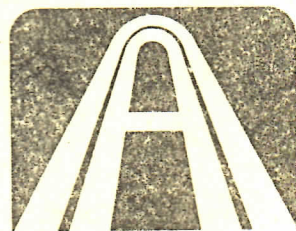


Owner's Manual



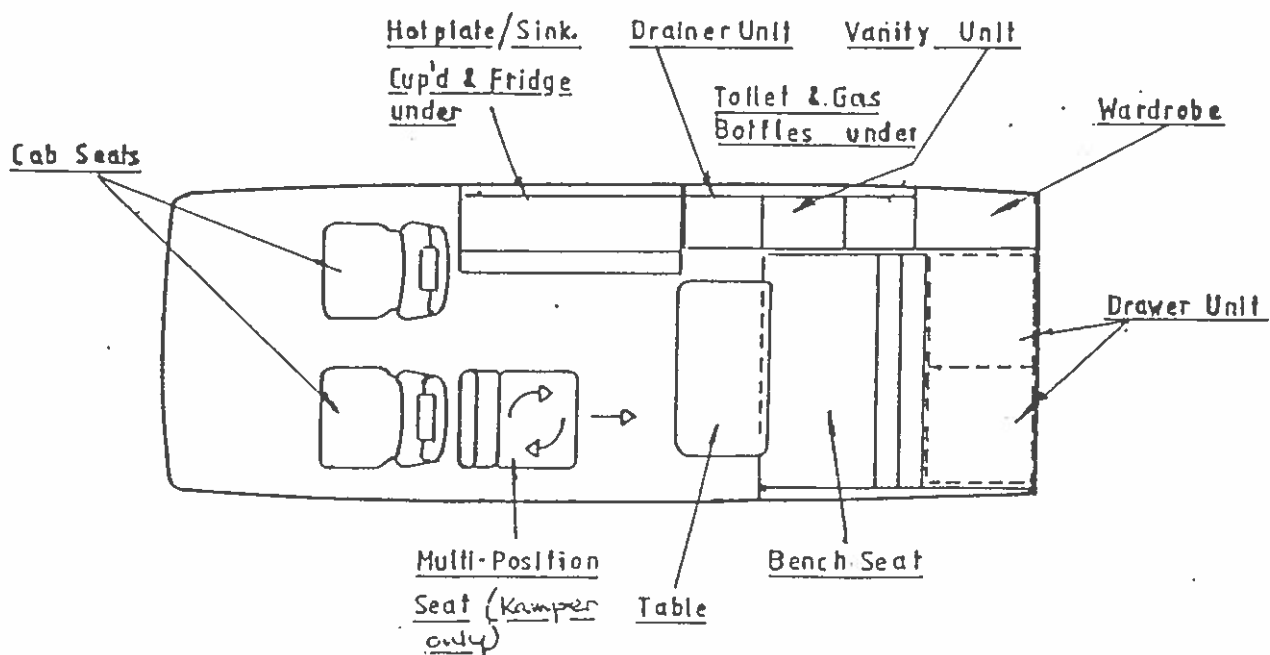
utohomes

INTRODUCTION

Congratulations on choosing an Autohomes VW Conversion.

This Owner's Manual and Operating Guide gives all the necessary information to ensure that you get the most out of your conversion. Further information can be obtained from any Autohomes (UK) Limited dealer who can also provide information on Autohomes' aftersales service.

Please consult your Volkswagen manual for information on the Volkswagen Transporter Panel Van on which the conversion are based.



SPECIFICATIONS

KAMPER MARK IV, KAMEO III AND KOMET II

Based on the Volkswagen Transporter Panel Van.

EXTERNAL DIMENSIONS

Overall Length		4570mm	(15'0")
Overall Width		1850mm	(6'0 3/4")
Overall Height	Kamper	2293mm	(7'6 1/4")
	Kameo	2464mm	(8'1")
	Komet	2591mm	(8'6")

INTERNAL HEIGHTS

Over usable floor area

Kamper (roof raised)	2261mm	(7'5")
Kameo	1878mm	(6'2")
Komet	2007mm	(6'7")

Over upper bed

Kamper	750mm	(2'5 1/2")
Komet	432mm	(1'5")

WEIGHTS

Gross vehicle weight 2390 kg (2.35 tons)

*Unladen weight	Kamper	1706kg 1.68 tons	Kameo	1747kg 1.72 tons	Komet	1752kg 1.72 tons
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Load Capacity	Kamper	684kg .67 tons	Kameo	643kg .63 tons	Komet	638kg .63 tons
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*Unladen weight is weight of vehicle with body, fitted with all electrical equipment and auxiliary equipment necessary for normal operation of the vehicle plus the weight of the following elements, coolant, at least 90% of the capacity of the fuel tank, spare wheel, standard tool kit.

BED SIZES

Lower Bed		1854mm x 1219mm	6'1" x 4'0"
Upper Bed - Kamper		1829mm x 1219mm	6'0" x 4'0"
	Komet	1829mm x 1257mm	6'0" x 4'1 1/2"

ELECTRICAL SYSTEM

12 volt system taken from the vehicle battery, 220/240 volt system taken from an external source supplying the refrigerator and one socket outlet.

GAS SYSTEM

Internal storage for 2 camping gaz 907 gas cylinders. Metric copper pipe with compression fittings and isolating taps for all appliances. Appliances are designed for low pressure gas supply

Butane 11.2inwg (28mbar)

Propane 14.8inwg (37mbar)

WATER SYSTEM

Internal 54.5 litre (12 gallon) fresh water tank with exterior locking filler. Submersible electric water pump with foot operation isolating switch.

MATERIALS AND COLOURS

<u>ITEM</u>	<u>DESCRIPTION</u>
Upholstery	Vanneder Orpheus Design 1072 Colour 456237
Mattress	Honeycord Mushroom
Curtains	Stoeckel and Grimmer Dallas colour 414365
Carpet	Saxon Twist - Campagne ST 37
Wall Fabric	Light Flax Sandringham 223
Furniture Board	Alkor PVC 643/09 Light Oak
Worktops	Tatami Ecru - Preformed
Roof Lining	Calico P2945 - Kamper Panasom - Kameo - Komet

OPTIONS AVAILABLE

1. Built in, but removable black and white TV with sockets wiring and aerial.
2. Melamine crockery set, to fit existing crockery storage.
3. Control panel with battery charger, fuses and 2nd battery.
4. Blown air heating system.
5. Water heater.
6. Waste water tank.
7. Porta potti flush toilet.
8. Childs cab bunk.
9. Flyscreen for sliding window
10. Swivel on drivers cab seat and table not Kamper, standard Komet.
11. Stainless steel rear ladder, not Kamper, standard Komet.

LOADING OF VEHICLE

Correct weight distribution is an important factor in ensuring a balanced and easy to drive vehicle.

It is therefore essential to plan the location of stores and personal effects to suit the number and travelling positions of your passengers.

WARNING

Heavy items such as tins of food etc. Must not be carried in high level lockers

It must also be remembered that your motor caravan has a maximum weight limitation. This is given as the gross vehicle weight on the Specification Sheet, and should not be exceeded.

Finally, we would strongly recommend draining the waste water as soon as practicable after leaving a site so as to avoid travelling with unnecessary weight.

ROOF RACK AND LADDER

The maximum permitted load is 100 kg evenly distributed.

All articles carried on the rack must be securely attached to the rack and care taken to avoid damage to the roof panel.

WARNING

Roof rack load may affect the vehicle handling, particularly cornering and your attention is drawn to the section on "loading your vehicle"

THE POLICY OF AUTOHOMES (UK) LIMITED IS ONE OF CONTINUOUS IMPROVEMENT. WE RESERVE THE RIGHT TO CHANGE PRICES, SPECIFICATION OR EQUIPMENT AT ANY TIME WITHOUT NOTICE. ALL MEASUREMENTS AND WEIGHTS ARE APPROXIMATE ONLY.

WARNING

BEFORE LIVING IN YOUR MOTORCARAVAN ALWAYS ENSURE YOU HAVE ADEQUATE VENTILATION PARTICULARLY WHEN USING UNFLUED COOKING APPLIANCES. TREAT ALL GAS AND ELECTRICAL APPLIANCES WITH THE SAME RESPECT AS YOU WOULD IN YOUR HOME

ADVICE TO OCCUPIERS

VENTILATION

DO NOT OBSTRUCT THE VENTILATORS WHICH ARE FITTED. YOUR SAFETY DEPENDS ON THEM.

IN CASE OF FIRE

- 1 GET EVERYONE OUT.
- 2 TURN OFF OUTSIDE GAS VALVE AND/OR OIL VALVE (IF FITTED)
- 3 RAISE THE ALARM AND CALL THE FIRE BRIGADE
- 4 IF CONNECTED TO A MAINS ELECTRICAL SUPPLY, CHECK THAT IT IS DISCONNECTED OR SWITCHED OFF AT THE PITCH SUPPLY POINT
- 5 TACKLE FIRE IF SAFE TO DO SO

FIRE PRECAUTIONS

CHILDREN SHOULD NOT BE LEFT ALONE

MEANS OF ESCAPE. MAKE SURE YOU KNOW THE LOCATION AND OPERATION OF THE ESCAPE WINDOWS AND DOORS. KEEP ALL ESCAPE ROUTES CLEAR.

COMBUSTIBLE MATERIALS. KEEP THEM CLEAR OF ALL HEATING AND COOKING APPLIANCES.

FIRE FIGHTING. ENSURE THAT THERE IS, AT LEAST, A WATER OR DRY POWDER FIRE EXTINGUISHER (TO BS 5423, RATING 13A) BY THE MAIN EXIT DOOR AND A FIRE BLANKET NEXT TO THE COOKER.

MAKE YOURSELF FAMILIAR WITH THE INSTRUCTIONS ON YOUR FIRE EXTINGUISHER AND THE FIRE PRECAUTION ARRANGEMENTS ON THE SITE.

SUPPLIED BY THE NATIONAL CARAVAN COUNCIL

BEFORE DRIVING CHECK LIST

WARNING

Store table(s) and table leg(s)

Store chopping board

Check all lockers, cupboard doors, drawers and top hinged windows are closed securely

Gas cylinders are turned OFF at regulator

Refrigerator selected 12 volt (if in use)

Corner steadies retracted (if fitted)

All external locker doors shut and locked

Step for main door - stowed and locked (if fitted)

SEATING ARRANGEMENT WHEN TRAVELLING

On earlier models restraint straps were only fitted as optional extras. When restraint straps are not available, passengers are advised to use when available rearward facing seats or with inward facing seats, the seats adjacent to the forward bulkhead.

On later models rear lap restraint straps are fitted as standard appropriate to the number of berths, with a minimum of two in addition to the cab seat belts.

They are fitted either to the forward facing dinette seats or with inward facing seats, they are fitted to the seats adjacent to the forward bulkhead.

WARNING

When restraint straps are available use them at all times while the vehicle is in motion.

Do not strap in more than one person with each strap.

For maximum effectiveness the lap strap should be worn low across the pelvic crest.

Straps should not be worn twisted.

Do not wear straps over rigid or breakable objects in or on your clothing, such as eye glasses, pens, keys, etc., as these may cause injury.

Several layers of heavy clothing may interfere with proper positioning of straps.

Straps must not rest against sharp objects.

Keep straps buckles free of any obstruction that may prevent secure locking.

Straps that have been subjected to excessive stretch forces in an accident must be replaced.

If straps show damage to webbing bindings or buckles they should be replaced.

Do not modify or dis-assemble the restraint straps in your vehicle.

Never bleach or dye restraint straps

KAMPER ELEVATING ROOF

To raise the elevating roof it is only necessary to release the front catch. The release knob is located at the front on the left hand side.

To reduce the unlocking load of the catch we suggest that you pull down on the forward handle of the roof at the same time as the release knob is pulled.

Having released the catch push the front of the roof up, the gas filled struts will take over and raise the roof to its fully elevated position, the rear lock automatically disengaging as the front rises.

The side flaps can now be positioned. Stand on the stool/storage unit provided, release the shoot bolts and lower the top flaps, then raise the lower flaps, first ensuring the shoot bolts have been drawn back to release the side flap locking mechanism. Before pushing the lower flap fully home raise the arm of the locking mechanism to the fully up position, push the lower flap fully home and lock in position, push the lower flap fully home and lock in position by lowering the locking mechanism arm and retain in place with the shoot bolt.

Should it be desired one or both of the top flaps may be left in the stowed position thereby greatly increasing the ventilation. The lower flaps can still be locked into the upright position as described above.

Lowering the roof is the reverse of raising, unlock and lower the bottom flaps, raise the top flaps and lock in the stowed position. Bring the roof cap down by pulling firmly on the handles provided, the front will come down first, followed by the rear. Should the roof not lock down first time, raise the front of the roof about 6 inches and lower smartly, the lock should then engage. Both the front and rear locks will engage automatically.

WARNING

Do check that the roof is locked down at both the front and back before driving. This can be checked by trying to push the roof up.

NEVER DRIVE WITH THE ROOF RAISED AS THIS
COULD RESULT IN DAMAGE AND WOULD INVALIDATE
THE WARRANTY.

STOOL/STORAGE UNIT - KAMPER

As described previously the stool/storage unit fulfills many roles. It is a stool when raising and lowering the roof, and a support for extending the dinette seating.

It has a hinged top so it can be used as a storage unit and when travelling it can be positioned between the cab seats to provide more room for all those items required near at hand.

It will also provide an extra small seat either inside or outside the vehicle.

SEATING ARRANGEMENT

The Kamper can carry up to six people utilising the forward facing bench seat, the versatile sliding, revolving and reclining seat and the two cab seats.

The Kameo/Komet can carry up to five when travelling and when parked the swivelling passenger seat can be turned round so that the cab becomes part of the lounging area.

TABLE

The table is located in position by a simple pillar leg located in the floor recess with the table fitted on top. The table may be pivoted to assist access to the bench seat. Storage is behind the bench seat on the rear cushion.

REAR DINETTE

The rear dinette will seat two people in the Kameo/Komet using the bench seat and four in the Kamper with the additional swivel seat.

For the Kamper the table is positioned in front of the bench seat and the swivel seat moved on its slides fully aft, pivot the seat so it is facing the nearside and lower the seat back to the horizontal position. It is important to position the stool/storage unit under the seat back to support the weight of the person sitting on it.

CAB DINETTE

Both passenger and drivers seat can be rotated to face inwards and with the special table top located between the seats on the central pillar leg and the dashboard a two seater dinette is available.

The release lever for the pivoting seats is at the front below the seat.

There are two pillar legs supplied, the short one is for the cab dinette table.

WARNING

Swivel seats must be in the forward position while driving.

Do not operate the locking lever of the swivel seat while the vehicle is in motion.

SLEEPING LAYOUT

The Kamper and Komet both have a lower and upper double bed.

The Kameo has just the lower double bed.

LOWER DOUBLE BED

The lower bed is made by converting the bench seat. If carrying out the conversion for the first time, it would be advantageous to locate the position of items which will be referred to in the conversion instructions.

The support leg is located under the seat base immediately behind the front stiffening rail. It is retained in either the 'stowed' or 'in use' position by a overcentre spring and is operated by a simple pivoting action from one position to the other.

The handle loops are located on the top and bottom of the seat back, the one on the top of the cushion is visible but the bottom one is hidden by seat base. The loops provide an easy method of moving the seat back.

Both the seat base and back are moved by means of pivot arms attached to the underside of the seat base and the back of the seat back.

To convert to the double bed first raise the front of the seat base and pivot the leg into the down position. Pull the seat forward so that it swings on its pivot arms up and over into the bed position. By leaning over or kneeling on the seat base release the seat back from its retaining catches by operating the central lever at the same time pull the seat back forward clear of the locks. Locate the bottom hand loop of the seat back and pull forward, the back on its pivot arms will swing into position between the front and rear cushions and locate on top of the support cleat protruding from the rear of the seat base. Tuck the hand loops between the cushions and the bed is ready for use.

To revert back to a bench seat reverse the above procedure. Locate the hand loop at the top (rear) of the seat back cushion lift and swing the seat back into its seat position. The two spring loaded locks will engage automatically, swing the seat base back into almost its final position but before lowering the front down re-stow the support leg.

UPPER DOUBLE BED - KAMPER

The upper double bed large mattress is already in position. To complete the bed, release the shoot bolt retaining the two extension panels stored over the cab, pull out the panels and position adjacent to the fixed part of the bed. Lock the panels in position with the shoot bolt on the forward face of the front panel.

To assist in gaining access to the upper bed we recommend the following procedure is adopted.

The two additional small mattresses and sleeping bags are placed on the main part of the bed. The two bed extension panels are pulled out only far enough to separate the two panels. This is achieved by lifting the front of the rear panel slightly to disengage to catches. Slide the rear panel up the main section of the bed and place one of the small mattresses on top. The front extension panel should be left protruding from its storage space.

By using the stool/storage unit and the top of the kitchen unit gain access to the bed. When in the upper bed the front panel is pulled across and rejoined to the rear panel and the second small mattress placed in position. The upper bed is now completed.

Should the front extension inadvertently be pushed back into its storage space it can be retrieved by pushing the rear panel back into the storage area, the two catches will automatically engage and both panels pulled out again.

UPPER DOUBLE BED - KOMET

A single extension bed board is stowed over the rear fixed part of the bed and is pulled forward onto the side support rails.

The extension is retained in both the stowed and bed position by two shoot bolts located just behind the front upstand of the extension.

Entry and exit to the bed is best achieved by pushing the extension board as far forward as possible thereby creating a gap between the front and rear sections of the bed. Access via this gap, using the toilet storage cupboard and drainer cover as steps is now possible.

The forward extension is provided with a hand hold to pull it rearward to close the gap, do not forget to retain it in position with the shoot bolts.

KITCHEN UNIT

The kitchen unit consists of a separate enamelled hob and grill unit complete with a glass cover fitted with spring loaded hinges and an enamelled sink unit with a separate hinged worktop cover retained in the open position by a turn button on the end of the high level locker.

The lower part of the kitchen unit houses the 2 cu ft three way refrigerator, cutlery drawer, access flaps one for the grill and one for the gas taps, and a cupboard.

STORAGE UNIT

To the right of the kitchen unit is the storage unit, the top of which provides additional heat resistant worktop space.

The three separate tops conceal a drainer tray, this is used in the same way as a draining board. It has its own waste outlet which carries the waste water to the outside of the vehicle. Next is a vanity unit with mirror and finally a storage area with a plastic coated wire storage basket with space below for a spare camping Gaz Bottle.

Behind the sliding doors is more storage and at ground level is space for the optional Porta Potti 235 and for the 'in use' gas bottle.

WARDROBE

To the rear of the Storage Unit is the wardrobe with access via the door or the vehicle tailgate.

DRAWER STORAGE

Behind the bench seat underneath the rear cushion are two drawers with access via the tailgate. An alternative method of reaching the drawers contents is by removing the rear cushion and lifting the ply panels covering the drawers.

Further storage is provided by the overhead locker with drop down doors, one at the rear one of the offside.

WARNING

Heavy items such as tins of food etc. must not be carried in high level lockers.

The Kamper also has additional storage in the base of the swivel seat and the stool storage unit, whilst the Kameo and Komet have the large roof storage area to the rear and the sliding storage racks, for bottles etc on the nearside and crockery in the offside with further storage cupboards between. To remove the sliding storage racks, remove all the contents to reduce weight, pull the rack out as far as the stop. The stop consists of a shoot bolt located inside the rack at the rear, lift the shoot bolt and the rack can then be completely withdrawn.

VENTILATION

Ventilation is provided for by the sliding window and the wind-up rooflight with built-in flyscreen in the elevating roof.

Additional ventilation on the Kamper can be achieved by leaving one or both of the top side panels in the stowed position. The cab door windows can also be utilised to increase the ventilation.

UPPER WINDOWS

These windows are fitted with conventional type window handles for retaining the window closed, and special stays for holding the window open. To open the window lift handle to the vertical position, pull the stay down over the handle, push open the window and engage the end of the stay into the slot of the handle retainer.

INSULATION

The insulation gives protection from extremes of hot and cold and minimises condensation. The body sides have insulating glass fibre fitted where access is available. Both the Kamper roof cap and side panels and the Kameo and Komet roof domes are of double skinned construction with insulating material between.

ENGINE ACCESS

To gain access to the main engine cover at the rear of the vehicle, first remove the rear cushion, remove the top boards of the drawer unit to give access to the retaining wing nuts and bolts. Remove wing nuts and slide drawer assembly out complete.

OPERATING INSTRUCTIONS

Appliances in your VW Conversion are supplied by Europe's foremost manufacturers. Before using them you should study the information contained in this section and any other accompanying operating instructions. All warranty certificates should be completed and returned, if required to the relevant manufacturer.

LOCATION OF UNITS AND APPLIANCES

Content Gauge - Fresh Water	FWD end offside locker
ELCB	Cupboard under drainer
Electrical - External socket 240v	Offside
Electrical - Internal socket 240v	FWD end offside locker
Electrical - Internal socket 12v	FWD end offside locker
Gas Isolating Taps	Under sink - behind flap
Refrigerator 240 volt plug & socket	Cupboard under drainer
Water pump	In tank
Water pump switch	On floor by sink unit
Water tank exterior filler	Offside
Water tank fresh	In base of seat

ELECTRICAL

240 VOLT - LOW VOLTAGE APPLIANCES

240 Volt mains is available for the operation of the refrigerator and one socket outlet. An external socket allows the campsite supply to be coupled to the vehicle, this in turn is wired internally to the main unit.

EXTERNAL SOCKET

The mains inlet has a current rating of 16 amps and is protected with a weather proof cover. When coupling the mains lead plug ensure the plug protective cover locks home onto the socket to make a firm connection. Remember to unlock the plug cover from the socket before removing. Press the weather proof cover into place after removing the plug.

THE MAINS UNIT

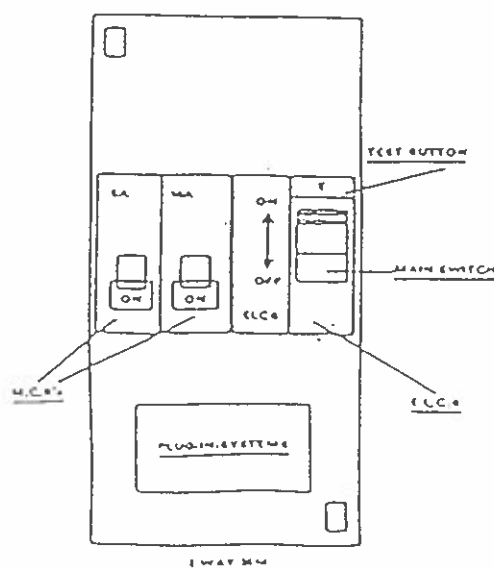
Consists of an earth leakage circuit breaker (ELCB) or (RCCD) which provided protection against earth faults and possible electrical shocks. In the event of an earth fault which would cause a leak of current to earth the unit should immediately trip and switch off the supply. Only after elimination of the fault will it be possible to reset the ELCB to the 'ON' position and so restore the supply again. The 'ON' position is upwards against the spring pressure.

Periodically it is necessary to test the operation of the ELCB and this is achieved by ensuring that it is in the switched 'ON' position with the electricity supply connected and by pressing the test button marked 'T' the unit should immediately switch to the 'OFF' position, provided this happens all is correct and the switch should be returned to the 'ON' position to restore the supply. If the ELCB fails to disconnect when the test button is pressed switch 'OFF' supply and consult a qualified electrician.

The ELCB also acts as the main switch for the unit and if it is necessary to switch off all circuits in the vehicle this can be achieved by operating the OFF/ON switch on the ELCB.

The miniature circuit breakers (MCB's) are mechanical fuses which in the event of an overload situation in the circuit which they protect will automatically switch to the 'OFF' position. After the elimination of the fault the MCB should be reset by switching back on again, against the spring pressure in an upward direction.

In normal operation these MCB's should be left in the 'ON' position.



REFRIGERATOR

Wired from the 5 amp MCB in the mains unit and via a '13 amp' plug and socket.

The plug is fitted with a 3 amp fuse and allows the refrigerator to be disconnected in the event of the unit having to be removed for servicing.

CONTROL UNIT WITH CHARGER

When fitted also wired from the 5amp MCB in the mains unit.

OUTLET SOCKET

Wired from the 10 amp MCB of the mains unit.

INSTRUCTIONS FOR ELECTRICITY SUPPLY

To connect

1. Before connecting the caravan installation to the mains supply, check that-
 - (a) the supply available at the pitch supply point is suitable for the installation of the caravan and its appliances.
 - (b) the caravan main switch is in the OFF position.
2. Remove or raise any cover from the electricity inlet provided on the caravan, and insert the connector of the supply flexible cable.
3. Remove or raise any cover from the socket outlet provided at the pitch supply point and insert the plug at the other end of the supply flexible cable.
4. Switch on at the caravan main switch.
5. Check the operation of circuit breakers, if any, fitted in the caravan.

**IN CASE OF DOUBT CONSULT THE
CARAVAN PARK OPERATOR OR HIS
AGENT.**

To disconnect

6. Reverse the procedure described in Paragraphs 2 to 4 above.

Periodically

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

12 VOLT SYSTEM

The electrical supply for the internal lighting, water pump and the 12 volt circuit of the refrigerator is taken from the vehicle battery with the refrigerator wired separately and controlled by the ignition switch.

INTERNAL LIGHTING

Consists of a twin tube fluorescent light over the kitchen unit and a spot light on the forward face of the wardrobe.

An additional fluorescent light is provided for the upper bed in the Kamper and Komet.

To change a tube in the twin tube type remove the two retaining screws and separate the plastic cover from the base. For the Kamper type unscrew the nut from the switch, remove the end cap and slide off the cover.

The spot light uses car type bulbs 12 volt 10 watt. Additional lighting is also available from the vehicle courtesy light which can be operated independently of the sliding door. To change the bulb in the courtesy light refer to the VW Handbook.

WATER SYSTEM

All the models are fitted with a 54.5 litre (12 gallon) fresh water tank located under the bench seat with an external filler located on the offside of the vehicle. The water system will have been operated and checked before leaving the factory so there may be water in the system

The large access cap on top of the tank provides access to the pump and the inside of the tank for cleaning.

Water is fed to the sink faucet by the submersible electric pump operated by depressing the foot switch located on the floor in front of the kitchen unit. The waste water from the sink is conducted to the outside of the vehicle via a plastic hose.

WATER FILLER

The lockable water filler is located just to the rear of the driver's cab door.

To remove the cap for filling. Fully insert the key and turn anti-clockwise to stop, release key. Push filler cap inwards, hold in this position and at the same time turn the cap anti-clockwise to stop, release the cap and it will spring out sufficiently to allow it to be removed from the filler.

To replace the cap after filling the water tank reverse the above procedures. Push the cap inwards, turn clockwise and release. Turn key clockwise and remove.

WATER CONTENTS GAUGE

To obtain a reading of the water tank contents. Ensure 12 volt supply is switched on. Depress the small red plunger, the gauge will illuminate and register the water contents.

Note: It may be necessary to reset the gauge after each refilling of the tank, this is due to the variation of the ph valve of the water.

Adjacent to the press to operation button is a small adjusting knob. After each complete refilling of the tank adjust the gauge to register a full tank.

GAS SYSTEM

There is provision for the storage of two Camping Gas 907 bottles. The one in use is located in the cupboard under the storage unit, with the spare bottle alongside if no toilet is fitted, but in the rear end of the storage unit adjacent to the wardrobe if the toilet is fitted.

Gas containers and regulators are not supplied with the vehicle but we recommend the use of Camping Gas No. 907 containers, and a Camping Gaz horizontal regulator tap part number 080794.

To connect the cylinder to the vehicle gas line, a length of Neoprene hose 5/16" bore and 1/8" wall (British Standard 3212 Part 1) will be required.

GAS BOTTLES SHOULD BE TURNED OFF WHILST THE VEHICLE IS IN MOTION OR UNATTENDED. COOKING APPLIANCES SHOULD ONLY BE USED WHEN ADEQUATE VENTILATION IS PROVIDED AND NEVER FOR HEATING THE VEHICLE.

ISOLATING TAPS

Isolating taps are fitted in the gas supply lines to all the appliances.

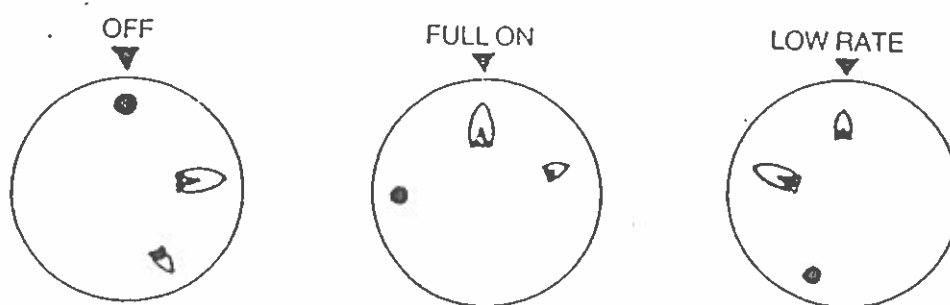
The isolating taps are in the 'OFF' position when the red bar handles are all in line with each other and the body of the bank of taps.

HOTPLATE

The taps are self locking in the OFF position.

When lighting a burner always make sure you apply a lighted match or taper before turning on the gas. With lighted match in position push in the tap and keeping it depressed, turn it in an anti-clockwise direction to the FULL ON position.

When turning a tap from the FULL ON position to LOW RATE, turn anti-clockwise until tap will not turn any further. This indicates the bottom of the simmer range. By turning clockwise a larger flame can be obtained when required. To turn off, turn clockwise to OFF position, when a stop will be reached; then release and the tap will spring out.



GRILL

The operation of turning on the gas is the same as for the Boiling Burners (see above).

Whilst the grill is heating up, place the empty grill pan under the lighted burner to protect the lining. When the grill has heated up, remove the grill pan, load the pan and place in cooking position.

When the grill is in use always ensure that the front of the grill compartment is not covered up, the hinged flap must always be in the down position.

When the appliance is in use it is recommended that a window or rooflight is opened for ventilation purposes.

WARNING

The hob unit must never be used as a space heater. Always ensure there is adequate ventilation when using the hob.

REFRIGERATOR

The refrigerator can be operated by any one of three power sources:-

12 volt electrical. Available only when the ignition is switched on, and is used when driving.

220/240 volt electrical. Used on site when available.

LP bottle gas. Used on site when the vehicle is to be at rest for more than half an hour. It must be levelled in both directions, so that the ice tray shelf inside the frozen food storage compartment is level.

(This can be checked with a small spirit level placed on the ice tray shelf).

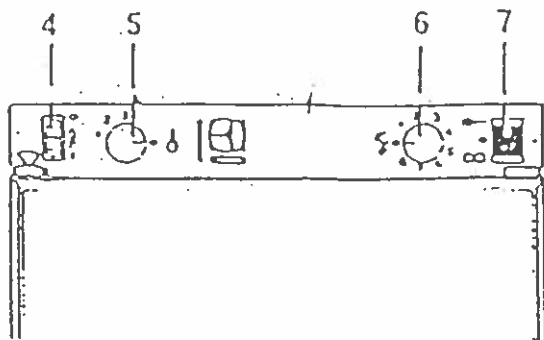
If it is not convenient to level the vehicle and it is to stand out of level for more than half an hour, the refrigerator should be temporarily turned off.

THE ELECTRONIC IGNITION

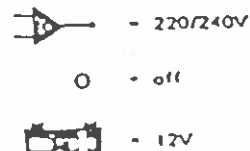
When the switch is switched on the electronic circuit is activated producing a series of sparks between the electrodes and the burner head. The neon light in the switch will flash on and off as sparking takes place. As soon as the burner lights the flame is detected by an electrode, sparking ceases and the neon light will go out.

After the burner has lit, the switch should be left in the 'ON' position so that in the event of the burner going out (due to a gust of wind for instance) the ignitor will automatically start sparking again and relight the burner, provided of course that gas is present. If the burner does not re-ignite within 30-60 seconds the flame failure valve will close and automatically shut off the flow of gas to the burner. If this happens sparking will continue to take place and the neon light will flash continuously to alert the user that something is wrong, or that the gas bottle is empty and needs replacing.

LIGHTING THE BURNER (LPG OPERATION)



4. Switch for electronic igniter, "O" = off, "I" = on.
5. Combined gas control and flame failure device.
6. Electric thermostat (220 or 240V operation).
7. Voltage selector switch. (The meanings of the symbols are given below).



See that the voltage selector switch (7) is set at 'O' i.e., is at its central (OFF) position.

Turn on the valve of the gas bottle and open the tap in the gas supply to the refrigerator.

Turn the knob (5) of the gas control valve so that the indicator mark is opposite setting number 3.

Switch on the ignition switch (4) by pushing in the bottom of the switch against the symbol "I". The neon light in the switch should start flashing.

Push in fully the knob (5) of the gas control valve and keep it held in. When the burner lights the neon flashing light will go out. When this happens keep the knob (5) held in for a further 15 seconds or so for the thermocouple over the burner to heat up, then release the knob. If the neon starts flashing again it indicates that the flame has gone out in which case repeat operation number 5.

After lighting the burner leave the switch (4) in the 'ON' position.

ELECTRICAL OPERATION

The dual voltage electric equipment is for operation from the 12 volt battery in the vehicle or from mains electricity with a 220/240 volt supply, when satisfactory earthing is available on a site. Before using the refrigerator on electricity, make sure that the voltage supply is suitable for that of the refrigerator.

It is important to understand that 12 volt operation is only intended to be used while the engine is running and charging the battery. The current drain at 12 volt is 8 amps.

Before connecting to a mains voltage supply, it is most important to make certain that the circuit to the vehicle is properly earthed. When operating on mains voltage, the temperature in the refrigerator is thermostatically controlled and can be adjusted by means of the knob of the thermostat. The 12 volt circuit is not thermostatically controlled and the cooling unit will operate all the time the refrigerator is connected to 12 volt and switched on.

(As 12 volt operation is for use only when driving the vehicle it is unlikely to result in over-freezing because of the comparatively short period of travel, the refrigerator can be manually switched off and on periodically as experience proves necessary).

TEMPERATURE REGULATION

After starting up the refrigerator, it will take about an hour before there are signs of cooling. When operating on mains voltage electricity the refrigerator is thermostatically controlled and the thermostat knob should be set to No. 3 or 4. This will maintain a suitable temperature in the refrigerator and frozen food storage compartment for general use, but in hot weather, or if more cooling is required, the knob should be turned to a higher number. If less cooling is required, the knob should be turned to a lower number.

For operation on gas the refrigerator should be started off with the gas control set at MAX. This will provide suitable temperatures in the refrigerator in warm weather, but if the fresh food compartment becomes too cold, especially in cooler weather, turn the gas control knob in MID or MIN. Remember to return it to a higher setting when necessary - if the weather becomes warm again for instance.

DEFROSTING

Frost will gradually form on and in the frozen food storage compartment and on the fins at the side of the compartment. It is a mistake to assume that an accumulation of frost gives a colder cabinet therefore the refrigerator should be defrosted regularly - about once a week or ten days depending on the conditions of use.

To defrost turn the gas control knob OFF, or the voltage selector to '0' depending on which operation is being used.

Remove the ice tray, food etc., wrap frozen foods in several layers of clean newspaper and place the packing in a cool place.

To defrost as quickly as possible a small dish of hot (not boiling) water may be placed on the ice-tray self and a bowl of hot water on the cabinet shelf, changing the hot water as necessary until all the frost has melted.

Do not place dish of hot water on the bottom of the frozen food storage compartment, and do not attempt to defrost more quickly with an electric fire or other form of heat as this may damage the plastic surfaces.

Defrost water will run via a tube at the back into a drip collector fixed to the rear of the refrigerator, where it will evaporate into the circulating air.

When all frost has melted, wipe dry the frozen food storage compartment and cabinet interior, then restart the refrigerator setting the gas control knob or voltage selector switch and thermostat knob to their respective positions.

Replace the fresh and frozen food but wait till the cabinet has cooled down again before making ice.

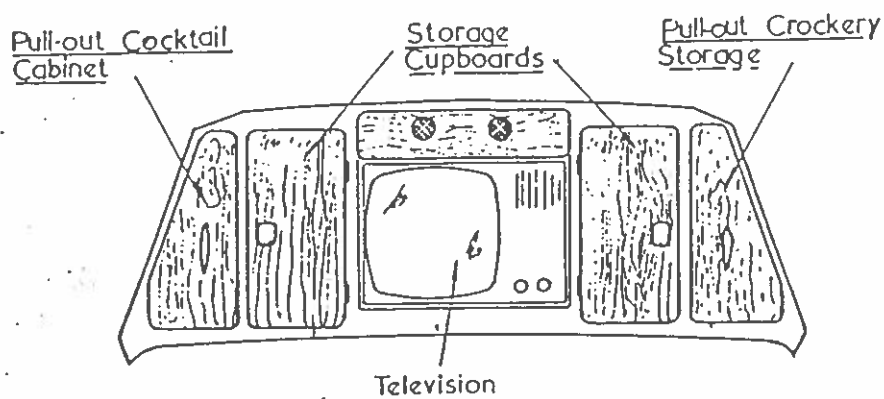
Remember that if the temperature of frozen food is allowed to rise unduly during defrosting, its storage life may be shortened.

WHEN NOT IN USE

Whenever your refrigerator is to be out of use for a period turn off any power supply to the unit. Empty the cabinet and defrost as described earlier. Clean and thoroughly dry the interior and accessories.

WARNING

Only suitably qualified persons should be allowed to work on the systems and appliances in this vehicle.

BUILT IN BLACK AND WHITE TV

The television is built into the central cupboard area over the cab.

For operating and adjusting the set refer to the makers operating instructions.

Before viewing can commence it will be necessary to assemble and position outside the vehicle the aerial supplied.

Assembly instructions are included with the aerial.

When the television was fitted the built-in loop aerial was unplugged and replaced with an aerial extension lead which terminates externally with an enclosed aerial socket, this is located on the vehicle nearside adjacent to the front of the roof rack. Lift the spring loaded hinged flap and plug in the aerial socket. With the set switched on and tuned to the appropriate station position the aerial to give the strongest reception. The aerial can be attached to any smooth, flat part of the vehicle by means of the three suction pads.

Should it be required to remove the set from it's built in location, for viewing at a lower level or away from the vehicle, proceed as follows. Lift up the hinged top flap above the set, behind the flap is the television retaining plate held in position by a shoot bolt at each end, release the shoot bolts and remove the retaining plate. The set can now be removed by means of the hand hold at the top of the set. Disconnect the aerial extension lead at the back of the set and plug in the set's own loop aerial lead. If it is still required to use the set in the vehicle leave the 12 volt lead connected.

When replacing the television in the aperture it is important that the shoot bolts on the retaining plate are pushed fully home and the bolts turned through 90° to lock them.

CROCKERY SET

Stored in the right hand pull out storage unit over the cab.

CONTROL UNIT WITH CHARGER

The control unit charger provides, central control of 12 volt systems and the ability to charge the secondary battery from an outside 220/240 volt supply.

With the exception of the refrigerator all other 12 volt units are fed via the control panel.

Whilst travelling the control unit charging switch should be in the touring position. Both batteries will then be charging by the vehicle alternator.

The refrigerator will be supplied with 12 volt via the ignition switch. It is therefore necessary for the refrigerator control to be set to 12 volt.

At all times when stopped and it is intended to use the 12 volt electrics in the body of the vehicle change the charging switch to "ON SITE". This ensures that any 12 volt current will only be drawn from the secondary battery. If for any reason the secondary battery will not operate the 12 volt equipment then it is possible to run the equipment from the vehicle battery by switching the charging unit to "TOURING". Use of the vehicle battery in this condition should be restricted to avoid flattening the battery below the level for starting the engine. If the vehicle is connected to a 220/240 volt supply via the control unit the switches should be positioned as follows:

Mains switch "ON", charging switch to 'ON SITE'. In this condition the secondary battery will automatically be charged as required. It is not possible to charge the vehicle battery through the control panel.

Do not forget to change the refrigerator over from 12 volt to either main electricity or to LPG.

TO USE THE 12 VOLT EQUIPMENT

Turn on the 12 volt switch on the control unit. The battery condition indicator will light either red or green depending on the state of the battery and the 12 volt equipment will be operating.

The battery condition monitor gives warning that the caravan battery is becoming discharged. The red light will glow when the battery voltage is below 11 volts, above this voltage the green light will glow. No harm will come to the system or the battery if the accessories are used when the red light first appears. A true reading will only be given when all the 12 volt equipment is switched off and when neither charging system is in operation. The red light may come on when an appliance is switched on, this is normal - current surges cause monetary voltage drop. It is important to remember that the battery monitor is not a charging indicator. The fact that the green light is on does not mean that the battery is fully charged. Even with a flat battery the green light will glow if either charging system is operating due to the high terminal voltage present at the battery.

N. B. When using current from the vehicle when the charging switch is in the "TOURING" position the red light may glow. This is due to voltage drop between the batteries.

There are four fuses fitted to the control unit. The main fuse is fitted in the smaller of the fuse holders on the front panel and is rated at 1 amp; it is a standard 20mmx5mm glass quick blow fuse. This fuse holder can only be removed with a screwdriver (this is to comply with electrical safety regulations).

The three 10 amp fuses mounted on the right of the panel protect the various accessories connected to the control unit and are standard 1 1/4" glass quick blow fuses. Access to the fuses is by turning the holder a quarter of a turn in the direction of the arrow.

All fuses are available world wide from electrical and radio dealers. Under no circumstances should a fuse of a different type or value be fitted.

The three 10 amps fuses protect the following items:-

Lighting, water gauge, water pump and cassette toilet and extractor fan - which fuse covers which item should be established by switching everything on and then remove each fuse in turn.

In addition to the fuses fitted as standard a further 35 amp fuse is fitted adjacent to the second battery to protect against incorrect polarity.

WARNING

In event of a fuse blowing there exists a fault in the circuit protected by that fuse, and the cause should be ascertained before replacing the fuse. It is important to remember that a fuse is fitted for the protection of the the circuit and is a safeguard against fire and injury. Never remove the front panel with mains or batteries connected. There are no user serviceable parts inside.

THE SECOND BATTERY

All the habitation 12 volt electrical requirements except the refrigerator all taken from the second battery.

The battery is located in the recess behind the passenger seat. To gain access slide the passenger seat forward and remove the cover panel.

BLOWN AIR HEATER

The heater unit is fitted outside of the living area beneath the vehicle floor on the offside. The heater unit is ducted into the vehicle interior via ducting through the floor of the sink unit, with the outlet in the plinth under the cupboard door.

The air for both heating and combustion is taken from outside with the combustion exhaust discharging through the special outlet just forward of the offside rear wheel.

The heater gas control tap is located in the kitchen unit cupboard and the electrical on/off switch and indicator light to the right of the Zig control panel.

To start the heater turn on the gas supply, and put the electrical switch to 'ON', the indicator light will come on. The starting cycle is then completely automatic.

The heater unit and its air intake and exhaust are fitted outside the living area of the vehicle for safety and therefore fresh air ventilation is only necessary for personal comfort and to reduce condensation.

IMPORTANT - THIS HEATER MUST NEVER BE OPERATED WHEN THE VEHICLE IS IN MOTION.

WATER HEATER

This option consists of a storage water heater with switch control unit, hot and cold mixer tapes, pressure switch and a water pump ON/OFF switch with indicator lamp.

The water heater is fitted in the sink unit cupboard with the wall switch unit on the rear end panel. The water pump switch and lamp are on the forward end of the offside locker.

The water heater is a storage type of 9 litres (2 gallon) capacity, it is fitted with a balanced flue and is room sealed. It is protected by various shut down devices.

The water heater is operated from the remote wall switch which contains the working and spare fuses and carries the indicator lights.

Warm up times varies according to the temperature set. Typically about 30 minutes from 15 C to 55 C but some hot water will be available after 15 minutes. Temperature control is by thermostat which is adjustable by means of a thumb wheel inside the cowl.

Before using the water heater it is necessary to change the system with water. Fill the water tank via the outside filler, switch on the water pump and open the cold tap closing again when water runs free of air. Do the same with the hot tap, this will take a little longer to get rid of all the air as the water heater has to fill up.

With the system changed with water, the gas and electricity turned on the water heater can be operated.

Switch the water heater on at the wall switch. The green light will come on and remain on.

The green light indicates that the heater is operating satisfactorily and does not refer directly to the burner operation.

The yellow and green lights on together indicate that the voltage of the power supply to the heater is too low. The heater is automatically switched off until the voltage is high enough.

The red and green lights on together show that the burner has failed to light in the 10 second ignition period. This is usually due to failure of the gas supply or, in the case of a new installation, air in the gas pipes.

Switch off and on again, which resets the controller and initiates a new ignition sequence. To clear air from the gas lines, several repetitions may be required.

The heater is supplied with the thermostat set at maximum (approximately 68 C). If the water at the taps is hotter than you want, the temperature may be adjusted as follows:

- a) Switch off heater at the controller and allow to cool for at least 10 minutes.
- b) Remove cowl from outside of caravan (4 cross head screws).

- c) Lift the flap and turn the toothed wheel inside it. Each tooth is about $1\frac{1}{2}^{\circ}\text{C}$.
- d) Replace the cowl, making sure it locates firmly on the square aluminium flue nose. switch on and check temperature after about 1/2 hour.

WARNING

Water Heaters (as with other gas appliances) should be switched off and gas cylinder valve(s) closed whilst caravan is in motion.

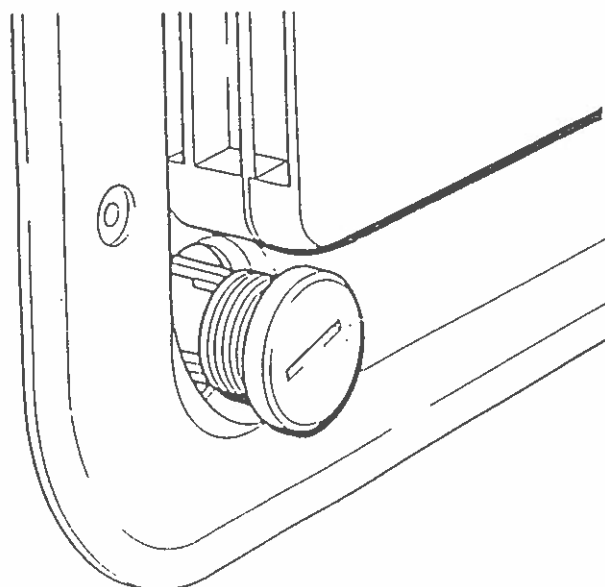
With hot water available the water pump can be left switched on and the pressure switch will turn the pump on and off as the hot or cold taps are used.

It is advisable to turn the pump off at night, when travelling, and if the vehicle is left unattended.

FROST PRECAUTIONS

During periods of freezing weather, when the caravan is unheated, the water heater MUST be drained to prevent frost damage.

The drain plug which is on the outside of the flue cowl should be unscrewed to permit draining. When the end of the drain plug thread is reached the plug can be pulled out a small distance, yet still be retained in the thread and permit draining to occur. To allow the system and tank to drain effectively, open hot and cold taps while the heater is still warm. Leave drain plug and taps open for AT LEAST 30 MINUTES, to ensure complete draining.



PORTA POTTI

Located in the cupboard under the storage unit aft of the sink unit.

For correct operation see the makers instruction leaflet.

CHILDS CAB BUNK

The bunk consists of two spring loaded steel poles and a canvas bunk.

Holes are provided in the front and rear cab door pillars at a suitable height to position the bunk above the steering wheel.

Put the two poles into the loops down each side of the canvas, position one end of a pole into one of the forward holes compress the pole and line up the other end with its hole and allow pole to enter the hole. Repeat with rear pole.

WASTE WATER TANK

The waste water tank incorporates a drainage tap and large access screw cap for material cleaning.

It is located under the floor on the offside.

The tank should always be drained before driving away from a site or as soon as practicable, thereby avoiding carrying unnecessary weight. After emptying the tank pour a small quantity of disinfectant down the sink waste, this will help to stop any tank odours. The tank capacity is 54.5 litres (12 gallons).

GENERAL

The working surfaces of the furniture should be cleaned with a damp cloth. The woodgrain surface should be cared for in the same way as household furniture and treated with furniture polish. Curtains should be dry cleaned rather than washed to minimise shrinkage.

Periodically check all hinges, catches and slide bolts for slack screws, tightening as requested. A drop of oil on hinges and metal catches will help to keep your vehicle rattle free and in good working condition.

The external GRP roof dome should be protected with normal quality car polish ensure all dust is removed by adequate washing followed by leathering before polish is applied.

If the vehicle is stored unused in a hot climate the curtains or blinds should be drawn to protect interior from excessive heat.

We strongly advise owners to study the chassis manufacturers handbook and to carry out service and maintenance procedures.

REMOVAL OF APPLIANCES FOR MAINTENANCE

This section outlines the correct method of gaining access to and removing the appliance for servicing and/or maintenance.

General

Points applicable to all appliances:

Turn off the appropriate gas tap before attempting any removal.

Snap cap covered screw heads. Caps can be removed by sliding a thin blade under the edge and lifting. Caps are reusable.

All screws have the star slotted head.

When refitting gas appliances it is essential to check for gas leaks at reconnected gas connections before refitting panel etc.

In all cases refitting is the reverse of removal.

WARNING

DO NOT USE A FLAME TO CHECK FOR LEAKS

Connections should be checked for leaks by applying a soap/water solution and watching for bubbles.

HOB UNIT

To keep this appliance in good condition it should be cleaned as soon as possible after use.

The enamelled units and burner heads should be cleaned with warm water and detergent using a soft cloth, or a NON-abrasive liquid cleaner. Stubborn stains can be removed by 'Duraglit' or similar products.

Do NOT use harsh abrasive cleaners, steel wool or cleaning powders.

TO REMOVE THE REFRIGERATOR

Turn off gas supply, remove 240 volt plug from socket adjacent to mains unit, ensure engine ignition is off.

Remove the drawer from the centre of the sink unit and lower right hand flap.

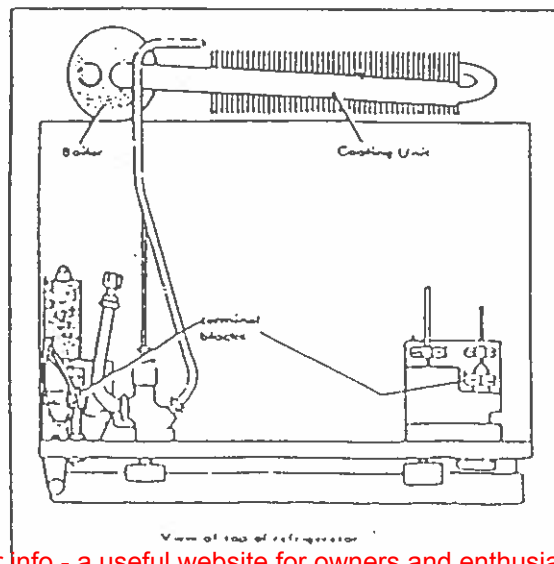
Through the drawer aperture disconnect the gas pipe from the refrigerator gas valve.

At the back release tape sealing the baffle plate to the top of the refrigerator. Locate metal retaining bracket right hand side, remove the screw retaining bracket to sink unit end panel.

Open cupboard door to the left of the refrigerator locate and remove single screw behind door catch.

Outside the vehicle remove the aluminium flue vent, four screws, and pull out the flue pipe from the rear of the refrigerator.

The refrigerator can now be carefully eased out of its aperture sufficiently to enable the two pairs of 12 volt cables to be disconnected from their respected terminal blocks. (See diagram). The refrigerator can now be removed.



WATER HEATER

Normal maintenance of the water heater can be carried out with the unit in situ, it only being necessary to remove the external cowl to give access to the burner etc.

Should it be necessary to remove the unit from the unit make sure gas and electrical supplies are turned off.

The water heater is located on the top shelf of the sink unit cupboard. To gain access remove the protective panel.

Before the water heater can be removed the gas pipe, the two water pipes and the multi-core cable from the control switch must be disconnected from the back of the heater.

Outside the vehicle remove the cowl and then the flange screws that retain the unit to the vehicle side, break the mastic seal behind the flange and carefully withdraw the water heater taking care not to damage the insulating jacket around the boiler.

BLOWN AIR HEATER

The heater its control is designed to require no periodic servicing as such, however it is recommended that the following check is carried out regularly, at very least a pre-season check.

Especially when a heater is installed inside a vehicle check flexible flue and combustion inlet pipes regularly for splits, crushing, corrosion or other damage. It is strongly recommended that these items are replaced at eighteen month intervals.

AUTOHOMES (UK) LIMITED

You are now the owner of an Autohomes (UK) Limited motorcaravan and can join thousands of other proud owners who are enjoying the benefits of their Autohome. We hope that you will have many years of trouble free motorcaravanning but if you require any assistance the following is for your information.

Warranty

The total vehicle i.e., conversion and chassis cab will have different warranties.

The conversion has a 12 month warranty from the first date of purchase from Autohomes (UK) Limited.

The base vehicle will have a warranty (usually 12 months or more) from the base vehicle manufacturers.

Warranty Repairs

Generally the base vehicle warranty repairs can be undertaken by the respective motor vehicle dealer i.e., VAG, Bedford.

Any repairs required to the conversion should be notified to your original selling dealer who will make arrangements for the repairs to be carried out at his premises, your nearest qualified repairer or at our Specialist Repair Workshop in Poole.

Please discuss your needs with your original selling dealer who is there to assist. The blue warranty registration card will give you further information regarding the warranty procedure.

Autohomes Service Department

At Autohomes we prefer to see your motorcaravan being used and therefore offer the following service.

Replacement parts can be obtained from your Dealer or by contacting this office direct.

Repairs and refurbishment are always being undertaken in our separate workshop area on all makes of vehicles.

Accessories and a wide range of options can be fitted in our specialist workshop.

If you require any assistance either contact your Autohomes dealer or ourselves at:-

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