this

figure will cause permanent damage. Overheating and gassing will occur when re-connected to the mains supply.

	12 Volt Battery	State of Charge
Good	12.7V	100%
	12.5V	90%
OK	12.42V	80%
	12.32V	70%
	12.20V	60%
	12.06V	50%
Warning	11.9V	40%
	11.75V	30%
	11.58V	20%
Damaged	11.31V	10%
	10.5V	0%

Good: the battery is in good condition and not in need of charging

OK: nothing to worry about but put the battery on charge as soon as you can

Warning: get the battery on charge as soon as you can. Leave it and the battery will be damaged, possibly beyond repair

Damaged: Replace battery

Generators / Charger

All electrical equipment fitted in your new motorhome can be run from either a controlled generator or charger whose output is maintained between 11volts and 14volts.

At least once every 3 years, the motorhome electrical installation should be inspected and tested and a report on its condition obtained, as prescribed in British Standard BS7671.

230v POWER SUPPLY

Mains Unit

The Mains Unit replaces the conventional fuse box. Similar, but larger ones are often fitted in new houses. The unit, normally located on the front bed box, gives overloads and earth leakage protection for the 230V electrical supply in your motorhome.

For normal operation all switches on the unit need to be in the ON position. The switches on the left of the unit are known as MCB's (miniature circuit breakers). These take the



place of the conventional fuse but are more convenient. In the event of a fault the MCB 'trips' i.e. automatically moves to the OFF position. After elimination of the fault the MCB can be re-set by switching to the ON position (against the spring pressure in an upwards direction). If an earth fault develops, or a person was to touch a live piece of equipment, the leakage of current to earth should immediately operate the RCD (residual current device) and 'trip' the main switch, to the OFF position. This switch can only be re-set after elimination of the fault.

Please note: 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.

CAUTION: Lamp holder-plugs (bayonet-cap adaptors) should not be used under any circumstances.

Resetting the RCD

To re-set, operate the switch as for MCB's. Periodically, the RCD should be checked by operating the test button marked 'T'. The unit should immediately switch to the OFF position. If the unit does not switch off then a qualified electrician should be consulted. If the unit does switch off, the test is complete and the switch can be re-set restoring the supply back to normal.

Please note: Simultaneous operation of all of the 230V mains electrical equipment may not be possible. A typical UK site mains hook-up point provides a maximum output of 16 amps and on some continental sites the available output may be as low as 5 amps. If your loading exceeds the site supply it may trip the site circuit breaker. Please check the available mains output with your site operator. The following items need to be added together if used simultaneously.

230V mains equipment typical consumption figures:

- Refrigerator 0.50 amps
- Charger 0.50 amps
- Water heater 3.9 amps
- Blown air heaters 8.5 amps
- Colour TV 3.33 amps

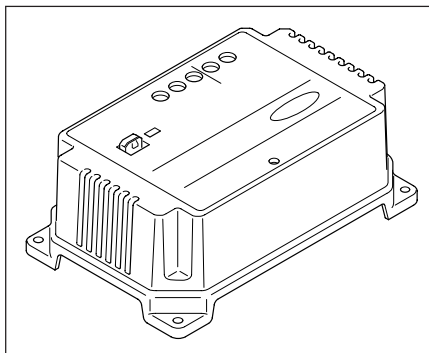
AUTOMATIC CHARGING SYSTEM

The battery charger will operate automatically when the motorhome is connected to the mains outlet on a motorhome site.

Note: The charging unit only charges the leisure battery not the vehicle battery.

When the motorhome engine is running the 12V system will not operate with the exception of the 12V refrigerator.

SCHAUDT WA 121525 BOOSTER UNIT



General

Your vehicle may be fitted with a Schaudt booster unit which is only required if the base vehicle is fitted with a smart alternator.

The unit does not require any interaction from the end user or require any maintenance and will simply function as its intended, during the normal operation of the vehicle.

Function

The WA 121525 Booster is used for the optimum charging of leisure batteries such as lead-acid, led-gel, AGM & lithium.

The main purpose of the booster is to ensure the leisure battery remains charged whilst the vehicle is in motion.

Your vehicle may be fitted with a smart energy saving alternator, this is engine/base vehicle dependant. The charge voltage for these alternators varies greatly depending on the driving state. Without a booster fitted, the vehicle leisure batteries are at risk of discharge whilst the vehicle is in motion.



Location

The location of the booster will vary depending on each vehicle layout, but will always be located within 1m of the vehicle's power distribution unit.

Please contact Erwin Hymer Group UK Ltd if any further information is required regarding this product.

CHECK all motorhome equipment is set-up to accept the site supply before actually switching on.

MAXIMUM BULB RATINGS FOR INTERNAL LIGHTS

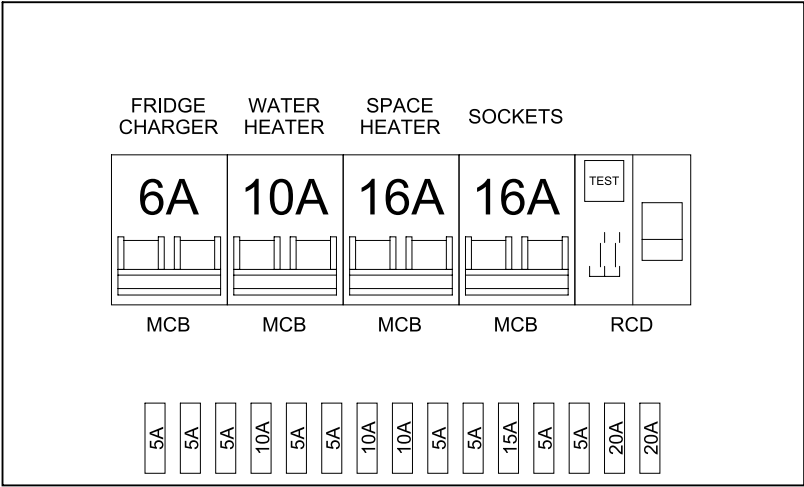
Type of Light	Maximum Bulb Rating
Downlighters	1.2 watts
Reading lights	0.4 watts
Awning lights	4 watts

LED tape is used as backlit mood lighting. The wattage varies from 4.8 to 9.6W depending on the location within the vehicle.

Note: All LED lights can only be replaced with a new complete unit and not a replacement bulb.

CAUTION: It is recommended to set the position of the reading light before switching on. Do not look directly at LED lights.

MAINS UNIT - ACCORDO





HOW TO USE YOUR MOTORHOMES EQUIPMENT

Within this section of your motorhomes handbook we will give you brief details on how to operate all of the motorhomes equipment from the gas cooking equipment to the window blinds. For further details on the major equipment within your motorhome please read the individual appliance instructions contained with your user information pack.

Please note: Before attempting to use any gas equipment please ensure that the gas bottle is connected securely to the motorhomes regulator via a high pressure gas hose and the bottle valve is in the on position. Also ensure the appliance isolation valves are in the on position as shown in the gas system section.

Please note: Before attempting to use any electrical appliance please ensure that you have connected the mains connection cable to a mains hook up and that the mains isolation switch is in the on position. Ensure the 12V master switch is in the ON position. This is found in the side of the unit next to the entrance door.



MAIN ENTRANCE DOOR HANDLE OPERATION

Your new Accordo Motorhome will be fitted with the following type of door handle and it is operated as described below.

Figure 1 shows the internal lever in the unlocked position. In order to open the door, press the lever down and the door will release open.

In order to close and lock the door, pull the door closed with moderate force, once the door has fixed in the closed position, push the lever up into the position shown in Figure 2. For the door to remain locked the lever must remain in the position shown.

Figure 1 - Unlocked

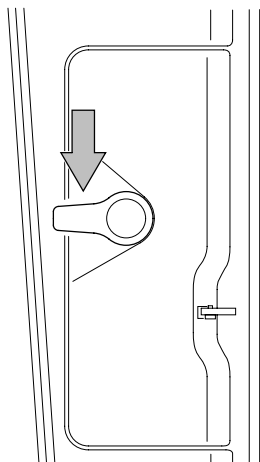
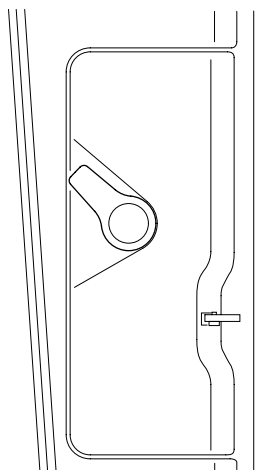


Figure 2 - Locked



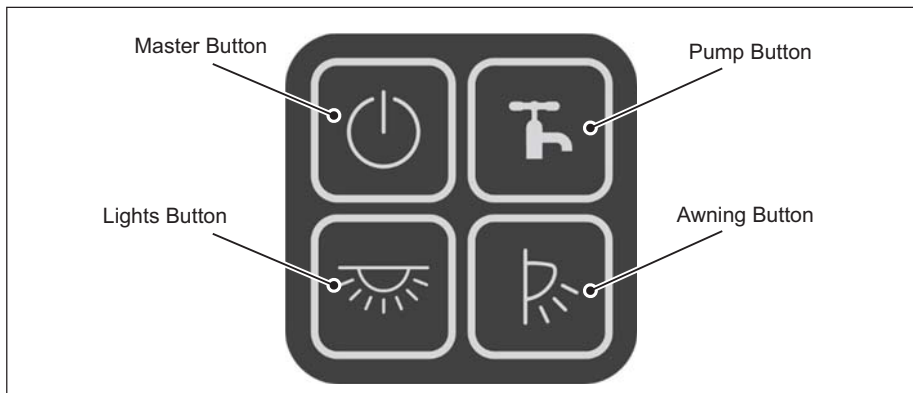
Please Note: Under no circumstance should the main door be operated when the vehicle is in motion. Should the door open during transit, please pull the motorhome over before operating the door.



CONTROL PANEL

Your new Elddis Motorhome is fitted with the control panel shown below.

Vegas Button Control Panel



Master Button

When the Master Button is pressed, the control panel will switch power to all non-essential accessories.

- Some features, such as lights, will need the Master Button to be switched on to work.

Lights Button

When the Lights Button is pressed, the control panel will switch power to all the interior lights.

- If the Master Button is switched off then this button will not function.

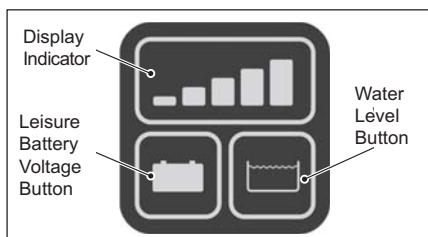
Pump Button

When the Pump Button is pressed, the control panel will switch power to the water pumps.

- Holding down the Pump Button forces the internal pump to run regardless of tank level. This is so that the user can purge their water pipes.

Awning Button

When the Awning Button is pressed the control panel will switch power to the exterior awning light.



Display Indicator

The Display indicator on the Vegas Voltmeter Panel is used to display the Leisure Battery voltage and the Water level, depending on which button is pressed.

- If a waste tank is fitted, the lowest indicator will illuminate when the waste tank is full.
- When the pump is running the 5th indicator (Green) will illuminate to indicate that the pump is currently running.

Leisure Battery Voltage Button

When the Leisure Battery Voltage Button is pressed, the Display Indicator will light up and display the voltage level of the Leisure Battery.

Water Level Button

When the Water Level Button is pressed, the Display Indicator will light up and display the water level reading inside the water tank.



Water Level Calibration

Before the Water Level Button is used for the first time, you will need to calibrate the Control Panel to your water tank.

- Make sure your water tank is at the recommended maximum level before starting the calibration process.
- You will need to re-calibrate the Control Panel if you change water tank.

Use the following steps to calibrate your Control Panel.

1. Hold down both the Voltage Button and Water Level Button for 6 to 8 seconds to get into calibration mode.
2. When you are in calibration mode, the Display Indicator will light up depending on which water probe you have installed.
 3. To cancel calibration mode, press and hold Leisure Battery Voltage Button for two seconds.
 4. To start the calibration process, press and hold the Water Level Button for two seconds.
 5. If the calibration process was successful, the display will flash three times.
 - If the calibration process is successful, the Control Panel will restart and be ready to use.
 6. If the calibration process was unsuccessful, the display will flash two times.
 - If the calibration process fails, go back to step 2 to start the calibration process again.

Pressure Probe



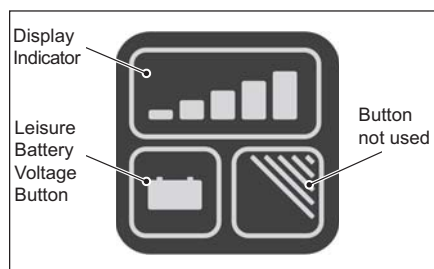
5-Prong Probe



Resistive Probe



Vegas Voltmeter without Water or Gas Level



Display Indicator

The Display indicator on the Vegas Voltmeter Panel is used to display the Leisure Battery voltage.

If a waste tank is fitted, the lowest indicator will illuminate when the waste tank is full.

Leisure Battery Voltage Button

When the Leisure Battery Voltage Button is pressed, the Display Indicator will light up and display the voltage level of the Leisure Battery. The button on the right of the panel is not used on this panel.



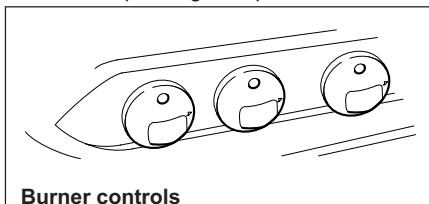
COOKING EQUIPMENT

WARNINGS

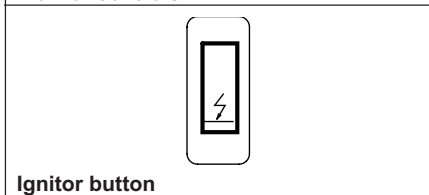
- (i) All pans should be mounted centrally over the burners, even when cooling, to protect adjacent walls.
- (ii) Do not lower the glass cover until hob has cooled down.
- (iii) Glass lids may shatter when heated. Turn off all burners and grill before shutting the lid. The glass cover should be raised when operating the grill.
- (iv) Accessible parts may be hot when the grill and oven are in use. Young children should be kept away.
- (v) Do not use grill or oven as a space heater.
- (vi) When you are cooking it is essential to provide additional ventilation, such as opening windows near grill, cooker and oven.

Gas Hob

- (i) Turn the individual control knob for the burner you wish to light.
- (ii) The depressing of the control knob overrides the flame failure device fitted to the burner. Light the burner using a safety gas lighter. If the burner fails to light within 20 seconds then release the control knob and wait 30 seconds before trying again.
- (iii) Once the burner lights it will be necessary to keep the control knob depressed for about 5 to 10 seconds to ensure that the flame failure device is heated up enough to operate.



Burner controls



Ignitor button



- (i) Turn the grill control knob to the high flame position and with the knob depressed light the burner using a gas safety lighter. If the grill does not light within 20 seconds then turn off the grill control knob for at least 30 seconds before trying again.
- (ii) Once the grill lights it will be necessary to keep the grill control knob depressed for 5 to 10 seconds to ensure the flame failure device is heated enough to operate.



Gas Oven

- (i) Turn the gas oven control knob to maximum then depress the knob then light the burner using a gas safety lighter. If the oven does not light within 20 seconds turn off the control knob and wait for 30 seconds before trying again.
- (ii) Once the oven is lit it will be necessary to keep the control knob depressed for 5 to 10 seconds to ensure the flame failure device is heated up enough to operate.





REFRIGERATOR

Your new Elddis Motorhome is fitted with a Dometic refrigerator. Details of how to operate your fridge are shown below:

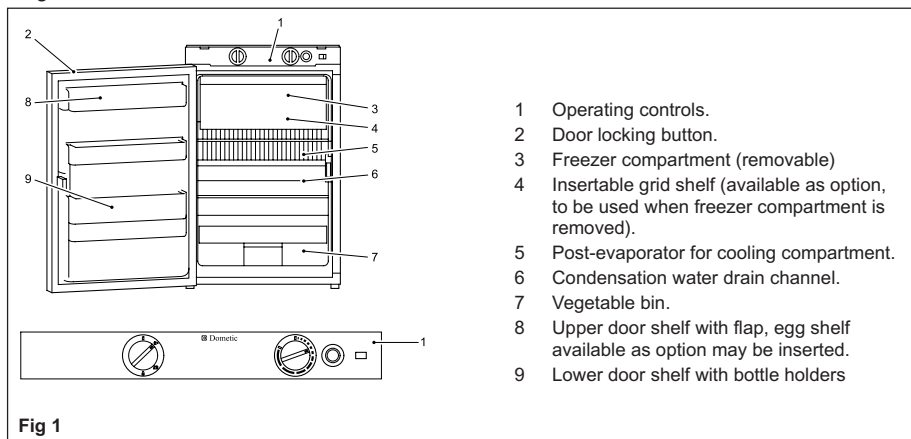


Fig 1

The refrigerator is equipped to operate on three power modes:

- Mains voltage (230V AC)
- Direct current voltage (12V DC)
- Gas (liquid gas, propane/butane)

Select the desired power mode by the energy selector switch (battery igniter type models) or the energy selector button (MES, AES). Appliances with automatic energy selection (AES) are additionally provided with “automatic mode” function. Then the AES system automatically selects the best energy source for each particular situation.

The cooling unit is silent in operation.

When the appliance is first put into operation, there may be a mild odour which will disappear after a few hours.

The refrigerator will take several hours to reach its operating temperature in the cooling compartment. The freezer compartment should be cold about one hour after switching on the refrigerator.

Cleaning

Before starting up the refrigerator, it is recommended that you clean it inside and repeat this at regular intervals.

Use a soft cloth and lukewarm water with a

mild detergent. Then wipe out the appliance with clean water and dry thoroughly.

To avoid material alterations, do not use soap or hard, abrasive or soda-based cleaning agents. Do not allow the door seal to come into contact with oil or grease.

Maintenance

In compliance with applicable regulations, please note that the gas unit and the connected ventilation ducts must be checked by an authorised technical personnel after first use and after every other year for compliance with the European Standard EN 1949. A test certificate has to be issued. **It is the user's responsibility to arrange this test.**

The gas burner must be inspected and cleaned as necessary, at least once a year. When using liquefied petroleum gas (tank or refill cylinders) the maintenance interval is reduced to half-yearly or quarterly.

Keep the evidence of maintenance work carried out on your refrigerator.



Work on gas and electrical equipment shall be carried out by qualified personnel only.

It is recommended that this is carried out by an authorised customer services department.

We recommend maintenance following an extended shutdown of the vehicle. Please contact our customer services.

Electrical operation

12V voltage (on-board power supply)

CAUTION: The refrigerator should only be used in 12V DC operation while the vehicle's engine is running, otherwise the on-board battery would be discharged within a few hours!

Appliances with battery igniter (manual energy selection)

Electrical operation

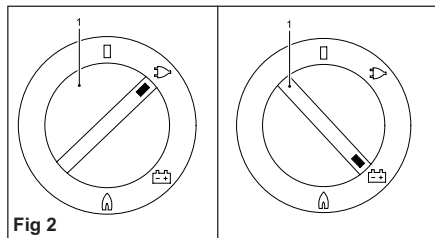


Fig 2

Switch on the appliance by turning the energy selection switch (1) clockwise to position:

 230V operation,

 12V operation

Gas operation (Liquid gas)

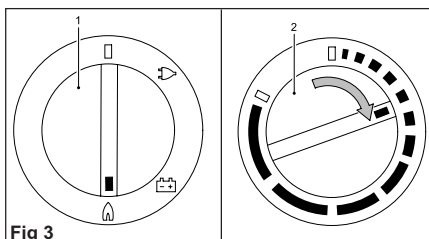



Fig 3

1. Turn the rotary selector switch (1) to position .
2. Turn the temperature selector (2) clockwise and push. Keep the controller button depressed.

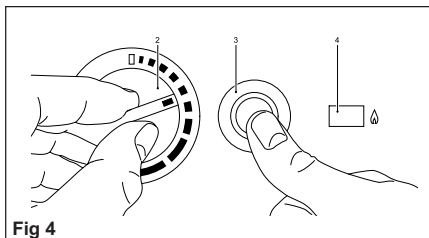


Fig 4

3. Then, press knob (3) of battery igniter down and keep it depressed. The ignition process is activated automatically.
4. Once the flame ignites, the pointer of galvanometer (4) begins moving into the green range. The refrigerator is operational. Keep knob (2) depressed for approx. 15 seconds and finally release it.

Setting of cooling compartment temperature

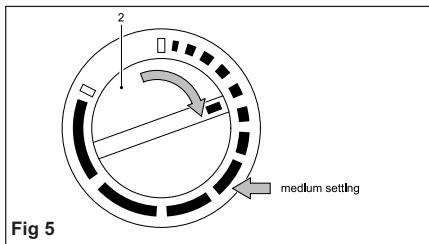


Fig 5

Select the desired cooling compartment temperature by turning the rotary knob (2).



The scale starts with **MIN** position (small bar = highest temperature) and climbs up to **MAX** position (large bar = lowest temperature).

Note: The temperature levels do not relate to absolute temperature values.

12V: The refrigerator operates without thermostatic control (continuous operation).

Mains power (230V)

CAUTION: This option should only be selected where the supply voltage of the connection for power supply corresponds to the value specified on the data plate. Any difference in values may result in damage to the appliance.

Gas operation (Liquid gas)

- The refrigerator must be operated using liquid gas (propane, butane) (no natural gas or town gas).
- When using LPG gas, please consider that the burner needs cleaning at shorter intervals due to the gas combustion method (2-3 times per year recommended).
- In Europe, gas operation is permitted while travelling only on the condition that the gas system of the vehicle is equipped with a hose rupture protection. The national regulations of the respective country must be observed.
- For physical reasons, gas ignition faults could occur starting from an altitude above sea level of approx. 3280 ft. / 1000m (No malfunction).
- On the initial refrigerator start-up or after a cylinder change, air may be trapped in the gas line. To purge the air from the lines, switch on the refrigerator and any other gas appliances (e.g. stove) for a short time. The gas ignites without delay.
- Each refrigerator with manual ignition is equipped with an automatic flame safety valve which interrupts the gas supply automatically after approx. 30 seconds when the flame has extinguished.

WARNING: As a basic rule, gas operation is prohibited in petrol stations!

Prior to starting the refrigerator in gas mode:

- Open the gas cylinder valve.
- Open the shut-off valve for gas supply to the refrigerator.

Explanation of operating controls

Manual energy selection/manual ignition battery igniter:

- 1 = Power On switch/Energy selector switch
- 2 = Temperature controller
- 3 = Battery igniter (gas)
- 4 = Flame indicator (galvanised)

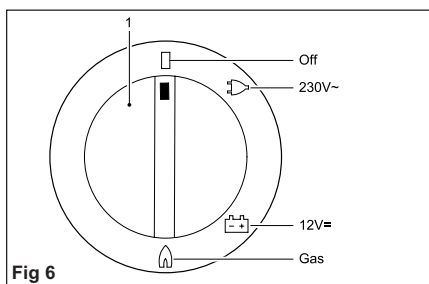


Fig 6

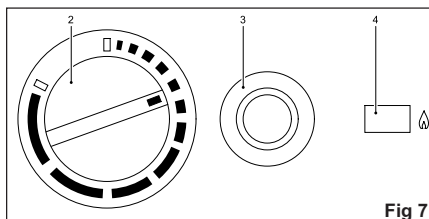
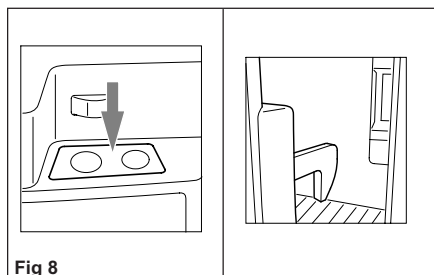


Fig 7



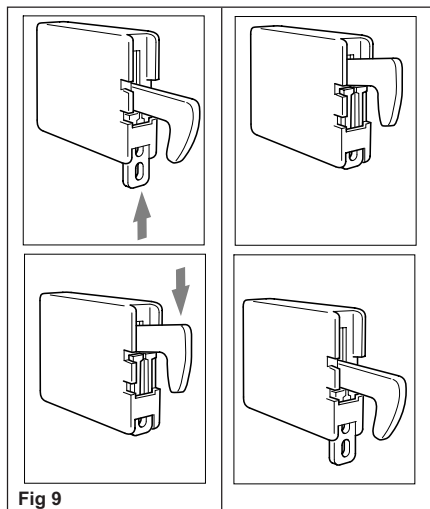
Door locking

Open the door by pressing the locking button and pull open.



Shut the door again by pushing it to close. The snapping into the lock can be heard.

Note: If the vehicle is stationary for a long period, the locking hook may be clamped by means of a lockbar. The door may now be opened by just pulling it without need of pressing the locking button. See below.



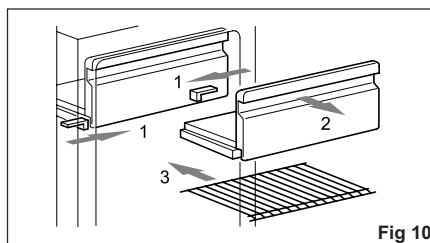
CAUTION: As a basic rule, shut and lock the door before starting your journey.

Positioning the shelves

The shelves may be pulled out by smoothly lifting them, and may be positioned as desired.

Removable freezer compartment

The freezer compartment may be removed to enlarge the cooling compartment.



Unlock the freezer compartment on both sides (1)

Pull the freezer compartment out (2) and store safely.



An additional shelf (3) may be installed, if required. This may be obtained from Dometic.

Storing food in the cooling compartment

- Switch the refrigerator on approx 12 hours before filling
- Always store pre-cooled food. Make sure that food is well cooled when it is bought and also when transporting it – use insulated cool bags.
- Keep the door open for the minimum time possible.
- Food must be packed, in closed containers or wrapped in foil, and stored separately from each other, to prevent drying out or odours.
- Allow foods that have been warmed to cool down before storing.
- Ensure that air circulation of the cooling unit is not obstructed. Keep the ventilation grilles free from obstructions.

Storing food in the freezer compartment

- Do not keep carbonated drinks in the freezer.
- The freezer compartment is suitable for making ice cubes and for short term storage of frozen foods. It is not suitable as a means of freezing foods.

Note: When ambient temperatures are lower than +10°C and the refrigerator is exposed to these temperatures for extended periods an even regulation of freezer temperature cannot be guaranteed for system-related reasons. This can cause the temperature in the freezer to rise and stored goods to melt.

Making ice cubes

Ice cubes are best made over night, when the refrigerator has less work to do and has more reserves.

Defrosting

In time, frost builds up on the fins inside the refrigerator. A layer of frost thicker on one side may occur but does not mean a malfunction. When this layer of frost is about

3mm thick, the refrigerator should be defrosted. To do this:

- Switch off the refrigerator as described later.
- Remove all food and the ice cube tray.
- Leave the door open to allow air to enter and prevent formation of mildew.
- After defrosting (freezer compartment and fins free of frost), wipe both cooling compartments dry with a cloth.

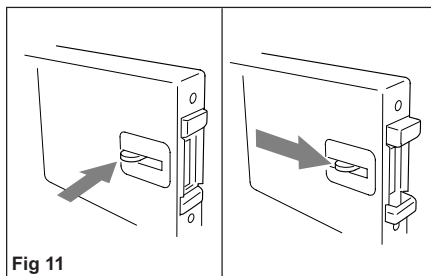
Note: Water thawing in the main compartment of the refrigerator runs into a container at the back of the refrigerator, from where it evaporates.

CAUTION: The layer of ice must never be removed forcibly, nor may defrosting be accelerated using a heat source.

Shutting off the refrigerator

Press the mode button (1) and keep pressed for 2 seconds. The display will disappear and the appliance is fully switched off.

Release the locking mechanism of the door lock by pushing it and shift it to the front. If the door is shut in this position, a small gap is maintained to prevent the formation of mildew.



If the refrigerator is taken out of service for an extended period, close the isolation tap and the gas cylinder valve.








Winter operation

In winter, check that the ventilation grilles and the exhaust duct have not been blocked by snow, leaves etc. When the outside temperature falls below +10°C the winter covers should be fitted. This protects the unit from excessively cold air which could have adverse effects on the performance of the unit.

Note: The winter covers should also be attached if the vehicle is taken out of service for an extended period, or while it is being cleaned on the outside.

Failure display

Your refrigerator will indicate a malfunction by flashing of the failure indicator LED (4) and one of the other display lights. The chart below shows the meaning of these.

Display:	Failure:
 LED is flashing	230V mode: "230V" not available or voltage too low
 LED is flashing	12V mode: "12V" not available or voltage too low
 LED is flashing	GAS/Auto mode: Flame not ignited
All temperature setting LEDs are flashing	Temperature sensor defective, refrigerator work on mid temperature setting
 LED + all temperature	230V - Heating element defective
 LED + all temperature	12V - Heating element defective setting LEDs are flashing



Troubleshooting

Before contacting your dealer or authorised service centre, please check whether:

- The instructions for correct operation of the refrigerator have been observed.
- The refrigerator is standing level.
- It is possible to operate the refrigerator with any available power source.

Failure: The refrigerator does not cool sufficiently

Possible cause

Action you can take

- | | |
|---|--|
| • Inadequate ventilation to the unit. | • Check that the ventilation grilles are not covered. |
| • Thermostat setting is too low. | • Set thermostat to a higher level. |
| • The condenser is heavily frosted. | • Check that the refrigerator door closes properly. |
| • Too much warm food has been stored within short period of time. | • Allow warm food to cool down before storage. |
| • The appliance has been running for only a short period of time. | • Check whether the cooling compartment works after approx. 4-5 hours. |
| • Ambient temperatures too high. | • Regularly remove ventilation grilles. |

Failure: The refrigerator does not cool in gas operation mode

Possible cause

Action you can take

- | | |
|---|---|
| • Gas cylinder empty. | • Change gas cylinder. |
| • Is the upstream shut-off device open? | • Open shut-off device. |
| • Air in the gas pipe? | • Switch off the appliance and start again.
Repeat this procedure 3-4 times, if necessary. |

Failure: The refrigerator does not cool in 12V operation

Possible cause

Action you can take

- | | |
|--|--|
| • On-board fuse defective. | • Fit new fuse. |
| • On-board battery discharged. | • Check battery, charge it. |
| • Engine not running. | • Start engine. |
| • Heating element defective (please also refer to failure indication). | • Please inform the Dometic Customer Services. |



Troubleshooting (continued)

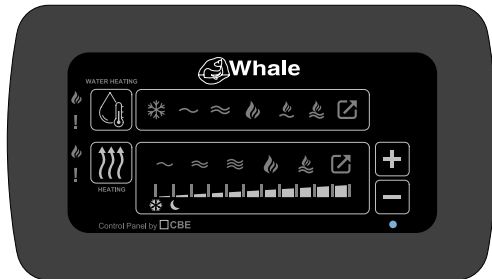
Failure: The refrigerator does not cool in 230V operation

Possible cause	Action you can take
<ul style="list-style-type: none">On-board fuse defective.	<ul style="list-style-type: none">Fit new fuse.
<ul style="list-style-type: none">Vehicle not connected to mains supply voltage.	<ul style="list-style-type: none">Make a connection to a mains power supply.
<ul style="list-style-type: none">Heating element defective (please also refer to failure indication).	<ul style="list-style-type: none">Please inform the Dometic Customer Services.



Whale Duo Control - Heat Air

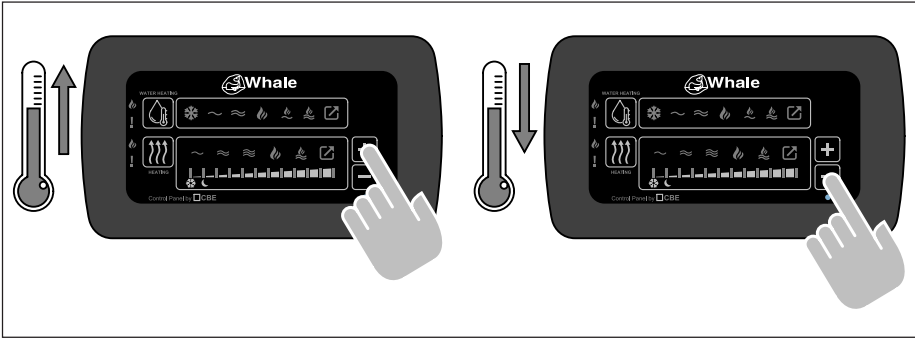
Instructions for Use



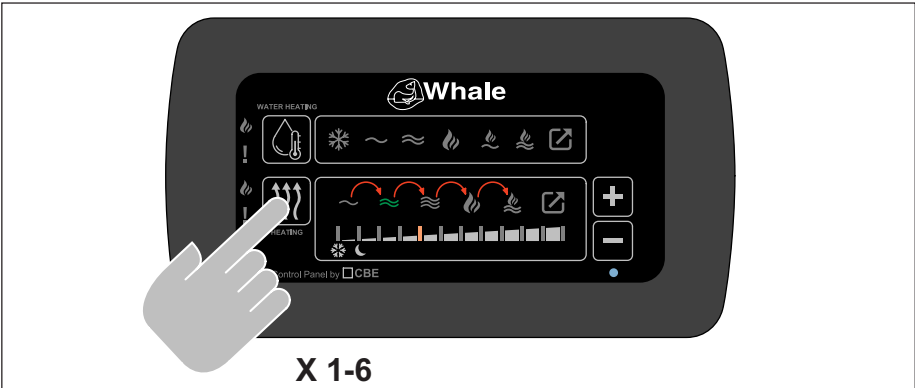
Icon	Description
	Space heater on/off & power source selection button
	0.75kW electric selected
	1.50kW electric selected
	3.00kW electric selected
	Gas selected
	Gas + electric selected
	External control from alternative source*
	Increase temperature button
	Decrease temperature button
	Gas lit indicator
	Lockout indicator
	Frost protection mode (approx 5°C)
	Night time mode (approx 16°C)
Temperature Settings	



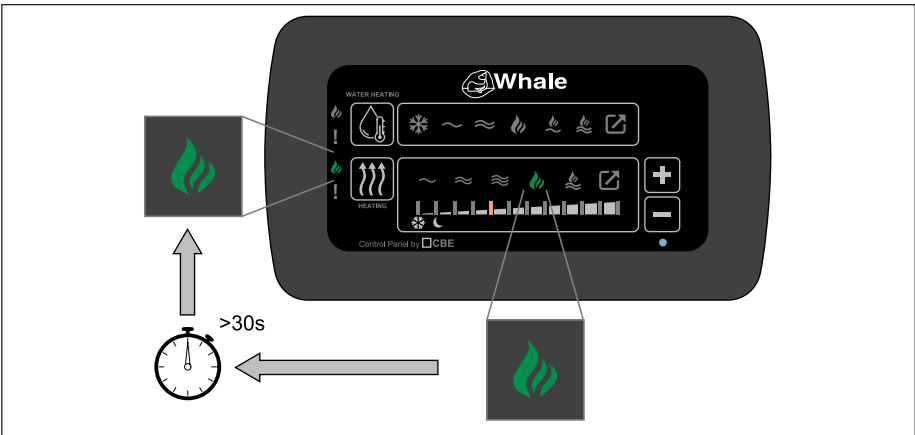
1. Select Temperature



2. Select Power Setting



3. Gas Power On





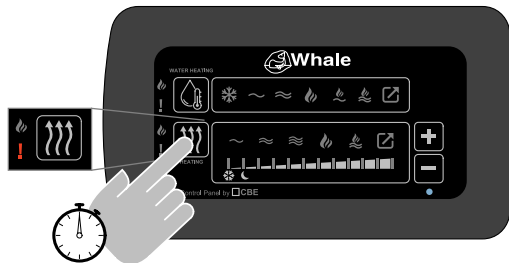
Usable Electric Settings		
6A 0.75kW 230V a.c.		
10A 1.50kW 230V a.c.		
16A 3.00kW 230V a.c.		

Electric Power Management

When selecting a high electric setting on the space or water heater, the control panel may automatically step down the other Whale space/water heater to a lower electric setting or turn off if at risk of exceeding 16A. The last heater selected has AC mains priority.

Troubleshooting - Whale Duo Control

Step 1 - Show Lockout





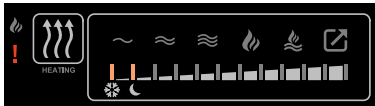

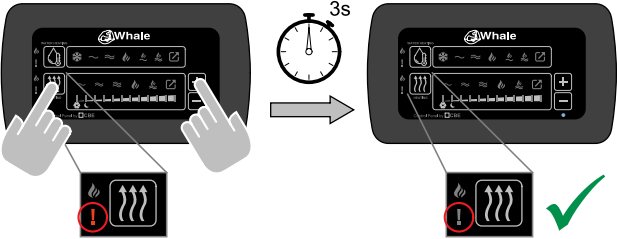
Step 2 - Identify Lockout

Step 3 - Recommended Action

- | | | |
|---|--|--|
| 1 | | Inadequate gas supply
1. Check gas
2. 30mbar LPG
3. Go to step 4 |
| 2 | | Overheat
1. Check air vents and ducts are not restricted
2. Wait 10 mins for heater to cool down
3. Go to step 4 |



Troubleshooting - Whale Duo Control (continued)

Step 2 - Identify Lockout	Step 3 - Recommended Action
<p>3</p> 	<p>Inadequate supply voltage</p> <p>10.5 - 15.9V d.c. Heater inoperable under 10.1V ≥ 10.5 / ≤ 15.9 V d.c. ✓ < 10.5 / > 15.9 V d.c. ✗</p> <p>Go to step 4</p>
<p>4</p> 	<p>Flue blockage</p> <ol style="list-style-type: none"> 1. Check flues for blockages 2. Go to step 4
<p>5</p> 	<p>Internal fault</p> <ol style="list-style-type: none"> 1. Go to step 4 2. Call Whale support +44 (0)845 2172933
<p>6</p> 	<p>Multiple faults</p> <ol style="list-style-type: none"> 1. Power off 2. Check heater for recurring faults 3. Power on 4. Go to step 4.
<p>Step 4 - Clear Lockout</p>	
	

If problems persist, please contact Whale Support on +44 (0)845 217 2933. For Europe, please see enclosed Webasto-Service Information.

Maintenance / Repairs

The vehicle owner must arrange for the appliance to be serviced at least every 2 years from date of purchase, including its gas supply and ducting for the products of combustion (BS EN 624).

All maintenance and repairs must be carried out by a registered gas engineer at a Whale approved service centre or by a member of the Whale Service Engineer Network.

Guarantee claims, warranty claims and acceptance of liability will be ruled out in the event of the following:

- Modifications to the appliance (including accessories)
- Modifications to the exhaust duct or combustion intake
- Use of replacement and accessory parts other than original Whale part



- Failure to follow the installation and operating instructions
- Use of the appliance for non-leisure purposes

The heat exchanger must be replaced with a Whale original spare part every 10 years from date of registration. See the data label on the heater for the first time it was put into service.

Disposal

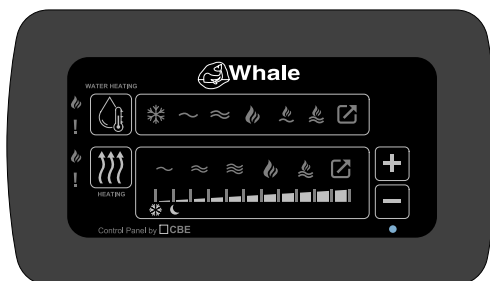
This product must be disposed of in accordance with the regulations of the respective country in which it is used. National regulations and laws must be observed.

Please note: The appliance must be installed and serviced in accordance with any relevant regulations in the country where the appliance is installed.

If the electrical supply cord is damaged, it must be replaced by the manufacturer, its service agents or similarly qualified persons in order to avoid a hazard (BS EN 60335-1).



Whale Duo Control Panel - Expanse

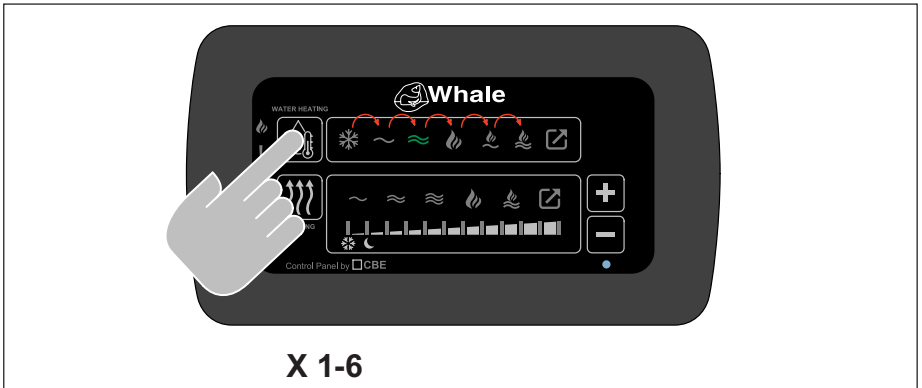


Icon	Description
	Water heater on/off & power source selection button
	Frost protection mode (approx 5°C)
	0.75kW electric selected
	1.50kW electric selected
	Gas selected
	Gas + 0.75kW electric selected
	Gas 1.50kW electric selected
	External control from alternative source*
	Increase temperature button
	Decrease temperature button
	Gas lit indicator
	Lockout indicator

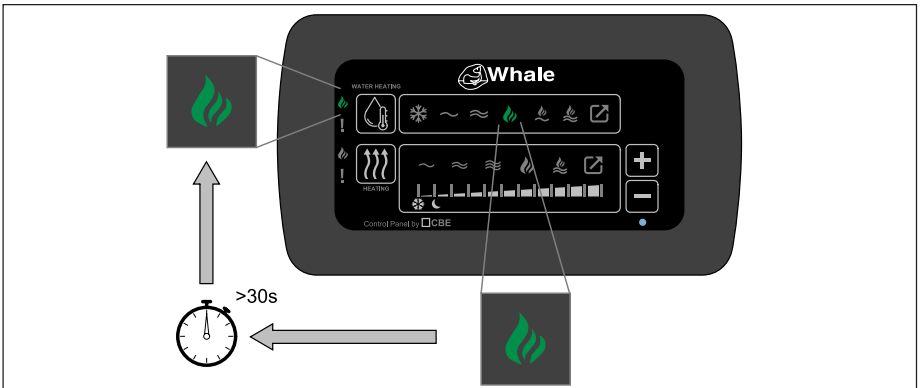
*Not available on all models. External control will allow control of the heater via an alternative source. Please refer to your vehicle handbook for more information.



1. Select Power Setting



2. Gas Power On



Electric Power Management

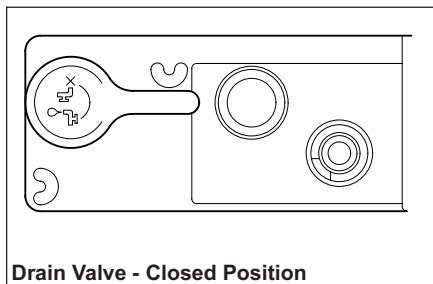
When selecting a high electric setting on the space or water heater, the control panel may automatically step down the other whale space/water heater to a lower electric setting or turn off if at risk of exceeding 16A. The last heater selected has AC mains supply.



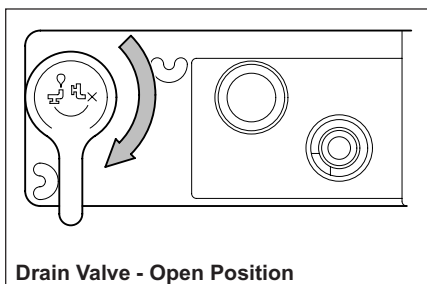
Operating Instructions - Drain Valve

The Water Heater must be drained before travelling or if it is not being used for a period of more than 3 days, or if there is a danger of freezing (unless Frost Protection setting is active). Check the heater has fully drained if there is a risk of freezing. The drain valve is located at the top of the water heater, beside the cold and hot water inlet. To operate the drain valve, turn the yellow lever clockwise 90 degrees.

If the plumbing system in the vehicle causes air locking preventing the water heater from draining, consideration should be given to fitting a vacuum relief valve, Whale Part # AK1228.



Drain Valve - Closed Position



Drain Valve - Open Position

Winterising

If the Water Heater is not going to be used for more than 3 days, disable the Water Heater on the control panel, isolate the gas supply by ensuring the gas shut off valve to the Water Heater is closed and that the gas supply is turned off (if no other gas appliances require a continued supply). The Water Heater must be fully drained to avoid risk of freezing.

General Safety Note: The operating pressure of the gas supply to the Water Heater must be either 28-30mBar Butane or Propane.

Maintenance

To clean and sterilise inside the Water Heater use diluted sterilising fluid and fully rinse through with clean water afterwards. The outside of the appliance should not normally require cleaning. If it does, isolate the electrical supplies and wipe down with a soft, damp cloth only. Do not use abrasive cleaners. Allow to fully dry before reconnecting the electrical supplies. If descaling of this appliance is required, this can be done using a domestic liquid descaling product and fully rinse through with clean water afterwards. Cleaning and user maintenance must not be carried out by children without supervision.

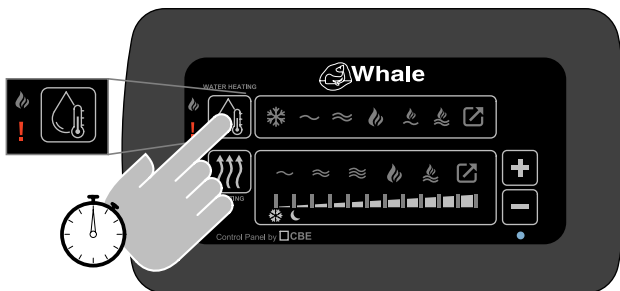
Please Note: Water will drip from the discharge pipe of the pressure-relief valve during heating up. The pressure relief valve must be operated regularly (at least twice a year) by turning the yellow lever in the anti-clockwise direction, to remove lime deposits and to ensure that it is not blocked.

The Whale Heater must be checked periodically by a Whale Approved Service Centre/Technician, or a competent person, at least annually. This must be completed according to the practice in the country where it is used and according to the Whale instructions. Whale recommends annual testing of gas soundness and combustion by an accredited LPG engineer. The appliance contains ESD sensitive components and therefore must only be opened by a Whale Approved Service Centre/Technician.



Whale Duo Control Panel - Troubleshooting

In the unlikely event of a failure, the red '!' symbol on the Control Panel will light. To identify the lockout, press and hold the Water Heater Function Button. The temperature control bars will light to indicate the fault code e.g. if 1 bar lights, the fault code is 1, if 2 bars lights, the fault code is 2 etc. Identify the fault code and refer to the table below.

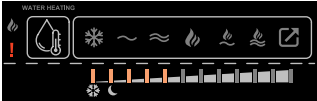
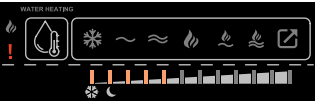


Water Heater Fault Finding

Number of Bars lit	Fault	Remedy
	No Flame Detected	Check gas supply making sure there is gas in the bottle and no blockage in the gas line. At temperature below 5°C, use propane gas rather than butane. Check combustion air inlet flue and exhaust flue for blockages. Clear lockout as described below.
	Overheat	Check that there is water in the appliance. Whale recommends that you wait at least 5 to 10 minutes to allow the Water Heater to cool before clearing lockout as described below.
	Low/High Supply Voltage	Minimum operating voltage is 10V d.c., maximum is 15V d.c., when measured at the Water Heater. Check battery voltage. If between 10V d.c. and 15V d.c., check connections between Water Heater and battery. Check alternator or external battery charging. Check lockout as described below.
	Air Proving	Check combustion air inlet flue and exhaust flue for blockages. Clear lockout as described below.



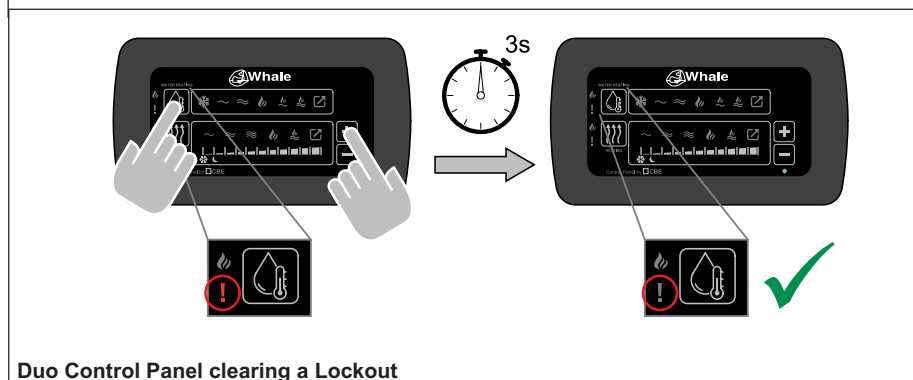
Water Heater Fault Finding (continued)

Number of Bars lit	Fault	Remedy
	Other/ Internal Fault	Attempt to clear lockout as described below. If this fails, contact Whale Support on +44 (0)845 217 2933.
	General Fault	Two faults have occurred at the same time or at least five lockout clearing attempts have been unsuccessful. Turn off power to water heater, check water heater for faults, turn power to water heater back on. Then follow lockout clearing procedure.

Lockout Clearing Procedure

If a water heater lockout condition has been identified, you can reset the lockout and continue to use the heater by pressing the water heat setting button and plus symbol button simultaneously for 3 seconds.

If problems persist, contact Whale Support on +44 (0)845 217 2933.



Please note: No reset on water heater required. The reset can be carried out on the control panel.

Winterising

When using the Water Heater in winter, ensure the flue is not blocked by snow or fallen leaves etc. When not in use the Water Heater must be fully drained. This is particularly important during the winter months as a precaution against freezing. To drain, switch off the water pump at either the pump switch or main switch. Open all the hot water taps in the vehicle and operate the drain valve fitted in the system. The drain valve must be left in the "open" position to ensure all the water drains out.



SMOKE ALARM

Operation

Normal Condition

The red LED on the front should flash every 40 seconds to show that the alarm is active.

Lower Power Pack Condition

IMPORTANT: Your smoke alarm requires the power pack to have sufficient capacity of power to operate correctly.

Should your smoke alarm enter a low power pack condition, the unit will emit an audible 'chirp' once every 40 seconds. When this occurs, we recommend you replace the alarm immediately. Your smoke alarm will continue to warn of this low power pack for at least 7 days, however, failure to change the alarm after this time would mean your smoke alarm may have insufficient power to alert you in a real fire situation. When the alarm is removed from the base plate the power pack will automatically deactivate and the low power warning chirp should stop, allowing you to dispose of the alarm.

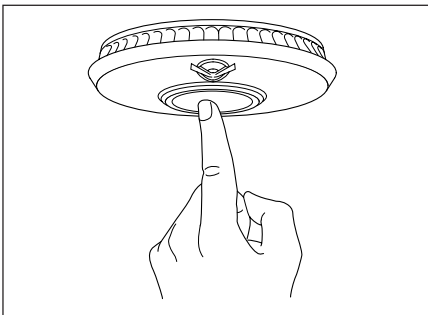
Low Battery Warning Silence

This feature can temporarily silence the low battery chirp for 8 hours which is particularly useful if the warning begins during the night. This feature may be repeated up to 10 times, but is not a substitute for replacing the smoke alarm.

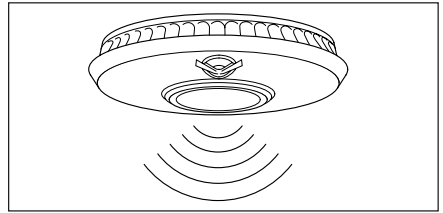
Alarm Test

The alarm must be properly attached to the base plate before it can be tested.

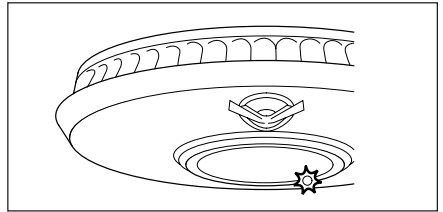
- Press the test button in the centre and release.



- The unit will give an audible alarm consisting of 2 cycles of 3 loud beeps, then stop automatically.



- The red LED on your alarm will flash rapidly during the audible signal.



Note: The test button accurately tests the alarm's smoke sensing circuit, there is no need to test your alarm with smoke. If your smoke alarm fails to give an audible test signal, please refer immediately to the trouble shooting guide at the end of this manual.

WARNING: You should test your smoke alarm every week.

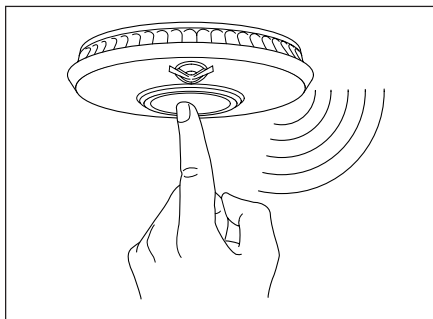


ALARM SMART SILENCE™

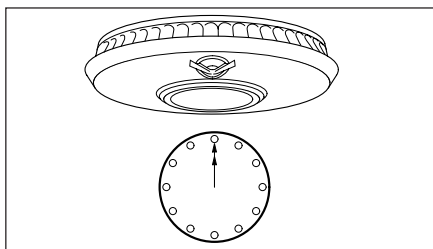
DANGER: If your smoke alarm emits the full alarm signal and you are not testing the unit, the smoke alarm is warning you of a potentially dangerous situation that requires your immediate attention. Only use the alarm silence function after making sure that there is no ongoing fire emergency situation. Do not block the vents on the alarm or disable the smoke alarm in any way, as this will remove your protection. Smoke alarms can sometimes react to cooking fumes or other non emergency situations. Your smoke alarm features "Smart Silence" technology. In the event of a known false alarm your smoke alarm can be temporarily silenced by pressing the central test button. Your alarm will automatically return to full sensitivity within 10 minutes.

Note: If the level of smoke reaching the alarm is very high, the alarm silence will be overridden and the alarm will continue to sound.

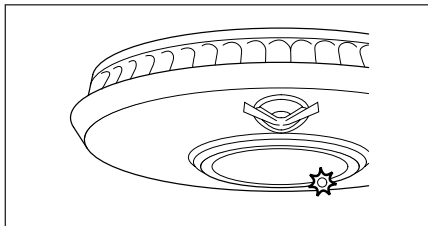
- Press and release the silence button, the alarm sound will shortly stop.



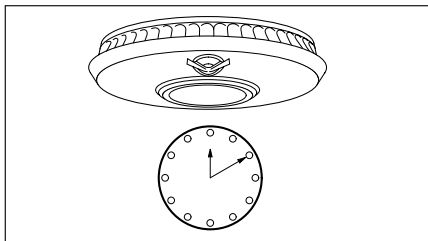
- Your alarm will silence and enter into a reduced sensitivity reset cycle for approximately 10 minutes.



- During the reduced sensitivity reset cycle, the red LED on your alarm will continue to flash more rapidly than normal, approximately once every second.



- Your alarm will automatically return to full sensitivity on completion of the reset cycle and the red LED will revert to flashing once every 40 seconds.



DANGER: Never ignore any alarm. Ignoring the alarm may result in injury or death. If your smoke alarm activates and alarms and you are not absolutely certain of the source of the smoke, get everyone out of the caravan immediately.

LOW BATTERY WARNING SILENCE

Low battery warnings often start at night or when it maybe inconvenient to replace your alarm. You can silence the audible chirp for a period of 8 hours by pressing the test button. Your smoke alarm will still detect smoke during this time of low battery warning silence. However, it is recommended that you replace your alarm immediately and certainly within 7 days, as your alarm may then have insufficient power to warn you of a real fire situation after this time.

WARNING: Your smoke alarm cannot be silenced if the chirp is indicating a fault. In this instance, the unit should be replaced immediately to ensure protection in the event of a fire.



MAINTENANCE

Your smoke alarm has been designed to be as maintenance-free as possible, however there are several things you must do to keep it working properly.

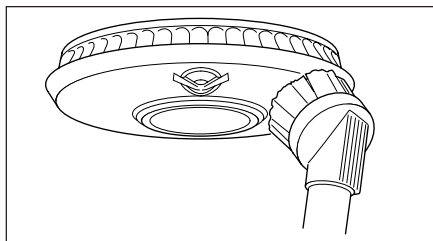
CAUTION: Your smoke alarm is a sealed electrical device and no attempt should be made to open the case. Attempting to open the case will invalidate your warranty.

Testing

Test your smoke alarm once every week see 'Alarm Test'. Any test failures should be reported to the Technical Support Team.

Cleaning

As a minimum your smoke alarm should be cleaned once every 3 months using your vacuum cleaner fitted with the soft brush attachment.



WARNING: Your smoke alarm may false alarm when it is being cleaned using a vacuum cleaner.

IMPORTANT: Do not use solvents or cleaners on your smoke alarm, as they may cause damage to the sensor or circuitry. The unit can be wiped with a slightly damp cloth.

CAUTION: Do not paint the smoke alarm as this may block the openings and prevent smoke from entering the sensor.

CARBON MONOXIDE ALARM

Carbon monoxide and how it can affect you and your family

Carbon monoxide is a dangerous poisonous gas that kills hundreds of people each year and injures many more. It is often referred to as the silent killer because it has no odour or taste and cannot be seen. Like oxygen, CO enters the body through the lungs during the normal breathing process. It competes with oxygen by replacing it in the red blood cells, thereby reducing the flow of oxygen to the heart, brain and other vital organs. In high concentrations, CO can kill in minutes.

Many cases of reported carbon monoxide poisoning indicate that while victims are aware they are not feeling well, they become disorientated and unable to save themselves by either exiting the building or calling for assistance. Exposure during sleep is particularly dangerous because the victim does not wake up.

Symptoms of CO poisoning

The following symptoms may be related to CO poisoning which all household members should be made aware of:

- Mild Exposure: Slight headache, nausea, vomiting, fatigue (often described as 'flu-like' symptoms).
- Medium Exposure: Severe throbbing headache, drowsiness, confusion, fast heart rate.
- Extreme Exposure: Unconsciousness, convulsions, cardiorespiratory failure, death.

Your CO detector monitors the level of CO as parts per million (ppm) in the atmosphere surrounding the detector.

- 35ppm The maximum allowable concentration for continuous exposure for healthy adults in any 8 hour period, as recommended by the Occupational Safety and Health Administration (OSHA).
- 200ppm Slight headache, fatigue, dizziness, nausea after 2-3 hours.
- 400ppm Frontal headaches within 1-2 hours, life threatening after 3 hours.



800ppm Dizziness, nausea and convulsions within 45 minutes.
Unconsciousness within 2 hours.
Death within 2-3 hours.

Should you suspect CO may be affecting you or your family, open the doors and windows of your caravan to ventilate, turn off your appliances and evacuate the premises. At this time the authorities should be contacted to locate the source of the carbon monoxide before re-entering the caravan. Medical attention should be sought for anyone suffering the effects of CO poisoning.

Common sources of CO

- Oil and gas boilers
- Portable generators
- Oil or solid fuel cookers
- Barbecues
- Clogged chimneys
- Wood or gas fireplaces
- Cigarette smoke
- Gas appliances
- Any fossil fuel-burning appliance

WARNING: This carbon monoxide detector is not a combustible gas detector, nor a smoke detector. Please install the proper detectors to detect combustible gases, or smoke.

This CO detector should not be seen as a substitute for the proper installation, use and maintenance of fuel-burning appliances (including appropriate ventilation and exhaust systems), nor the sweeping of chimneys.

WARNING: Variables relating to your fuel-burning appliances can change at any point eg. the flue or chimney could suddenly become blocked or damaged, appliances may stop running correctly or circumstances in neighbouring properties may change resulting in the presence of carbon monoxide. For this and other reasons do not use this carbon monoxide detector on an intermittent basis, or as a portable detector or an intermittent basis, or as a portable detector for trying to trace one source of the spillage of combustion products from fuel-burning appliances or from chimneys.

Do not:

- IGNORE ANY WARNING FROM YOUR CO DETECTOR!
- Burn charcoal inside your home, caravan, tent or cabin.
- Install, convert or service fuel-burning appliances without proper knowledge, skill and expertise.
- Use a gas cooker for heating a room.
- Operate unvented gas burning appliances using paraffin or natural gas in closed rooms.
- Operate petrol-powered engines indoors or in confined areas.
- Barbecue indoors, or in an attached garage.
- Ignore a safety device when it shuts an appliance off.

Always:

- Buy appliances accepted by a recognised testing laboratory.
- Install appliances according to the manufacturer's instructions.
- Have appliance installations carried out by professionals (for gas appliances engineers should be registered on the Gas Safe register).
- Have your appliances checked regularly by a qualified service engineer.
- Have your chimneys and flues cleaned professionally every year.
- Make regular visual inspections of all fuel-burning appliances.
- Open windows when a fireplace or oil/solid fuel cooker is in use.
- Only install CO detectors that meet the requirements of EN 50291-1: 2010 and EN 50291-2: 2010 in your home.
- Be aware of CO poisoning symptoms.
- Educate yourself and your family on the sources and symptoms of CO poisoning and how to use your carbon monoxide detector.



Operating Features

Your detector offers many features which set it apart from other CO detectors on the market today.

Test/Reset button feature

- Test the sounder, batteries and circuitry.
- Allows you to test the sensor by introducing a source of CO into the detector (see 'Testing the Sensor').
- Silence the loud 85dB sounder during an alarm (only possible when current CO level is less than 50ppm).

Testing the sounder, batteries and circuitry

Test the sounder, batteries and circuitry by pressing and holding the Test/Reset button for 1 second to confirm that the detector is operating properly. The sounder should sound as soon as the button is pressed and the Alarm LED will illuminate red, indicating that the sounder is working and the batteries are providing power to the unit. This test for the sounder, batteries and circuitry should be performed weekly.

Testing the sensor

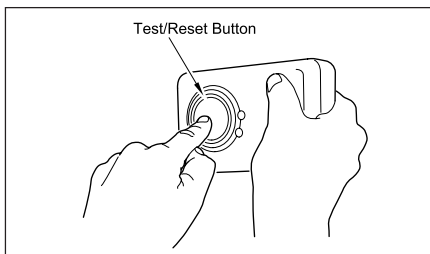
CAUTION: Sensor testing should only be performed by a responsible adult. This test should only be performed once a year. Excessive testing will cause the life of the alarm to be shortened.

Note: Aerosol CO may be used in order to avoid having to burn incense sticks.

Read all steps thoroughly before attempting to test the sensor.

Step 1 If the detector is wall or ceiling mounted unhook the detector from the screws.

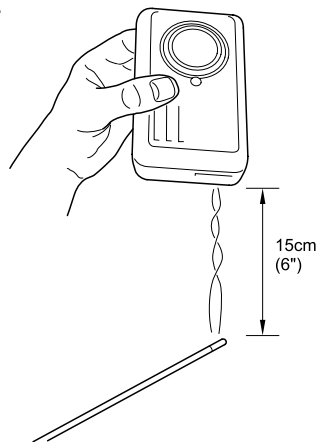
Step 2



Cover the sounder vents with one hand. Press and hold the Test/Reset button down with your thumb/finger until the Power LED illuminates green and the sounder sounds for a second time (this should happen after around 5 seconds). Release the Test/Reset button. Upon releasing the Test/Reset button the Power LED will flash green once every second. This indicates that the sampling rate of the detector has increased and can be tested using a known source of CO.

Step 3 Light an incense stick using a match or lighter. Be sure to blow out the flame so that the incense stick is smouldering. Extinguish the lighter, or put out the match and place it into a dish of water.

Step 4



Turn the detector on its side so that the vents on the right hand side of the detector are pointing downwards. Hold the burning incense stick around 15cm (6 inches) below the detector, so that the smoke enters the vents on the side of the detector. An increase in the localised carbon monoxide level within the sensor to more than 50ppm will cause the sounder to sound for one cycle of



four loud beeps and the Power LED to illuminate green for a short time. This is the end of the test. The Power LED will no longer flash green every second but will revert to flashing once every minute as the detector will go back to normal operating mode (it may take up to two minutes of exposure to the smoke for the localised level of carbon monoxide within the sensor to reach over 50ppm). Now move the source of CO away from the detector as the test is finished.

Step 5 After step 4, put out the incense stick by placing it into a dish of water. Ensure that all flames have been extinguished.

Note: If the localised carbon monoxide level within the sensor does not reach 50ppm during the test, the sensor test will stop automatically after 3 minutes.

Understanding the products indicators

The higher the concentration of carbon monoxide detected by the detector, the quicker it will respond. When sufficient carbon monoxide is detected a loud audible signal (85 dB at 1m/3 feet) will be emitted and the Alarm LED will flash red once every second.

The alarm will sound:

- Between 60 and 90 minutes when exposed to 50ppm of CO.
- Between 10 and 40 minutes when exposed to 100ppm of CO.
- Within 3 minutes when exposed to 300ppm or more of CO.

Fault/End of Life signal:

The unit continuously checks the settings of its sensor and circuitry. If any of these settings are found to be incorrect or if the batteries become low then the detector will emit a single audible chirp once per minute for up to 30 days. **IMPORTANT:** This does NOT mean that the detector has detected carbon dioxide.

Replace batteries immediately. If the product continues to chirp despite having new

batteries and the product is still within warranty then contact Technical Support for advice. If the product is no longer in warranty replace it immediately.

Maintaining/testing your detector

Your detector will alert you to potentially hazardous CO concentrations in your home when maintained properly. To maintain your detector in proper working order and to ensure that the sensor will last for the lifetime of the product, it is recommended that you:

- Test the sounder, batteries and circuitry of your detector once per week by pressing and holding the Test/Reset button for 1 second.
- Perform the sensor test annually.
- Keep the detector free of dust by gently vacuuming the case with a soft brush attachment every 3 months.

To prevent the possibility of contaminating the sensor in your detector and thus affecting its reliability:

- Never use cleaning solutions on your detector. Simply wipe with a slightly damp cloth.
- Do not paint the detector.
- Do not spray aerosols on or near the detector.
- Do not use any solvent based products near the detector.
- If installing in a caravan or boat there may be other substances present that may not normally be found in the home that could affect the reliability of the CO alarm. Avoid using the following in close proximity to the alarm; oils, cleaning fluids, polishes, paints and greases.
- Do not attempt to repair your CO detector. Do not remove any screws or open the main casing of your detector. Any attempt to do so may cause malfunction and will invalidate the warranty.



ROOFLIGHTS

Your motorhome is fitted with at least one type of the following roof lights:

The Heki 2 (Option)

To Open To The Tilted Position:

- (i) Press the knob in the toggle catches on either side of the rooflight and turn through approx. 90°.
- (ii) Grasp the metal bar in the middle, snap it out of its holder, swivel down and press the rooflight upwards. (The rooflight is held by the two gas springs after approx. 150mm).
- (iii) Swivel the metal bar towards the rooflight and snap into its holder.
- (iv) To close the rooflight, proceed with steps (i to iii) in reverse order.

To Open In The Intermediate Position:

- (i) Open the toggle catches on either side of the rooflight.
- (ii) Grasp the metal bar in the middle; snap it out of its holder, swivel down and press the rooflight outwards. Rooflight is opened automatically after approx. 150mm by the two gas springs).
- (iii) Open both fasteners and swivel the metal strap towards the intermediate position and pull the rooflight down until the metal strap is stopped by the fasteners.
- (iv) To close, proceed with steps (i to iii) in reverse order.

To Open In The Ventilation Position:

- (i) Open the toggle catches on either side of the rooflight.
- (ii) Using both hands on the two toggle catches, press the rooflight up about 2cm and fasten the toggle catches in the corresponding setting.
- (iii) To close, proceed with steps (i-ii) in reverse order.

Closing The Blinds:

- (i) Take hold of the end rod (without rocker) in the recessed grip and engage in the opposite end rod (with rocker).
- (ii) Select the required position (blind/flyscreen) by moving both joined end rods together.

CAUTION: In extremely bright sunshine, the blind must only be closed two-thirds, and the rooflight must be set in the continuous airing position.

Opening The Blinds:

- (i) Move blind (end rod with rocker) right to the outside.
- (ii) Hold the recessed grip with one hand; with the other hand, press the rocker and move the blind back (do not let it recoil).

CAUTIONS:

- Do not stand on the acrylic rooflight.
- Close HEKI 2 completely before moving off.
- Do not leave your Motorhome when HEKI 2 is open.
- Please consult your supplying dealer if you have any problems or defects.
- Remove any snow/ice or dirt before opening the roof.
- Do not open when it rains or when there is a strong wind.

Standard MPK Rooflight

The MPK 400 x 400 rooflight is generally fitted in washroom areas.

- (i) Lowering the flyscreen then pressing the black control rod in towards the centre of the rooflight.
- (ii) Then while the rods are depressed, push upwards to open the rooflight.



Midi Heki Rooflight

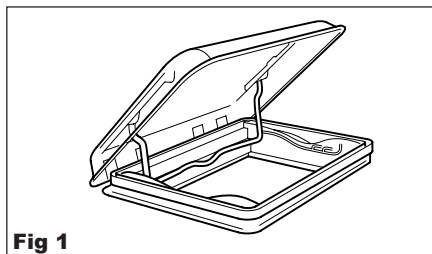


Fig 1

- (i) To open, push the large central button (Fig 2).

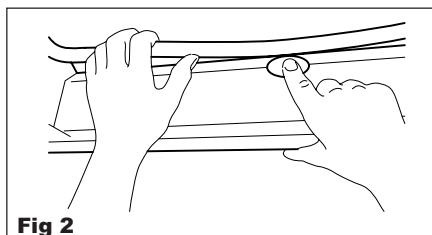


Fig 2

- (ii) Whilst depressed, slide the bar to the desired position and locate into the stops provided (Fig 3).

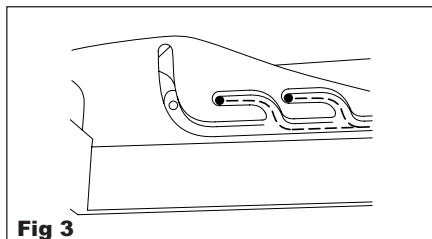
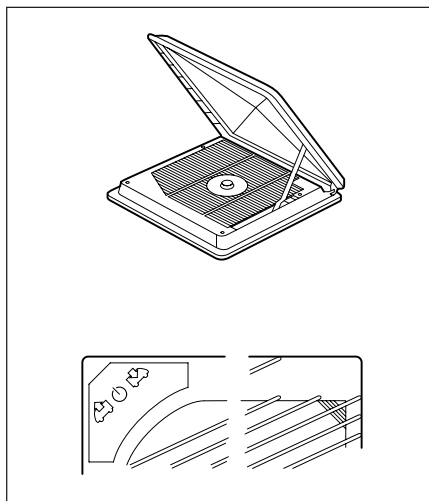


Fig 3

The Omnivent (12v) Rooflight (Option)



The Omnivent is a double-glazed roof light constructed from a synthetic ultra-violet screened material. Its side-operating mechanism allows a completely free central opening with built-in fixed ventilation when closed. It operates as an extractor fan and air intake fan.

Please note: Do not change the direction of the fan unless it has been switched off 'O' position and the blades have stopped rotating.

Door Flyscreen

The exterior door flyscreen can be opened or closed from both inside and outside of the Motorhome and does not restrict door openings.

When opening or closing the door flyscreen use the finger grip provided.

Windows

Your new Motorhome will be fitted with Polyplastic opening windows.

Polyplastic Window Opening

- (i) In order to open the Polyplastic window it is only necessary to move the catch upwards and release the catch from the backing plate.



- (ii) The Polyplastic window should remain in the open position once opened, however if it does not then tighten the friction control on the window stays to increase the holding force.
- (iii) The Polyplastic window is also fitted with a night ventilation position where the catch is set to the centre position on the backing plate; in this position it may be possible for rain to enter the motorhome in adverse conditions.

TAPS

Kitchen Taps

Your new motorhome will be fitted with a mixer tap.

CAUTION: The water temperature could be very high so do not lift the lever with the tap turned to the full left position. For winter storage and to prevent frost damage the tap swivel must be left in the centre up position.

Washroom Taps And Showers

Your motorhome will be supplied with either a vanity mixer tap or separate shower mixer, or with a combined mixer tap with retractable shower head.

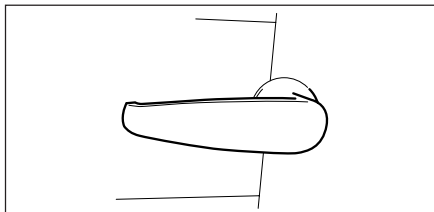
Note:

- The water temperature could be very high so do not lift the lever with the tap turned to the full left position.
- For winter storage and to prevent frost damage the tap swivel must be left in the centre up position.



INTERNAL DOORS

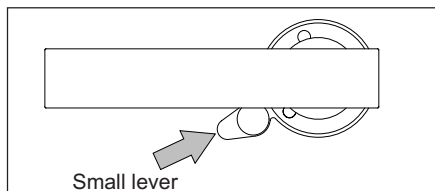
Toilet / Washroom Doors



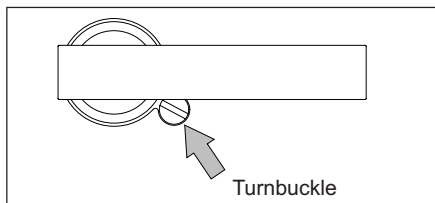
Toilet / washroom doors are fitted with a lever lock, which is operated by pushing the lever down. The lever is spring-loaded and will return to the closed position upon release. It is recommended that the lever is always used when closing the door.

The door can be locked from the inside by pushing the small lever downwards. To unlock just push the small lever up. The door can be unlocked from the outside by using a flat head screwdriver on the turnbuckle.

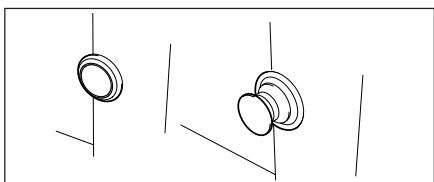
Inside the bathroom



Outside the bathroom



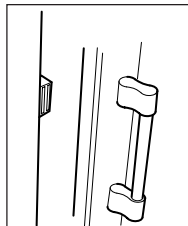
Other Internal Doors



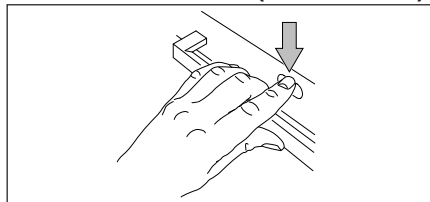
Other internal doors such as the wardrobe and table storage locker are fitted with a 2-position button lock. Push the button to lock the door and the button should remain flush with the door. Push the button again to release and the button should then protrude from the door surface.

Magnetic Catches

Magnetic catches work on contact with the metal plate on the rear of the door. Simply close the door until the magnet engages and holds the metal plate. Pulling the door towards you with a moderate force will be sufficient to disengage the magnetic catch and open the door.



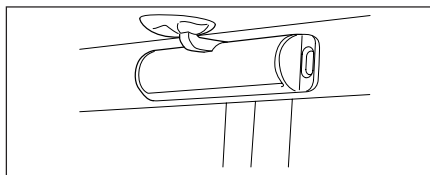
Locker Door Catches (Paddle Latch)



Your new Elddis Motorhome is fitted with positive locking locker doors at high level.

These are operated by pressing down on the tab within the centre of the handle to release the internal catch.

Concealed Latch



To open the locker, press the latch and pull the door towards you.



THETFORD C-260 CASSETTE TOILET RANGE

Introduction

The Thetford Cassette Toilet is a high quality product. The toilet forms an integral part of your motorhome bathroom, thanks to its functional design which combines modern styling and ease of use. The C-260 Cassette Toilet is manufactured from high quality synthetic materials which makes it a durable, user and maintenance friendly toilet.

The toilet is made up of two parts: a permanently fixed part and a Waste Holding Tank that is accessible from the outside. The removable Waste Holding Tank is located under the toilet bowl and can be removed via a door on the outside of the motorhome. The Thetford Cassette Toilet is the solution to the sanitary problem in your motorhome!

The operating instructions cover Thetford Cassette Toilet models C-260S, C-260CS (models connected to the vehicle's central water tank) and C-260CWE (model with its own flush-water tank). There are differences in the use of these models. Please ensure that you follow the instructions that apply to your toilet model.

Preparing for use (standard)

1. Open the access door on the outside of your motorhome.
2. Remove the Waste Holding Tank by pulling the safety catch (which holds the tank in place) upwards.
3. Pull the Waste Holding Tank outward to the stop. Tip it slightly and take the tank fully out.
4. Place the tank upright and turn the rotating emptying spout upwards. The emptying spout ensures that the tank can be easily and hygienically emptied.
5. Remove the cap, with the measuring cup inside, from the emptying spout and pour the correct dosage of Thetford toilet fluid (see product label) into the holding tank. This avoids unpleasant smells and keeps the inside of the tank clean. Next add approximately 2 litres of water - enough to ensure that the bottom of the Waste Holding Tank is covered. For more information on Thetford toilet fluids, see

last page of this manual. Screw the cap back onto the emptying spout and turn back to its original position.

Note: The Emptying Spout Measuring Cap is supplied in the same packaging as this manual.

WARNING: Never add toilet fluid directly via the blade or the toilet bowl as this could damage the lip seal of the Waste Holding Tank. Always pour the fluids via the emptying spout.

6. Slide the Waste Holding Tank back into its original position via the access door. Make sure that it is secured with the safety catch. Close the access door and lock it. Your Thetford toilet is now ready to use.

WARNING: Never use force if you cannot get the tank back into place easily. This may cause serious damage. If blockage occurs, always check if the blade handle is in the correct (closed) position.

7. For toilets with own Flush-Water Tank: Open the water filling door and fill the flush-water tank with the correct dosage of Aqua Rinse. This Thetford toilet fluid keeps the flush water fresh and improves the flushing. Next, fill up the flush-water tank with clean water (approximately 8 litres) using a ferry can or hose. Your toilet is now ready to use.

Preparing for use with Optional Features

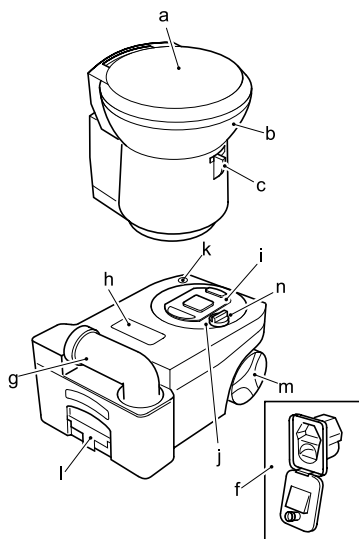
8. Automatic Ventilator: Open the access door on the outside of your motorhome and remove the Waste Holding Tank (as described above).
9. Remove the filter housing cover and if no filter is present, place a new filter into the filter housing. Peel off the sticker lids on the filter. Place back the cover of the filter housing.

Using the toilet (standard)

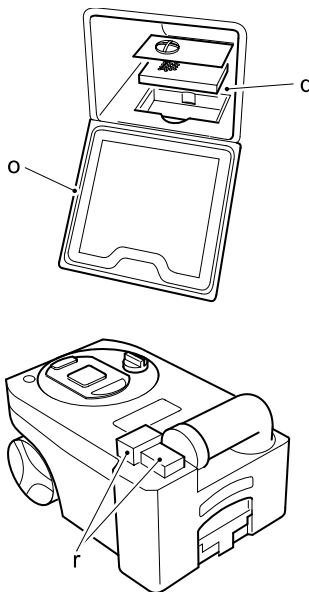
10. Turn the bowl to the desired position with the lid closed and using both hands.
11. To activate the control panel, press the flush-button once. The control panel display will stay activated for



Standard

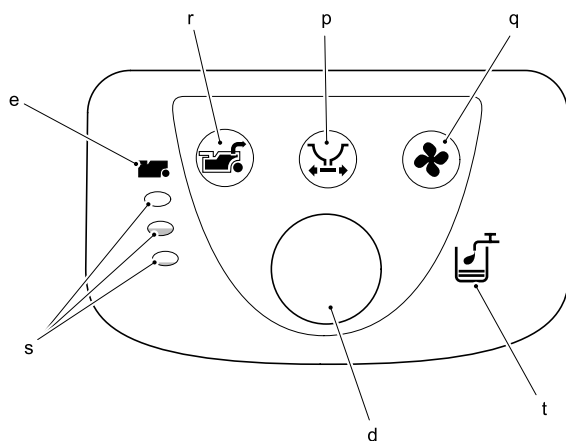


Optional features



Note:
Optional features can be
bought from Thetford dealerships.

Control panel (with optional features)



PARTS

- a) Removable Seat and Lid
- b) Swivelling Toilet Bowl
- c) Blade Handle
- d) Flush Button
- e) Waste Holding Tank Level Indicator
- f) Water Filling Door (only if toilet has own flush-water tank)
- g) Rotating Emptying Spout
- h) Automatic Pressure Release Vent
- i) Sliding Cover
- j) Removable Mechanism
- k) Vent Plunger
- l) Pull-out Handle
- m) Wheels
- n) Blade Opener
- o) Access Door to Waste Holding Tank

Optional Features

- p) Electric Blade
- q) Automatic Ventilator
- r) Waste Pump-Out System
- s) Waste Holding Tank Multi-Level Indicator
- t) Flush-Water Tank Level Indicator (only if toilet has its own flush-water tank)



approximately 5 minutes. Run some water into the bowl by pressing the flush button again briefly.

12. The toilet may be used with the blade open or closed. To open the blade, slide the blade handle under the toilet bowl sideways. After use, open the blade (if still closed) and flush the toilet by pressing the flush button for several seconds (if necessary re-activate the control panel). Close the blade after use.

WARNING: If your toilet has its own flush-water tank, please make sure that you do not travel with a flush-water tank that is too full. Do not travel with water in the toilet bowl. Failure to adhere to this notice may result in water damage to your motorhome.

Using the toilet with Optional Features

13. Electric Blade: Push the electric blade button on the control display to electrically open or close the blade. In the case of failure, you can manually open or close the blade by sliding the small handle under the toilet bowl sideways.
14. Automatic Ventilator: The ventilator automatically starts when the control panel is activated (by pressing the flush button) and will automatically shut off after approximately 5 minutes. The Automatic Ventilator Indicator will flash until automatic shut-off occurs. If you want to stop the ventilator, press the Automatic Ventilator button. If you want to re-start the ventilator, press the button again (the LED will start flashing again).
15. Flush Water Tank Level Indicator (only for toilets with own flush-water tank): When the Flush Water Tank Level Indicator lights up, refill the flush-water tank, as only about 1.5 litres of water is left in the tank, which is sufficient for approximately 2 flushes.

Emptying

The Waste Holding Tank has a capacity of 18 litres and requires emptying when the red light (LED) on the toilet control display lights up, when the Waste Holding Tank only has

capacity for approximately 2 more litres, which is no more than two to three further uses.

Make sure that the blade is closed. Open the access door located outside the vehicle, pull the safety catch upwards and remove the Waste Holding Tank.

16. Place the Waste Holding Tank in an upright position (Pull-Out Handle at the top, Wheels at the bottom). Slide the handle sideways - to the front of the tank - until it snaps out of its locked position.
17. Pull the handle up and wheel the Waste Holding Tank to an authorised waste disposal point.
18. Push the handle back into its locked position. Turn the emptying spout upwards and remove the cap from the spout. Hold the Waste Holding Tank in such a way that during emptying you can operate the vent plunger with your thumb. To empty the tank without splashing, depress the vent plunger while emptying the tank. After emptying, rinse the tank and blade thoroughly with water.

WARNING: Do not seriously shake the tank or use high pressure water cleaners. This may cause damage to the tank's interior.

Note: The vent plunger should only be depressed once the emptying spout is pointing downwards. Prepare the toilet for re-use if required. Slide the Waste Holding Tank into the toilet and close the access door.

Emptying with Optional Features

19. Waste Holding Tank Multi-Level Indicator: The lower lamp indicates that the Waste Holding Tank is almost empty; the middle lamp indicates that it is more than half full; when the upper lamp lights up, the tank needs emptying as it can only take 2 - 3 further uses.

Note: The Waste Holding Tank Level Indicator will flash when the holding tank is not present. In this case the toilet will not flush.



20. **Waste Pump-Out System:** When activating the control panel this feature automatically lights up. When the Waste Holding Tank Level Indicator illuminates, press the Waste Pump-Out button to pump out the waste from the holding tank into the vehicle's waste tank. The button will flash while the waste is being pumped and will stop automatically (after approximately 5 minutes) when all waste has been transferred. If the vehicle's waste tank is full, the Waste Pump-Out light will flash rapidly and no pump-out will be possible until the central tank is emptied. (Check the level of the vehicle's waste tank on the vehicle's central console). After the Waste Holding Tank has been emptied, there will be approximately 1.5 litres of waste left in the tank. This is normal. Add 2 litres of water and a correct dosage of Thetford toilet fluids to the Waste Holding Tank.

CAUTION: It is vital that the correct amount of toilet fluid is added to ensure the proper breakdown of the waste in the holding tank. Only use the system when the tank is full. Using the system too often on an empty tank can cause damage to the pump, which could cause the system to fail.

Cleaning and Maintenance

The toilet should be cleaned and maintained regularly, depending on the amount of use. To clean Thetford toilets, we advise using water and Thetford Bathroom Cleaner.

Note: Never use bleach, vinegar or other powerful household cleaners that contain these substances. These may cause permanent damage to the seals and other toilet components.

Toilet Bowl

- Squirt Thetford Bathroom Cleaner into the toilet bowl.
- Flush the toilet bowl with water and wipe down the rest of the toilet with a damp cloth.
- Clean seat and lid The seat and lid can easily be removed: Lift the seat and lid assembly and pull the round pins (inside the assembly) outwards from the pin

holes. After cleaning, replace the seat and lid by positioning the round pins in front of the pin holes and push the lid and seat downwards.

- To keep your flush water fresh and to prevent deposits from forming in your toilet bowl, add a correct dosage of Aqua Rinse in your flush water tank, if present, on your toilet.

Tip! For a really shining toilet, dry with a soft dry cloth after cleaning.

Waste Holding Tank

To keep your Waste Holding Tank fresh and clean, Thetford has developed a number of different toilet fluids. Thetford toilet fluids suppress smells, reduce formation of gas, promote breakdown of toilet waste and increase the life span of a mobile toilet. We advise a thorough cleaning of the Waste Holding Tank once each season. Next to using Thetford's Cassette Tank Cleaner, the powerful cleaning agent for the periodical cleaning of the Waste Holding Tank of your toilet, we suggest the following: -

- Remove the removable mechanism from the Waste Holding Tank by turning it anti-clockwise and rinse it under a tap.
- Remove the cover plate from the Automatic Pressure Release Vent by prising it up using a small screwdriver. Use one hand to push the Automatic Pressure Release Vent open while holding the float of the Automatic Pressure Release Vent on the inside of the tank with the other hand. Push the float upwards, turn it 180 degrees and remove it from below. Remove the rubber seal underneath the float. Rinse the float and rubber seal under a tap. Replace the rubber seal and float for the Automatic Pressure Release Vent using the same method in reverse.

The rubber seals in the toilet (the lip seal, the mechanism seal, the automatic pressure release vent seal and the cap seal) should be regularly cleaned with water and treated with Thetford High Grade Seal Lubricant. This will ensure that the seals remain flexible and in good condition. If the toilet is not to be used



for any length of time, it is important to treat the seals with Thetford High Grade Seal Lubricant after cleaning.

Note: Never use Vaseline or any vegetable oil except olive oil. These may cause leakage or malfunction. The lip seal is a part of the toilet that is subject to wear. Depending upon the extent and manner of use, the seals will become less effective and will need replacing periodically.

Cleaning and Maintenance for Optional Features

- Automatic Ventilation: The filter of the Automatic Ventilation needs to be renewed periodically. After approximately 4 full weeks of use, the filter loses its absorption power.
- Pump-Out Waste System: To ensure optimal functionality of the Pump-Out Waste System, periodical maintenance of the tube and pump is recommended. After emptying the Waste Holding Tank completely, fill it with clean water and empty it again. This will clean the pump and the hose. Do this once every 3 weeks when on holiday. This should ensure proper operation of the system.

Winter operation

You can use your Thetford Cassette Toilet as normal in cold weather as long as the toilet is situated in a heated location. If there is a risk of freezing we advise that the toilet is drained by following the instructions under 'Storage'. For environmental reasons the use of antifreeze, such as that used in car radiators, is not recommended.

Storage

It is important that you follow the instructions below if you do not expect to use your Thetford toilet for a long (winter) period.

- Activate the Control Panel by pressing the flush button. Open the blade and press the flush button until water stops flowing into the bowl. Close the blade. Open the access door on the outside of your motorhome and empty the Waste Holding Tank at an authorised waste dump. Follow the instructions for cleaning

and maintenance. To allow the Waste Holding Tank to dry, do not place the cap back on the emptying spout of the tank.

21. If the toilet has its own flush-water tank, place a sufficiently large bowl under the drain tube to catch the remaining water from the flush-water tank and remove the drain plug. When no more water exits, put the drain plug on the drain tube, put it back in its original position and close the access door. If the toilet is connected to the vehicle's water tank, please follow your vehicle's instructions for draining the central water system. If your toilet is optionally featured with a Waste Pump-Out System, take out the Waste Holding Tank and completely clean it (see Cleaning and Maintenance). After cleaning, fill it with water, put it back and empty it via the waste pump-out system. Repeat this twice.

Toilet unit malfunctions

Contact your dealer or a Thetford Service Centre.

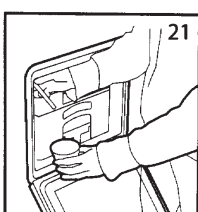
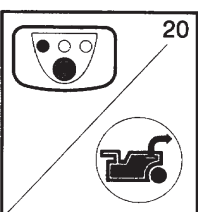
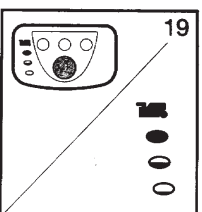
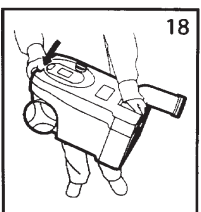
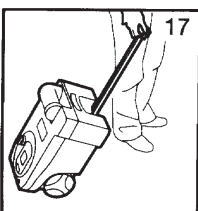
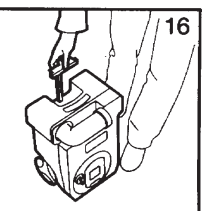
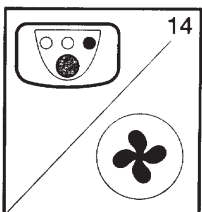
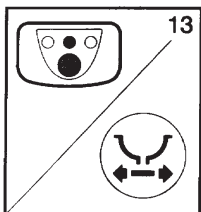
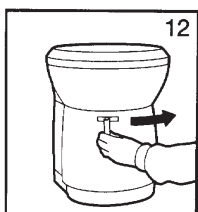
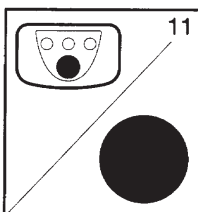
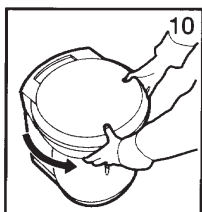
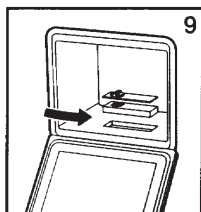
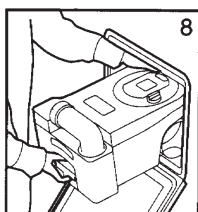
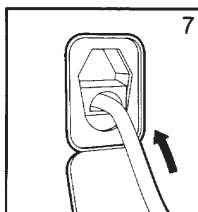
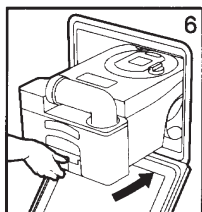
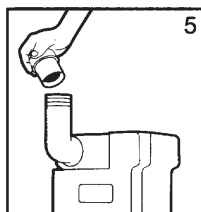
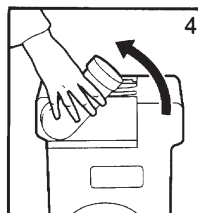
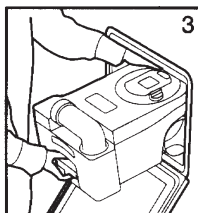
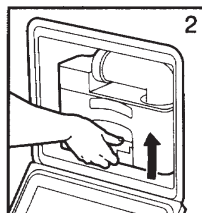
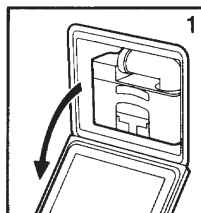
We advise draining the fresh water tank prior to travelling. Antifreeze should not be required if the motorhome is heated. If you do wish to use antifreeze, brands containing the following properties may be used in the fresh water tank:

- Ethylene glycol
- Mono-Ethylene glycol
- Propane-diol
- Glycerol
- Ethane-diol
- Glycol

Never use alcohol based antifreeze, i.e. Methanol, Ethanol, and Iso-propanol.

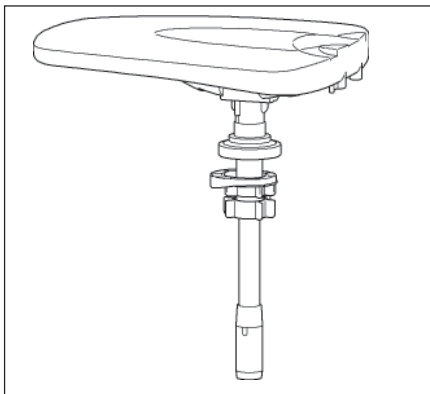


HOW TO USE YOUR MOTORHOME'S EQUIPMENT





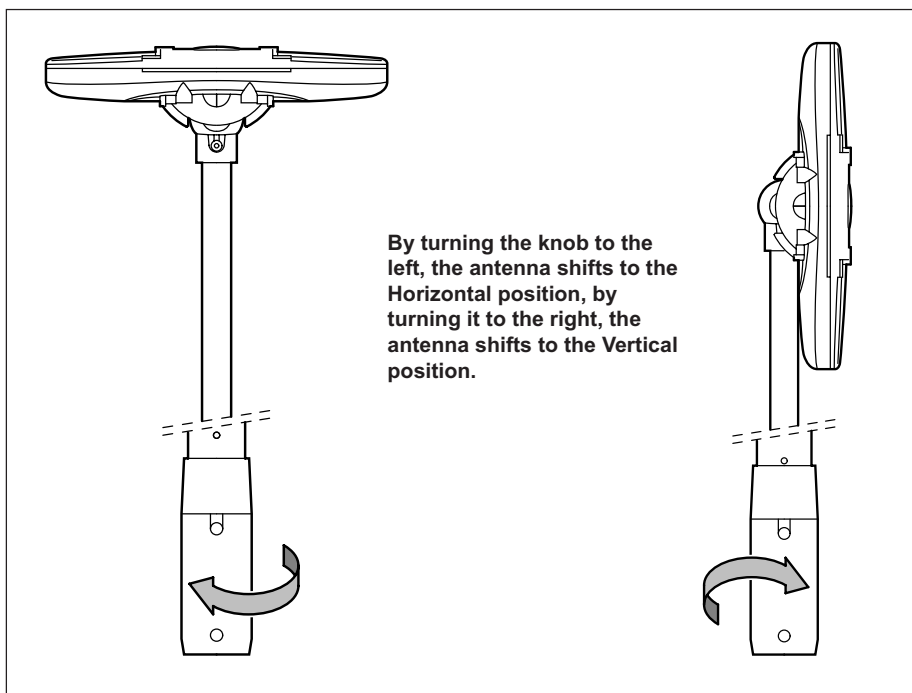
TELECO TV AERIAL



Instructions for the reception of horizontal or vertical polarity signals

In some areas certain TV signals are transmitted with horizontal polarity while others are transmitted with vertical polarity.

This antenna can be positioned both horizontally and vertically by simply turning the knob at the bottom of the mast.





Connection to the amplifier

Connect the lead exiting from the pole to the ANT input of the amplifier. Connect with the relevant lead, the TV connector of the amplifier with the television. Connect the amplifier to 12 Vdc source, making sure you do not invert the + and - terminals.

Operating Instructions

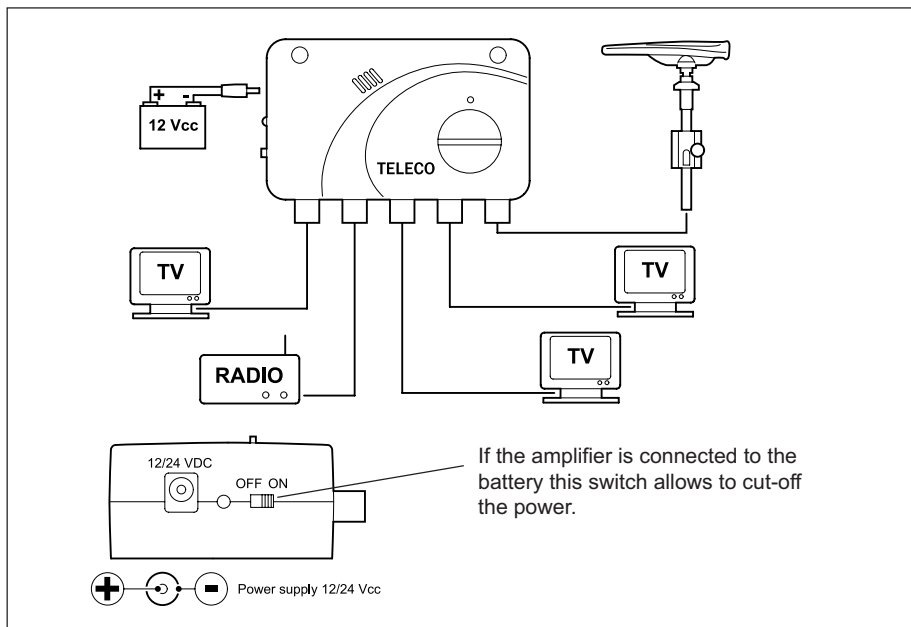
- 1) Rotate slowly the dB dial of the amplifier clockwise to the maximum +
- 2) Tune the television to a channel available in the area where you are located.
- 3) Rotate and lift the antenna via the suitable pole until you get the best image on the TV.

Useful Tips

Not all the television signals you can receive in the zone where you are located will necessarily originate from the same direction. So if the quality of a programme image is poor try rotating the antenna as the signal may be coming from a direction different from the others.

Gain Adjustment

With the dB dial turned all the way clockwise, amplifier sensitivity will be at maximum and it is therefore able to receive the weakest signals. If, instead, the signals are too strong the images on the TV screen can have some stop or macroblocks. In this case rotate the dB dial anti-clockwise slowly until the image is perfect.



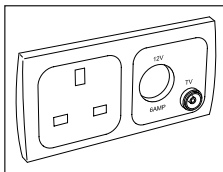


HOW TO USE YOUR TV AERIAL

Digital TV set-up guide

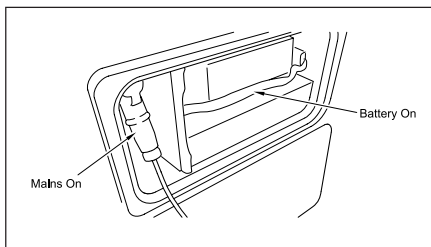
Connect aerial and power

Fix the TV to a bracket or place on a stable, flat surface, then connect the aerial cable and power lead to the TV and sockets.



Check the power is on

The aerial needs power to work correctly; check that the power is switched on (Switch on either the mains and/or battery power to the vehicle) both power sources switch on the aerial (12 Volts).



Tune in TV and choose transmitter

Switch on the TV and tune in the channels. If the vehicle is moved or a different socket is used you might need to re-tune TV. If the first transmitter picked up has poor quality pictures, then re-tune and pick another transmitter.

With Digital TV's there will be a re-tune button on the remote control use this feature and then choose manual re-tune.

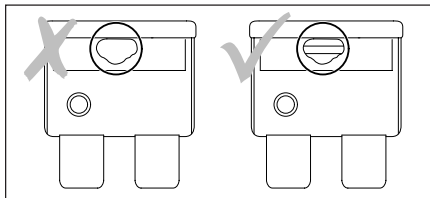
Most digital TV's will also allow you to choose the transmitter which is normally available via the Menu function.

This will vary by TV manufacturer so if you have any problems undertaking this task please refer to your TV manual.

TROUBLESHOOTING GUIDE

Check aerial/radio fuse

If there is no power, check the 5 amp fuse located within the PDU marked radio is in working order.



Check TV monitor

Check the TV is working correctly by ensuring that the channels tune in correctly in your home. If the TV does not pick up the expected number of channels we would recommend you get the TV checked out.

See step 6 shows how to tune your TV

Number of channels picked up from your house connections

DTV : 0	Programme(s)	X
Radio: 0	Programme(s)	
Data : 0	Programme(s)	

DTV : 72	Programme(s)	✓
Radio: 24	Programme(s)	
Data : 21	Programme(s)	

Check the coax lead is of good quality

Check that the TV aerial lead is of good quality (Normally cheap leads from the supermarket give reception problems, they are normally mass produced and made to a wider tolerance).

Ensure the coax lead from the aerial socket to the TV is suitable for digital reception reception (if in doubt, ask for advice).

Check location for signal strength

Check that the digital tv signal strength where the vehicle is situated is Very Good to Good.

Go to: www.digitaluk.co.uk

Enter the postcode and check signal strength.



Note: Sometimes transmitters are being repaired or upgraded

Go to: http://www.digitaluk.co.uk/help_and_advice/engineering_works

Check if signal is OK that day / week.

Check there are no obstructions

Is the vehicle outside in an open space?

Check that the vehicle has no obstructions:

House lean to/canopy

Trees (also blowing in the wind)

House or other buildings

Hills

Large vehicles

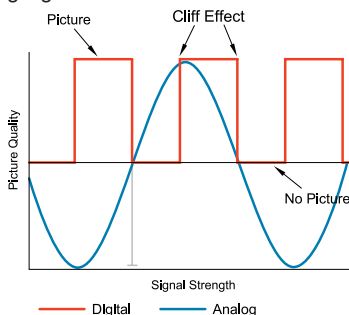
In a valley etc.



Understand digital signals

Digital signals have what the industry calls the Cliff effect.

The Cliff effect is either you have a picture or not within a very small difference of signal strength. This happens with both weak and strong signals.



TROUBLESHOOTING GUIDE - CHECKLIST

ACTION	✓ OR X
Check aerial fuse	
Connect aerial and power	
Check the power is on	
Tune in TV and choose transmitter	
Check TV monitor	
Check the coax lead is of good quality	
Check location for signal strength	
Check for obstructions	
Understand digital signals	

If after following this guide you still have problems, contact your local Retailer or Approved Workshop.

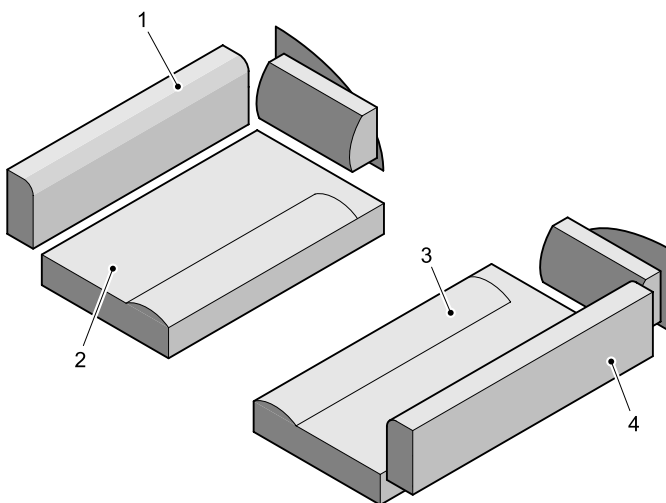


HOW TO MAKE UP YOUR BEDS

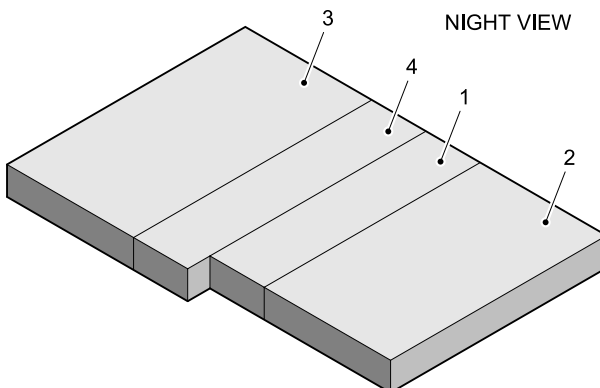
The front double bed in the 105 is made up by lifting the two side beds up and pulling them together to meet in the centre.

Accordo Day and Night 105

DAY VIEW



NIGHT VIEW

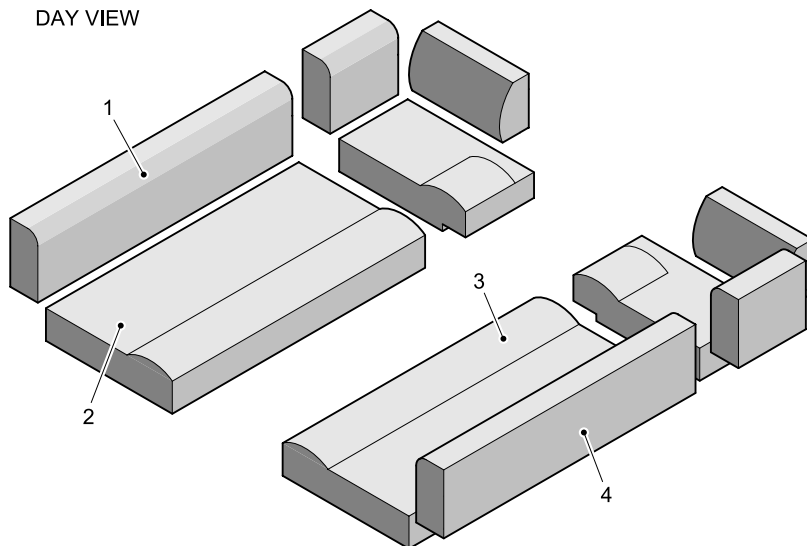




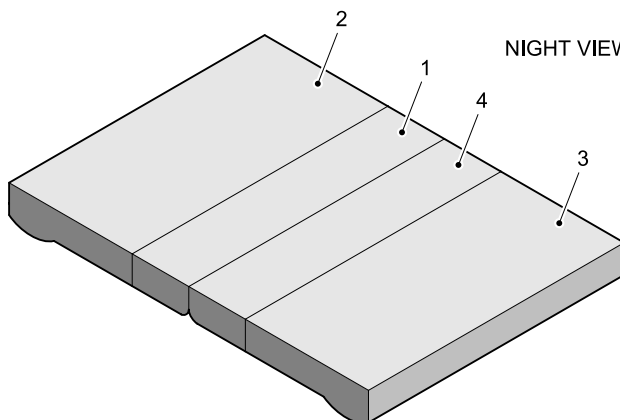
HOW TO MAKE UP YOUR BEDS

Accordo Day and Night 120

DAY VIEW



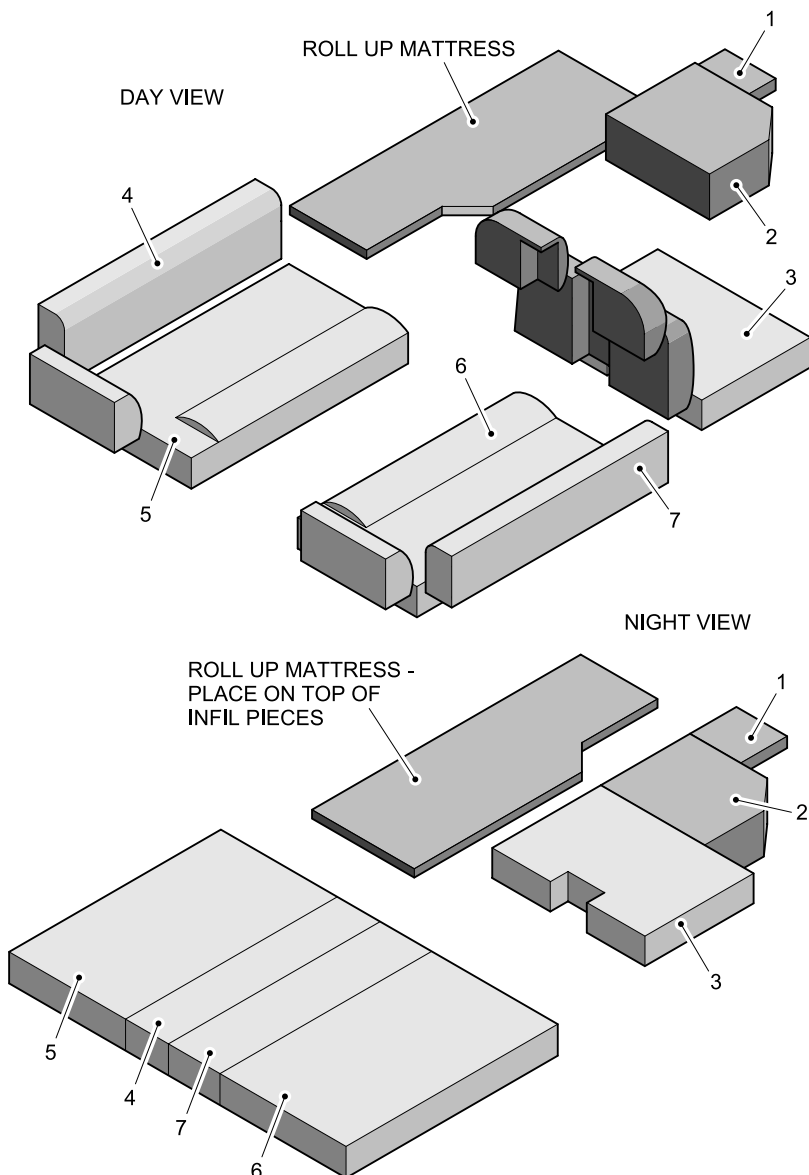
NIGHT VIEW





HOW TO MAKE UP YOUR BEDS

Accordo Day and Night 135





Whale Easi-Slide Socket

How to open the socket lid

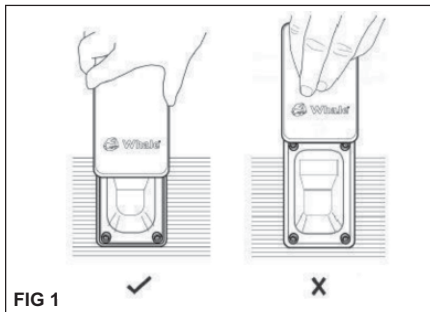


FIG 1

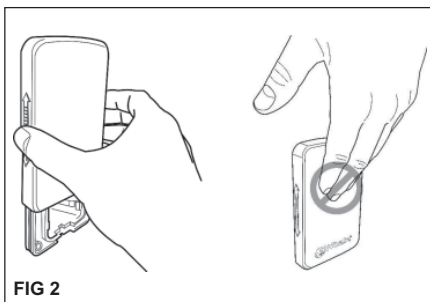


FIG 2

Safety Information

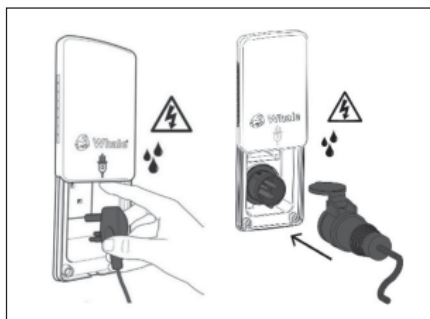
This appliance is **not** intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

- Children **must be** supervised to ensure that they do not play with the appliance.
- Any alteration to the appliance, misuse or use of non-original Whale parts may invalidate the warranty. Non observation of the installation and operating instructions will lead to cancellation of the warranty and exclusion of liability claims. It also becomes illegal to use the appliance if incorrectly installed, and in some countries may make it illegal to use the vehicle.

Additional Safety Information for Main In, Mains Out and Multimedia 3 in 1 Sockets (Where Applicable)

All work must be carried out by a competent person as defined by BS7671 Part 2/IEC 60364.

Safety



- If the mains in or out supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.
- For use in recreational vehicles only.

Additional Safety Information for Onboard Tank Fill, On Board Tank Fill +12v and Water In / Out Sockets (Where Applicable)

- For use in recreational vehicles with a typical water system pressurised up to 3 bar.
- When using the **Water In Socket**, Whale recommends that you keep the o-rings lubricated for easy and secure connection/removal of the plug to socket. Use a water-based lubricant such as silicone grease. **Please note: Do not use vaseline or vegetable oil to lubricate o-rings.**

Additional Safety Information for External BBQ Outlet Socket (Where Applicable)

Whale BBQ sockets including the gas hose connector must be installed and serviced by a Qualified Gas Engineer in accordance with these installation instructions and BS EN 1949-2011.



WARNING: Care must be taken when using the external BBQ outlet socket. NEVER barbeque next to an awning or tent.

WARNING: Only for use as an outlet point for gas, never connect a gas bottle directly to the outlet.

In the unlikely event of leaks in the gas system, or if there is a smell of gas:

- Extinguish all naked flames
- Switch off all appliances and do not operate any electrical switches
- Turn off all gas appliances
- Open windows and doors for ventilation
- Do not smoke
- Shut off gas connection
- Immediately ensure that the system is thoroughly checked by a **Qualified Gas Engineer**.
- Regularly inspect gas tap to ensure inside nozzle is free from debris, and gas connection to the rear has not been damaged.
- Supply to external appliance **should not be** less than 0.03 bar and not greater than 0.05 bar.



SECURITY

Theft deterrent, prevention and security of your motorhome is taken very seriously at Elddis. That is why we have provided a combination of standard features and optional extras designed to deter and prevent thieves from stealing your property. And in the unlikely event that they should succeed, aid the identification, speedy recovery of your property and assist in the prosecution of the thief.

Tracker (Option)

Your motorhome can be fitted with an optional TRACKER.

Your dealer may have registered the motorhome with TRACKER and confirmation sent to you via email.

If it has not been registered you can easily do it yourself.

Open the TRACKER registration portal

www.tracker.co.uk/elddis

TRACKER VLU and Motorhome VIN

Numbers are matched and confirmed with the vehicle model

Enter Dealership name from dropdown menu

Enter customer details including email address

Confirmation sent to customer email

One year subscription will begin

TRACKER will contact customer towards the end of the one year subscription period with the options available.

or call TRACKER directly on 0870 606 1269

Motorhome Theft

The theft of a motorhome can occur in the most unlikely circumstances; from a motorway service area, even from an owner's driveway. Secure all windows and doors when your motorhome is unoccupied, even if only for a short length of time.

VIN CHIP

VIN CHIP is the theft deterrent and identification system for touring caravans and motorhomes. VIN CHIP has been launched to deter criminals looking to steal touring caravans and motorhomes and help aid the identification and recovery. VIN CHIP is unique as it uses both visible and invisible markings containing a specific 17 digit VIN.



CARE OF YOUR MOTORHOME

This section of the guide is devoted to the care, cleaning and general preservation of your motorhome in order to retain its showroom condition.

All the adhesives used to seal exterior components are mould resistant but not mould proof. In order to ensure that these adhesive beads are maintained in the best possible condition and that their appearance does not become unduly affected by mould growth, it is recommended that they are regularly washed and cleaned using a suitable proprietary caravan or car cleaning wash product.

Exterior Body Shell

The exterior painted body shell of your motorhome, usually the side walls, is acrylic finished aluminium or GRP, which is extremely durable and easy to clean. It is recommended you first wash off any caked dirt and mud with cold water then use Autoglym products.

CAUTION: Under no circumstances should an abrasive or harsh cleaner be used. Do not use a pressure washer.

Glass Fibre Reinforced Plastic (GRP)

GRP components need to be washed, waxed and taken care of like a car. Chemicals and dirt can collect during storage, and the gel coat can be stained or marked when chemicals combine with rain or dew. Most stains or marks can be removed with Blue Diamond black streak remover, but more stubborn marks may require a (fine grit) rubbing compound such as Farcela G3. To help keep your GRP components looking almost like new, it is wise to wash the parts monthly (or more frequently) using Autoglym products, but avoid using strong alkaline (e.g. trisodium phosphate) or acidic cleaners or abrasives. Waxing the components once or twice a year with a good grade paste wax will help to maintain the colour and finish.

Acrylic Windows

Your motorhome is fitted with shatter resistant acrylic windows. To preserve their clarity and unblemished transparency it is

essential that the following cleaning instructions are strictly adhered to: Road grit, dust, sand, flies, bird droppings etc., should be washed off using plenty of cold water do not use a sponge to clean off heavy dirt deposits. Any remaining dirt should be washed off using a soft cloth and warm water. Under NO circumstances should any abrasive cleaning agents, household detergents or proprietary cleaning fluids be used. Wash the window again using only cold water and dry off with chamois leather.

Please note: Should scratches appear on the acrylic windows these can often be removed with an acrylic polish. E.g. ICI Perspex polish. Gentle polishing with a liquid metal polish, i.e. Brasso may also have the desired effect - consult your retailer BEFORE attempting to remove any but the slightest scratch.

Window Blinds & Flyscreens

To clean the blinds and flyscreens, moisten a soft cloth or sponge with a small amount of water and mild soap suds and gently wipe dirt off. Allow to dry before retracting, failure to do this could result in mildew forming.

ABS - Wheel Spats & Panels

To preserve the appearance of all ABS panels and fittings road grit, dust, sand, flies, bird droppings etc., should be washed off using plenty of cold water. Any remaining dirt should be washed off using a soft cloth and warm water. Under NO circumstances should any abrasive cleaning agents, household detergents or proprietary cleaning fluids be used. Wash the ABS material again using only cold water and dry off.

Interior Walls

Your motorhome interior walls will only require a wipe over with a damp cloth and soap and water to keep them in a 'showroom' condition.

Furniture

Treat your motorhome furniture as you would the furniture in your home. Polish wood surfaces sparingly with a good quality wax or spray polish. Use a damp cloth to clean Melanate laminated surfaces.



Carpets, Upholstery And Curtains

Vacuum clean carpets and upholstery to ensure a long life, marks on cushions can be removed using a mild upholstery shampoo with the minimum of water. Curtains should be dry cleaned only.

Washroom And Handbasin Fittings

These should be cleaned using a non abrasive household cleaner. Always put the cold water into the hand basin before adding the hot in order to preserve the finish of the thermoplastic formed basin.

Cleaning instructions for all chrome plated products – (taps, wastes, bathroom accessories, etc.)

Alcohol, solvents and solid detergents, liquids containing acid or aggressive solutions, anti-calcareous products, abrasive sponges or steel wool should absolutely be avoided since they could corrode in an irreparable way the outer surface of the products.

Please note: Under no circumstances should alcohol, spirit or solvent-based liquids be used on GRP or ABS plastic panels as these substances may react with the material and cause visible damage.

Shower Trays

Only clean your shower tray using soap and water. Do not use chemical based cleaning agents as this may attack the material of the tray.

Water Systems

The water systems and in particular storage tanks, in motorhomes are susceptible to contamination by bacteria if care is not taken with their use and cleaning. The symptoms caused by bacterial contamination are not purely limited to gastro-intestinal diseases, but may also manifest themselves as ear, nose, throat, and eye or skin infections. It is therefore important that you carry out the following procedure prior to using the motorhome each time, even if you boil or filter all water you use for drinking.

Please note: If your motorhome is not going to be used for an extended period of time please refer to section 12-1 Storage.

Water Containers

- (i) All water remaining in any water container should be disposed of so that the container is empty.
- (ii) The outside of external water containers should be thoroughly cleansed and washed down to remove any dirt, dust or other contaminant. Water at a suitably hot temperature containing an appropriate detergent is recommended for this purpose. Water should then be put into the container, swirled round and then emptied out.
- (iii) All containers should then be totally filled with water containing an appropriate disinfectant / sterilising solution and allowed to stand for the appropriate contact time.
- (iv) The solution should be emptied from the container.
- (v) External containers should be inverted whilst stored overnight (if possible).
- (vi) Containers must be filled with mains water only and mains water only should be used for the above cleaning procedure.
- (vii) On no account should garden hoses be used to fill water tanks.

Internal Water Systems

- (i) Drain down the system. (Open all taps to allow air in, enabling the system to drain quickly).
- (ii) Thoroughly clean the outside of all taps/connectors with a cloth soaked in the disinfectant / sterilising solution.
- (iii) Flush the system through with clean drinking water until no traces of disinfectant / sterilising solution can be detected at any tap.
- (iv) Suitable sterilising chemicals are available from your Elddis Retailer. It is not, however, recommended to use bleach or sodium metabisulphide.



Thetford Toilet

WARNINGS

Cold Weather Use - To prevent freezing during cold weather use, add antifreeze to the toilet system fresh water tank. Use a non-toxic (propylene glycol) type of antifreeze. Refer to chart on container to obtain level of protection.

Warmer Weather Use - In warmer weather or longer intervals between emptying the waste tank you may require additional toilet fluid. Use only Thetford toilet fluid to achieve the best results.

CAUTIONS

- Never add toilet fluid directly into toilet bowl.
- Do not use strong household detergents or cleaners that contain chlorine, solvents or acid contents.
- High Altitude and Hot Weather Use - with large temperature differences and changing heights during driving, pressure can start to build up in the waste holding tank, causing contents to splash upward upon opening the valve blade if opened too fast.

Changing A Wheel

Refer to base vehicle handbook.



PRE-SEASON WATER SYSTEM PREPARATION

Over the winter months bacteria can grow in your water system. Particles of minerals and dirt gather in joins and any undrained areas. After following this guide, change your water filter. If you have a Whale AquaSmart system, change your Whale WF3000 Water Filter. If you have an in line filter in your plumbing system, Whale recommend you use WF1230 Aquasource Water Filter.

To check the system hasn't suffered any frost damage over the winter and floods your van, take the following precautions:

- Close all drain valves in your van's water system.
- Re-attach your shower head.
- Ensure all taps and showers are positioned over sinks and drains.
- Check condition of leisure battery, if it is below 12V please connect to mains electricity supply.
- Rinse out fresh and waste water tanks with water, add a non-caustic cleaning and purifying agent.
- Completely fill your fresh water tank with tap water.
- Leave the hot tap that is furthest away from the water heater fully open, close all remaining taps and showers.
- Turn on isolation switch for water pump, normally found on the control panel or in a menu within the control panel's software.
- You should hear the pump running or the pressure coming from the open hot tap.
- Water will pop and splash as it comes from the hot tap, it will take some time for a flow of water to arrive as the water heater needs to fill up first.
- Once an even flow is achieved, work back towards the water heater, opening the next further away hot tap until all have been opened and there is a smooth water flow.
- The next stage is to close all hot water taps and open the cold water taps in the same order as the hot taps, beginning at the furthest away cold tap.
- When an even flow is achieved through all the taps in your van close all the taps. The pump should turn off (after a few seconds if it is a pressurised system).
- Remain in your van after the pump has stopped and inspect all the taps and shower heads for leaks. You may need to dry them down first to spot any leaks). If there is access to the underside of the taps check for water leaks.

If you find a water leak, check the following:

- If there is a water leak coming from the connections on the underside of the tap, try to push them home.
- If the leak originates from a crack or an unknown source check the rest of the taps and showers before turning off the water pump.
- Then drain the water system as the water pressure will continue to escape through the leak and will cause water damage to your van. Contact your local dealer to rectify the leak(s).

(Note: While checking the taps and showers you may hear the pump turn on and off a few times. If you hear this, turn on and off all the taps for 10 seconds individually to remove any trapped air from the system.)

- If the pump continues to run intermittently for short bursts this can indicate a leak as pressure is being lost. Follow all the water pipes and check if there is any water leaking from joints or if a pipe is burst.
- Should you find a leak at a joint, tighten the joint or push the pipe fully into the Quicklift fitting to dry up the water and wait to see if the problem persists.
- If you find a burst pipe or damaged tap/shower we recommend that you contact your nearest Motorhome dealer.
- After the cleaning agent has remained in the system for the required time, purge the system by running 2 or 3 full tanks of water through the system using all taps and showers in the mixed position.
- Check the strainer on the pump.
- Finally your system is ready for use.

If you have successfully carried out this guide, please check your water heater is functioning correctly, to do this please follow the manufacturer's instructions.

Enjoy the new season.



GETTING READY FOR THE WINTER

Before following this guide, ideally carry out this procedure prior to moving the motorhome to its winter storage location. (The movement of the vehicle will encourage residual water to drain from the system).

Ensuring that all water is removed from the motorhome's pipework, taps and appliances will reduce the risk of frost damage occurring. Frost damage can occur when water left in the system freezes and expands, causing pipework and appliances to split, crack or burst.

- Ideally position motorhome so the drain valves are at the lowest point i.e. tilt the motorhome or park on a slope.
- Turn the pump off.

User Tip: If mains electric hook up is available and a Whale Space Heater is fitted select 500w electric () and set temperature to frost protection.

- Open all taps/mixers in the mid position, including the external shower (if fitted).

User Tip: Fully drain/empty holding tank and flush tank of toilet in accordance with the manufacturer's instructions.

- Remove shower head and hose (including the external shower, if fitted) and shake water out.
- Open water heater drain valve and leave open.

User Tip: Ensure the gas is turned off at the bottle.

- Open external tank valve or onboard tank valve (if present) and leave open.
- Waste tanks - remove all sink plugs and open drain tap.

User Tip: Do not close the fridge door tightly, leave ajar to prevent mildew forming.

- Open any other drain points (if present).

User Tip: To maintain the battery periodically charge throughout the winter.

- External water components - Drain all external water components.
- Internal pump - turn on and allow to run to expel additional water for 2 minutes.
- If internal pump is accessible disconnect outlet pipe and turn on pump to purge water into an adequate basin. Only reconnect pump when water system is to be used.

Please note : Where 'wet' heating systems are fitted, please refer to the manufacturer's instructions for winterising. These winterising tips are intended as a general guide only. For servicing and product advice for your specific vehicle, please contact:

Whale Customer Support:

Tel: +44 (0)28 9127 0531

Fax: +44 (0)28 9146 6421

Email: info@whalepumps.com

www.whalepumps.com



STORAGE

LONG TERM & WINTER STORAGE

If your motorhome is to be stored for any length of time, especially over the winter period, the following operations are recommended:

- (i) Ensure all windows, roof lights, habitation and exterior locker doors are closed firmly and locked.
- (ii) Remove all soft furnishings which could be affected by damp conditions
- (iii) Clean the motorhome inside and out.
- (iv) Drain the water system.
- (v) For winter storage and to prevent frost damage all taps must be left in the open position. For those motorhomes with lever taps please ensure the taps are left in the central position.
- (vi) All blinds and flyscreens should be left in the retracted position. Check all fixed ventilation apertures are not obstructed.
- (vii) Ensure that the refrigerator/freezer compartment doors are left open during storage.
- (viii) Check that the site you have chosen to store the motorhome is open, fairly high and dry and if possible not exposed to gales etc.

Motorhome Covers

Covers may be used to protect your new Elddis motorhome provided that the cover used is of a breathable type.

Lower the TV antenna and ensure the cover is well tied down to avoid the cover being punctured.

Your motorhome must be ventilated every 4 to 6 weeks if it is to be stored with a cover in place.

Battery Maintenance

Storage

Ensure that the leisure battery is fully charged before placing the vehicle into storage.

Check the battery state every month, if the terminal voltage drops below 12.07V then re-charging is necessary.

Charging should be carried out in a cool, dry well ventilated area.

Do not place the battery onto cold surfaces such as concrete as this will affect the battery's ability to charge.

Should the motorhome be stored for a prolonged period of time it is strongly recommended that the motorhome is fully serviced before the commencement of use. Your retailer will ensure that your motorhome is safe, secure and ready for your enjoyment.

Please note: It is recommended that you place a bowl of salt within your motorhome to absorb any moisture during the winter months.



MOTORHOME HABITATION WARRANTY COVER

Introduction

At Elddis we are confident that our new motorhomes are engineered using the latest manufacturing techniques and advanced materials technology ensuring that, when buying one of our products, you are buying the very best. We extend this philosophy to our customers by offering long term peace of mind and reassurance through our extensive warranty cover.

Your warranty cover commences on the day your new motorhome is purchased and comprises of three key elements:

1. The base vehicle warranty cover is provided by the original manufacturer (details are included separately in the user handbook).
2. Three year Elddis manufacturer's warranty
3. Ten year Elddis body integrity warranty

Scope

This applies to all new products and is a guide intended to give a brief overview of the warranty terms applicable to your vehicle.

Conditions of use

Your new motorhome has been designed as a leisure vehicle only. The warranty will not be given if the vehicle is used under the following circumstances.

- Used for hire
- Used as a permanent residence
- Used for racing or time trials
- Damage resulting from freezing, accident or fire damage

Exclusions

- No liability will be accepted for fair wear and tear, including mould or discolouration of adhesive. Damage including rodent damage, wilful damage or negligence from abnormal working conditions will not be covered.
- Condensation is not covered under the warranty agreement.

Three year manufacturer's warranty

Year 1 warranty - Covers all original components, forming part of the original product specification excluding normal wear and tear.

Year 2 and 3 warranty – Covers all original components, forming part of the original product specification, excluding the following items:

- Normal wear and tear
- Microwaves
- Batteries
- Windows and glass
- All soft furnishings including mattresses (2-year warranty cover)
- Entertainment equipment
- LED lights
- All panels and plastic products
- Minor adjustments
- Ironmongery and corrosion of metallic components
- Electrical connections
- Floor coverings

We would recommend that customers have their vehicle serviced on or before the due date to ensure that all warrantable parts are identified before the expiry of the component.

Ten year body integrity warranty

Elddis products are covered against water ingress manufacturing defects for 10 years from the original date of purchase of a new product. (6 years for subsequent owners from the 1st owners original date of purchase).



Reporting a fault

In the unlikely event that you experience a problem with your motorhome please contact your retailer.

It is with the retailer that your contract of sale exists and consequently they have the responsibility to ensure any complaints and warranty issues are addressed. Any Elddis approved Retailer / Service Centre are able to undertake any warrantable work at their convenience or discretion, but are not obliged to do so, if the vehicle was not purchased from them.

All Elddis products are classed as portable and therefore all work under warranty requires the motorhome to be delivered and collected from the approved chosen Elddis agent.

The cost of transporting the motorhome by any means to and from the place of repair is the responsibility of the owner.

In order to comply with the terms of the above cover the following conditions must be met.

Conditions attached to the warranty cover

- You must retain the original sales invoice for the motorhome.
- All new motorhomes must be registered with Elddis within 6 weeks of purchase. Your retailer can forward this information to us. Please keep us informed of any name or address changes by using the Notification of Change to Name and Address form.
- The motorhome must have an annual service and damp check carried out by an Elddis approved Retailer / Service Centre or NCC Approved workshop or NCC equivalent standard as set out in this handbook. Original invoices, service checklists and damp reports must be retained as proof that the annual services have been carried out in accordance with our warranty terms.

Service intervals:

- a) In years 1, 2, and 4 through to 9 the service must be completed no more than 60 days either side of the anniversary of the date of purchase.
- b) In Years 3 and 10 the service must be completed no more than 60 days on or before the anniversary of the date of purchase and must not exceed this date.
- c) For second owners the service in years 3 and 6 must be completed no more than 60 days on or before the anniversary of the original date of purchase. This date must not be exceeded.
- d) No service interval should exceed 14 months.
- e) **Failure to service the vehicle within the specified time limits will invalidate your warranty.**

We would recommend that you have your service carried out by an Elddis Approved Retailer/Service Centre, who are able to assist you should warranty work be required. Should you choose to have your service carried out by a non Elddis Approved agent, an additional charge may be payable by the customer to cover the second inspection.

- The motorhome must be made available for repair within 6 weeks of the date of inspection for the purpose of carrying out the repair work.

Elddis reserves the right to inspect the vehicle before work commences. Failure to do this may invalidate your claim.

Warranty work may only be undertaken by an Elddis Approved Retailer/Service Centre.

- Elddis will pay the costs of remedial work to the repairer, only after approved work has been carried out. The cost of transporting, towing or moving the motorhome by any means to or from the place of repair is the responsibility of the owner.
- The Policy is not retrospective and is applicable to 2012 model year motorhomes onwards.



- No liability will be accepted for any consequential loss, damage, costs, expenses or other claims for compensation arising which were not reasonably foreseeable by both parties when the motorhome was originally purchased.
- No alteration may be made to the original construction.
- In the event of a dispute an arbitrator may be appointed, this is a discretionary service offered by us as appropriate. Should we deem it necessary to appoint an independent arbitrator, you may be required to pay a £250 deposit in advance of the inspection. If the arbitrator finds in favour of the customer then the deposit will be returned, otherwise the customer will lose their deposit.
Elddis reserve the right to inspect the motorhome at any time.

Mains electrics

It is recommended that you have your mains electrics system inspected by a NICEIC approved contractor every 3 years.

Transfer of ownership

If you purchase this vehicle as a used vehicle it may be possible to transfer the unexpired term of the warranty cover (up to a maximum of six years commencing at the original date of purchase from the first owner) and is as follows:

1. Three year manufacturer's warranty
2. A maximum of six years' body integrity warranty

The warranty is subject to the usual terms and conditions' set out in the handbook and is only transferable on payment of a £50 administration fee. Full documentary evidence that the motorhome has been serviced annually should be provided at the time of transfer, in accordance with the terms and conditions of the warranty stated in the handbook. Transfer of ownership must be completed within three months of change of legal ownership. Please complete the Notification of Change of Ownership form in your handbook. Failure to do this will negate the remaining warranty.

This warranty does not affect the purchaser's statutory rights. The warranty shall be governed and construed in accordance with the laws of England and the parties irrevocably submit to the exclusive jurisdiction of the courts of England.

For second owners the service in years 3 and 6 must be completed on or up to 60 days before the anniversary of the first owners date of purchase and must not exceed this date.

NON WARRANTY REPAIRS

Should you require any replacement parts for your motorhome it is necessary that you contact the Retailer from whom you purchased the motorhome or any Elddis approved Service Centre and give the following information, which will help in identifying the required component:

- (i) Model and make of motorhome
- (ii) VIN number
- (iii) Description of required part
- (iv) Photograph, size or diagram of required part

Please note: All parts must be ordered and supplied through an approved Retailer or Service Centre.

REMEDIAL WORK

Elddis, together with its suppliers is continually undertaking extensive research into testing, remedial work procedures and materials such as structural bonding adhesives, gaskets and tapes. Therefore, if for any reason your new motorhome is damaged or requires remedial work then we would recommend an approved Elddis Retailer or Service Centre should undertake such work.

All such work must be undertaken using only approved Elddis genuine parts, recommended structural bonding adhesive and following Elddis procedures. Elddis will also undertake to supply certain specialist repairers with the necessary spare parts. In this case, your selected repairer must contact the PARTS DEPARTMENT with all enquiries.

Base vehicle warranty - Please refer to base vehicle handbook and/or website.



MOTORHOME CONSTRUCTION - MAIN COMPONENTS

The following is a brief description of the main components used in your motorhome. More comprehensive descriptions can be found in the equipment manufacturers literature held in the Owner's Information Pack.

SOLID CONSTRUCTION BODY SHELL

Elddis Motorhome Bodies are constructed from the highest quality materials. The fully insulated floor is a constructed timber frame with plywood internal floor and a GRP underskin for added water resistance and insulation laminated together for strength. The walls comprise an insulated foam sandwich having pre-coated aluminium exterior surface or GRP and vinyl coated plywood internal finish. Wooded framing is positioned within the sandwich to add strength. The latest technology is used to produce the extremely well insulated and robust, yet lightweight sections.

WINDOWS

Windows are all of a double glazed acrylic construction and the door frames are extruded aluminium.

INSULATION

Elddis motorhomes are built to comply with grade 3 thermal insulation in accordance with the European Standard BSEN 1645 part 1. This states that an average temperature difference of at least 35°C between the inside and outside temperatures should be achieved when the outside temperature is -15°C and an internal temperature of 20°C.



GENERAL QUESTIONS

Q: Where Can I Obtain Your Latest Brochure?

A: Our latest brochures are available from Approved Retailers or can be viewed and printed from our website www.elddis.co.uk. A request form can also be completed should you wish to receive a printed copy of our latest brochures.

Q: Why Is the Handbook Not Specific To My Model?

A: Many of the components used in the manufacture of our motorhomes are identical throughout our model ranges, so we produce a generic handbook, which covers all models manufactured within a range for that season. If the literature supplied with your motorhome does not answer your question then please contact your Retailer for further assistance.

Q: I Require Technical Or Other Information, Who Can Help Me?

A: The majority of information you require is available through your Elddis Retailer.

Q - Can You Tell Me The Second Hand Price Of My Motorhome?

A - As a manufacturer we are not involved in the second hand market. You should contact a Retailer. They should be able to give some indication of market value.

Q: Can I Fit A Bicycle Rack/Top Box/Air Conditioning To My motorhome?

A: It may be possible to fit accessories to your motorhome but this will depend upon the internal construction of the roof/walls and whether they can support the weight of the accessory. If it is possible your Retailer will be able to advise you, (or alternatively they will obtain confirmation and a drawing where necessary, from Elddis). Please note that weight of any accessories will reduce your User Payload allowance.

Q: My Interior Lights Are Not Working, What Do I Do?

A: It is possible that all of the 230V mains electrical equipment may not be operated simultaneously. Check fuses, battery connections and power supply (master light switch). Refer to your Retailer for further assistance.

PLEASE NOTE: The internal lights in your motorhome will not operate whilst the motorhome engine is running.

Q: Where Can I Get Spare Parts For My Motorhome?

A: Retailers and service centres will be able to source most parts you require. For details of your nearest Elddis Retailer please refer to our Find A Retailer section on our website, or call 0371 964 2113 for assistance.

Q. How Many Years Will Spare Parts Be Available For My Motorhome?

A: Elddis will endeavour to supply spare parts for a motorhome, for at least 8 years from new.

Q. Why Don't You Stock Parts At The Elddis Factory?

A: Due to the volume of models we produce it is not possible for us to maintain stock levels of every individual component used in our manufacturing process. We do stock commonly requested items, but some items must be made to order

Q. What If The Parts Are No Longer Available?

A: Where an original part is no longer available, whenever possible we will suggest a suitable alternative if it is available.

Q: Who Can Service My Motorhome Habitation?

A: Your supplying Retailer is obliged to undertake your warranty work. However, any Elddis Approved / Service Centre, can undertake the work, but this is at their discretion. We will also accept services completed by a NCC approved company, but they will not be able to undertake warranty work if they are not approved by Elddis

Q. I Am Having Trouble Booking My Motorhome in For Its Service, In Line With The Requirements. What Timescale Is Acceptable?

A: Please refer to the warranty section for the terms and conditions of servicing. We would recommend that you plan your services in advance in order to meet the requirements.



**Q. I Have A Problem With My motorhome,
Who Can Help Me?**

A. We would always recommend that you contact your supplying Retailer. Your local Elddis Retailer or Elddis Approved Service Centre may be able to assist. An inspection can then take place and the necessary course of action agreed.

**Q. I Am Unhappy With The Service I Have
Received From My Retailer/Service
Centre, Where Do I Go From Here?**

A. We would recommend that you write to your Retailer/Service Centre, detailing your problems and requirements, requesting a response explaining how they will resolve your complaint. A copy of your letter can also be forwarded to Elddis Customer Care Department, quoting the serial number of your motorhome and the name of the Retailer/Service Centre. Please be assured that we will assist your Retailer/Service Centre in resolving any problems.



GLOSSARY

ABS - plastic

Acrylonitrile Butadiene Styrene Plastic the material used for most of the large plastic components within your motorhome.

Actual Laden Weight

This is the total weight of the motorhome when loaded ready for use by the end user.

Aquaroll

Brand name used generically for a water container that rolls so you don't need to lift it.

Battery Charger

This is required to keep a leisure battery charged. All motorhomes include a charging facility that operates via the mains hook-up, and also has the ability to trickle charge from the vehicle's alternator while travelling.

Berth(s)

Sleeping place - Refers to the number of people a motorhome can accommodate for sleeping.

Blown Air Heating

A method of heating the living quarters of a motorhome by use of a fan pushing air out through a number of outlets.

Bunk Bed

This is a sleeping place, usually higher up than a conventional bed. Often (but not always) this can be folded or removed to provide additional living space.

Propane

Is a form of Liquefied Petroleum Gas (LPG) that normally comes in red cylinders. This type of gas is most commonly used in the UK.

Campingaz

This is the trade name of Butane gas.

Cassette Blind

This is a roller blind that is fitted as part of the window assembly, often along with a flyscreen, thus giving a neat installation.

Cassette Toilet

A form of chemical toilet found in modern motorhomes, where the waste holding tank can be accessed and emptied from outside.

Control Panel

Used as the description for the panel of electrical switches and gauges governing 12V and mains electricity systems.

Dinette

This is a popular style of seating arrangement where two seats or settees face each other across a table.

Earth Leakage Circuit Breaker (ELCB)

ELCB Earth leakage circuit breaker - see residual current device (RCD)

End Kitchen

A common term used to describe floor plans that put the kitchen across the rear, usually adjacent to a motorhome door on one side and washroom on the other.

Essential Habitation Equipment

Those items and fluids required for the safe and proper functioning of the equipment for habitation as defined by the manufacturer of the motorhome. This includes items such as the leisure battery and gas cylinders, plus water contained in the water heater etc.

Flyscreens

Mesh fittings for windows doors and roof vents, to keep out insects etc.

Free-Standing Table

This is a table that, because of its leg design, can be used inside or outside.

Full Service Pitch

This is a pitch that has individual provision for fresh water supply and waste water disposal, in addition to mains electricity and in some cases TV aerial connection.

Gas Cylinder

This is a portable, pressurised container for the storage of LPG.

Gas Cylinder Locker

Is the compartment on the motorhome for the storage of gas cylinders.

Gas Drop out Holes

These are not part of the ventilation. LPG is heavier than air, so holes through the floor below gaspowered appliances allow any leakage of gas to exit the habitation area.



Grey Water

This is the waste water from sink/shower.

Gross Vehicle Weight (GVW)

This is the weight of the vehicle laden to its maximum, as defined by the manufacturer. See also MTPLM.

GRP

Is Glass-reinforced plastic, but more commonly known as glass fibre (not fibre glass, which is a trade name

Handbook

This is an owner's manual, a guide to the workings of your motorhome.

Hardstanding

This is a pitch which has a hard surface made of gravel, asphalt, concrete etc, instead of grass.

Hook-Up

This is a facility on a pitch for connection to mains electricity.

Ingress

Usually meaning water ingress, a possible problem where water seeps in at the joins, usually as a result of worn sealant.

Jack

This is a device for raising the vehicle so that a wheel can be changed.

Kerb Weight

This is the empty weight of a motor vehicle as defined by the manufacturer.

Layout

This is the Interior design and details where furniture units are placed in relation to each other.

Leisure Battery

This supplies the power for the motorhome electrical systems and is sometimes called an auxiliary battery.

Levelling

The process of ensuring that a motorhome is level when sited on a pitch. It is important for comfort and also to ensure the correct functioning of the fridge and water systems.

LPG

Liquid Petroleum Gas, i.e. butane or propane.

L-Shaped

This is a term where the seating area of a motorhome is indeed L shaped.

Mains Hook-Up

This is a site facility where you can plug into a mains electricity supply.

Maximum User Payload

This is the maximum payload allowed for the user.

MIRO - Mass In Running Order

Weight of the motorhome equipped to the manufacturer's standard specification including essential habitation equipment

MTPLM - Maximum Technically Permissible Laden Mass

The technical maximum permissible laden weight of the motorhome, this must not be exceeded.

NCC

The only trade association representing manufacturers, retailers and suppliers within the motorhome industry.

Optional Equipment Payload

The payload provided by Elddis for any factory fitted options that may be available.

Owners' Club

This is a group of people who usually own the same brand of motorhomes and enjoy meeting up for rallies.

Payload

The amount you can put into a motorhome. Specifically the difference between the Maximum Technical Permissible Laden Mass (MTPLM) and the Mass In Running Order (MIRO).

PDI

This is an inspection undertaken by the Retailer prior to handover to the customer.

**Pitch**

A designated area of a motorhome site allocated for the use of one outfit. Most sites will be arranged with defined pitches.

Propane

Gas used in colder conditions and is usually supplied in red cylinders.

RCD

This is a residual current device and is part of the electrical system that will 'trip' if there is an electrical fault.

Gas Regulator

Safety device fitted between the gas cylinder and the gas system of a motorhome, which controls the pressure of gas being released from the cylinder.

Road Lights

The external lights used while the vehicle is traveling.

Roof Lights - See Roof Vent.

Roof Vent

Is an opening unit in the ceiling that lets in ventilation and light, these vary in size, but the best ones will have integral blinds and flyscreens and are also called rooflights.

Semi-Rigid Pipe work

Is water pipes made of a semi rigid plastic and are infinitely preferable to cheaper convoluted piping which can act as a trap for germs and smells.

Slats

Sometimes used for beds and can improve ventilation to mattress cushions.

Space Heater

This is a type of heating equipment for the living quarters. Modern units fitted offer gas and mains-operation.

Speed Rating

This is the maximum speed at which a tyre may be used, as marked on its sidewall.

SMMT

Society of Motor Manufacturers and Traders.

Torque Wrench

A form of spanner used to set nuts and bolts to a specified degree of tightness. It is recommended for adjustment of wheel fixings on motorhomes.

User Payload

The weight of all items carried in the motorhome.

U-Shaped Settee

Usually a reference to seating that literally is 'U' shaped.

Vehicle Kerb weight

The weight of the tow car often indicated in the manufacturers specifications.

VIN - Vehicle Identification Number

This is a unique serial identification number for a vehicle. All cars and motorhomes should carry a VIN. Motorhomes are not obliged to, but most of those sold in recent years in the UK do.

Warranty

Are the terms and conditions that spell out your rights with regard to servicing, repair or replacement of parts as provided by the manufacturer.

Wild Camping

Term used for staying overnight away from a site. Illegal in many countries, but permission may be granted by individual landowners.



MOTORHOME HABITATION ANNUAL SERVICE RECORD

In order to ensure your warranty remains valid an annual service must be carried out in accordance with the requirements of this handbook. You are responsible for any charges incurred for the service of your vehicle. If the annual service is performed by an authorised Elddis Approved Retailer / Service Centre or NCC Approved Workshop then Erwin Hymer Group UK Limited deems that the service has been performed correctly.

You may choose to have your annual service performed by an unauthorised repairer / service centre and if you do it will be your responsibility to ensure that the service meets our requirements.

We will ask you to provide a copy of the following documentation:

- Damp report
- Annual Habitation Service check list (to the minimum standard set out in this handbook)
- Invoice / dated service stamp

If the Annual Service has not been performed in accordance with the requirements in this handbook your warranty will be invalidated, however this will not affect your legal or statutory rights as a customer.

Elddis will not pay any unapproved Service Centre for the undertaking of any warranty work.

Minimum service requirements

The service must be undertaken by suitably qualified personnel.

A full damp test check should be undertaken and damp readings recorded.

A service check must be performed to the minimum standards set out below.

Annual Habitation Service check list

UNDERBODY

Item	Condition
Under slung tanks and pipes - check condition and security	
Body Attachment - check security of body to the chassis	

ELECTRICAL SYSTEMS

Item	Condition
Check the leisure battery is being charged from both the engine when running, or with a multi-tester and the mains charger	
Leisure Battery (if fitted) - check condition of the battery & its compartment	
Interior lighting & equipment - check operation and fuse rating	
Awning light - check operation	
Wiring earths - check for defects on all ELV circuits (Visual)	
LV inlet plug & extension lead – check condition & resistance across pins	
Earth Bonding - visual inspection	



ELECTRICAL SYSTEMS (continued)

Item	Condition
RCD unit - check operation of RCD test button and operations of MCBs	
230V appliances - check operation	
3 pin plug - check condition	

GAS SYSTEMS

Item	Condition
Regulator and gas hose - check age performance and security	
Perform a gas pressure check	
LPG Tank (if fitted) - check security	
Flame failure devices - check operation	
Gas cylinder - check security	
Gas dispersal holes - check they are clear from obstructions.	

APPLIANCES (check gas and electric operation)

Item	Condition
Fridge - check operation from 12V, 230V & gas	
Hob - check operation	
Oven - check operation	
Grill and fan - check operation	
Water boiler – Check operation	
Heater - check operation and top up header tank with anti-freeze (where applicable), bleed as necessary	

WATER SYSTEM

Item	Condition
Water pump & pressure switch - check operation	
Taps and pipes - check operation	
Water filter housing - check for leaks & replace filter where necessary	
Water system - check for leaks	
Water Tanks (if fitted) - check security of all water tanks including underslung tanks.	
Toilet - check security, operation of flush pump and free from obstructions.	
Drain down the system when checks are complete.	



VENTILATION

Item	Condition
Rooflights - check all are free from obstructions, cracks and have a free air flow	
Floor vents - remove protective cover and check they are clear from obstruction then refit covers	

FIRE & SAFETY

Item	Condition
Smoke and carbon dioxide detectors - check for operation via the test buttons fitted, check battery condition.	
Fire Extinguisher (if fitted) - check it is still within date	
Fire Blanket (if fitted) - check it is still within date	
Habitation door operation	

BODYWORK

Item	Condition
Doors and windows - check all catches are present and operating correctly.	
Blinds and flyscreens - check condition and operation	
Roof - check condition of roof.	
Cab seats - check condition of the seats and seats belts	
Floor - check condition of floor	
Furniture - check condition of the furniture	
Damp Test - undertake a damp test and record all readings taken.	
Lubricate all locks	



ANNUAL HABITATION SERVICE RECORDS

ANNUAL SERVICE RECORD

MOTORHOME MODEL

VEHICLE IDENTIFICATION NUMBER YEAR

1st SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

2nd SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

3rd SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

4th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

5th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

6th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.



7th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

8th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

9th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

10th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

11th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

12th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

13th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

14th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.



15th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

16th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

17th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

18th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

19th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

20th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

21th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.

22th SERVICE

DATE:

RETAILERS STAMP:

I/We certify that an annual service has been carried out in accordance with the manufacturers' and NCC recommendations.



NOTIFICATION OF CHANGE OF OWNERSHIP

If you purchase this vehicle as a used vehicle it may be possible to transfer the unexpired term of the warranty cover (up to a maximum of six years commencing at the original date of purchase from new). Please refer to the warranty section of the handbook for terms and conditions.

Please complete the attached form and post it to us along with the following information:

- A copy of the V5 registration form
- A copy of the habitation service handbook displaying a complete and up to date service history, including service checklist and damp report.
- A cheque for £50 made payable to Erwin Hymer Group UK Limited.

Transfer of ownership must be made within the first three months of any change of legal ownership in order for the warranty cover to remain valid.

Erwin Hymer Group UK Limited Customer Care

Delves lane

Consett

County Durham

DH8 7PE

www.elddis.co.uk

This form is also available for you to print from our web site.

NOTIFICATION OF CHANGE OF OWNERSHIP

Previous owner details (if known):

Name:

Address:

Post code:

Email:

New owner details:

Name:

Address:

Post code:

Email:

Daytime telephone number: Date of purchase:

Details of Motorhome:

Range: Model:

Vehicle identification number (17 digits):

* In order for you warranty to remain valid, your motorhome must have been serviced annually by an Approved Retailer / Service Centre, NCC Approved Workshop or NCC equivalent standard as set out in this handbook.

If you do not want to receive information about products and services from Elddis, please tick. ☐



NOTIFICATION OF CHANGE TO NAME AND ADDRESS

In order that we can provide you with the very best level of service we ask that you keep us informed of any changes to your contact details.

Should your details change please complete the online form on our website, in our 'Customers' section. Alternatively, please complete the attached form and post to us:

Erwin Hymer Group UK Limited Customer Care
Delves Lane
Consett
County Durham
DH8 7PE
www.elddis.co.uk

.....✂.....

NOTIFICATION OF CHANGE TO NAME AND ADDRESS

Previous details:

Name:

Address:

.....

..... Post code:

Email:

New details:

Name:

Address:

.....

..... Post code:

Daytime telephone number: Date of purchase:

Email:

Details of your Motorhome:

Range: Model:

Vehicle identification number (17 digits):

If you do not want to receive information about products and services from Elddis, please tick. ☐

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