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# The only Swift Partner for Paint and Upholstery Protection



**Diamondbrite**  
LEISURE



The only one with the Lifetime Guarantee

Paint Protection

Upholstery and Carpet Protection

## From the Makers of Diamondbrite **Diamondbrite Leisure**

*The ultimate Paint and Upholstery Protection  
for your Swift Motorhome*

Diamondbrite Leisure is a two-step protection system for your Swift Motorhome with a Lifetime Guarantee\*

### 1. EXTERIOR

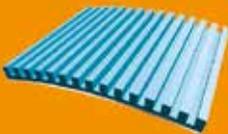
- Nano-Ceramic Technology
- Fade Resistant
- Never Polish Again!

### 2. INTERIOR

- Easy to Clean
- Stain Resistant
- Lifetime Guarantee

## HOW DOES IT WORK?

**1** If your paintwork was magnified it would reveal small pores in the surface.



**2** Road traffic dirt gathers in the pores and attacks paintwork.



**3** Your first Paint Protection application cleanses and fills pores in the vehicles paintwork leaving a smooth finish that cannot be penetrated.



**4** Your second application bonds with the first to create a hard protective skin. It leaves a high lustre finish that rain and dirt cannot penetrate.



You will also receive a complimentary After Care pack including the fabulous Waterless Wash, plus a range of other professional cleaning products.

Jewelutra Ltd. Diamondbrite House, Ewell Lane,  
West Farleigh, MAIDSTONE. ME15 ONG.  
Tel **01622 815679**  
Email [diamondbrite@jewelutra.com](mailto:diamondbrite@jewelutra.com)

[www.jewelutra.com](http://www.jewelutra.com)



**Diamondbrite**  
LEISURE

\*Lifetime Guarantee applies for the length of time that the purchaser owns the vehicle and is non-transferable.



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OF COMFORT

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invent heating  
We Perfected it.



Central Heating just like home

Ask your dealer about  
**Alde Heating Systems** today



**SWIFT**



**SWIFT**  
CONNECT DIRECT

# STEP INTO CONNECT DIRECT

## WHAT IS CONNECT DIRECT?

Connect Direct is an online system which personalises each customer's experience of owning their motorhome. The system is now available across the entire range.

## HOW DOES IT WORK?

Once you have logged on and created your profile, you will be able to access a whole host of information, specific to your motorhome. In addition you will be able to have a direct line into the retail team, with the launch of a live chat facility.

Should a problem occur, you will be able to report a fault to

us directly, enabling us to react quickly and work together with your dealer to take the problem away from you the owner and resolve the issue as quickly as possible.

Product upgrades and notifications will be sent via Connect Direct keeping you up to date over the coming years. This online system provides a direct route for you into the Swift Group, and enables us to provide you with proactive Customer Service support, enhancing your experience.

Connect Direct is in addition to the traditional methods of contacting us.

**The key benefits of Connect Direct are:**

- Access to information 24/7
- Ability to report faults directly to us
- Product upgrades and notifications
- Live chat direct into our experienced retail team
- Upload service history records
- Service history reminders



**CUSTOMER SERVICE**



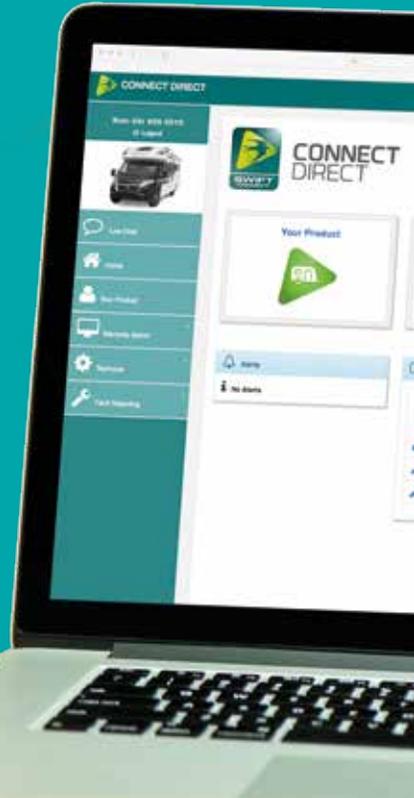
**TECHNICAL**



**REPAIRS**



**CUSTOMER CHAT**



# PURE CONTROL



At the Swift Group we're continually looking for ways to enhance your enjoyment of the outdoors. Swift Command is a real innovation designed to make your touring experience even more carefree.

Swift Command technology includes a smart new LCD touch screen control panel that has enhanced control panel functions. There is also an exciting, free downloadable 'app' that links to the Swift Command unit, so you can be in control from the comfort and convenience of your mobile device.

Swift Command is now available across the entire range.



Head to the Apple or Android store and search for 'Swift Command'.



## LIGHTING

Create just the right ambience onboard with easily adjustable lighting settings.



## LOCATION AND REMOTE FEATURES

Connect to your leisure vehicle from any where to view its systems information and location.

Conveniently control and monitor selected onboard services when away from your vehicle.



## WATER

Keep an eye on your precious water levels so you know in good time when to top-up.



## POWER

Track your energy use and manage your batteries for efficient use of your all important power services.



## HEATING

Activate whilst out exploring and enjoy the warmth when you get back.

**Dear owner**

Thank you for deciding to buy one of our new motorhomes.

We are sure you will enjoy many happy hours in it and we hope the information and hints in this handbook will heighten your enjoyment.

The handbook has been designed to give you a general guide to the care, use and maintenance of your motorhome. Whether you are a new or an experienced motorhomer the hints will help to protect your investment.

The information contained will answer most of your queries, but if there are any aspects which are not covered please consult your appointed dealer. We would suggest you make a note of your dealers name and contact information below.

Throughout the season, specifications and equipment details contained within this handbook may change. Please refer to our online handbooks ([www.swiftgroup.co.uk](http://www.swiftgroup.co.uk)) for the most up-to-date version of your handbook.

**Dealer Name:**

.....

**Sales Tel:**

.....

**Telephone Number:**

.....

**Service Centre Tel:**

.....

**E-mail:**

.....

**Parts Tel:**

.....

**VIN:**

.....

**First Service Due:**

.....

## SWIFT TALK

**Swift Talk**

Swift Talk is the central forum for the Swift community online. A place for all those united in their love of caravanning, motorhomes, holiday homes and touring in general, to share their experiences, meet new friends and find out a world of information on how to enjoy their touring lifestyle.

The site is packed full of features that actively encourage members, not only to liaise with the Swift Group via the forums, but also interact with each other through publishing their own content, uploading and sharing photos and video, and even posting their own blogs for the community to follow.

Swift Talk is the first place to learn about new product launches, events and Swift Group news, it's also the first place customers can go to as a quick reference to frequently asked questions or to actively take part in the forums; providing valuable feedback on Swift Group products and customer service.

The online community can even be used to create your own groups, perfect for Owners' Clubs, dealers and exhibitors to attract new members, publicise and build awareness for upcoming events, rallies and shows.

Anyone who owns, uses, or is thinking of buying a Swift Group caravan, motorhome or holiday home, or would just like to be part of the growing Swift community is actively encouraged to sign up, create their own content, and start talking!

**Just visit [www.swift-talk.co.uk](http://www.swift-talk.co.uk) and become part of a unique online experience.**

**SWIFT****TALK**

Warranty .....	5
Motorhome code .....	15
Preparing for the road .....	19
En-route .....	29
Safety & security .....	31
Arrival at site .....	37
Services .....	39
Electrics .....	63
Fitted equipment .....	107
Maintenance .....	173
Fault Finding .....	185
Technical Information .....	191
Useful information .....	207
Index .....	210



## WARRANTY INFORMATION

Warranty .....	6
Change of ownership .....	9
Swift Connect Direct .....	9
What to do if you require assistance .....	9
Motorhome - annual service/inspection record .....	10
Annual service / inspection record stamps .....	11
Supplier contacts .....	13

## Motorhome Warranty

All the illustrations and descriptive matter in this handbook are intended to give a general idea of the motorhome. Changing market and supply situations and our policy of continuous product development may prevent us from maintaining the exact specifications detailed in this handbook. We therefore reserve the right to alter specifications as materials and conditions demand.

Dealers are not agents of Swift Group Limited ("Swift") and have absolutely no authority to bind the manufacturer by any express or implied undertaking or representation.

### Your Coach-built motorhome has four warranties:

#### Base Vehicle Warranty – provided by IVECO

Your vehicle is a coach-built motorhome which utilises an IVECO base vehicle. Swift takes a flat bed chassis supplied by IVECO and adds the coach-built habitation part of the motorhome. IVECO provide a manufacturer's warranty for the base vehicle as supplied to Swift by them. For any issues with the base vehicle warranty please contact your local IVECO dealer. This Motorhome Warranty does not cover any parts of your motorhome that are covered by the IVECO manufacturer's warranty. Your base vehicle warranty is subject to the terms and conditions contained in the IVECO handbook supplied with the base vehicle and the vehicle must be serviced in accordance with IVECO's requirements.

#### SuperSure Warranty – provided by Swift

For all parts or fittings of your coach-built motorhome other than the habitation body shell and the IVECO base vehicle, Swift will repair (or at its option, replace) any defective parts or fittings for 3 years from the date of purchase (or hire purchase) subject to conditions, terms and exclusions below.

#### Body Shell Warranty – provided by Swift

Swift will repair (or at its option, replace) any defects with the habitation body shell for 6 years from the date of purchase (or hire purchase), subject to the conditions, terms and exclusions below.

#### Extended Body Shell Warranty – provided by Swift

For the first owner, Swift will repair (or at its option, replace) any defects with the habitation body shell for 10 years from the date of purchase (or hire purchase), subject to the conditions, terms and exclusions below.

The SuperSure Warranty, the Body Shell warranty and/or the Extended Body Shell Warranty provided by Swift do not cover any parts of the motorhome that are covered by the IVECO warranty.

#### Conditions for the SuperSure, Body Shell and Extended Body Shell Warranties

1. You must ensure that the habitation part of your coach-built motorhome has an Annual Service (see clause 2 below) within 90 days before or 60 days after each anniversary of the original date of purchase. In order to preserve your SuperSure Warranty the third Annual Service must, however, be carried out before the expiry of the 36 month period from the original date of purchase. In order to preserve your Body Shell Warranty, the sixth Annual Service must be carried out before the expiry of the 72 month period from the original date of purchase. In order to preserve your Extended Body Shell Warranty, the tenth Annual Service must be carried out before the expiry of the 120 month period from the original date of purchase. If you have not performed an Annual Service then Swift will not be obliged to perform any work under the applicable warranty. Original VAT invoices must be retained as proof that Annual Service have been carried out.
2. The Annual Service on the body shell and habitation area must be carried out in accordance with the requirements in this handbook. You will be responsible for any charges made for an Annual Service. If the Annual Service is performed by an authorised Swift Group Service Centre then Swift warrants that the Annual Service has been performed correctly. If the Annual Service is performed by an unauthorised repairer or service centre then if the Annual Service has not been performed in

accordance with the requirements in this handbook and/or work has been performed on your motorhome that is defective or faulty, then Swift will not be obliged to perform any work under this Warranty (insofar as it relates to defective or faulty work or defective Annual Service).

3. All new motorhomes must be registered with Swift within 6 weeks of purchase as new.
4. The benefit of the SuperSure and Body Shell Warranties may be transferred to a new owner if the motorhome is re-sold, provided that the motorhome has been serviced in accordance with the requirements of this handbook, and details of the change of ownership have been supplied to Swift using the change of ownership form set out in this handbook as soon as reasonably practicable after the change.
5. **The benefit of the Extended Body Shell Warranty is non transferable to new owners and applies only to the original registered keeper of the vehicle.**
6. If any repairs are identified as being necessary to the body shell or habitation areas during an Annual Service or otherwise, Swift will only pay for Warranty work performed by an authorised Swift Group Service Centre. The motorhome must be made available to an authorised Swift Group Service Centre within 6 weeks of the date the repair need was identified for the work to be 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.
7. **The SuperSure, Body Shell and Extended Body Shell Warranties only apply to motorhomes purchased and used primarily within the UK. Please refer to the IVECO handbook for use of the base vehicle outside the UK.**

## Terms

8. The Body Shell Warranty and Extended Body Shell Warranty covers any defect with the panels and seams of the coachbuilt habitation part of the motorhome. This includes body leaks, delamination of panels or floor, water ingress through any permanently sealed seam joints. **NB: The Extended Body Shell Warranty is non transferable and only applies to the original registered owner.**
9. In the first 12 months the SuperSure Warranty will cover any defect other than those specified in the Exclusions below.
10. In the years 2 and 3 the SuperSure Warranty will only cover any defect with the following components:
  - **Electrical System:** PSU, battery charger, Smart Command and interior lighting units (excluding bulbs).
  - **Water system:** water heater, fresh water tank, water pump, water gauges, taps and shower head.
  - **Cooker:** the cooker unit including grill, oven, burners, igniter and flame failure device.
  - **Refrigerator:** gas igniter, flame failure device, door seal condenser, gas control valve, 12V and 230V heater elements, gas thermostat, 230V thermostat and 230V temperature control switch.
  - **Cassette toilet:** the cassette toilet (excluding seals, valves and glands)
  - **Heating system:** thermostat, motor, switches, control unit, gas heater, flame failure device and igniter (excluding ducting and fittings)
  - **Windows:** the functionality of the opening and closing system (stays, handles and catches) and a warranty against the cracking of the acrylic. Excludes fading.
  - **Upholstery:** zips, seams and colour fastness.

## WARRANTY

In years 2 and 3, any defect specified in the Exclusions will not be covered.

### Exclusions

11. Swift shall not be liable under the SuperSure, Body Shell and Extended Body Shell Warranties for any defect related to or arising from the following:
- The failure of a component for reasons of fair wear and tear;
  - Damage resulting from freezing, fire, overheating or accidents (whether caused by the user or a third party);
  - Misuse of any component;
  - Normal deterioration, corrosion, intrusion of foreign or harmful bodies, lack of servicing or negligence of any person other than Swift which causes stoppage of or impairment to the function of any component of the motorhome;
  - Replacement of parts which have reached the end of their effective working life because of age and/or usage;
  - Cleaning or adjustment of any assemblies;
  - Cosmetic finishes to kitchen sinks, cooker tops, vanity units, shower trays; and/or
  - Routine maintenance items which are part of the annual service including lubricants, rubber gas hose, the cleaning of the heater and fridge flues, the replacement of gas jets, the resealing and/or replacement of shower room sealant, and the adjustment and lubrication of locks.
12. In addition to the exclusions above, in years 2 and 3 of the SuperSure Warranty Period, Swift Group Limited shall not be liable under this Warranty for any defects related to:
- Any audio equipment;
  - Any microwave; and/or
  - Any television
  - Wall and Roof GRP sheeting material: after 24 months from date of purchase.

13. Swift shall also not be liable under the SuperSure, Body Shell and Extended Body Shell Warranties if the Motorhome has been neglected, misused, modified or used for hire or reward or if the identification marks (chassis/VIN numbers) have been removed or defaced. The motorhome will be deemed to have been neglected if it has not been serviced and maintained as stated in this handbook or any repairs being identified as necessary at an Annual Service or by a Swift Group Service Centre have not been carried out in a reasonable time.

### **You have legal rights under UK law governing the sale of consumer goods. This Warranty does not affect your legal rights.**

The name and address of the Warranty provider is:

Swift Group Limited, Dunswell Road, Cottingham, East Yorkshire, HU16 4JX

To make a claim under this Warranty, contact the Swift Group Dealer which supplied your motorhome. Alternatively, details of your nearest authorised Swift Group Service Centre can be obtained by contacting the Swift Group Customer Service Department on 01482 875740, or enquiring on the website [www.swiftgroup.co.uk](http://www.swiftgroup.co.uk)

## Change of ownership

You can transfer the remainder of any 3 year 'Supersure' warranty' and the 6 year 'Body Shell' warranty, details of how to do this can be found at the rear of this handbook.

The 'Extended 10 Year Body Shell Warranty' is non transferable.

## Swift Connect Direct

You have access to an online system which is for all Swift models. A password will be issued to you, to enable you to interact with us.

To access the system, called 'Swift Connect Direct', your initial log in details will be emailed to you once your supplying dealer has registered your ownership with us.

Please log in and create your own profile. Should you have issues with accessing Swift Connect Direct, please contact our Customer Services Team.

## What to do if you require assistance

Should you have an enquiry or require assistance with a problem, we hope that this guide will be of assistance to you.

### Please follow these steps:

1. Check the Owners Handbook, paying particular attention to the fault finding advice at the back of the book.
2. Contact your supplying dealer for assistance.

### If you need to contact the Swift Group, please be aware of the following:

1. When contacting Swift Customer Service, please quote your name, postcode and VIN (Vehicle Identification Number). This can be found on the plate on the front cross member within the engine compartment and on the Swift manufacturers plate situated on the bulkhead directly behind the front driver/passenger seat.
2. In most instances, the Customer Service Team will involve your dealer in resolving the issue you are experiencing.
3. Check our website [www.swiftgroup.co.uk](http://www.swiftgroup.co.uk) and enter the Owners section which provides answers to frequently asked questions and how to contact us.
4. If you are contacting the company by email, letter or fax, the Customer Service Team will respond to you within five working days from the date of receiving the correspondence.
5. Please be aware that the Swift Group cannot send parts direct from the factory. In all cases, without exception, your dealer must place the order for you.

## Motorhomes - annual service/ inspection record

In order to comply with the warranty, you must have your motorhome inspected and serviced at least once per year.

We highly recommend that you have your Motorhome serviced by a Swift Group Approved Service Centre who have direct access to our online Customer Service system, Connect. This system provides them with the ability to order approved parts and ensure that any product upgrades which may be available for your Motorhome can be offered to you and carried out as part of the service. In the unfortunate event that an issue requires attention under warranty then Swift Group Approved Service Centres are able to submit a warranty claim to the Swift Group for processing, and deal with the issue for you from start to finish. All of our Swift Group Approved Service Centres are provided with up to date technical information and have access to current repair methods giving you peace of mind that any defect has been repaired effectively.

It is important that the Owner's Handbook is stamped on the appropriate page by the authorised Swift Group Service Centre. Failure to do this will invalidate the warranty and the transfer of the warranty on the change of ownership.

The inspection should take approximately two to four hours and will cover the areas dealt with in the annual service check list. Any areas requiring service and/or maintenance will be highlighted by your dealer and we recommend that you authorise any necessary work to be carried out.

**Note:** It is essential, to validate the warranty, that an annual inspection be carried out by an authorised Swift Group Service Centre covering the items listed.

1. Damp and lamination test.
2. Chassis and chassis to body security.
3. Corner steadies.
4. Motorhome step.
5. Road lights, wiring and reflectors.
6. Internal lights and 12V DC system.
7. Water heater - gas and 230V AC (if fitted).
8. Hob, grill and oven.
9. Refrigerator 230V AC, 12V DC and gas.
10. Gas system.
11. Water pump, taps and water system.
12. Mains 230V AC system.
13. Windows and fittings.
14. Smoke alarm and battery.
15. Carbon Monoxide detector and Battery
16. Roof lights.
17. Furniture hinges/stays etc.
18. Exterior locks and hinges.
19. All internal vents.
20. Seals.
21. Blinds and fly screens (if fitted).
22. Blown air heating and gas fire systems
23. Drop down bed operation
24. Air suspension
25. Levelling system (if fitted)
26. Generator
27. LPG tank

## INSPECTION RECORD STAMPS

<p>Annual service / inspection record stamps</p> <p>Motorhome model: .....</p> <p>Year: .....</p> <p>Chassis VIN: .....</p>	<p><b>1st service</b></p> <p>DATE:</p> <p>DEALER'S STAMP</p>   <p>We certify that an annual service has been carried out in accordance with the handbook.</p>
<p><b>2nd service</b></p> <p>DATE:</p> <p>DEALER'S STAMP</p>   <p>We certify that an annual service has been carried out in accordance with the handbook.</p>	<p><b>3rd service</b></p> <p>DATE:</p> <p>DEALER'S STAMP</p>   <p>We certify that an annual service has been carried out in accordance with the handbook.</p>
<p><b>4th service</b></p> <p>DATE:</p> <p>DEALER'S STAMP</p>   <p>We certify that an annual service has been carried out in accordance with the handbook.</p>	<p><b>5th service</b></p> <p>DATE:</p> <p>DEALER'S STAMP</p>   <p>We certify that an annual service has been carried out in accordance with the handbook.</p>
<p><b>6th service</b></p> <p>DATE:</p> <p>DEALER'S STAMP</p>   <p>We certify that an annual service has been carried out in accordance with the handbook.</p>	<p><b>7th service</b></p> <p>DATE:</p> <p>DEALER'S STAMP</p>   <p>We certify that an annual service has been carried out in accordance with the handbook.</p>

## INSPECTION RECORD STAMPS

<p><b>8th service</b> DATE: DEALER'S STAMP</p> <p>We certify that an annual service has been carried out in accordance with the handbook.</p>	<p><b>9th service</b> DATE: DEALER'S STAMP</p> <p>We certify that an annual service has been carried out in accordance with the handbook.</p>
<p><b>10th service</b> DATE: DEALER'S STAMP</p> <p>We certify that an annual service has been carried out in accordance with the handbook.</p>	<p><b>11th service</b> DATE: DEALER'S STAMP</p> <p>We certify that an annual service has been carried out in accordance with the handbook.</p>

## Supplier contacts

A number of Swift Group suppliers manage their own Technical and Warranty related queries. Where a customer has a question relating to a product manufactured by a company listed below, we would advise that the first contact should be directly with them.



### Sargent Electrical Services

Unit 39, Tokenspire Business Park,  
Beverley, East Yorkshire, HU17 0TB  
Phone: 01482 678981  
Fax: 01482 678987  
Email: support@sargentltd.co.uk

[sargentltd.co.uk](http://sargentltd.co.uk)




### Thetford Ltd.

Unit 6, Brookfields Way, Manvers,  
Dearne Valley, Rotherham,  
South Yorkshire, S63 5DL  
Phone - 0844 997 1960  
Fax - 0844 997 1961  
Email - infogb@thetford.eu

<https://www.thetford-europe.com>




### Alde International (UK) Ltd

Huxley Close, Park Farm South,  
Wellingborough, Northants, NN8 6AB  
Phone: 01933 677765  
Fax: 01933 674975  
Email: info@alde.co.uk

[www.alde.co.uk](http://www.alde.co.uk)




### Dometic (UK) Ltd

Dometic House, The Brewery,  
Blandford St Mary, Dorset, DT11 9LS  
Phone: 0844 626 0133  
Email: technical@dometic.co.uk

<https://www.dometic.com/en-gb/uk>




### Genpower Ltd.

Isaac Way, London Road, Pembroke  
Dock, SA72 4RW  
Phone: 01646 880  
Email: sales@genpower.co.uk

[genpower.co.uk](http://genpower.co.uk)




### Gas It

The Old Church Hall, Groeslon,  
Caernarfon, Gwynedd, LL54 7DL  
Tel: 01286 832443  
Email - sales@gasit.co.uk

<http://www.gasit.co.uk>





Code of conduct ..... 16  
The Country code ..... 18  
The Coastal code ..... 18

## CODE OF CONDUCT

**Code of conduct****Camp sites****Arrivals**

Report to reception immediately on arrival.

**Vehicle Movement**

Keep to roadways unless otherwise directed.

Adhere to speed limits. Note that these are generally 10 mph. (Remember that the stopping distance on grass is considerably greater than on tarmac.)

Only a person in possession of a current driving licence may drive on the site.

Park correctly as advised on your pitch. Where possible leave 20 feet of free space around your vehicle.

**Use of Site Appliances**

Use the electrical mains hook-up in the correct manner and with caution.

Ensure that all fresh water taps/connections are turned off after use.

Have care and consideration when using all facilities (toilets and showers etc) and leave clean and tidy. Young children should be supervised.

**Waste Disposal**

Dispose of all waste water where instructed. Empty effluent from chemical toilets where instructed.

To avoid possible damage to sewage purification works, only approved chemical fluids must be used. Under no circumstances should coal tar, phenol or caustic-based fluids be used.

Disposable nappies and similar bulky items must not be put into chemical closet emptying points but should be wrapped in a polythene bag and placed in the container provided. Place all litter in containers marked for the purpose.

**Noise**

Do not make excessive noise.

Children should be restrained from making excessive noise.

Flying kites and model aircraft/drones and the use of items like catapults or air-guns, as well as ball games, should not be permitted among, or close to other vehicles.

Musical instruments, record players, radios and televisions should not be used to the inconvenience of other people on the site.

Open and close doors quietly.

Power generators must be adequately silenced and used with consideration.

**Dogs and other Pets**

All dogs and other pets should be kept under control.

Unless permission has been granted, no animal should be allowed loose on the site and leads must not exceed 10ft.

No animals should be allowed in the shower/toilet blocks.

Do not let dogs foul the site.

**Fire Precautions**

Adhere to and take note of fire precautions noting the whereabouts of the fire points.

**⚠ WARNING:** Provide one dry powder fire extinguisher of an approved type or complying with EN3-7 or ISO 7165, of at least 1kg capacity, by the main exterior door and a fire blanket next to the cooker. Familiarise yourself with the operating instructions on your fire extinguisher and the local fire precaution arrangements.

When using a dry powder extinguisher it is suggested that the motorhome be evacuated until the powder has settled, to avoid inhalation.

Unless permission has been granted, barbecues should not be used. If permission is given, consideration should be given to the annoyance that can be caused to other users of the site.

Open fires are not allowed.

### **Awnings and Tents**

Awnings and tents should only be used when permission has been obtained.

When on grass and staying for more than a few days, the ground sheet and/or side flaps of awnings should be periodically raised in order to avoid damage to the ground.

### **Departure**

Leave the pitch clean and tidy.

On leaving, check out with reception paying the required fees.

### **Wild camping**

Camping away from licensed sites, without the permission from the land owner or his agents, is not allowed in the United Kingdom.

When permission has been granted, all aspects of this Code should be adhered to.

On no account should:

- a. Litter be disposed of other than in the receptacles provided.
- b. Water be allowed to escape from the vehicle.
- c. Chemical toilets be emptied except into the disposal places agreed with the land owner.
- d. Washing or similar be hung outside the vehicle.

### **Parking**

Motorhomes should only be parked in approved places.

When using the facilities of a motorhome, care and consideration should be given to those around them.

### **Driving**

Before moving off, elevated rooflights and aerials should be lowered and correctly secured, and top hinged windows closed. Likewise all doors and access lockers for

gas containers and chemical toilets must be properly secured.

Exterior steps should be properly retracted and secured.

When the vehicle is in motion it is compulsory for all front seat passengers and rear seat passengers to wear seat belts, where fitted.

When using a motorhome on either the public highway or private roads the Highway Code should be complied with and full consideration given to other road users.

In the event of a motorhome travelling slowly the driver of the motorhome should, where possible, pull over in order to let other traffic pass.

**⚠ WARNING:** When refuelling or on a ferry ensure the gas system is fully isolated at source.

### **Handbooks (chassis)**

Before using a motorhome all aspects of the handbooks, produced by the chassis manufacturer, must be read and adhered to.

The separate chassis manufacturer handbook refers to your motorhome chassis and base vehicle including care and maintenance.

A hard copy of the chassis manufacturer's handbook has been supplied with your motorhome. Should you need a replacement, please contact your local IVECO dealer.

## COUNTRY/COASTAL CODE

**Environment**

Care and consideration should be taken to protect the environment.

Observe the Country and Coastal Codes.

**The Country code**

Enjoy the countryside but respect its life and work.

More people than ever before are exploring the countryside, interested in farming, plant life, bird watching or just observing the general wildlife. Whatever your interest, there is a lot to learn, but please observe the following code:

1. Guard against all risk of fires. Hay and heathland catch alight easily and once ablaze are very difficult to put out.  
**Remember: fire spreads quickly.**
2. Fasten all gates.
3. Keep your dog under proper control.
4. Keep to the paths across farm land.
5. Avoid damaging fences, hedges and walls.
6. Leave no litter.
7. Safeguard water supplies.
8. Protect wildlife, wild plants and trees.
9. Go carefully on country roads.
10. Respect the life of the countryside.

**The Coastal code**

As our coastlines are increasingly used for recreation and education, the following suggestions are made to enable us to enjoy our inheritance and preserve it for posterity.

Disturbance may mean DEATH.

**Do not** trample about, or move rocks unnecessarily.

**Do not** frighten seals or seabirds.

**Do not** spill detergents, solvents or fuel from boats as these can kill marine life.

When sailing, moderate your speed - the wash from a fast boat can destroy banks and nests.

Live molluscs and crustaceans need not be collected as souvenirs - dead shells can usually be found.

Shellfish can take years to grow and fines can be imposed for not observing national regulations.

**Do not** pull up seaweeds unnecessarily.

Make your visit instructive - not destructive.

Look at material - don't remove it. Take notes and photographs, not specimens.

Observe by-laws and be considerate to others.

National Trust property and Country Parks have regulations to protect the wildlife. Follow these and the Country and Coastal Codes.

Before moving off .....	20
Motorhome terms .....	20
Loading of vehicle .....	21
Large storage areas .....	22
Roof loading .....	22
Tyres .....	22
Dedicated travelling passenger seating .....	23
Child seats .....	23
Three point seat belts .....	25
Driving licence .....	25
Vehicle classifications .....	25
Advice on towing .....	26
European Touring .....	27

## BEFORE MOVING OFF

### Before moving off

#### Check:

- gas tank is turned off unless using en-route heating.
- all gas operated appliances have been isolated, except the en-route heating system if fitted.
- loose articles including bed and luton ladders are stowed securely. Do not stow tins, bottles or heavy items in overhead lockers.
- all lockers and cupboard doors are closed and secured.
- tables are stored or locked in their transit position.
- fridge is on 12V operation and door lock is set.
- 230V mains input socket flap is securely closed.
- all drain valves are closed
- tyre pressures and wheel nuts.
- rear corner steadies (if fitted) are raised.
- exterior roof rack ladder is raised and secured.
- all windows/doors/rooflights are closed and secured.
- TV aerial is lowered and locked into position (where fitted).
- exterior step (where fitted) is retracted /folded in.
- Ensure exterior service lockers are closed and locked (where fitted).
- Drop down bed is in upper stowed position.

Special attention must be taken to ensure all top hinged windows as well as the Luton vent and rooflights are closed when in transit. All units should be fully closed and latched to prevent damage. The motorhome exterior door should also be locked.

- Ensure self levelling system is retracted (where fitted).
- Ensure the generator is turned off.

**⚠ WARNING:** Large and/or voluminous items should be stored securely before travelling.

**⚠ WARNING:** Vehicles over 3m high have a maximum vehicle height label affixed to the drivers sunblind. When planning your route take your vehicle height into consideration.

#### Central locking

The central locking will not activate unless the cab doors are closed. It will however activate with the habitation door open. The habitation door lock will then engage when the door is closed leading to the possibility of being locked out of the vehicle, if the keys are left inside. It is therefore essential that the habitation door is closed before the central locking is activated. To open the habitation door when locked, pull the internal door handle twice.

### Motorhome terms

#### Mass in Running Order:

The mass of the motorhome equipped to the motorhome manufacturers standard specification, as stated by the manufacturer.

The MRO comprises the ex-works weight of the motorhome, including the driver, 90% fuel capacity, 80% LPG gas tank capacity @ 28.5kg and standard fixtures & fittings in compliance with European Regulation No. 1230/2012 (Masses & Dimensions)

**Note:** The mass of the motorhome in running order contains provision for the masses of liquids, gas etc. (see Mass in Running Order in the Technical Section). Part of this provision can also be utilised as additional payload, if for example, you wish to travel with the LPG tank empty.

**Note:** If you travel with water in the fresh water tank or waste tank, the payload will be reduced accordingly

**Note:** Quoted MRO is subject to tolerance, due to weight variation of materials used in Motorhome construction.

**Maximum User Payload:**

The maximum allowable weight to be put into the motorhome whilst it is being driven. This is made up of 4 sections:

Personal effects, conventional load, optional equipment and essential habitation equipment.

The Maximum User Payload is the difference between the Maximum Technically Permissible Laden Mass and the Mass in Running Order.

**Personal Effects:**

Those items which a user can choose to carry in a motorhome and which are not included as Essential Habitation Equipment or Optional equipment.

**Conventional Load:**

A mass allowance for each designated passenger seat.

**Optional Equipment:**

Items made available by the manufacturer over and above the standard specification of the motorhome.

**Essential Habitation:**

A mass allowance for liquids in systems not accounted for within the MRO.

**Maximum Technically Permissible Laden Mass:**

The maximum weight for which the motorhome is designed for normal use when being driven on a road, laden.

This mass takes into account specific operating conditions including factors such as the strength of materials, loading capacity of tyres etc.

**Gross Train Weight:**

The maximum combined weight of the motorhome and trailer.

**⚠ WARNING:** Under no circumstances should the axle loadings or the Maximum Technically Permissible Laden Mass of the motorhome be exceeded.

**Nose weight of Towed Trailers:**

The static mass of the trailer towing device on the rear of the towing vehicle.

**Notes:**

1. When measuring the noseweight it is important that the trailer is loaded.
2. The trailer is intended to be towed slightly nose heavy. The nose weight can be adjusted by distribution of the load. The nose weight should be approximately 7% of the actual laden weight (but not greater than the hitch capacity) and at the same time suit the motorhome requirements.

See 'Advice on Towing' page 26.

**Loading of vehicle**

**⚠ WARNING:** The driver is responsible for arranging the loads so that they comply with the technical weight limits of the motorhome.

Correct weight distribution is an important factor in ensuring your vehicle is well balanced and easy to drive. It is therefore necessary to load your motorhome carefully making sure all heavy articles are evenly distributed and are preferably placed in the lower lockers or bed boxes.

**⚠ WARNING:** The two longitudinal bars fitted to the roof are there for styling purposes and should not be used for load carrying unless cross bars are fitted.

**⚠ WARNING:** Do not travel with televisions or microwaves in overhead lockers unless the appliance was supplied fitted to your motorhome by the manufacturer.

Although it is essential to ensure that the total weight of your motorhome does not exceed the stipulated Maximum Technically Permissible Laden Mass, (MTPLM), it is important to remember that the front and rear axles also have individual maximum weights which must not be exceeded.

# STORAGE / ROOF LOADING

See page 196/199 for MTPLM and maximum axle loads.

**Note:** To ensure adequate road holding the load on the front axle, under all conditions, must not be less than 30% or more than 70% of the total weight.

Ensure you distribute the payload equally on each side of the vehicle to avoid an imbalance.

These weights, together with the MTPLM, can be found on the Statutory plate adhered to the bulkhead behind the right hand cab seat.

**Note:** Please take care to ensure you have allowed for the masses of all the items you intend to carry in your motorhome e.g. passengers, optional equipment, essential habitational equipment and personal effects such as clothing, food, pets, bicycles, sailboards, sports equipment etc.

## Large storage areas

The large 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 (eg 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).
- to carry any flammable liquids, unless properly stored, sealed and secured.
- for the operation of an electrical generator.
- in such a way that the load exceeds the MTPLM and maximum axle loads.

Care must be taken to ensure that exterior doors are closed, locked and that all possessions are properly stored and secured before setting off on any journey.

## Roof loading

Your motorhome roof can be fitted with a roof rack (optional).

A maximum load of 50kgs can be evenly distributed on the roof rack system.

This figure MUST NOT be exceeded.

**Note:** When loading the roof rack, make sure the load is spread evenly and do not allow sharp objects to come into contact with the roof surface.

**Note:** Ensure items loaded on the roof rack do not act as a sail (i.e. deck chairs).

**⚠ WARNING:** Do not apply excessive load to the rear suspension of your motorhome or allow the vehicle to reverse with the roof rack access ladder in the down position, touching the ground. This may cause excessive strain on the ladder fixing points.

The flat roof areas, up to the over cab section, are capable of withstanding an average person's weight (13 stone or 82.5kg).

**Note:** Do not walk on the over cab section.

**⚠ WARNING:** The roof may become slippery in adverse conditions, wipe dry before attempting to walk on roof section. Extreme care should be taken to avoid falling from the vehicle.

**⚠ WARNING:** When walking on the roof, deck type shoes should be worn – not leather sole

## Tyres (Vehicle weight > 3500kg)

**If a wheel or tyre fitted to a vehicle is changed any replacement must be of the same type of construction and size.**

The law requires that the tyres and pressures must be suitable for the use to which they are being put. The minimum tread depth must be 1mm throughout a continuous band

comprising the centre three-quarters of the breadth of the tread and around the circumference of the tyre.

Please refer to the IVECO handbook for tyre pressure information.

This may also be displayed in the driver's or passenger's door aperture.

## Tyre Pressures

The motorhome tyre pressures are stated by IVECO for your vehicle and calculated in a fully laden condition. If you are not running fully laden, reduced pressures could be used but please seek clarification from the Tyre manufacture.

## Dedicated travelling passenger seating

Seat belts are fitted to all travelling seats. Travelling seats are designated by the manufacturer and vary according to the layout you have purchased. Each seat is homologated i.e. tested to all relevant safety requirements. NEVER travel in or attempt to install a seatbelt to a non-designated seat.

**⚠ WARNING:** Side facing seats are designed for habitational use only, not for use when the vehicle is in motion.

## Seat belts and legislation

Designated driver and passenger seats are fitted with seat belts and MUST be worn when travelling.

Children, aged up to 3 years of age, must wear an appropriate child restraint suitable for their age and weight. Children from 3 years of age and up to 135cm (4'5") in height, or 12 years of age, whichever is reached first must use a child car seat or booster seat suitable for their age.

Children over 135cm (4'5") in height or aged 12 years and over must wear a seat belt.

Note: It is the legal responsibility of the driver to ensure children aged up to 14 years old are suitably restrained. For passengers aged 14 and over, it is their responsibility (not the driver) that a seat belt is worn.

Seat belts are fitted for your safety and must be worn unless a 'Certificate of Exemption from Compulsory Seat Belt Wearing' is held. This Certificate must be produced if asked for by the Police – seat belt offences can result in a fine.

## Child seats

### Choosing/Buying

Go to a reputable retailer such as Halford's, Mothercare, John Lewis etc. Most reputable retailers will have trained child seat advisers on site and will offer a fitting service. Ask the advisor to fit various seats to the vehicle. Once a correctly fitting seat has been installed, satisfy yourself on its suitability for your child and the vehicle before buying as it is important to use a correctly fitting seat in your motorhome.

**⚠ WARNING:** The child seat you use in your car may not be suitable for mounting on a motorhome seat.

Choose the right seat for your child's height and weight.

### Height-based seats

Height-based seats are known as 'i-Size' seats. They must be rear-facing until your child is over 15 months old. Your child can use a forward-facing child car seat when they're over 15 months old.

You must check the seat to make sure it's suitable for the height of your child.

Only EU-approved height-based child car seats can be used in the UK. These have a label showing a capital 'E' in a circle and 'R129'.

### Weight-based seats

The seat your child can use (and the way they must be restrained in it) depends on their weight.

Only EU-approved weight-based child car seats can be used in the UK. These have a label showing a capital 'E' in a circle and 'ECE R44'.

You may be able to choose from more than one type of seat in the group for your child's weight.

For more information visit [www.gov.uk](http://www.gov.uk)

SEAT BELTS

Never fit or use a second hand car seat. It could have been damaged and may not meet modern standards. The fitting instructions may also be missing.

**Positioning/ Fitting**

Dependant upon the child seat type, the most suitable position for the child seat to be fitted may be the front passenger seat of the cab (NOTE airbag advice below) or the window seat of the forward facing rear seats. Advice should always be taken from the retailer on the suitability and security of the seat in the motorhome. The aisle seat is not recommended unless the ISOFIX points are used.

Read and follow the child seat manufacturer's instructions for fitting the seat.

All Swift Motor homes are fitted with inertia reel seat belts, however, the child seat must be tight in the adult seat. Push all your weight into the child seat as you tighten the belt.

Keep a copy of the child seat fitting instruction in the motorhome for easy reference.

Any doubts, ask an advisor to show you how to correctly install the seat.

**Airbag**

Never fit a rear-facing child restraint in a seat with an active airbag in front of it.

Forward-facing child restraints should be positioned as far back from the airbag as possible. Check the base vehicle handbook.

**ISOFix Child Seat Restraint**

Your vehicle is fitted with ISOFIX anchor points that accommodate universally approved ISOFIX child seats. These points are located on the forward facing rear seats with 2x fixed positions provided.

The ISOFIX system comprises two rigid attachment arms on the child seat that attach to anchor points on the rear seat frame, located where the cushion and backrest meet. Positions are marked on the cushions.



Top tether anchor points are fitted on the upper seatbelt stanchion and are accessed by removing an insert on the backrest cushion.



**⚠ WARNING:** Use an anti-rotation device when using the ISOFIX system. We recommend the use of a top tether position.

**General Seat Installation Method:**

1. Place the child seat on the seat cushion
2. Remove the top tether insert
3. Route the tether strap to the anchor point and secure
4. Push the child seat back firmly to engage the ISOFIX lower anchor points.
5. Tighten the tether strap in line with the child seat manufacturer's instructions

**⚠ WARNING:** Please consult with the child seat manufacturer's instructions for full installation instructions. If in doubt please consult the child seat manufacturers technical support team for further guidance on the installation.

**Three point seat belts**

This section refers to the seat belts located in the habitation area of your motorhome.

**Fastening the seat belt:**

Insert tongue into buckle; a positive 'click' indicates correct assembly.

**Releasing the seat belt:**

Press the red release button, the tongue will be ejected from the buckle.

- The belt is designed for use by one person and must not be put around a child seated on a person's lap.
- The belt is suitable for restraining most child seats and boosters.
- The belt should at all times be adjusted and used in accordance with the instructions. No excessive slackness should be present.
- Once installed the diagonal should pass across the centre of the shoulder and the buckle should lie just on or below the hip.
- Avoid twisting the webbing during use. Webbing must not be allowed to chafe against sharp edges.
- Do not make alterations or additions to the belt.

- Belts that have been cut, frayed, damaged or stressed through impact should be replaced. After impact the motorhome anchorage points should also be checked.
- To clean use warm soapy water only.
- Periodic inspection of the installation will ensure reliability of the seat belt.

**Driving licence**

This vehicle has an MTPLM greater than 3500kg and therefore a C1 licence is required to drive it and + E entitlement if towing a trailer.

Licences issued to drivers who passed their car driving test before 1st January 1997 include categories B+E and C1+E which gives them entitlement to drive motor vehicles up to 7500kg MTPLM and a gross train weight of 8250kg. (The 107 code in column 12 of the driving licence denotes this)

Drivers who passed their test on or after this date have category B entitlement only, which restricts the entitlement to motor vehicles with up to 8 passenger seats and an MTPLM of up to 3500kg with trailers up to 750kg MTPLM (4250kg gross train weight) or larger trailers providing the combination of the trailer and towing vehicle does not exceed 3500kg and the MTPLM of the trailer does not exceed the unladen weight of the towing vehicle.

Drivers who passed their test on or after the 1st January 1997 will need to take an additional test(s) to gain the C1+E entitlement.

Only drivers who have actually passed a C1 + E test are entitled to utilise the gross train weight of 10,700kg. Drivers who passed their test before 1st January 1997 are limited to a gross train weight of 8250kg and will therefore have to undertake a C1 + E test in order to tow with a gross train weight of 10,700kg.

**Vehicle classifications**

Motorhomes up to 3500kg MTPLM are P/LGV (Private Light Goods Vehicles), motorhomes with an MTPLM over 3500kg and up to 7500kg are P/HGV (Private Heavy Goods Vehicles). These are used for vehicle excise duty (road tax) classifications.

## TOWING ADVICE

**Advice on towing**

The towing capability of your motorhome is 3500kg.

This takes account of the maximum front and rear axle loadings as well as the minimum front axle loading in two conditions, MRO and MTPLM condition.

Towing in these, and any other condition requires sensible loading and distribution of payloads to ensure the requirements of the towing capability table are met.

When towing, the demands on both the vehicle and driver increase. A trailer reduces manoeuvrability, the ability to climb hills, acceleration and braking capacity and makes the vehicle handle and corner differently.

It will also increase the fuel consumption of the vehicle.

Always brake in good time. Special care must be taken when descending gradients. Change down before going down a steep hill so the engine can act as a brake. Ensure that the towing vehicle tyre pressures are correct and adjusted for full load conditions and that the trailer tyre pressures are as recommended by the trailer manufacturer. Regularly check the operation of trailer brakes and lights.

For maximum stability, when loading the trailer ensure that the loads are properly secured during transit. Position loads so that most of the weight is placed close to the floor and, where possible, immediately above or close to the axle(s). Where the load can be divided between trailer and tow vehicle, loading more weight into the vehicle will generally improve the stability of the combination. After loading the trailer, check that the nose weight and axle loads are in accordance with the manufacturer's recommendations, also check the rear and front axle loads on the motorhome. When calculating the laden weight of the trailer, remember to include the weight of the trailer PLUS THE LOAD.

**Note:** Towing regulations vary from country to country. It is very important to ensure that national regulations governing towing weights and speed limits are observed (refer to the relevant national motoring organisation for information). The stated maximum permissible towing weights refer to the vehicle's design limitations and NOT to any specific territorial restrictions.

**Notes:**

1. Do not exceed the motorhome gross vehicle train weight.
2. Do not exceed the maximum front & rear axle loads on the motorhome.
3. Ensure the motorhome front axle load is never less than 30% or more than 70% of the total weight.
4. The limit for towing an un-braked trailer is 750kg (based on VIN plate not actual weight), this applies to a towed car.
5. A car dolly with a car with a GVW over 750kg in place is considered as two trailers, these are legal for use for recovery but under the Road Traffic Regulations Act 1984 the combination is limited to 40 mph on motorways and dual carriageways and 20 mph elsewhere. A car dolly is not legal for transportation (there is a very specific difference between recovery and transportation. Recovery is defined as the removal of a broken down vehicle to a place of safety).
6. The maximum permitted vehicle combination length is 18.75m, however any combination must ensure compliance with the turning circle requirements of Construction and Use regulations 1986 & 1230/2012/EU.

**European Touring**

Please note there are a number of requirements placed on a driver when driving on European roads. Carrying a warning triangle, high visibility jacket, first aid kit and spare bulb is now compulsory in many EU states but some EU countries are now introducing further regulations such as carrying a breathalyser kit and not being able to use satellite navigation systems with speed camera warnings.

We would advise customers to check on the many websites available to ensure you are carrying the correct equipment when touring in those EU countries.



Cruise Control .....	30
Removal of spare wheel on Meier conversion .....	30
Changing the front wheel for the spare wheel .....	30
Changing the rear wheel for the spare wheel .....	31
Parking Sensors .....	32

## Cruise control

The driver of the vehicle should always remain seated and in control of the vehicle when cruise control has been engaged. Never leave the driving seat for any reason when the vehicle is underway.

## Removal of spare wheel on Meier conversion:

**⚠ WARNING:** Periodically check that the spare wheel is properly secured. Vibrations could cause bolt loosening. Failure to comply with these prescriptions can result in the risk of serious injury and serious damages to the vehicle.

**Note:** To make the spare wheel more accessible, position the vehicle with the chassis raised.



### Spare wheel location

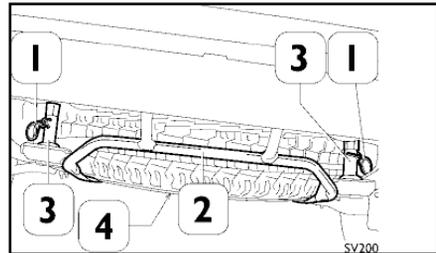
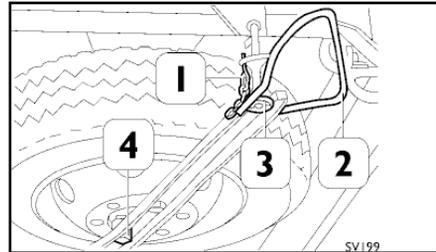
#### Removal

Remove the clip **(1)**.

Hold the slide **(2)** and unscrew the locking device **(3)**.

Lower the wheel carrier slide **(2)** and unscrew the nut(s) **(4)** fixing the wheel

**Note:** When refitting the replaced wheel, fully tighten the device **(3)** on the spare wheel holder.

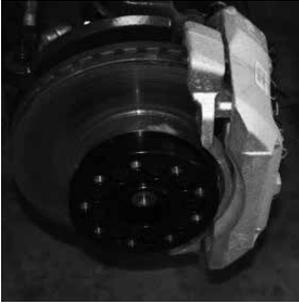


## Changing the front wheel for the spare wheel:



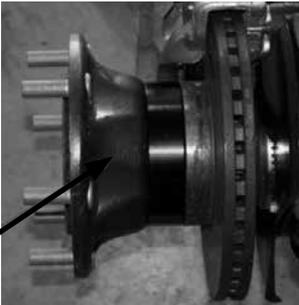
- Jack vehicle to elevate wheel using suitable jacking point
- Use the toolkit provided to remove the wheel bolts and demount the wheel from the hub

- Remove the adaptor from the hub face by removing the M14x2 bolts - see image 1

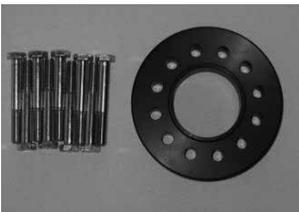


**Image 1**

- Next the track extension set (supplied as per image 2 and 3) should be used to secure the cast wheel adaptor (also supplied)



**Image 2**



**Image 3**

- Finally mount the steel rims and tighten the original wheel nuts to 290-350Nm. Use the original Iveco collar nuts only!

### Changing the rear wheel for the spare wheel:



- Jack vehicle to elevate wheel using suitable jacking point
- Use the toolkit provided to remove the wheel bolts and demount the wheel from the hub
- Demount the adaptor hub
- Finally mount the steel rims and tighten the original wheel nuts to 360Nm. Use the original Iveco collar nuts only! - see image 4



**Image 4**

### General notes

- Drive with decreased speed until you check the tyre inflation pressure and the bolting torque of the wheel nuts.
- Retighten the wheel nuts with the correct bolting torque as soon as possible. The same applies for the adaptor hubs.
- The wheel nuts must be retightened after 30 miles.
- Check the tire inflation pressure as soon as possible.
- Renew the damaged wheel as soon as possible.
- Check the vehicle tool kit and the car-jack after every use for damage.

## PARKING SENSORS

### **Parking sensors**

Parking sensors are fitted to the vehicle. Please use the information provided. Use the sensors as a guide only. It is the responsibility of the driver to ensure it is safe to reverse the vehicle.

Fire .....	34
Smoke Alarm Operation .....	34
Fire extinguisher .....	34
Escape paths .....	34
Children .....	34
Ventilation .....	35
CO alarm .....	35
Security .....	35
Swift Command Tracker by Sargent .....	36
VIN CHIP™ .....	37

## FIRE / SMOKE ALARM / ESCAPE PATHS

**Fire**

**Note:** Your attention is drawn to the notice affixed inside the wardrobe advising on fire precaution, ventilation and what to do in case of fire.

**In case of fire**

1. Get everyone out of the motorhome as quickly as possible using whichever exit is the quickest, including windows. Do not stop to collect any personal items.
2. Raise the Alarm. Call the Fire Brigade.
3. Turn off the gas supply valve if it is safe to do so.
4. Turn off the electricity supply at supply point.

**Smoke Alarm Operation**

Your motorhome is fitted with a Fire Angel SB1 smoke alarm. Please read the user instructions for the smoke alarm, which are available at the following location:

<https://www.fireangel.co.uk/products/sb1-t>



If you are unable to view the documents on line, please contact the supplier, your dealer or Swift for an electronic or paper copy.

**⚠ WARNING:** Never use portable cooking or heating equipment other than electric heaters that are not of the direct radiant type, as it is a fire and asphyxiation hazard.

**⚠ WARNING:** Appliances such as cookers must not be used for heating.

**Fire Extinguisher**

It is recommended that a dry powder fire extinguisher be carried inside your motorhome at all times.

When using a dry powder extinguisher it is suggested that the motorhome be evacuated until the powder has settled, to avoid inhalation.

A fat pan fire should not have a fire extinguisher aimed at it. It should be smothered with a fire blanket.

A fire extinguisher is supplied as a standard fit within the garage area.

**⚠ WARNING:** Provide one dry powder fire extinguisher of an approved type or complying with EN3-7 or ISO 7165, of at least 1kg capacity, by the main exterior door and a fire blanket next to the cooker. Familiarise yourself with the instructions on your fire extinguisher and the local fire precaution arrangements.

**Escape paths**

It is important that you do not block escape paths to emergency exits with obstructions or hazards.

**Children**

Do not leave children alone in the motorhome in any event. Keep potentially dangerous items out of reach, as at home e.g. matches, medicine etc.

## Ventilation

All motorhomes comply with BS EN 721. The ventilation points on your motorhome are fixed points of ventilation which are required by the European Standards.

All motorhomes have ventilation at high level and low level which have been calculated to suit the individual needs of your motorhome.

High level ventilation is achieved by means of the roof lights and washroom roof ventilators (where applicable). The low level ventilators are positioned under sink units.

Under no circumstances must these vents be blocked or obstructed in any manner as this could lead to insufficient fresh air. In this case the confined atmosphere becomes depleted of oxygen which could lead to dangerous levels of carbon dioxide (CO<sub>2</sub>) build up leading to the risk of asphyxiation.

The risks of carbon monoxide (CO) build up, which is a colourless, odourless and tasteless gas, will also be reduced with ventilation. Carbon monoxide is produced from incomplete combustion and should the CO detector be activated the cause of the incomplete combustion must be investigated prior to reusing the appliance in question.

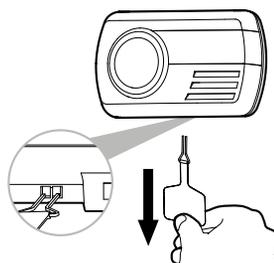
It is advised that fixed ventilation points are checked and cleaned (if necessary) on a regular basis using a small brush and a domestic vacuum cleaner.

Additional night time ventilation is obtained by releasing the window catches and placing them in the second groove. Note the windows are not sealed from rain in this position.

As the ventilation levels are calculated to suit each model requirements no modifications should be made which may result in reduced ventilation levels.

**⚠ WARNING:** Do not obstruct ventilation.

## CO alarm



Your motorhome is fitted with a Fireangel CO-9D Carbon Monoxide Alarm. Please read the instructions for the alarm, which are available at the following location:

<http://fireangel.co.uk/wp-content/uploads/2015/07/CO-9D%20Manual.pdf>



If you are unable to view the documents on line, please contact the supplier, your dealer or Swift for an electronic or paper copy.

## Security

### Motorhome theft:

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

### VIN (Vehicle identification Number)

Record your motorhome VIN which can be found on the plate located on the front cross member under the bonnet or on the plate located on the bulkhead behind the driver's seat.

Make a note of the number in the space provided at the front of this handbook and make a separate note of the number to keep safe at home.

## SWIFT COMMAND TRACKER BY SARGENT

### Additional security

Consider fitting any device which might deter intrusion by thieves. Customers are advised to identify their motorhome with a method for subsequent identification if other forms of identification have been altered or removed.

Free crime prevention advice about securing your motorhome, protecting your valuables, property marking either at home or whilst on site, can be obtained from the Crime Prevention Officer through your local Police station.

### Swift Command Tracker by Sargent

A Swift Command Tracker is built in to your vehicle and forms part of the Swift Command system.

The unit is Thatcham Category 6 certified and is monitored by an approved monitoring centre which operates 24 hours a day 7 days a week and provides European coverage and direct police liaison.

This system is ready for use, all you need to do is purchase a tracking subscription by visiting [www.swiftcommand.co.uk](http://www.swiftcommand.co.uk) or calling Sargent on 01482 881655.

The subscription cost is £95 per year including VAT.

For more information please visit [www.swiftcommand.co.uk](http://www.swiftcommand.co.uk)

### Operation

The Swift Command Tracker is easy to operate as it is controlled by the vehicle systems.

In a motorhome the tracker is armed / disarmed by the ignition key.

When the ignition is turned off the tracker is armed. When the ignition is turned on the tracker is disarmed.

### Event of a Theft

If the vehicle is moved whilst the tracker is armed the geo-fence monitoring will trigger a theft event.

The monitoring station will now contact you to confirm the theft or false alarm. You will be required to confirm your identity against the information you provided when you subscribed.

If a genuine theft is confirmed the monitoring station will liaise with the police and keep you informed of progress.

Note; during a theft event to comply with legislation you will not be able to manually locate your vehicle using the Swift Command locate feature.

### Contact

Before contacting any of the following please ensure you know your caravan or motorhome serial number. For motorhomes this is the unique MH number (like MH01234).

The Swift Command Tracker monitoring station can be contacted on 0345 6027302. The stations operates 24 hours a day 7 days a week.

Sargent customer support can be contacted on 01482 678981 or via [support@swiftcommand.co.uk](mailto:support@swiftcommand.co.uk)

Telephone lines are manned during normal office hours.

Swift customer support can be contacted on 01482 875740 during normal office hours.

### Precautions

The Swift Command Tracker monitors the leisure battery supply and if the voltage falls below a set level or the battery is removed this will trigger a fault event.

If you plan to remove your battery for maintenance or external charging please contact the monitoring station BEFORE removing the battery.

If you lose an ignition key you will need to visit a IVECO dealer for key replacement and removal of the 'lost' key.

## VIN CHIP™

Your motorhome has been securely marked and the VIN recorded with VIN CHIP™.

VIN CHIP™ is the industry standard security marking system for touring caravans and motorhomes.

Shortly after purchasing this motorhome, you will receive via email your VIN CHIP™ registration document. This document will include the 17 digit VIN (vehicle identification number) and other relevant details about your motorhome. If you sell your motorhome, please follow the instructions on the VIN CHIP motorhome document.

### VIN CHIP identification

The motorhome's unique 17 character VIN will be incorporated into VIN CHIP tamper evident labels;

The master VIN CHIP label is situated on the front near side window to aid police checking, another in the gas locker and a maximum of 10 placed on the inside of the windows (with the exception of opaque windows).

Three electronic RFID chips containing the individual identity of your caravan are concealed within the motorhome and can only be read by using a specially programmed RFID scanner.

Your local police can obtain the use of a VIN CHIP™ scanner by contacting VIN CHIP on tel: 0333 2124746.

For help, support and advice, contact:

VIN CHIP  
PO Box 445  
Aldershot  
GU11 9SF

Tel 0333 2124746  
[www.vinchip.co.uk](http://www.vinchip.co.uk)



Positioning the motorhome ..... 40

## POSITIONING THE MOTORHOME

### Positioning the motorhome

**Note:** Check and observe site regulations.

Keep to roadways unless otherwise directed. Adhere to speed limits. Note that these are generally 10mph.

(Remember that the stopping distance on grass is considerably greater than on tarmac.)

Only a person in possession of a current driving licence may drive on the site.

### Selecting a pitch

Do not pitch in such a position that your motorhome will obstruct others coming in.

Try to choose an area which is dry, reasonably level and preferably with a hard base.

If you have no alternative but to pitch on a slope try to ensure that you are facing down the slope, for when you leave.

### Levelling the motorhome

Levelling must be carried out in both directions for the refrigerator and other equipment to function correctly. Stepped levelling boards or proprietary ramps (Fig. A) are ideal for this purpose. Levelling pads or boards should be used under the steadies where the ground is soft or uneven.



**Fig. A** *proprietary levelling ramp*

**Note:** If a hydraulic levelling system is fitted, see page 150 for details.

### Awnings and Tents

Awnings and tents should only be used when permission has been obtained. When on grass and staying for more than a few days the ground sheet and/or side flaps of awnings should be periodically raised in order to avoid damage to the ground.

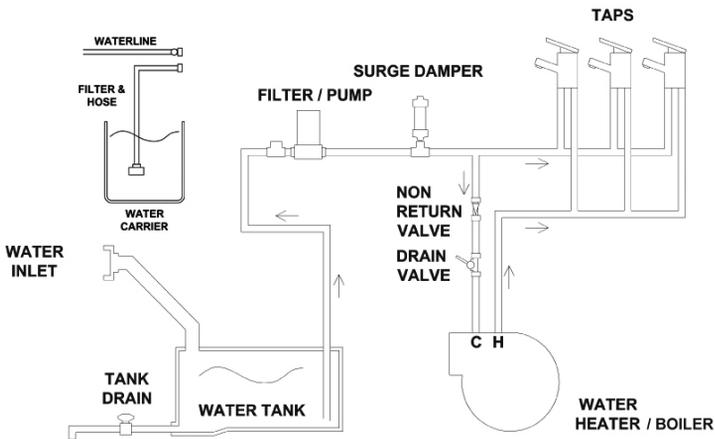
Water System .....	42
Tank heaters .....	44
Priming the water system .....	44
Cleaning the water system .....	45
Pressure switches .....	47
Pressure switch adjustment .....	47
Pressure switch troubleshooting .....	48
Water level sensor & cleaning .....	49
Water faults .....	50
Gas schematic drawings .....	52
Gas .....	53
External BBQ point .....	55
En-route heating .....	55
Gas safety advice .....	56
Gas Fault Finding .....	58
Electrical system .....	59
Overseas connection .....	61
230V mains electrical equipment power consumption .....	61
Wiring of connecting cable and motorhome mains inlet .....	62
Typical appliance consumption figures .....	63

# WATER SYSTEM

## Water system - Introduction

All Swift Group motorhome water systems have been designed around a pump fitted within the motorhome. This pump draws water from an under floor or internal water tank, to provide water pressure within the water system, whenever it is switched on and water is available.

The schematic below shows the basic configuration of the water system:



When power is supplied to the pump, it will draw water from the water tank, and pump it to the motorhome taps, shower and water heater.

The pump is fitted with its own pressure switch, and will continue to pump water, until the pressure of water on the output of the pump reaches a pre-set level. For this pressure to be achieved, the taps must be closed.

When the taps are opened, water will leave the tap via the spout, and the pressure in the pipes between the pump and the taps will reduce. Because of this reduction in pressure, the pressure switch on the pump will switch back on and the pump will again run to pump more water.

Close to the pump, the water under pressure is split into two paths:

1. Through blue water pipes routed directly to the cold connection of each tap.
2. To the water heater.

Water from the pump enters the bottom of the water heater. Once the water fills the water heater (typically 10 litres), water then leaves the water heater via a connection at the top of that water heater. This water, which is still under pressure, then routes to the hot connection of each tap via the red pipes.

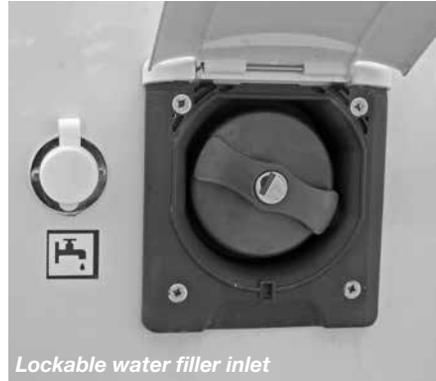
**To winterise the system please see separate details later in this handbook.**

### Fresh water system

1. All fittings, including the holding tank, water pipes, taps and connections are of food quality material (to BS6920) and therefore, should not affect the quality of the water used. It is recommended however, that the system is flushed through twice before it is used for the first time, and always cleaned/flushed after it has stood unused for a period of time (eg over the winter period). Care has been taken (using smooth bore pipes etc) to eliminate as many water traps as possible.
2. When filling the fresh water system remember to check that the water source is suitable for use as drinking water and, if you are using a hose pipe or water carrier, that it is also made from nontoxic materials (preferably food quality material).
3. The fresh water tank is fitted with an electrically operated valve, which will drain the contents of the fresh water tank. The valve is controlled using the control panel above the motorhome entrance door, please see further detail in the Swift Command section of this handbook.

**⚠ WARNING:** The fresh water system is pressurised by a pump which will continue to operate until it senses a pre-set pressure in the system.

If the fresh water tank is completely empty the pump will be unable to pressurise the system and will operate continuously. In this situation it is essential that, in order to avoid damage to the pump, it is switched off using the pump isolator switch on the distribution panel until such time as the water tank has been filled.



*Lockable water filler inlet*

### Fresh Water Tank

Your motorhome is fitted with a water tank filled from the outside via a lockable water filler cap. When filling, use a hose manufactured from non toxic material, to prevent tainting of the water. Remember, if the water heater has been drained it will require 10 litre (2.2 gal) of water to fill it.

### External 12v Fill Socket

Your motorhome is fitted with an external 12v socket which can be used to attach an external 12v tank filling pump.



## Tank heaters

Your motorhome is fitted with 12v tank heaters, designed to prevent or reduce instances of freezing water in fitted water tanks.

If tank heaters are fitted, they can be turned on via the control panel feature of the Swift Command panel above the entrance door (see page 71). Turn this feature on when the external temperatures are low, and the tank heaters will then turn on and off automatically.

Before heating each tank the system will check that the water level in each tank is at the 1/4 level or higher (the heaters will not operate if the tank is 'empty'). If the water level is appropriate, the heaters will then switch on and off depending on temperature.

As the tank heaters check the water level in each tank, the fresh and waste water tank heaters can operate independently, for instance use of frost protect feature while the fresh tank is full, but waste tank is empty, would only result in the operation of the fresh tank heater.

It is also possible to use the tank heaters en-route, i.e. while driving. With the control panel ON, turn on the tank heaters as described above. While the engine is running the control panel cannot be operated, however, the tank heater circuits will remain ON.

Please note that the heating elements use a 12V supply. With the engine off, and if used without a mains hook up and charger operating, then leisure battery power consumption will be increased (see consumption table on page 63 for more information).

## Priming the Water System

1. Close the fresh water tank drain valve.
2. Fill the water tank with water.
3. Close the water heater drain valve (see boiler instructions in the fitted equipment section)
4. Open all the taps except the shower tap. Mixer taps should be opened in the central position so that both the hot and cold pipes are purged of air. Ensure the tap spouts are over the sinks.
5. Turn on the pump using the button on the control panel above the entrance door.
6. Turn each tap off in turn as and when the air is expelled and the water runs smoothly from each tap. Move the mixer taps to hot and then cold to check that the air is out of both the hot and cold pipes before turning them off.
7. Whilst holding the shower head down towards the shower drain, open the shower tap and shower head tap until all the air is expelled and the water runs smoothly. Turn the shower taps off.
8. Top up the fresh tank with water.

Please note that priming the system will automatically fill the water heater with water.

Please ensure all taps are fully turned off when not in use (except when winterising).

**Note:** All tanks are fitted with a breather which acts as an overflow. Overfilling a tank will result in water being expelled from the overflow outside the vehicle.

## Cleaning water system

Clean the water system at the start and end of the season with sterilising fluid.

### Sterilising

When cleaning the water system at the start or the end of the season it is advisable to use a suitable sterilising fluid available from your motorhome dealer. The fluid must be suitable for use with stainless steel components

Flush the system thoroughly to remove the effective fluid traces.

When water is first introduced, or the water supply in the internal tank, runs out, air will be present in the pipework. It is important that every tap is run to remove any air in the system before, for instance, the shower is used. Air left in pipework local to a tap can act as an accumulator and affect the ratio of hot and cold water flowing from other taps or shower mixers in the system.

### System care

Allowing water to freeze in the system may result in damage to the pump and plumbing system.

Non-Toxic antifreeze for potable water may be used with Truma pumps. Follow manufacturers recommendations.

Do not use automotive antifreeze to winterize potable water systems.

These solutions are highly toxic and may cause serious injury or death if ingested.

### Sanitising

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, 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.

## Separate Water Containers

1. All water remaining in the container should be disposed of so that the container is empty.
2. The outside of the container 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.
3. Water should be put in the container, swirled around, then emptied out.
4. The container should then be totally filled with water containing an appropriate sterilant solution and allowed to stand for the recommended contact time.
5. The solution should be emptied from the container.
6. The opening of the container should be cleaned thoroughly with an appropriate prepared wipe impregnated with a sterilant.
7. The container should be inverted whilst stored overnight (if possible).
8. The container must be filled with mains water only and mains water only should be used for the above cleaning procedure.
9. On no account should garden hoses be used to fill water tanks.

## CLEANING WATER SYSTEM

### For Systems:

1. Drain down the system (open all taps to allow air in, enabling the system to drain quickly).
2. Remove any water filters fitted, and replace with a short length of hose or empty filter cartridge (this will ensure the filter is not affected by the disinfectant/sterilant solution).
3. Fill the water system with a disinfectant/sterilant solution (check that the solution at full strength appears at all taps/showers). Allow to stand for the recommended period of time.
4. Drain the system completely.
5. Thoroughly clean the outside of all taps/connectors with a cloth soaked in the disinfectant/sterilant.
6. Flush the system through with clean drinking water until no traces of disinfectant/sterilant can be detected at any tap.

Suitable sterilising chemicals are available from your motorhome dealer, accessory shop, chemist or home-brew shops. It is not, however, recommended to use bleach or sodium metabisulphite.

### Sterilising

Do not use products that contain aggressive agents for sterilising the water system. Always use products designed for stainless steel tanks available from your motorhome dealer.

**Note:** Never use the water heating system when disinfectant/sterilising fluid is present. Doing so may damage the system.

### Waste water system

1. The waste water holding tank is secured below the floor of the motorhome, and is gravity fed.
2. In order to eliminate unpleasant odours as much as possible, only smooth bore pipes are used.

Should the waste water tank be overfilled, it is possible that waste water will backfill the pipes until it eventually appears in the shower tray. In order to prevent this, please monitor the water level gauges on the motorhome control panel. It is also possible to enable a 'waste tank full' alarm, on the control panel.

3. The waste water tank is fitted with an electrically operated valve, which when opened will drain the contents of the waste water tank. The valve is controlled using the control panel above the motorhome entrance door, please see further details in the Swift Command section of this handbook.

## Pressure switch

The purpose of a pressure switch is to monitor the pressure on the outlet side of the pump. When a tap is closed, and the pump continues to run, there is an increase of pressure in the system, and when that pressure reaches a pre-set limit, the pressure switch will turn the pump off.

### Pressure switch adjustment

Pressure Switch Adjustment, Truma/Flo-Jet pump. (Normally Grey upper section with White lower section/valve housing)

- All of the Truma/Flo-Jet pumps used by Swift are pre-set at 25psi - 31psi.
- To further adjust the pressure switch setting, a cover cap must be first be removed from the end of the pump to reveal a pressure adjusting screw, as shown in the photos. A maximum of 1/4 turn clockwise or anti-clockwise, from the factory setting, is advised. Turning the screw clockwise 1/4 turn will increase the pressure switch cut-out pressure, turning the screw anti-clockwise will reduce the pressure setting.

- Please note a second screw mounted below the cover cap is set in position with threadlock, this should not be disturbed.



The pump may have to be removed to gain access to the adjusting screw. Drain the water system before removing the pump.

To remove the pump pull the blue taps at right angles to the pipe work and lift the pump out.

## PRESSURE SWITCH TROUBLESHOOTING

### Troubleshooting

#### **Pump will not start, when the tap is opened:**

- Check fuse(s).
- Check power source(s), and ensure there is sufficient voltage to run the pump.
- Ensure 'pump' LED is illuminated.
- Using a multi-meter, ensure there is power at the pump. If not, refer to your dealer as there maybe damaged cabling or a fault with the fusebox.
- Is the pump hot? If so, allow to cool before retrying.
- Has the vehicle been stored over winter? was it correctly winterised? If no, the pump may have frozen, causing permanent damage.
- The pressure switch may need adjusting. (See pressure switch paragraph in this section for how to do this)

#### **Pump runs, but will not pressurise system (i.e. no or little water being discharged from taps) - Not Pulsing:**

- Ensure that there is water in the fresh water tank.
- Check in-line filter is free from debris and correctly fitted.
- Ensure water system has been primed correctly, (see priming the water system page 44), and there are no air-locks present.
- Ensure there are no restrictions in the plumbing.
- Using a multi-meter, ensure there is power at the pump. If not, refer to your dealer as there maybe damaged cabling or a fault with the fusebox.
- Ensure the inlet side of the pump is watertight and not allowing air into the system.
- Using a multimeter check that the voltage is between 10 and 14.5 volts. If not, refer to your dealer.

#### **Pump continues to run (for more than 5 seconds) after taps are closed or pump turns on for no reason:**

- Check for leaks on the high pressure side of the pump.
- Ensure water system has been primed correctly, as per the handbook, and there are no air-locks present.
- Ensure the pump is securely mounted.
- Ensure the piping on the high pressure side of the pump is in good condition (not blowing or deforming).
- The pressure switch may need adjusting. (See pressure switch paragraph in this section for how to do this)

#### **Noisy or rough operation**

- Check for leaks on the high pressure and low pressure side of the pump.
- Ensure that all pipes (especially those within 150mm of the pump) are not touching any furniture.
- Ensure the pump is securely mounted

#### **Pump rapidly cycles (switches on or off) or water pulses from taps, including temperature pulsing:**

- Check for leaks on the high pressure and low pressure side of the pump.
- Ensure there are no restrictions in the plumbing
- The pressure switch may need adjusting. (See pressure switch paragraph in this section for how to do this)

## Water level sensor & cleaning

### Principle

The sensor, fitted to Swift Group motorhomes are pre-fitted to water tanks, and link to the control unit, via a pre-fitted wiring harness. The sensors, which consist of a number of stainless steel rods or probes, at different lengths, are immersed in the fresh or waste water, and use the conductivity of water, between the probes, to provide a reading to the control unit.

The sensors are 'digital', in that while the conductivity (resistance) value can vary, the fusebox will register any conductivity between the reference probe and the various different length probes, indicating water present.

Normally, even if the rods are dirty, and providing the rods have not bridged by a foreign object, a circuit will still be delivered back to the control unit and a water level displayed.

### Sensor cleaning

The first step, in case of fault diagnosis, is to clean the sensor rods. False water level readings at the control unit can be caused by calcium build-up or foreign objects within the tank bridging the probes. (Especially with waste tanks).

#### To clean sensor:

**⚠ WARNING:** Only use food safe plastic mesh scourers, which are suitable for domestic use, for cleaning the sensor studs.

1. Remove the sensor from the tank
2. Check the probes for build up of contamination
3. Use clean soapy water
4. Place scourer in water to dampen
5. Apply scourer to the sensor probes with limited pressure
6. Rub sensor probes removing contamination
7. Swill sensor probes with fresh clean water
8. Replace sensor into tank.

### Alternative water level sensors – Stud type

Depending on the water tank design, some models of motorhome are fitted with stud, instead of rod/probe type level sensors.

In this case the principle is as per the sensors described previously, however instead of rods/probes, stainless steel studs are fitted at different heights on the side wall of the water tank. The conductivity of water between these studs provides a reading to the control panel.

In the event of reading errors, it is not practical to remove the studs for cleaning. An access cap will allow the use of a hosepipe or similar within the tank, or a solution of cleaning agent, (suitable for use with stainless steel components and fresh water supplies) can be placed in the tank whilst the motorhome is driven, the movement of the solution in the water tank aiding the cleaning process.

## WATER FAULTS

**Water**

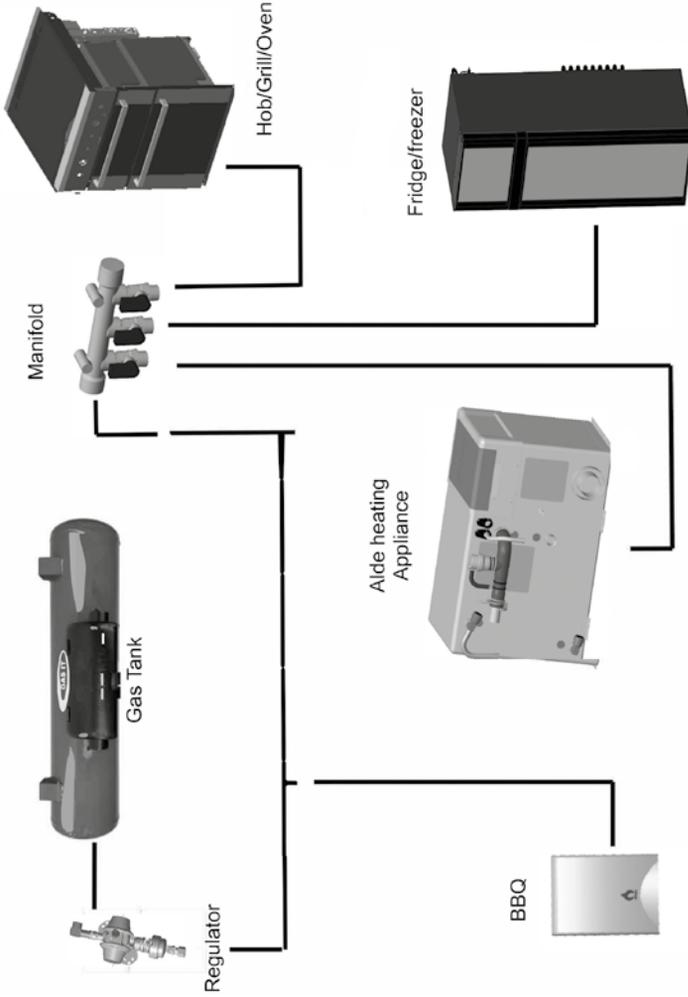
<b>Fault</b>	<b>Cause</b>	<b>Remedy</b>
Water not flowing from any tap when operated but pump runs	<p>Freshwater tank empty</p> <p>Pump wired in reverse</p> <p>Pipe inlet or outlet pipe disconnected</p> <p>Pump pipes restricted by kinking</p> <p>Blockage in pump inlet or outlet pipe</p> <p>Blocked pump filter</p> <p>Air leak in suction line to pump</p> <p>Frozen pipes</p>	<p>Check</p> <p>Check wiring, refer to pump manufacturers instructions</p> <p>Check connections</p> <p>Check pipes run</p> <p>Check, starting inside freshwater tank</p> <p>Dismantle and clean filter. See pump manufactures instructions.</p> <p>Check condition of pipe and pipe joints between the water tank and the pump.</p>
Pump does not run	<p>Pump incorrectly wired</p> <p>Pump fuse blown</p> <p>Battery disconnected</p> <p>Pump seized or overheated</p> <p>Pressure pump sensing switch may have failed</p> <p>Contacts may be faulty</p> <p>Wiring connections may be faulty</p>	<p>Refer to pump manufacturers instructions</p> <p>Check wiring connection and then replace with fuse of correct rating</p> <p>Check connections</p> <p>Refer to pump manufacturers servicing instructions</p> <p>Refer to pump manufacturers servicing instructions</p> <p>Check contacts in plug and socket are clean and making contact</p> <p>Check wiring connections</p>
Water flows from cold tap but not from hot	<p>Blockage in hot pipeline</p> <p>Heater inlet or outlet pipes kinked preventing flow</p> <p>Hot tap failed or blocked</p> <p>Heater non-return valve jammed</p>	<p>Disconnect pipes and inspect</p> <p>Check and re-route if necessary.</p> <p>Disconnect and inspect</p> <p>Seek service attention</p>

**Water**

<b>Fault</b>	<b>Cause</b>	<b>Remedy</b>
Water flows from hot tap but has reduced flow from cold	<p>Cold water pipe kinked preventing flow</p> <p>Blockage in cold pipe line</p> <p>Cold tap not connected</p> <p>Cold tap failed or blocked</p>	<p>Check and re-route if necessary</p> <p>Disconnect pipes after 1st connector and check up to tap</p> <p>Refer to installation instructions</p> <p>Disconnect and inspect</p>
Reduced flow from both hot and cold taps	<p>Battery condition low causing pump to run slowly</p> <p>If new taps have been fitted they may be restricting flow</p> <p>Pump needs servicing</p> <p>Partially blocked pump filter or in-line filter, if fitted</p> <p>Pump outlet pipe kinked restricting flow</p> <p>Water leak</p>	<p>Check battery state of charge, refer to electrical supply note</p> <p>Disconnect and check that they have at least 1/4" (6.3mm) bore</p> <p>Refer to pump servicing instructions</p> <p>Dismantle and clean if necessary</p> <p>Check and re-route if necessary</p> <p>Check all water connections</p>
Reduced flow from either tap	<p>Pipe kinking restricting flow</p> <p>Bore size difference in taps</p>	<p>Check and re-route if necessary</p> <p>Use taps of equal bore size</p>
If pump motor runs steadily and will not stop	<p>Battery voltage may be too low (below 10.5 volts)</p>	<p>Check that there is water in the container</p> <p>Adjust switch and/or re-charge battery</p> <p>Check all connections in pipework</p>

GAS SCHEMATIC

*Typical gas schematic drawing with Alde Boiler*



## Gas

### Gas Tank operation

#### Fitted LPG tank

Your motorhome is equipped with a re-fillable 70 litre LPG tank located behind the skirt panel behind the driver's door. The supply of gas can be enabled and disabled (isolated) using a control in the upper kitchen cupboard, and the amount of gas remaining can also be viewed using the LED display integrated into that control. The LPG tank can be re-filled at any fuel station which offers an LPG pump.

The LPG system, tank and connections should be inspected annually by a competent person.

Your vehicle is supplied with a wall mounted gas regulator plumbed inside the regulator locker compartment adjacent to the LPG tank.

The regulator and all appliances work at a harmonised 30mb pressure, which work the Butane and propane gas.

Pressure regulation system in this vehicle has a fixed working pressure of 30mbar with a flow rate of 1.5kg/H and complies with the requirements of EN 12864 annex D.

We do not recommend the use of an inline LPG BBQ with the 1.5kg/H regulator when the other LPG appliances are in use.

### Gas tank controls



The gas tank control and integrated gauge is fitted in the upper kitchen cupboard, above the kitchen sink.

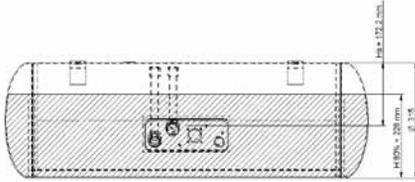
Press the central ON/OFF button to enable and disable the gas supply. When the gas supply is enabled, the level indicator above the button will illuminate to show the content of the tank, and an electrically operated valve will open on the tank itself.

In the event of any concerns with the LPG tank, ensure this control is OFF (gauge not illuminated).

## GAS

**Gas tank re-filling**

The diagram below shows, for information, the maximum fill level within the tank, which is a liquid content of 80% of the tanks volume (56 ltrs of usable gas ) A device within the tank prevents the tank from filling beyond a maximum of 80%.



When preparing to fill the tank, first ensure that all gas appliances are switched off before arriving at the fuel station.

On arrival at the fuel station, locate the filling point on the skirt behind the driver's door, and push and twist the cap (which is on a bayonet type fitting) to remove.

**Gas filler point**

The fitting behind the cap is compatible with the filling nozzles found at UK filling stations. Adaptors are required for use with filling nozzles found in other countries.

Before attaching the filling nozzle to the vehicle, follow the instructions located on the LPG pump for its correct attachment. Once the gun is connected, press and hold the button on the LPG pump to start dispensing LPG. After

a few seconds the LPG will start to fill your tank with LPG, continue holding the button until the tank stops filling, or the pump litres indicator starts to noticeably slow. When filling remember the tanks holds 56 ltrs of gas from empty. Release the button on the pump, once released remove the LPG pumps filling nozzle in reverse of how it was attached. There will be a slight release of gas when the filling nozzle is disconnected from the vehicle, this is normal.

**Guidance for using the gas tank**

Please consider that re-filling the LPG tank will increase the overall weight of the vehicle, and reduce payload accordingly.

Periodic inspection and maintenance of the LPG tank is required to comply with road vehicle construction and use regulations. Your dealer can arrange this for you.

Always obey instructions when taking the motorhome on a ferry or similar, to isolate the gas supply when requested. Use the control in the kitchen cupboard to isolate the supply.

The gas regulator used with the LPG tank is located in a locker to the left (rearward) of the LPG tank, on the driver's side of the motorhome.

The gas tank can be used as a supply when travelling, but only for use with en-route heating. See details on use of en-route heating for further information.

**Motorhomes with external barbeque point**

Your motorhome is equipped with an external barbeque point can be used to power any gas appliance suitable for the gas used in the motorhome, at the working pressure shown on the label in the barbeque outlet box. Please note when using the outlet that the fitted regulator will allow a maximum of 1.5kg per hour of gas to be taken from the gas bottle. Therefore the consumption of gas from both the appliances within the motorhome and the appliance connected to the barbeque point cannot exceed a total of 1.5kg per hour at any one time. If you are in any doubt please consult your dealer for advice. To use point proceed as follows:

1. Fit male tail connector from despatch kit to your barbeque or appliance ensuring a gas tight joint. The work should be carried out by a competent person; if in any doubt consult your dealer.
2. Open box lid by pulling tab on bottom edge and lifting, while pressing on centre of flap.
3. Insert tail connector on appliance into female coupling, twist to engage and lock.
4. Open gas locker on motorhome, ensure gas bottle tap is open and supply is connected to regulator.
5. Light and operate appliance to its instructions.

Please note that you cannot open the gas supply until the nozzle has been inserted. In the interest of safety all external hose lengths should be kept to a minimum and attachments secured correctly.

**⚠ WARNING:** Care should be taken when using the external barbeque point. Never barbeque next to an awning or tent.

**⚠ WARNING:** The motorhome barbeque point should only be used as an outlet point for gas, never connect a gas bottle direct to the outlet.

**⚠ WARNING:** Unless en-route heating is in use the LPG cylinder valve should be closed when driving.

**⚠ WARNING:** Always ensure the gas supply is isolated at the LPG tank (and not the regulator) whilst the vehicle is in storage for any period.

**En-route heating**

Swift Group motorhomes are equipped with an LPG en-route heating system. The en-route heating system is installed with additional safety features.

**⚠ WARNING:** When re-fuelling your motorhome, switch off the heater and close the tank valve.

**Operating instructions**

Priming the gas system

- Open the LPG tank valve using the gas tank control switch in the kitchen cupboard

**Note:** The regulator should be replaced no more than ten years after manufacture.

**⚠ WARNING:** When travelling using the en-route system all other LPG appliance shut off valves must be in the closed position including the fridge, cooker, water heater etc.

**Note:** It is dangerous and illegal to operate other LPG appliances whilst travelling

**⚠ WARNING:** Never allow modifications or repairs of electrical or LPG systems and appliances except by qualified persons.

**⚠ WARNING:** When leaving the motorhome for any period of time or storage always turn off the gas using the electronic shut off valve.

## GAS SAFETY ADVICE

**Gas safety advice**

**⚠ WARNING:** If you smell gas or suspect a leak or in the event of a fire and if it is safe to do so, isolate the gas appliances and turn off the supply using the remote switch. Evacuate the motorhome and ventilate. Seek professional advice as to the cause of the leak.

**Facts about LPG**

- LPG is not poisonous.
- Bi-products are harmless.
- There is danger if all air and oxygen were excluded.
- (Ventilation holes must be kept clear at all times).
- LPG has been given a smell by the manufacturers in order to identify leaks.

**Awning Spaces LPG Appliance Exhaust**

There is no danger of pollution of an enclosed awning space by the LPG exhaust from a refrigerator venting into it, as awning spaces are generally well ventilated.

Space heaters may produce sufficient exhaust to pollute the awning space, if it is totally enclosed, from a general comfort, smell and hygiene point of view. In the extreme case there could be a build up of carbon dioxide to a dangerous level.

Motorhome owners are advised to allow some fresh air circulation in the awning space when such appliances are in use.

**General Safety Notes**

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

- Extinguish all naked flames.
- Do not smoke.
- Switch off the appliance and LPG tank valve.
- Open the windows.
- Do not operate any electrical switches.
- Have the entire system checked by an expert.

**Precautions**

- Never look for a leak with a flame. Always use a soap solution or its equivalent when testing connections. Do not operate any electrical apparatus whatsoever, especially light switches. If the leak is not obvious, the motorhome should be evacuated and qualified personnel consulted.
- Avoid naked lights when filling the LPG tank.
- The gas is heavier than air and therefore sinks to the lowest point.

**⚠ WARNING:** Do not use appliances with a different working pressure to 30mbar.

**⚠ WARNING:** Maintain adequate spacing of combustible materials from sources of heat.

**⚠ WARNING:** Do not use independent portable gas appliances inside the vehicle. Cookers shall not be used as heaters.

**⚠ WARNING:** A BBQ point inlet valve must only be used for the connection of portable LPG appliances.

**Always read individual appliance instructions**

**⚠ WARNING:** If in doubt, ask!

### Connection

Before turning on the gas supply ensure that all gas operated equipment in the motorhome is turned off.

All gas equipment is supplied through a Gas Manifold System which has individual isolation taps for each appliance (Fig A), as follows:



RED - Water Heater /  
Combination boiler

BLUE - Fridge

GREEN - Oven

### Flue installations

All flue installations should be inspected once a year throughout their length for corrosion. Flues should be replaced if any sign of perforation is found. Ensure that the replacement is of an approved type.

### Thermal insulation heating

Your motorhome has been designed to achieve a thermal insulation and heating level for specific climatic conditions when tested according to the procedure in EN1646-1. See the motorhome technical book for the classification of your motorhome.

All Swift Group motorhomes achieve a Grade 3 classification.

The classifications are as follows:

#### Grade 1

A motorhome with an average thermal transmittance ( $u$ ) that does not exceed  $1.7w/(m^2k)$ .

#### Grade 2

A motorhome with an average thermal transmittance ( $u$ ) that does not exceed  $1.7w/(m^2k)$  and which can achieve an average temperature difference of at least  $20^{\circ}C$  between inside and outside temperatures when the outside temperature is  $0^{\circ}C$ .

#### Grade 3

A motorhome with an average thermal transmittance ( $u$ ) that does not exceed  $1.2w/(m^2k)$  and which can achieve an average temperature difference of at least  $35^{\circ}C$  between inside and outside temperatures when the outside temperature is  $-15^{\circ}C$ .

## GAS FAULT FINDING

**Gas**

<b>Fault</b>	<b>Cause</b>	<b>Remedy</b>
Hob does not light	No gas	Check level of gas in LPG tank Check gas LPG tank valve is on Check gas taps are on
	Air in pipe	Purge system Refer to hob manufacturers instructions
Oven does not light	No gas	Check level of gas in LPG tank Check gas LPG tank valve is on Check gas taps are on
	Air in pipe	Purge system Refer to oven manufacturers instructions
BBQ does not light	No gas	Check level of gas in LPG tank Check gas LPG tank valve is on Check gas taps are on
	Over gassed Air in pipe	Turn off appliance, wait 2 minutes and try again Purge system
Fridge does not light	No gas	Check level of gas in LPG tank Check gas LPG tank valve is on Check gas taps are on
	Air in pipe	Purge system Refer to fridge manufacturers instructions
Combination Heater does not light	No gas	Check level of gas in LPG tank Check gas LPG tank valve is on Check gas taps are on
	Air in pipe	Purge system Refer to water heater manufacturers instructions

## The electrical system

### General Information

It is strongly advised that the mains installation is inspected periodically to ensure safe use. The IET (BS7671) wiring regulations recommend that mains installations in motorhomes are re-inspected every 3 years or annually if the van is used frequently. The National Caravan Council lists the qualifications necessary to perform this inspection, but an NICEIC approved contractor is probably the first choice.

Your motorhome uses a combination of a mains hook up, generator, and inverter, to provide 230v supplies.

### On arrival at the campsite

- Check the suitability of the supply, is it AC or DC, is the voltage and frequency correct.
- Ensure that there is a proper earth (3 pin socket outlet).
- If in doubt consult site staff.
- Make sure that the supply from the site is switched off.
- Make sure that the charger switch on the PSU is switched off.
- Lift the cover on the electricity inlet on the motorhome, and insert the connector on the flexible supply cable.
- At the site supply point, connect the other end of the supply cable to this using the socket provided.
- Switch on the main switch at the site supply point.

**Note:** It is good practice to test the RCD (Residual Current Device) in the PSU before switching on. There is a test button on the RCD to test the lever, put the lever in the up position (on) before testing.

### On departure from the campsite

- Switch off supply from the site, disconnect the cable at both ends.
- Switch off RCD.

**Note:** Never use a mains supply lead whilst coiled. Always uncoil the full length before connecting to the supply and remember to protect the cable from traffic.

**⚠ WARNING:** Current consumption in the motorhome must not exceed 16 amps or the pitch permitted maximum if this is less than 16 amps.

### Use of Generator

The supply from the generator can be used to power all of the 230v equipment within the motorhome, as well as items plugged into internal or exterior 230v sockets. Please note it may not be possible to power all items simultaneously, for further information see the details later in this section on power consumption.

An automatic switch will disconnect the mains inlet, when the generator is providing an output, and switch back to the mains inlet supply when the generator is not providing an output.

Please see the specific instructions related to the generator (page 100) for the detail of preparing the generator for use. Once the generator is ready, the following sequence should be followed:

- Make sure the charger button on the PSU is OFF, and the heating system button on the PSU is off.
- Start the generator.
- It is good practice to test the RCD (Residual Current Device) in the PSU before switching on other items. There is a test button on the RCD to test the lever, put the lever in the up position (on) before testing.
- Turn on the charger button, and the heating system button, on the PSU

## ELECTRICAL SYSTEM

- To ensure continued availability of the supply from the generator, the total load connected must not exceed the output of the generator. Please see the further details on power consumption that follow.

**Use of Inverter (If fitted)**

The 2000w inverter if fitted to your motorhome can be used to power items plugged into several of the internal 230v sockets, and the exterior sockets. The inverter cannot be used to supply 230v to fitted equipment.

The sockets that can be powered are as follows:

- 230v sockets at TV positions
- 230v sockets on seat or bed front panels
- B-pillar 230v sockets close to drivers and passengers seatbelt positions
- 230v socket at high level, near entrance door
- Garage / storage area 230v sockets
- External 230v sockets
- Microwave and Decoder sockets at top of fridge unit

The sockets that cannot be powered via the inverter are as follows:

- Oven socket (oven connected to socket for hot plate operation)
- Kitchen worktop 230v sockets

The inverter should remain ON when the motorhome is in use, and 230v sockets are required. In addition, either the motorhome control panel must be ON, or the vehicle engine must be running for the inverter to operate.

**Inverter On/Off Switch**

If no other source is available, the inverter will supply 230v power to the sockets in the appropriate list above, converting 12v power from the leisure batteries into 230v power at the sockets.

If another 230v supply is available – i.e. mains hook up or generator, then the inverter will not convert leisure battery power into a 230v supply, and instead the 230v sockets will all be powered by the mains hook up or generator source.

The inverter also has a feature allowing it to automatically take over the supply of 230v to the listed sockets, if a mains hook up or generator supply fails, or is removed, while an item plugged into a socket is operating. When this occurs, the inverter will convert 12v power from the leisure batteries into 230v power at the listed sockets, until a mains hook up or generator supply is restored.

**Note:** Use of the inverter places a very high demand on the leisure batteries, see notes on power consumption overleaf. It is possible to start the vehicle engine while using the inverter - in this way the vehicle alternator will help to maintain the leisure batteries, while they are powering the inverter..

**Overseas connection**

- Connection to a mains voltage overseas requires particular attention.
- Overseas supplies can be of reverse polarity.
- Reverse polarity results in equipment not necessarily being isolated when turned off, reverse polarity indicator on the PSU will light in the event of reverse polarity.
- The only sure way to make equipment safe is to unplug it.
- It is useful to have a means of checking polarity when overseas.
- If it can be achieved then connect live to live, and neutral to neutral to achieve full electrical protection.

**⚠ WARNING:** Never allow modifications or repairs of electrical or LPG systems and appliances except by qualified persons.

## 230V mains electrical equipment power consumption

**Please note:** It is possible that the 230v mains electrical equipment may not all operate simultaneously, and the capabilities will vary depending on which source of 230v is in use.

### Mains hook up

A typical UK site mains hook up point provides a maximum output of 10 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 supply with your site operator.

Similarly loadings on each circuit breaker within the motorhome should be observed. A label positioned close to the MCB's (Miniture Circuit Breakers) will identify which appliances within the motorhome are fed from which MCB. Consulting the typical appliance consumption figures table in conjunction with this label, will give an indication of which appliances can, and cannot, (site supply allowing), be operated simultaneously.

### Generator

The generator has an output of up to 3500w (15amps) for short periods, with a continuously available output of up to 3000w (13amps).

All of the 230v appliances and sockets can be used with the output from the generator, up to the maximum loading of 3000w continuous, 15amps for short periods. If the load exceeds these limits, the output from the generator will cease. This will be evident by a loss of 230v power, however the generator will continue to run. Once the electrical load is reduced below the limit, the generator will restore power.

Use of the generator may cause illumination of the reverse polarity light on the Power Supply Unit. This is normal, and is not a cause for concern. See further details in the EC600 Power Supply instructions (page 85)

### Inverter

The inverter has an output of up to 2000w (8.5amps), however this output is only available at selected 230v sockets, located within the motorhome, in the garage / storage area of the motorhome, and on the exterior of the motorhome.

The inverter can only provide an output if the leisure batteries are in a good state of charge, and please be aware that using items with high power consumption (microwave, hairdryer or similar) via sockets supplied by the inverter, will quickly deplete those leisure batteries.

Correspondingly an item with relatively low power consumption (for instance a laptop or phone charger) can be used for a much longer time before the leisure battery becomes depleted. The condition of the leisure batteries (approximate state of charge) can be seen on the control panel above the door, but please be aware that the 'current flowing' feature on the control panel screen, does not include the very high current flowing to the inverter.

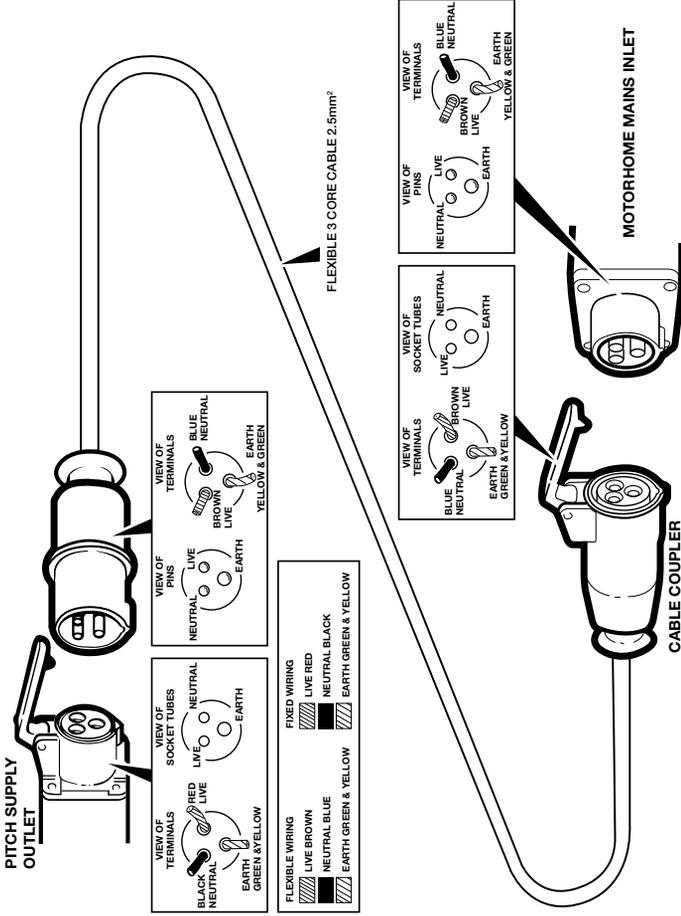
**Note:** When using a mains hook up supply or generator supply, if that supply fails, the inverter will automatically take over the supply of power to the relevant sockets. This will also deplete the leisure batteries.

It is possible to start the vehicle engine while using the inverter, to extend the amount of time a high current device such as a microwave, can be used. As an example use of a microwave with two leisure batteries in a good state of charge will allow approx less than 1 minute of microwave time, whereas with the engine running the microwave can be used normally.

**Note:** While the vehicle engine is running to support the inverter, various other features within the motorhome will be inoperative, such as the majority of internal lighting, oven ignitors, etc. In addition, starting the engine will automatically retract the external step, retract the hydraulic corner steadies (if fitted) and may cause alarms such as the pod vent open alarm, to sound.

CONNECTING CABLE WIRING

Wiring of connecting cable and motorhome mains inlet



The legal length of the mains inlet cable is 25 ± 2 metres. When in use it must be fully uncoiled and protected from traffic.

Typical appliance consumption figures

Appliances	230V		12V		LP GAS Grams/hour
	Watts	Amperes	Watts	Amperes	
Domestic Refrigerator	190 W	0.8 amp	Only when driving		16 g/h
EBECO Floor Heating	575W	2.5 amp	Not Applicable		Not Applicable
Alde Heating System	1050/2100/3150 W	4.6/9.1/13.7 amp	12 W	1.0 amp	245-460 g/h
Microwave (factory fit)	1270 W	5.5 amp	Not Applicable		Not Applicable
Cooker - Hob burners	Not Applicable		Not Applicable		70-161 g/h
Cooker - Electric Hotplate	800W	3.5 amp	Not Applicable		Not Applicable
Grill	Not Applicable		(cooling fan) 14.4W	(cooling fan) 1.2 amp	117 g/h
Oven	Not Applicable		(cooling fan) 14.4W	(cooling fan) 1.2 amp	125 g/h/146 g/h
Battery Charger	690W	3.0 amp	Not Applicable		Not Applicable
Generator	Not Applicable		1200W	100 amp (peak)	Not Applicable
Inverter	Not Applicable		2200W	185 amp (peak)	Not Applicable
Hydraulic levelling system (option)	Not Applicable		1500W	125 amp	Not Applicable
12v LED lights (each, depending on size of light)	Not Applicable		0.4w - 6.1W	0.05 amp - 0.5 amp	Not Applicable
Water tank frost element (Winter pack)	Not Applicable		30 W	2.5 amp	Not Applicable

**Note:** These are approximate figures for guidance only, and are subject to changes in specification. The figures show energy consumption when an item or appliance is operating – i.e. a light is illuminated, or a heating system is providing space heating or water heating. Appliances which feature LCD or illuminated control panels can have a low current consumption when in stand by mode, or have a constant low current draw in the background to run their displays and electronic systems - these figures are typically 0.4 amps or less, for each applicable item. These electronic items can in most cases be switched off individually, or, use of the System Shutdown button on the power supply unit isolates all of these items. Peak figures when quoted may be for short periods only for instance are only momentary to start the generator, and figures for the same items may be significantly lower depending on use.



Swift Command power control system .....	66
Control Panel System Operation .....	67
Swift Command Alde heating controls .....	74
Swift Command system warnings .....	79
Swift Command technical information .....	81
Swift Command remote access .....	88
Motorhome Battery .....	92
Solar panel .....	94
Accessory Harnessing .....	95
Electrical fault finding .....	96
Hyundai generator .....	100
2000W Inverter .....	106

## SWIFT COMMAND POWER CONTROL SYSTEM

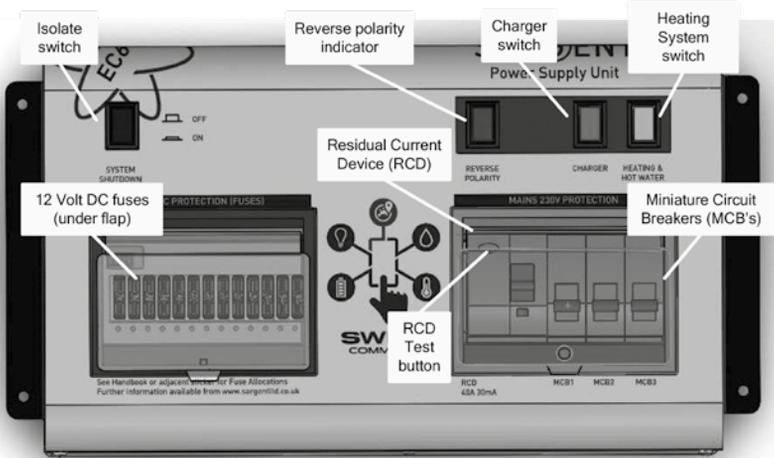


Fig 1

## 1. Introduction

This section of the handbook will guide you through the operation of the electrical system. All details are correct at the time of going to press. Please also see the online version which will include any later updates or amendments.

Further technical details are contained in section 3 or in the supporting technical manual available from [www.sargentltd.co.uk](http://www.sargentltd.co.uk)

For the safe operation of all electrical equipment within your Leisure Vehicle it is important that you read and fully understand these instructions. If you are unsure of any point please contact your dealer / distributor for advice before use.

The system has a number of key components that you will need to be familiar with before attempting to use the system, these are:

- The EC652 or EC653 Power Supply Unit (PSU) - a combined mains consumer unit and 12V controller usually located in a storage area (lower bed box, wardrobe or similar).
- The EC800 Control Panel (CP) - a remotely located user control panel used to turn circuits on and off and to display battery, water tank and other system information. This panel uses graphical touchscreen with straightforward controls and reliable data communication to the PSU.
- The PX300 Intelligent Battery charger 300W.

## 2. Using the System

### 2.1 Power Supply Unit - Component Layout (see image above)

The PSU is located in the lower bed box, wardrobe or similar area.

### 2.2 Activating the System

The system has a shutdown feature that can be used when the vehicle is in storage. This allows the leisure electronics to be turned off when not required to save battery power. When in the off state the alarm and tracking system supplies are still active, all other supplies are turned off.

Before using the system please ensure the system shutdown switch is in the on position (button in) the system is now active.

Note: if you plan to use the Swift Command remote features the system needs to be active.

### 2.3 Connecting to the Mains 230V supply and Safety checks

For your safety it is IMPORTANT that you follow these connections instructions each time your Leisure Vehicle is connected to a mains supply. This section assumes that the system is complete and that a Leisure battery has been installed (see 3.4).

#### A) Ensure suitability of the Mains Supply.

Your Leisure Vehicle should only be connected to an approved supply that meets the requirements of BS7671 or relevant harmonised standards. In most cases the site warden will hold information regarding suitability of supply. If using a generator you also need to comply with the requirements / instructions supplied with the generator. Please note that some electronic generators may not be compatible with your leisure system. Further generator operational information is contained in section 3.2.

#### B) Switch the PSU Battery Charger / Power Converter OFF.

Locate the green 'Charger' power switch on the PSU and ensure the switch is in the off position (button out) before connection to the mains supply.

#### C) Connect the Hook-up Lead.

Firstly connect the supplied hook-up lead (orange cable with blue connectors) to the

Leisure Vehicle and then connect to the mains supply.

#### D) Check Residual Current Device operation.

Locate the RCD within the PSU and ensure the RCD is switched on (lever in up position). Press the 'Test' button and confirm that the RCD turns off (lever in down position). Switch the RCD back to the on position (lever in up position). If the test button failed to operate the RCD see section 3.1.

#### E) Check Miniature Circuit Breakers

Locate the MCB's within the PSU (adjacent to the RCD) and ensure they are all in the on (up) position. If any MCB's fail to 'latch' in the on position see section 3.1

#### F) Turn the PSU ON.

Locate the black 'Shutdown' button and ensure it is in the on position (press button in). Locate the green 'Charger' switch on the PSU and turn to the on position (press button in). The charger switch will illuminate when turned on.

#### G) Check correct Polarity.

Locate the 'Reverse polarity' indicator on the PSU and ensure that the indicator is NOT illuminated. If the indicator is illuminated see section 3.2.

#### H) Check operation of equipment.

It is now safe to operate the 12V and 230V equipment.

### 2.4 Operation while driving

The power control system is designed to shutdown parts of the system while the engine is running. This is to meet Electro Magnetic Compatibility (EMC) regulations and to ensure the safe operation of the motorhome. With the engine running the screen will show a warning 'ENGINE RUNNING'.

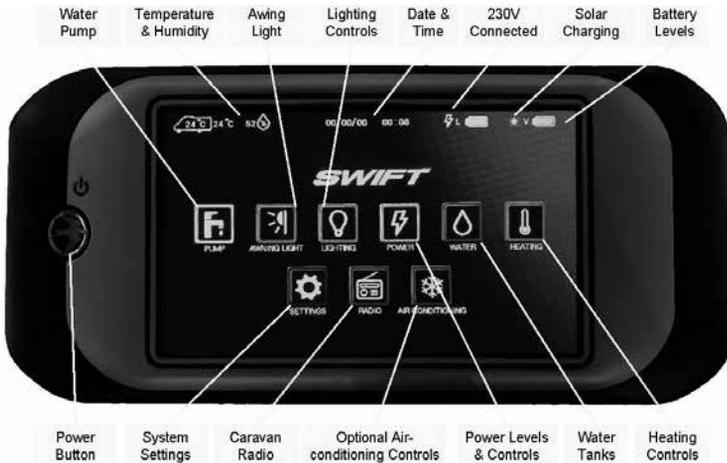
Please ensure the system shutdown switch on the PSU is in the on (button in) position before driving (see 2.2). This will ensure the electronic system is active and will therefore be able to control the charging process, supply the refrigerator and monitor other system circuits.

If / when fitted, designated 12V sockets, en-route reading lights and en-route heating will remain operational while the engine is running.

# SWIFT COMMAND POWER CONTROL SYSTEM

## 2.5 Control Panel - Component Layout (see image below)

Your control panel will have an appearance as below, but depending on your specification of the vehicle the control panel features will vary. Not all features are present in all vehicles.



**Fig 2**

## 2.6 Control Panel - Key Features

	<p><b>'Swift' Power Button.</b> Press the 'Swift' power button to turn the leisure power on, the panel will beep twice and show the Swift start-up logo. The control panel screen will illuminate when the power is on, but the screen will go to sleep after a pre-determined time. Pressing the power button or touching the screen while the screen is asleep will wake the screen without turning the power on or off. To turn the power off press and hold the power button to turn the power off, the panel will beep once.</p>
	<p><b>Pump Button.</b> Press the pump button to turn the water pump on. Press the button again to turn the pump off. The button border will illuminate when the pump is on. To view the water tank levels and other controls press the water button.</p>
	<p><b>Awning Light Button.</b> Press the awning light button to turn the awning light on or off. The border of the button will illuminate when the awning light is on. Note the awning light may also be controlled by the motorhome locking system.</p>
	<p><b>Lighting Button.</b> Press the lighting button to show the lighting control screen. Here you can turn on / off or adjust the dimmable lighting levels. Press the home button to return to the main screen.</p>

## SWIFT COMMAND POWER CONTROL SYSTEM

	<p><b>Power Button.</b> Press the power button to show the power information and control screen. Here you can view battery levels, view charger and solar current and press the more button (right arrow) to view 230V current. Press the home button to return to the main screen.</p>
	<p><b>Water Button.</b> Press the water button to show the water tank information and control screen. Here you can view tank levels and control related features. Press the home button to return to the main screen.</p>
	<p><b>Heating Button.</b> Press the heating button to show the heating control screen. Here you can control the heating system, select energy and temperature and by pressing the more button (right arrow) you can set related timers. Press the home button to return to the main screen.</p>
	<p><b>Air-Conditioning Button.</b> Press the Aircon button to show the aircon control screen. Here you can select the operating mode, set the target temperature and adjust the fan speed. Press the home button to return to the main screen. Note: this button will only be visible if a CI-Bus equipped air conditioner is installed, connected and enabled within the system.</p>
	<p><b>Radio Button.</b> Press the radio button to show the radio control screen. Depending on specification you can select FM radio, DAB radio or Aux input. Use the buttons on screen to scan, tune or adjust the volume. Press the more button (right arrow) to access the audio settings. Use the additional slider controls to adjust the levels. Press the home button to return to the main screen.</p>
	<p><b>Settings Button.</b> Press the settings button to show the general settings screen. Here you can set the date &amp; time, screen brightness and screen on time. There are also buttons on this screen to pair a Bluetooth device, delete Bluetooth devices, or turn the key beep on / off. Press the home button to return to the main screen.</p>

## SWIFT COMMAND POWER CONTROL SYSTEM

### 2.7 Control Panel 'Header' Information

At the top of the control panel screen there is a header or information bar which remains visible on all screens. This is designed to provide quick reference information available at all times

Internal and external temperature in degrees Celsius	Relative humidity range 1 to 100%	Current date	Current time	*Leisure battery status	*Vehicle battery status
The internal temperature is shown inside the vehicle symbol.				Green = good, Orange = fair, Red = poor. Lightning symbol indicates charging from the 230V battery charger.	Green = good, Orange = fair, Red = poor. Sun symbol indicates charging from the solar panel.

\*When a battery is not being charged a % remaining figure will be displayed. This figure is calculated from the battery voltage and therefore should be used for guidance only.

### 2.8 Temperature Readings

The EC800 system uses two sensors to measure internal temperature and humidity, and external temperature. The internal temperature and humidity sensor is furniture mounted within the motorhome, and the external sensor is mounted below the motorhome floor. The figures displayed are for information only, and it is hoped the information will be useful, for example when checking temperatures remotely during cold weather.

For vehicles fitted with Alde or Truma heating systems, this sensor is not used to control the heating temperature as it is measured above the door by the Alde or Truma room sensor. The readings on the heating system may vary relative to the one shown on the EC800 control panel.

For vehicles fitted with a Whale heating system, the sensor is used to control the heating temperature as this system does not have its own sensor.

### 2.9 Water System Operation

The EC800 control panel pump button operates the internal water pump drawing water from an on-board.

The water tanks (fresh & waste) incorporate a level warning feature to warn the user when the fresh water level drops below 25% or when the waste water level reaches 100%. These warnings can be enabled / disabled on the control panel water screen.

If the water pump power is turned on and the fresh water level drops to below 25% a warning beep will be heard and a message will be displayed on the control panel. To cancel the warning, press the confirm button.

If the water pump power is turned on and the waste water level rises to full (100%) a warning beep will be heard and a message will be displayed on the control panel. To cancel the warning, press the confirm button.

These warnings will not be repeated unless the water pump power switch is turned off and on again. This is to ensure the warning does not become a nuisance.

## 2.10 Water Tank Heaters (frost protection) Operation

The EC652/653 features the ability to switch on water tank heater to provide frost protection for the fresh and waste tanks. The tank heaters will only operate if there is over 25% in the relevant water tank and the external temperature sensor detects that the temperature falls below 2 degrees C. If the temperature rises above this level the heaters will be switched off but the feature will remain on.

If the tank heaters are turned on before starting a journey, when the engine is started the tank heaters will remain on for the duration of the journey. When the engine is stopped the tank heaters will remain on for a further 15 minutes. If the engine is restarted within this 15 minute period the tank heaters will remain on, again for the duration of the journey.

When the engine is stopped the tank heaters will turn off after a 15 minute period. To turn them back on you will need to turn the control panel on and then use the tank heaters button on the water screen.

## Water Tank Screen

Here you can view the on-board water tank levels and control water tank related features.



### Tank Heaters

Press the tank heaters button to turn on / off the water tank heaters.

### Level Alerts

Press the level alerts button turn on / off the water tank empty / full warnings.

### Frost Alerts

Press the frost alerts button turn on / off the frost warnings.

### Empty Fresh

Press this button to empty the fresh water tank (the press is followed by a confirm button to avoid accidental operation)

### Empty Waste

Press this button to empty the waste water tank (the press is followed by a confirm button to avoid accidental operation)

**Note:** Tank valves are normally closed and will automatically close if the power is switched off or if they have been open for more than 10 minutes.

**Note:** When either tank is emptying the level gauge and the related button will flash. Press the empty button again and confirm if you wish to cancel the emptying process.

## SWIFT COMMAND POWER CONTROL SYSTEM

**2.11 Lighting & Dimming Operation**

The system contains up to two dimming channels for groups of lights which can be dimmed, turned on and turned off by this screen, and can also be turned on and off by furniture mounted switches.

The awning light on a motorhome can again be controlled by a number of items, the control panel awning light button, the App and the lock and unlock system (dependant on system setting being set to do so). Each item can toggle the light on or off.

The Swift Command App can be used to both configure and adjust the lighting and dimming.

**Lighting Screen**

Here you can turn on / off or adjust the dimmable lighting levels.

**On / Off**

Press the centre of either dial to turn the dimmer channel on or off. In the off state the centre of the dial shows the word OFF. In the on state the level value is shown.

**Up/ Down**

Press the (+) or (-) buttons to increase or decrease the dimming level.

**2.12 Solar Charge Management**

The EC652/653 PSU incorporates a built-in solar charge management feature, which will monitor the input from a separate solar panel and regulator. The Solar Active symbol will be displayed on the control panel when there is an amount of energy available to charge the battery.

The voltage and current produced from the regulator can be viewed on the control panel display by selecting the Power menu item. Depending on the charge state of the batteries, the solar power will be directed to the required battery and continuously monitored to ensure optimum operation.

**Power Screen (12V)**

Here you can view battery levels, view charger and solar current and press the more button (right arrow) to view 230V current.

**Selected Battery**

Use the selected battery button to select which battery you wish to use or charge with the 230V charger.

**230V Charging**

If a battery is being charged by the 230V charger a 'lightning' symbol will be shown below the dial and adjacent to the relevant battery in the header area.

**Solar Charging**

If a battery is being charged by the solar panel a 'sun' symbol will be shown below the dial and adjacent to the relevant battery in the header area.

**Leisure Dial**

The leisure dial shows the voltage of the leisure battery. Press the centre of the dial to change to showing the leisure battery current (+ positive value is charging and - negative value is discharging)

**Vehicle Dial**

The vehicle dial shows the voltage of the vehicle battery. Press the centre of the dial to change to showing the vehicle battery current (+ positive value is charging and - negative value is discharging)

**Solar Dial**

The solar dial shows the current being supplied to the system from the solar panel (if fitted).

**2.13 Smart Charging**

The EC653/653 PSU incorporates a smart charge feature, which monitors both leisure and vehicle batteries and automatically adjusts and directs the charger power (and solar power if a solar panel is installed) to maintain the leisure and vehicle batteries at an optimal level.

**2.14 AC Current Limiter Operation**

The power control system features a 230V current monitoring system which allows the mains hook up current to be displayed on the control panel. The resolution of this reading is 0.5A. A current limit setting can be activated which if reached will switch off the electric elements in the heating system (and air-conditioning if fitted and enabled), until such time as the current drops and the elements will be switched back on.

An example of this is if a kettle was to be operated whilst the heating was on and the current limit was reached then the heater electric element would be temporarily switched off, when the kettle had boiled then the heater element would be switched back on automatically.

This feature is particularly useful when abroad on a low current supply. Setting the value to OFF will disable this feature.

**Power screen (230V)**

Here you can view the 230V current and set the 230V current limiter.



**AC Current**

The dial on the left shows the 230V AC current being used by the vehicle (from the site hook-up).

**Set Limit**

Press the centre of the dial to turn the AC current limiter on or off. Press the (+) or (-) buttons to increase or decrease the limit level. When on, the system will monitor the incoming AC current and if the set limit is reached the 230V heating element within the heating system will be temporarily turned off until the current falls below the set limit.

**Note:** For this feature to work correctly the Heating mode must be set to Timer so that the system can control the heating appliance.

## SWIFT COMMAND POWER CONTROL SYSTEM

## 2.15 Heating Controls

There are a number of heating systems that can be controlled by the power control system. The system will be preconfigured by the manufacturer or supplying dealer. The related control panel screens are shown below.

### Heating screen

Here you can control the heating system, select energy and temperature and by pressing the more button (right arrow) you can set related timers.



#### Mode

Set the mode to Manual to use the controls supplied by the heating appliance manufacturer. Set the mode to Timer to control the appliance by the EC800 control panel.

**Note:** The mode will automatically change to App when you control the appliance by the Swift Command app.

#### Status Temp Water

The status box shows you which timer is currently active, and the temp and water boxes show the target room temperature and water heater setting for the active timer.

#### Override

When operating in timer mode you can temporarily 'override' the timer room temperature by using the override feature. Press the centre of the dial to turn the override on / off. Press the (+) or (-) buttons to increase or decrease the required temperature.

**Note:** You can also override the room temperature by making a change using the appliance control panel (Alde & Truma only). If you make a change the override will automatically activate. The override temperature will continue until the next timer event time.

### Alde 3020 Gas / Electric



#### Alde 3020 Gas / Electric

For Alde 3020 heating system press the gas button to enable or disable the use of gas. Press the electric button to step through the available electric settings. Gas is indicated by the flame symbol and electric indicated by the lightning symbol. Possible combinations are electric OFF, 1KW, 2KW or 3KW and gas ON or OFF. One electric symbol=1KW, two=2KW and three=3KW.

**Note:** Changes made on the EC800 control panel may not be accepted on the heating controller immediately if the controller has been recently used and still has its backlight on. Please try to use one controller at a time.

### Heating timer screen

On the heating screen press the more button (right arrow) to set or view the daily heating timers.



#### Timer

Press on the hour or minute value to change the setting. Timers should be set in order during the day (Timer 1 the earliest and Timer 4 the latest) and use the 24 hour clock.

#### Temperature

Press the temperature values to change the setting. Each press will increment the value from Off, then 5 degrees through to 30 degrees Celsius.

#### Water

Press the water values to change the setting. Each press will step through the available setting, which vary by appliance type.

For Truma CP+ available settings are Off, Eco or Hot.

For Alde 3020 available settings are Off, Normal or Boost.

For Whale available settings are Off or On.

**Note:** To use these timer settings the Heating mode must be set to Timer so that the system can control the heating appliance.

### 2.16 Air-conditioning

If your vehicle has been fitted with a compatible air-conditioning unit then the settings can be set / controlled by the EC800 control panel, the air-conditioner infrared remote control or the Swift Command app. The unit must be turned on with its power switch before it can be controlled.

The related control panel screens are shown below. For information in using the air-conditioning from the Swift Command app, please see the Swift Command User Guide.

#### Air-conditioning screen

Here you can select the operating mode, set the target temperature and adjust the fan speed.



#### Lights

Press the lights button to control the LED light built into the air-conditioning unit. Select on or off to turn the light on or off, or select dimmed to allow the light to be controlled with other dimmable lighting in the vehicle.

#### Mode

Press mode button to select the required operating mode. Select off to turn the air-conditioner off. Note that available modes vary according to the model of air-conditioner fitted.

#### Temperature

Use the temperature setting (+) or (-) buttons to increase or decrease the temperature setting. Available settings range from 5 degrees to 30 degrees Celsius.

#### Fan Speed

Use the fan speed setting (+) or (-) buttons to increase or decrease the fan setting.

Note that available settings vary according to the model of air-conditioner fitted.

## SWIFT COMMAND POWER CONTROL SYSTEM

## 2.15 DAB / FM Radio

## Radio screen

Here you can select the radio mode, scan for stations, tune or adjust the volume.

**Mode**

Press the mode button to select the required radio mode, available choices vary by specification and include FM, DAB, Aux 3.5mm input or Off. Select Off to turn the radio off.

**Scan**

Press the (<) or (>) buttons to scan forward for the next station or to scan backwards for the previous station.

**Tune**

Press the (+) or (-) buttons to increase or decrease tuned frequency.

**Note:** Aux can be used when a device is connected to the radio module using the 3.5mm jack plug, on the furniture next to the control panel.

Set the device volume to a mid-setting and then adjust on the EC800 control panel. If the sound level is too low increase the device volume, or if the sound is distorting reduce the level.

**Volume**

Press the (+) or (-) buttons to increase or decrease the volume level. Press on the centre of the dial to mute the volume, press again to restore the volume level.

**Preset**

The 5 pre-set buttons are used to store and retrieve your favourite stations. To store a station, firstly scan or tune to the required station, then press and hold the pre-set number until you hear a beep. To retrieve a station simply press the required pre-set button.

**DAB Channel List**

When using the DAB radio, the channels are grouped into ensembles. You can scan for channels within an ensemble by pressing the (<) or (>) button.

You can also press on the central channel information window to show a full list of ensembles and their channels. Press the next ensemble button to scan for channels in the next available ensemble.

You can select an ensemble by pressing on it in the left side list. You can select a station by pressing on it in the right side list. Press the < button to return to the radio screen.

**Note:** DAB reception may be temporarily interrupted by poor signal or when using electrically 'noisy' equipment or appliances (for instance hob ignition).

**Audio screen**

On the radio screen press the more button (right arrow) to access the audio settings. Use the additional slider controls to adjust the levels.



**Tone**

Use the slider bars to adjust the treble, middle or bass levels.

**Loudness**

Use the loudness slider to further adjust some audio frequencies to suit requirements.

**Balance**

Use the balance slider to adjust the levels between the left and right speakers.

**Fader**

For installations with 4 speakers, use the fader slider to adjust the levels between the front and rear speakers.

## SWIFT COMMAND POWER CONTROL SYSTEM

### 2.17 Bluetooth Pairing & Other Controls

The EC800 control panel can display the software version number of the Control Panel, the PSU and the communicator / tracking unit. Press the settings button to view the setting screen which contains the related information.

The Bluetooth pairing process is covered below. Further help with Bluetooth pairing is available in the form of a help video which can be viewed on the Sargent website in the Support Information section.

#### General settings screen

Here you can set the date & time, screen brightness and screen on time.



#### Time, Date & Day

Press the (+) or (-) buttons above or below each item to adjust the value. Note that the system uses the 24 hour clock.

#### Screen settings

Press on the screen brightness button to adjust the screen backlight level. Press on the screen timeout button to select the time that the screen will stay illuminated for after a press or touch.

#### Bluetooth Pair

Press the pair button to start pairing with your compatible Bluetooth device. The pair button border will illuminate when pairing is active. You can now pair your device to the system following the devices instructions. Pairing remains active for 1 minute and is then turned off automatically.

#### Bluetooth Delete

Press the delete button to delete any Bluetooth pairings from the system.

#### Key Beep

Use the key beep button to turn on / off the beep sound when a button is pressed.

**Note:** Setting changes are saved when you press the home button to return to the main screen.

### 2.18 Electric Step Operation

On vehicles fitted with an electric step, this is operated by a button near the entry door. Press and release the button to move the step in or out. One press of the button will move the step out; a further press will move the step in again.

If the engine is started the step will move in automatically, after a short warning buzzer. If this operation fails due to an obstacle a buzzer will sound continuously to warn that the step is still out, and therefore requires your attention.

### 2.19 System Warnings

The system incorporates a number of warnings that are active at specific times. These are summarised below, and also covered by relevant sections of this manual.

When a warning is active a warning box will appear on the control panel screen containing a description of the warning along with an audible beeping sound.

Warning	When	Type
Fresh water level low	With pump turned on and fresh water level low (less than 25% full) Only available when an on-board tank is fitted.	Message on screen and 60 second audible beep
Waste water level full	With pump turned on and waste water level full. Only available when an on-board tank is fitted	Message on screen and 60 second audible beep
Leisure battery voltage low	With control panel power on and leisure battery selected (as active battery) and the voltage level falls below 10V	Message on screen and 60 second audible beep
	With control panel power on and leisure battery selected (as active battery) and the voltage level is below 9V	Message on screen and 60 second audible beep. If no action taken after 30 seconds then the system will switch the power off to prevent severe discharge of the battery
	<p><b>Note:</b> This is an emergency cut off level to protect the battery from severe damage. You should not rely on this cut off level during normal operation, but manage your power consumption to a discharge level of 11.5V or above.</p> <p>This cut off only applies to power drawn from the battery by the leisure equipment that is controlled by the control panel power switch; it will not protect the battery from discharge by permanently connected equipment.</p>	
Leisure battery voltage high	With control panel power on or off and leisure battery is selected (as active battery) and the voltage level rises above 15V	Message on screen and repeated beeps from the control panel. The power is automatically turned off. The beeping will not stop until the fault is cleared.
Vehicle battery warnings	If the vehicle battery is selected instead of the leisure battery, then similar warnings to those described above are applied to the vehicle battery. The vehicle battery low warning level is 10.9V	
Engine running	When the engine is started the system power will be turned off	Message on screen stating 'engine running'.
Step extended	Step extended and engine started	Message on screen and warning buzzer
	Step jammed or obstructed	

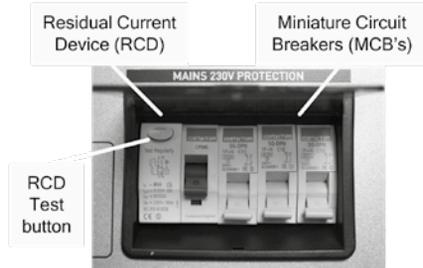
## SWIFT COMMAND POWER CONTROL SYSTEM

<b>Warning</b>	<b>When</b>	<b>Type</b>
Mains lead (hook-up cable) still connected / plugged in	When the engine is started and the mains cable is still plugged in and the charger is switched on	Message on screen and repeated beeps from the control panel. The beeping will not stop until the hook-up lead is removed.
Heating system	When set to control the heating system, the EC800 control panel will show related heating system warnings, which will include the error number and error description	Message on screen and 60 second audible beep. Additional descriptive information is available when using the Swift Command App.
Refrigerator / Fridge Freezer	When set to control the refrigerator, the EC800 control panel will show related warnings which will include the error number and error description	Message on screen and 60 second audible beep. Additional descriptive information is available when using the Swift Command App.

### 3 System Technical Information

The following section provides further technical information relating to the electrical system. You can also access the supporting technical manual from [www.sargentltd.co.uk](http://www.sargentltd.co.uk)

#### 3.1 Residual Current Device & Miniature Circuit Breakers



The Residual Current Device (RCD) is basically provided to protect the user from lethal electric shock. The RCD will turn off (trip) if the current flowing in the live conductor does not fully return down the neutral conductor, i.e. some current is passing through a person down to earth or through a faulty appliance.

To ensure the RCD is working correctly, the test button should be operated each time the vehicle is connected to the mains supply (see section 2.3)

The Miniature Circuit Breakers (MCB's) operate in a similar way to traditional fuses and are provided to protect the wiring installation from overload or short circuit. If an overload occurs the MCB will switch off the supply. If this occurs you should investigate the cause of the fault before switching the MCB back on.

The following table shows the rating and circuit allocation for the three MCB's

MCB	Rating	Output Wire Colour	Description
1	10 Amps	White	230V Sockets
2	16 Amps	White (Yellow for heater)	Extra 230V Sockets / Heating System
3	10 Amps	Black (Blue for Whale water heater)	Fridge / Charger / Auxiliary devices / Whale Water Heater

## SWIFT COMMAND POWER CONTROL SYSTEM

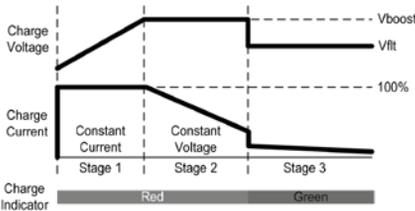
### 3.2 Battery Charger

The system incorporates an intelligent three-stage battery charger.

During stage 1 the battery voltage is increased gradually while the current is limited to start the charging process and protect the battery. At stage 2 the voltage rises to 14.4V to deliver the bulk charge to the battery. When the battery is charged, the voltage is decreased at stage 3 to 13.6V to deliver a float charge to maintain the battery in the fully charged state. The charger can be left switched on continuously as required.

The battery charger / power converter also provides power to the leisure equipment when the mains supply is connected. This module supplies DC to the leisure equipment up to a maximum of 25 Amps (300 Watts), therefore the available power is distributed between the leisure load and the battery, with the leisure load taking priority as per the following example:

Leisure Load	Available power for battery charging
5A	20A
10A	15A
15A	10A
20A	5A



**⚠ WARNING:** Under heavy loads the Battery Charger case may become hot. ALWAYS ensure the ventilation slots have a clear flow of air. Do not place combustible materials against / adjacent to the charger.

### 3.3 Leisure Battery

#### A) Type / Selection

For optimum performance and safety it is essential that only a proprietary brand LEISURE battery is used and it is suggested to select a battery from the NCC Verified Battery Scheme with a typical capacity of 75 to 120 Ah (Ampere / hours). Depending on the prospective use of the vehicle the correct type should be selected (A, B or C). A normal car battery is NOT suitable. This battery should always be connected when the system is in use.

The PSU is configured to work with standard lead acid leisure batteries, and in most cases is also compatible with the latest range of Absorbed Glass Matt (AGM) batteries. The system is also suitable for Lithium batteries with built-in Battery Management Systems (BMS).

Before fitting non-standard batteries please check that the charging profile described in 3.3 is suitable for the type of battery by referring to the battery documentation or battery manufacturer.

The Dynamic caters for two leisure batteries connected in parallel. In these cases it is recommended that two identical batteries are used. A third battery can also be added by ordering an additional electrical harness.

The battery feed is fitted with an inline fuse between the battery and the electrical harness, and is usually located immediately outside the battery compartment or within 500mm of the battery. The maximum rating of this fuse is 20A per battery. If a single battery is fitted to a motorhome, this fuse could be up to 40A, however if two batteries are fitted each battery should be fused at a maximum of 20A.

**B) Installation & Removal**

Always disconnect the 230V mains supply and turn the PSU green charger switch to the off position (button out) before removing or installing the battery.

When connecting the battery, ensure that the correct polarity is observed (black is negative [-] and red is positive [+]) and that the terminals are securely fastened. Crocodile clips must not be used.

**⚠ WARNING:** Explosive gases may be present at the battery. Take care to prevent flames and sparks in the vicinity of the battery and do not smoke.

**C) Operation / Servicing**

Under normal circumstances it should not be necessary to remove the battery other than for routine inspection of the terminals and “topping up” of the battery fluid where applicable. Please see instructions supplied with the battery.

**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 10V. Discharging a battery below this figure can cause permanent damage to one or more of the cells within the battery.

To prevent over discharge, the power control system incorporates a battery protect circuit that warns the users and then disconnects the batteries when they fall below set values.

If a warning is active a beep will be emitted by the control panel and information will be shown on the screen. To cancel the warning, press the select button. These warnings will not be repeated unless the power switch is turned off and on again. This is to ensure the warning does not become a nuisance.

Battery	Voltage cut off	Action after cut off	Notes
Vehicle	10.9V	Battery selection is changed from Vehicle battery to Leisure battery. If the leisure battery is below 9V then a further warning will occur (see below).	This cut off level is designed to protect the vehicle battery from over discharge. The 10.9V level ensures there is sufficient power in the battery to run the vehicle electronics and start the vehicle. This cut off only applies to power drawn from the battery by the leisure equipment; it will not protect the battery if you leave vehicle circuits switched on, such as the road lights.
Leisure	9V	Power is turned off	This is an emergency cut off level to protect the battery from severe damage. You should not rely on this cut off level during normal operation, but manage your power consumption to a discharge level of about 11.5V.  This cut off only applies to power drawn from the battery by the leisure equipment that is controlled by the control panel power switch; it will not protect the battery from discharge by permanently connected equipment.

## SWIFT COMMAND POWER CONTROL SYSTEM

### 3.4 12 Volt DC Fuses

**⚠ WARNING:** When replacing fuses always replace a fuse with the correct value. NEVER replace with a higher value / rating as this could damage the wiring harness. If a replacement fuse 'blows' do not keep replacing the fuse as you could damage the wiring harness. Please investigate the fault and contact your dealer.

The following table shows the fuse allocation for the 13 fuses fitted to the PSU. Please note that fuses are dependant on PSU versions, so not all fuses may be present.

Fuse	Rating	Fuse Colour	Description
1	25 Amps	White	Charger
2	7.5 Amps	Brown	Permanent 12V / Alarm / Fridge Electronics
3	10 Amps	Red	12V Sockets / TV Amplifier
4	10 Amps	Red	Extractor Fans
5	5 Amps	Tan	Appliances / Hob Ignition / Toilet/ Whale Water Heater
6	10 Amps	Red	Water Pumps / Tank Heaters
7	7.5 Amps	Brown	Lighting, Main Lights & Dim Channel 1
8	7.5 Amps	Tan	Lighting, Entry Light & Dim Channel 2
9	10 Amps	Red	Alde Heating / Truma Heating / Whale Air Heater / Marker Lights / En-Route Sockets & Lights
10	10 Amps	Red	Auxiliary / Awning Light / Electric Step
11	20 Amps	Yellow	Fridge 12V
12	15 Amps	Blue	Towing 12V
13	15 Amps	Blue	Fridge D+

**Note:** Fuses (2-13) have a Red LED below them which provides indication that the fuse has blown. The charger fuse has a green LED which indicates that the charger is working.

**3.5 Common Fault Table**

Fault	Possible Cause	Proposed Fix
No 230 volt output from PSU	Connecting lead between the site and Leisure Vehicle not connected	Check and connect lead as per 2.3C
	RCD switched off	Reset RCD as per 2.3D
	RCD not operating correctly	Check supply polarity; if the RCD continues to fail contact your Dealer as there is probably an equipment or wiring fault.
	MCB switched off	Reset MCB by switching OFF (down position) then back ON (up position), if the MCB continues to fail contact your Dealer as there is probably an equipment or wiring fault.
	No or deficient supply from site	Contact site Warden for assistance.
	Other fault	Contact your Dealer
Reverse Polarity light is illuminated on PSU	Mains Supply reversed?	The reverse polarity light is designed to illuminate when the Live and Neutral supply has been reversed / crossed over. If the light illuminates there is a problem with the site supply or the cable connecting the supply to your vehicle. The light is designed to work on UK electrical supplies (where the neutral conductor is connected to earth at the sub station). If you are using your vehicle outside the UK this light may illuminate when no fault exists. In these cases consult the site warden for advice.
	Generator being used	‘The Reverse Polarity warning light is on when using my Generator’.  This is a normal side effect when using some types of generator. Instead of connecting the neutral conductor to earth, some generators centre tap the earth connection making both neutral and live conductors 110V above earth. This 110V difference causes the neon polarity indicator to illuminate. In most cases it is still safe to use the generator, but please consult the generator handbook for further information.

## SWIFT COMMAND POWER CONTROL SYSTEM

Fault	Possible Cause	Proposed Fix
Control Panel Problems	Control Panel has no display	<p>Check batteries and fuses, turn PSU isolate switch and charger switch on and ensure mains supply is connected.</p> <p>Check control panel connecting lead at PSU and behind Control Panel.</p> <p>Contact your Dealer.</p>
	12V Power turns off	<p>Battery protect feature has operated to protect the Vehicle battery and or the Leisure battery. See 3.4C</p> <p>Over voltage protection has been activated, the control panel will display a warning. A number of things can cause this but the most common is the solar panel, it is worth checking the regulator is connected correctly and operating within the correct parameters.</p> <p>Engine has been started, all equipment has been disconnected to meet EMC requirements. See 2.4</p>
	Control Panel locked / erratic function	<p>Observe control panel handling instructions.</p> <p>Control panel software may have crashed. Reboot control panel by turning off the PSU isolate switch. Wait 30 seconds then turn the switch back on. Check with your dealer that your system has the latest software installed, as an update may be available.</p>
No 12 volt output from PSU	No 230V supply	Check all above
	Charger not switched on	Turn charger switch on, switch will illuminate
	Battery not connected and / or charged	Install charged battery as per 3.4
	Power button on control panel not switched to on	Turn power on at control panel
	Battery flat / Battery fuse blown	Recharge battery, check fuses, check charging voltage is present at battery.
	Fuse blown	Check all fuses are intact and the correct value fuse is installed as per fuse table.
	Equipment switched off / unplugged	Check equipment is switched on and connected to the 12V supply
	Other fault	Contact your Dealer

<b>Fault</b>	<b>Possible Cause</b>	<b>Proposed Fix</b>
Pump not working	Fuse blown	Replace fuse with correct value as per fuse table
	Pump turned off	Turn pump on by pressing the pump button at the control panel
Lights not working	Fuse/s blown	Replace fuse with correct value as per fuse table.
	Lights turned off	Turn Lights on by pressing the lights button, use dimmer at the control panel.
Comms not working	Bluetooth not paired	Using System Settings menu, select Bluetooth Pair option
	Bluetooth not active on Device	Ensure that the handheld device has Bluetooth switched on and that the device supports the Bluetooth 4 standard (BLE)
	Bluetooth out of range	Ensure the handheld device is within 7M of the middle of the motorhome

### 3.6 Contact details

Sargent Electrical Services Limited provide a technical help line during office hours. Please contact 01482 678981 if you require technical help.

For out of hour support please refer to the support section of the Sargent web site [www.sargentltd.co.uk](http://www.sargentltd.co.uk)

## 4 Remote Access & Control

### 4.1 Swift Command App

The Swift Command app can be downloaded from the Apple App Store or the Android Play store.

A separate Swift Command User Guide is available which covers the operation of the app.

Before you can use the App with your motorhome you will need to create an account and sign up to the free communication service.

This is a simple process and will be explained further by your dealer at the vehicle handover. Additional information is available at [www.swiftcommand.co.uk](http://www.swiftcommand.co.uk)

### 4.2 Swift Command Web usage & Description

In addition to the mobile App, you can also use the same account and login details to access the Swift Command web site.

Here you can update and amend your details, look at location information and history, review system information and historical data as well as changing some system options and settings.

### 4.3 Swift Command SIM Coverage & Usage information

The EC600 system contains Mobile SIM with 36 month contract, which commences upon activation at the Dealership when your vehicle is linked to your customer.

Below is a list of the countries covered by the SIM under a fair usage policy, a complete list is available at request.

Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Netherlands, Malta, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom.

For vehicles shipping direct to Australia or New Zealand a special world-wide SIM is fitted at the Swift factory.

Please note that if a UK specification vehicle is shipped to these countries the remote features will not operate.

### 4.4 Replacement parts

The Control panel contains a small lithium battery to maintain the clock when no other energy supplies are available this will last in excess of 5 years under normal conditions. The battery is a CR2032 3.0V

The EC630 Communication module contains a special backup battery pack which should last in excess of 3 years under normal conditions. The pack part number is 16308 available from Sargent.

### 4.5 Updates

From time to time there may be updates to the system firmware; these updates will be done at service intervals by your dealership.

## 5 Technical Data & Approvals

### 5.1 Equipment – EC652, EC653, EC800, EC635 & PX300

Outline Specification		
INPUT 230V	230 Volts / 0 to 16 Amps	+ / - 10%
OUTPUT 230V	RCD protected, 2 x MCB outputs of 10A & 1 x MCB output of 16A Separate switched channels for heating system and charger	
INPUT 12V	2 x 20A battery inputs via 2 x 4 way connectors	
SOLAR INPUT	1 X Dedicated solar panel input capable of supporting 10A of solar power input (typically 180 to 200W) via a 2 way connector	Check the solar panel rating plate to ensure the maximum current is <= 10A
OUTPUT 12V	25A total output via multiple switched channels protected by 13 fused outputs	
Integrated CHARGER	Input 220-240 Volts AC +/- 10%, Frequency 50 Hz +/- 6%, Current 3A max. DC Output 13.6 to 14.4 Volts nominal, Current 25 Amps max (300 Watts).	
Signal INPUT	4 x Fresh water level, 4 x Waste water level, 1 x Engine running, plus multiple vehicle connections, sensor inputs for temperature & humidity	Fresh water negative sensed Waste water negative sensed
Data IN / OUT	CANBUS Data communication and power to Control Panel via 6 way connector CI-Bus Data communication to CI-Bus enabled devices via RJ11/12 connector	
IP rating	IP31	
Operating temperature	Ambient 0 to 35° Celsius Charger case temperature with full load 65° C Max	Automatic shutdown and restart if overheated / overloaded
Dimensions		
EC601, EC602, EC652 & EC653 PSU	Overall size (HxWxD) 180 x 305 x 135mm Clearances 75mm above, 50mm left & right	Weight 3.8 Kg
EC800 Control Panel	Overall size (HxWxD) 125 x 279 x 25mm Cut-out size (HxW) 108 x 173mm + switch area	Fixing centres 250mm X 74mm Weight 380g
EC635 Comms Module	Overall size (HxWxD) 55 x 116 x 85mm	Weight 550g
EC840 Sensor	Overall size (HxWxD) 20 x 35 x 38mm	Weight 10g

## SWIFT COMMAND POWER CONTROL SYSTEM

**5.2 Approvals**

**System:** BSEN 1648-1, BSEN1648-2  
compliant, BS7671: 2008 compliant

**Residual Current Device:** RCD 40A 30mA  
trip to BS EN 61008

**Miniature Circuit Breakers:** MCB's type C  
6000A breaking capacity to BSEN 60898

**Electro Magnetic Compatibility (EMC)  
directive:** 2004/108/EC Certificate  
CE20071224-1

**Integrated Charger:** BS EN 60335-1/2.29,  
2006/95EC, IEC61000-3.2/3:1995, 1.

**Low Voltage Directive:** 2006/95EC TUV-  
014900-A1, EN55022, Class B, EN55024/  
Level 2

**5.3 Declaration of Conformity**

**Equipment: Leisure Power Control System**

**Model name: EC652, EC653, EC800,  
EC635 & PX300**

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced approvals. The unit complies with all essential requirements of the Directives.

Signed	Name	Position	Manufacturer
Date:	I L Sargent	Technical Director	Sargent Electrical Services Ltd Unit 35, Tokenspire Business Park Woodmansey, Beverley East Yorkshire, United Kingdom

Whilst every effort has been made to ensure the accuracy and completeness of this document, no guarantee is given against errors or omissions. This document may be updated / improved over time therefore please check with your dealer / supplier for update information or visit [www.sargentltd.co.uk](http://www.sargentltd.co.uk)

SWIFT COMMAND POWER CONTROL SYSTEM

## MOTORHOME BATTERY

**Motorhome battery**

**⚠ WARNING:** Use precautions when removing or replacing leisure batteries, as batteries contain acid liquids which can cause severe injuries and damage when handled incorrectly. Refer to the cleaning and maintenance section. Please also take into consideration when manoeuvring a battery, that the weight is in excess of 20kg.

The leisure batteries installed in your motorhome are of a type specific to the installation, and are of a sealed type (Sealed AGM). Due to the construction of this type of battery, it is not necessary to vent the battery to the outside, and there is no requirement to check and maintain electrolyte levels.



Leisure battery installation in front door side bed, showing two fitted batteries with a space for a third.

The motorhome is supplied with two leisure batteries as standard but space is provided for a third should it be required (additional harness required).

**Note:** Due to the equipment level in the motorhome, the type of leisure batteries fitted to the motorhome have particular characteristics, and carry the highest classification available on the NCC approved batteries scheme. (At time of writing). If an AGM battery is replaced, it must be replaced by an equivalent AGM battery which does not require venting to the outside, and is of a specification suitable for the equipment fitted to the motorhome. Replacement batteries should be checked dimensionally before purchasing, to ensure fitment within the battery storage area, as brands vary in size.

**⚠ WARNING:** Any replacement of an auxiliary battery shall be of the same type and specification as that originally fitted or specified by Swift.

The leisure batteries must remain connected when the motorhome electrical system is in use, and should be kept topped up (charged) at all times. As multiple batteries are fitted additional care is needed, as if one battery deteriorates this can reduce the lifespan of the other(s).

**⚠ WARNING:** When connecting leisure batteries, ensure that the correct polarity is observed (black is negative and red/brown is positive) and that the terminals are securely fastened.

**⚠ WARNING:** Your motorhome is fitted with Swift Command Tracker (by Sargent) which monitors battery voltage. If you plan to disconnect or remove your leisure batteries for any reason, then please contact the monitoring station before you remove or disconnect the batteries. If a leisure battery is temporarily not fitted, please also contact the Tracker monitoring station before removing the mains hook up.

The Swift Command Tracker monitoring station can be contacted on 0345 6027302.

Under normal circumstances it should not be necessary to remove the battery.

**⚠ WARNING:** Explosive gases may be present at the battery. Take care to prevent flames and sparks in the vicinity.

Your motorhome has been fitted with an in-line fuse between the battery terminal and the power supply unit, specific to the installation. Do not use a higher rated fuse as this may cause damage to your motorhome.

**⚠ WARNING:** Switch off all appliances and lamps before connecting or disconnecting batteries. Open flames and smoking are prohibited around the battery compartment.

Please note the auxiliary battery or batteries supplied with your motorhome may not be fully charged and should be charged for a minimum of 24 hours before use. Battery performance may be affected by a number of things such as ambient temperature, age, state of charge etc.

#### **Cleaning and maintenance**

- Always remove the battery and the power cable before carrying out any maintenance of the product.
- Before removing the clamps switch off all electrical and gas appliances.
- Use a soft cloth or sponge and a non-acid/abrasive detergent when cleaning the battery tray and area.
- The cleaning of the battery area should only be done after all power sources have been switched off.

## SOLAR PANEL

## Factory fitted Solar Energy System



Your motorhome is fitted with a 120W solar panel and a suitable solar regulator. This solar panel and regulator may provide additional 12v power whenever sunlight is available to the panel, and this will be directed to the EC800 power supply unit. Conditions allowing, and depending on the settings chosen in the EC800 power supply unit, the system can give the leisure battery a daily boost when camping without a mains 230V supply, or while the vehicle is in storage.

### Regulator operation

The regulator operates automatically, turning on and off as required to charge and operate. When the solar panel is exposed to a source of sunlight the regulator starts to operate. When the voltage from the panel reaches a usable level, the Panel Output LED will flash indicating that the battery is being charged (see battery charging above). If insufficient power is being generated by the solar panel the regulator will turn off. The regulator checks the solar panel output every 30 seconds and turns on/off as required. On overcast days when the solar panel output is minimal the regulator can still deliver a small charge, and in this mode the LED's are not illuminated to conserve power.

### Control Panel

When the solar panel is operating the leisure battery voltage display on the control panel will increase, however this does depend on the amount of load placed on the system and the amount of power being generated by the solar panel at that time.

### Battery charging

If a leisure battery is fitted and requires charging the Charge Status LED will illuminate. Depending on the state of charge of the battery this LED will illuminate red for bulk charge (14.4V output) or green for float charge (13.6V output). It may take a few hours to several days to charge the battery depending on its state of charge. When the battery is fully charged the regulator will turn off to prevent overcharging of the battery. If the mains charger is also charging the same battery this can also cause the solar panel regulator to turn off.



**Note:** This image is of a typical solar regulator, the appearance may vary

### Maintenance and cleaning

The solar panel will require cleaning periodically in order to maintain the performance of the panel. A caravan, car shampoo or simple soap can be used, but do not use abrasive cleaners.

## Accessory harnessing

### Alarm Power Supply

A connection exists within the motorhome harness, which can be used as a power supply for an alarm or tracking system. For security reasons, information regarding this is not published; please contact your dealer for further information.

### Satellite Power Supply

A power supply harness is included for use with roof mounted satellite systems. This power supply is terminated in a 4-way connector marked 'SATELLITE', and carries 12v positive, 12v negative, and a signal which can be used to detect when the vehicle engine is running. (The engine run signal is required by some systems to automatically retract satellite dishes.

In addition, on Kon-Tiki models which have a decoder / receiver position. At this position an additional 230v socket is present for use with a decoder / receiver, and a 12v supply is present (2-way connector, 12v positive and 12v negative), which can be used with an inverter (not supplied) to power a decoder/receiver when a mains supply is not available.

### Tow Bar Connection

The addition of a tow bar requires an electronic interface to ensure compatibility between the combined road lighting on the motorhome and the trailer, and the road light monitoring system on the IVECO base vehicle.

Your motorhome already features an interface which enables the use of LED road lighting on the motorhome body, and there is connectivity on this device for the addition of a tow bar.

It is important that the correct tow bar electrical harness is used, and your Swift Group dealer can order and fit this part for you.

If a motorhome is fitted with reverse sensors and a tow bar, these reverse sensors will be disabled when a trailer is connected.

## Habitation relay

Habitation relays are fitted to motorhomes by manufacturers to comply with the following legislation:

1. The Road Vehicles (Construction and Use) Regulations 1986 Regulation 60 - Radio interference suppression
2. European Community Whole Vehicle Type Approval (ECWVTA) framework directive 2007/46/EC and EU Regulation 661/2009 (General Safety) mandates UNECE Regulation 10 (Vehicles with regard to Electromagnetic compatibility).

A habitation relay must be fitted by manufacturers, safe guarding the consumer, the purpose of the relay is to disable non-homologated appliances/components whilst the vehicle is in transit.

Unintentional electromagnetic energy can be created by non-homologated devices within the habitation compartment, which could cause a malfunction of the base vehicles electronic systems/components, including safety critical items such as air bags, ABS braking etc.

In your motorhome the habitational relay is within the power supply unit.

## ELECTRICAL FAULT FINDING

The Swift Group recommends that electrical fault finding is undertaken by a trained Technician familiar with the systems involved. The basic checks below are therefore limited to items that can be checked without the use of tools etc. If in any doubt please consult a Swift dealer.

<b>Power Supply</b>	
<b>Fault</b>	<b>Remedy</b>
No 230v output from PSU	See Swift Command information
No 12v output from PSU	See Swift Command information
Reverse Polarity light illuminated	See Swift Command information
Control Panel Problems	See Swift Command information
<b>Appliance Not Operating</b>	
<b>Fault</b>	<b>Remedy</b>
Error code or fault light displayed on appliance (eg fridge LCD display)	Check appliance specific information for next steps
No display at appliance controls	<p>Check power supplies are available (electric hook up, charger operating, battery in good state of charge). Majority of appliances will not be operational when engine is running.</p> <p>Ensure control panel is ON.</p> <p>Check appropriate fusing in Power Supply unit</p>
<b>Internal Lighting</b>	
<b>Fault</b>	<b>Remedy</b>
Lighting not operational	<p>Check power supplies are available</p> <p>Check control panel is ON</p> <p>Locate furniture mounted switches, where appropriate</p> <p>Check fuses on Power Supply Unit</p> <p>Determine if light is LED or Tungsten / Halogen bulb, or Fluorescent tube – check and replace bulb, or entire fitting as appropriate</p>

<b>Road Lighting</b>	
<b>Fault</b>	<b>Remedy</b>
Dashboard warning light illuminated / groups of road lights inoperative	<p>If Tow Bar fitted check trailer lighting / disconnect trailer to determine if this is the cause of the fault.</p> <p>Check fuses in IVECO dash for main road lighting (see IVECO handbook for details of which light groups are fused)</p> <p>Check fuse in Power Supply Unit for auxiliary marker lights (Amber side markers, Luton / upper rear markers)</p>

### VLM Fusebox

Your motorhome is fitted with a secondary VLM-5 interface, which is designed to work in conjunction with the IVECO base vehicle. The secondary VLM-5 allows the base vehicle to function with the LED rear lights and still inform the user if the directional indicators are functioning or not, via the base vehicle dash.

If a towed trailer is attached to this motorhome then the VLM-5 fusebox will still allow the status of the vehicle directional indicators to be relayed to the user along with informing the user if the directional indicator on the towed trailer are functioning correctly.

<b>Electric Step Operation (When fitted)</b>	
<b>Fault</b>	<b>Remedy</b>
Step will not automatically retract with engine start	<p>Check fuses in Power Supply Unit.</p> <p>Check mechanical condition of step – clean / lubricate if appropriate.</p> <p>Check other functions that are linked to the running of the vehicle engine (i.e. fridge 12v operation). If these are also inoperative contact dealer.</p>
Step does not respond to furniture switch	<p>Check fuses in power supply unit</p> <p>Check mechanical condition of step – clean / lubricate if appropriate.</p> <p>It is possible to link the operation of the step to the lock/unlock commands from the central locking keyfob. If this feature is enabled on your motorhome, check if operation of the step via the central locking keyfob is possible. To enable / disable the keyfob feature contact your dealer.</p>

## ELECTRICAL FAULT FINDING

<b>Power Supply</b>	
<b>Fault</b>	<b>Remedy</b>
Fresh water level sensor gives incorrect readings	Clean water tank internal surfaces by flushing through with water or food grade cleaning agent suitable for stainless steel. If problems persist, dealer assistance required for further fault finding.
Waste water level sensor gives incorrect readings	If possible, from below motorhome remove level sensor from top of waste tank, and clean probes. Alternatively, clean waste tank internal surfaces by flushing through with water or cleaning agent.  If problems persist, dealer assistance required for further fault finding.

<b>Battery Discharge</b>	
<b>Fault</b>	<b>Remedy</b>
Leisure battery discharging earlier than anticipated	Have condition of leisure battery checked by dealer or tyre/exhaust/battery specialist  If motorhome is not in use, ensure 'SYSTEM SHUTDOWN' button on Power Supply Unit is being used to isolate all circuits  If motorhome is in use, see consumption table in handbook – are several items perating simultaneously / is total load likely to cause discharge.  Check charger is operational when mains hook up is present, and that the charger is allowed sufficient time to replenish battery / batteries.
Vehicle battery discharging earlier than anticipated	If appropriate to battery, check condition and top-up battery fluid if required  Have condition of leisure battery checked by dealer or tyre/exhaust/battery specialist  If motorhome is in use, check Power Supply Unit is configured to charge / maintain both leisure and vehicle batteries. (Contact dealer for further assistance if unsure)

<b>Audiovisual Equipment</b>	
<b>Fault</b>	<b>Remedy</b>
Rear view camera system inoperative when reversing (if fitted)	Check if camera system can be switched on manually, using power button on rear view mirror.
	Check Reverse Lights are operational on rear of motorhome. (Check base vehicle fuses if reverse lights are inoperative.)
Rear view camera system inoperative whether moving forward or reversing (if fitted)	Check fuses in habitation area fusebox (Power Supply Unit)
Radio switches off intermittently	Radio will not remain on indefinitely when vehicle ignition is switched off. Please see below or the IVECO handbook.

## HYUNDAI GENERATOR



## Hyundai Generator

The fitted Hyundai generator is operated using a control panel from within the motorhome. The generator provides a digital inverter output to provide a clean, pure sine wave power supply at 230v, 50hz.

The generator uses a 4-stroke air cooled petrol engine with a remote petrol tank, to generate power.

### Noise/consideration of others

The generator is fitted at the driver's side of the motorhome below floor level, and the exhaust from the petrol engine within the generator is also at the driver's side, close to the Iveco vehicle exhaust. Please take into consideration the position of this exhaust when positioning the motorhome and starting the generator.

The exhaust fumes from the generator will contain carbon monoxide gas. Please follow the guidelines below.

### Carbon Monoxide (where applicable)

- Carbon monoxide is a colourless and odourless gas. Inhaling this gas can cause death as well as serious long term health problems such as brain damage.
- The symptoms of carbon monoxide poisoning can include but are not limited to the following; Headaches, dizziness, nausea, breathlessness, collapsing or loss of consciousness.

- Carbon monoxide poisoning symptoms are similar to flu, food poisoning, viral infections and simply tiredness. It is quite common for people to mistake this very dangerous poisoning for something else.
- To avoid carbon monoxide poisoning DO NOT use Petrol/Diesel powered equipment inside any of the following; Home, garage, tent, camper van, mobile home, caravan or boat. This is not exhaustive and if you are in any doubt contact your dealer.

**⚠ WARNING:** If you think you have or someone around you has been affected by carbon monoxide poisoning;

- Get them fresh air immediately, by leaving the affected area or by opening doors and windows. If safe and practical to do so make sure that the machine is turned off. DO NOT enter a room you suspect of having carbon monoxide poisoning.
- Contact a Doctor immediately or go to Hospital – let them know that you suspect carbon monoxide poisoning.
- DO NOT use in an enclosed area or moving vehicle.

The petrol engine used in the generator uses exhaust silencers and anti vibration mountings to minimise noise, but please take others into account when starting the generator – in particular the proximity of neighbours, time of day and any rules on generator use which apply to the location the motorhome occupies.

### Refuelling

The unleaded fuel tank for the generator is located on the drivers side of the motorhome, immediately behind the drivers door



Use only unleaded petrol with the generator, the tank had a capacity of approx. 25 litres.

#### **⚠ CAUTION: ALL FUELS ARE FLAMMABLE**

- **Always** fuel and defuel in a well ventilated area outside of buildings.
- **Always** wear correct, suitable and fit for purpose Personal Protection Equipment (PPE), suggested items are but not limited to safety gloves, overalls.



HAND  
PROTECTION  
MUST BE WORN



PROTECTIVE  
CLOTHING  
MUST BE WORN

- When fueling/defueling **Always** avoid inhaling fumes.
- When defueling **Always** use a proper fuel retriever.
- **Always** carry fuel in the correct and clearly marked container.

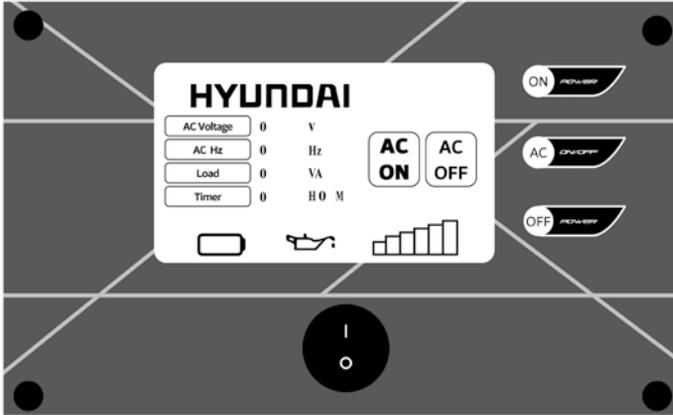
### Capabilities

As detailed in the earlier electrical selection, a changeover switch will not allow power from the generator to be used, if the mains hook up supply is present. The same switch prevents the output from the generator from being fed back into the national grid via the mains hook up cable.

The generator can provide up to 3000w continuously, and 3500w for very short periods, which is similar to the amount of power available from a 13amp plug/socket adaptor used with a mains hook up cable. Please see the consumption table on page 63 for details of typical 230v power consumption, for items fitted in the motorhome.

The generator will cease providing an output if the electrical load becomes too great, for instance if too many 230v items are connected and switched on simultaneously, resulting in a total load in excess of 3000w. In this situation the generator will continue to run, but will show an AC OFF warning on the control panel. The generator will automatically resume providing an output once the total load is reduced (i.e. after an appropriate number of items are switched off or disconnected from 230v sockets).

## HYUNDAI GENERATOR



### Basic Operations

#### To start the generator:

- Turn off / disconnect all 230v items before attempting to start the generator.
- Turn the generator control panel ON using ON/OFF rocker switch, found at the base of the panel.
- Check oil level indicator is Green
- Check fuel level indicator has one or more solid bars
- Press the upper right POWER ON button. If sufficient battery power is available, the generator will start automatically.
- Allow the generator engine to idle with no load for several minutes.
- Press the AC ON button in the centre right of the panel, and the generator will provide a 230v output.
- Switch on / connect 230v items as required.
- During use, the generator control panel will go into power save mode and the screen will appear blank. To turn the display back on, press the upper right POWER ON button. Take care not to press the AC OFF or POWER OFF buttons while the screen is blank, as this will lead to a loss of 230v output.

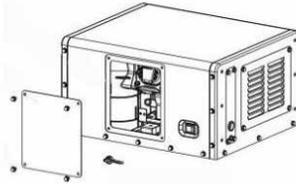
#### To stop the generator:

- Turn off / disconnect all 230v items before attempting to stop the generator.
- Allow the generator engine to idle with no load for several minutes
- Press the POWER OFF button at the bottom right of the control panel.
- Turn the generator control panel OFF using the ON/OFF rocker switch at the base of the panel.

Full details of the the features on the generator control panel, can be found in the instruction booklet provided with the generator.

**Maintenance – Oil**

The oil level is displayed on the generator control panel, but can also be checked and adjusted by directly accessing the generator, while it is switched OFF.



- Oil Type: Semi-Synthetic SAE 15W-40 Engine Oil
- Oil capacity: 500ml
- Ensure the generator is level
- Remove the front plate of the generator
- Unscrew the oil filler/dipstick
- Slowly fill with 500ml of semi-synthetic 15W40 engine oil, stop to check the level as you fill
- Refit the oil filler cap and make sure the cap is tightened
- Refit the front plate of the generator
- You **MUST** check the engine oil level before starting every session

<b>Maintenance Schedule</b>		
<b>Maintenance</b>	<b>Every 100 Hours or 6 Months</b>	<b>Every 3 Years</b>
Change Oil	X	
Clean / Adjust Spark Plug	X	
Clean / Adjust Valve Clearance	X	
Change Air Filter Elements	X	
Clean Fuel Tank & Filter	X	
Check Exhaust Mounts	X	
Replace Fuel Pipe		X

**⚠ CAUTION:**

- **All** maintenance work should be carried out by a trained professional. Failure to follow service intervals may result in damage or poor performance of the generator and may not be covered by warranty.
- **Always** refuel in a well-ventilated area with the engine off.
- Whilst carrying out maintenance you must wear appropriate Personal Protective Equipment (PPE) when using this machine.
- Suggested PPE: Sturdy footwear, work gloves, long trousers and hearing protection.

## HYUNDAI GENERATOR

**Maintenance – Air Filter****⚠ CAUTION:**

- A dirty air filter will restrict air flow which will reduce engine efficiency.
- When using the generator in very dusty areas you must clean or replace the air filter more often.
- Never operate the machine without the air filter being fitted it can cause damage to the engine which is not covered by warranty.
- Remove the generator from the installation brackets.
- Undo the bolts to the louvered cover to expose the air filter cover.
- Undo the bolt on the air filter cover and remove.
- Ensuring no dirt or debris can enter, clean the inside of the air filter housing with a clean cloth.
- If a paper filter element is installed then remove and inspect. Replace if necessary or clean with a soft brush or vacuum.
- **DO NOT** use high pressure air to remove dirt or debris as this will further clog the air filter.
- If a foam filter is installed, to clean, wash in warm soapy water and allow to dry.
- Once dry, soak in clean engine oil then squeeze to remove the excess.
- Reinstall the air filter and air filter cover.

**Maintenance – Spark Plug**

You **MUST** allow the engine to cool down before carrying out any maintenance.

Always replace with the same model spark plug as fitted.

- To check spark plug, remove the generator cover.
- Remove the spark plug HT lead cap and unscrew the spark plug.
- Clean the spark plug electrode using a soft wire brush, making sure that there is no damage to the insulator or electrode.
- If damage is found then replace the spark plug.
- If the spark plug is to be reused, then check the spark plug gap.
- The spark plug gap should be 0.70mm to 0.80mm. Check the gap by using a feeler gauge. Adjust as necessary by carefully bending the side electrode to achieve the correct gap.



- Refit the cleaned and adjusted spark plug by hand to avoid cross-threading.
- After spark plug seats then tighten as necessary but avoid over-tightening.
- Re-attach the spark plug cap and generator cover.

<b>Generator Troubleshooting</b>		
<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
Generator won't start	No Fuel	Fill Fuel
	Spark Plug Damaged	Replace Spark Plug
	Low Battery	Charge Battery
Generator starts but runs poorly	Low Oil	Fill Oil
	Weak ignition from Spark Plug	Change Spark Plug
	Low Fuel	Fill Fuel
Generator shuts down during operation	Low Oil	Fill Oil
	Low Fuel	Fill Fuel
Not enough power	Air Flow Obstructed	Increase Air Flow
	Exhaust Obstructed	Check exhaust has smooth exit
No AC Power	Electric load damaged	Replace electric load
	Overload	Reduce the electric load
	Loose wires	Inspect and tighten wires
Remote LCM Controller not working	Overload	Reduce electric load
	Short circuit	Check for damaged or loose wires. Replace defective electrical load.

## INVERTER

**2000w Inverter (When fitted)**

The Sargent 2000w inverter provides a pure sine wave 230v 50hz output, using power from the leisure batteries and/or vehicle alternator when the motorhome is not connected to a 230v supply. The output from the inverter is available at the following fitted 230v sockets::

- 230v sockets at TV positions
- 230v sockets on seat or bed front panels
- B-pillar 230v sockets close to drivers and passengers seatbelt positions
- 230v socket at high level, near entrance door
- Garage / storage area 230v sockets
- External 230v sockets
- Microwave and Decoder sockets at top of fridge unit

The sockets that cannot be powered via the inverter are as follows:

- Oven socket (oven connected to socket for hot plate operation)
- Kitchen worktop 230v sockets

The inverter also operates as a UPS (un-interruptible power supply) when the motorhome is connected to a 230v supply. In this case, if the mains hook up supply is disconnected or ceases to be available, the inverter will automatically take over and provide 230v power to devices that are connected to the relevant sockets as listed above.

If an inverter is fitted, it must be left switched ON at all times when the use of sockets is required, regardless of whether a mains hook up cable and supply is available. In addition, either the motorhome control panel must be ON, or the motorhome engine must be running, for the inverter to operate.

Please read the manual carefully before using the power inverter.

Pay special attention to the **CAUTION** and **WARNING** statements within these instructions: -

- a) **CAUTION** statements help avoid situations that could result in damage to the inverter or connected equipment.
- b) **WARNING** statements alert you to avoid conditions that could cause injury or loss of life.

The inverter on/off button is at the end of the unit, as shown by the label on the top on unit in the image below:



Once switched ON, the operation of the inverter is fully automatic.

The use of the inverter places a high load on the leisure batteries, and if a high load item such as the microwave is in use, leisure batteries will be depleted very quickly.

The inverter will monitor leisure battery voltage, and if the voltage falls below 11.5v for any significant length of time, the inverter will cease providing a 230v output.

It is possible, while the inverter is operating, to run the vehicle engine. This allows the vehicle alternator to assist the leisure batteries in providing power to the inverter. (Please note that with the engine running, use of other items within the motorhome may not be possible, as detailed elsewhere in this handbook).

**⚠ WARNINGS:**

- Do not connect the unit to AC distribution wiring.
- Keep liquids and wet substances away from the power inverter. Keep the unit away from water. Do not allow water to drip or splash on to the power inverter. Do not allow the power inverter to get wet. Do not use a wet power inverter or wet cables.
- Keep the unit in cool environments. Keep out of direct sunlight and away from heating vents
- Keep the unit away from flammable material or in any location which may accumulate flammable fumes or gases.
- With heavy use, the unit will become warm and possibly hot. So keep it away from any heat sensitive materials. Do not overload the inverter
- Make sure the opening to the vent holes is not blocked.
- Do not open the unit. The unit carries a high voltage.
- Do not place objects on or over the inverter during use. Air must be allowed to circulate.
- Safety: Do not place the inverter near flammable substances as fumes and gasses could cause an explosion that could result in severe damage and possible death. Do not operate near fumes.
- Don't drop the inverter.
- Don't parallel the output of two inverters

**⚠ CAUTION:**

- LED display is for dealer purposes only.
- Observe the correct battery polarities. Reversed connections will permanently damage the inverter.
- Check and re-check the battery connection cables are tight as loose connections generate heat.
  - Red is for positive (+).
  - Black is for negative (-)

There is a full protection and audio-visual alarm system inside the 2KWPSWInverter. It can provide a full range of protection, mainly over-voltage protection, low-voltage alarm, under-voltage protection, over-heat protection, overload protection, short circuit protection, reverse polarity protection etc. the below details the alarms that may sound:

- Low-voltage alarm: When the input DC voltage is lower than low-voltage alarm voltage, low battery alarm will remind the user that there is less power, but the power inverter can still continue to work. The alarm sound is the long sound "beep --- beep ...". This voltage is set at 11v.
- Under-voltage protection: When the input DC voltage is lower than the cut off under-voltage, the power inverter output will be cut off automatically. Sound alarms "beep-beep-beep --- beep-beep-beep..." When the input voltage returned to the normal input voltage, the inverter will restart output automatically. If the input voltage immediately returned to normal after alarm, the alarm sound will continue to sound about 30S and then restart the output. This voltage is set at 11.5v.
- Over-voltage protection: When the input DC voltage is higher than the cut-off over-voltage, the power inverter output will be cut-off automatically. Sound alarms "beep-beep-beep --- beep- beep-beep ..." When the input voltage returned to the normal input voltage range, the inverter will restart output automatically. If the input voltage immediately returned to normal after the alarm, the alarm sound will continue to sound about 30S and then restart the output. This voltage is set at 15v.

## INVERTER

- Over-heat protection: When the internal temperature of power inverter is too high (above about 85°C), the power inverter output will be cut off automatically. Sound alarms "beep-beep-beep-beep---beep-beep-beep-beep ..." The inverter will need to be restarted manually.
- Overload protection: When the power of electric apparatus which are driven by the power inverter exceeds the inverter's maximum output, the output would be cut off automatically. Sound alarm "beep-beep—beep-beep ..." The inverter will need to be restarted manually.
- Short-circuit protection: When the output short-circuited, or the loads are very big, the power inverter output will be cut off automatically. Sound alarms "beep-beep-beep-beep—beep-beep-beep-beep-beep-beep..." The inverter will need to be restarted manually.
- Reverse polarity protection: When the input positive and negative pole of the power inverter connection is reversed, it will fuse down the inverter's fuses to protect the internal circuits. After the replacement of fuses, the inverter will work properly.

### **Working environment:**

- Operation temperature: -10°C~40°C.
- Storage temperature: -40°C~65°C.
- Considerable air humidity should be less than 85%.
- No electrical conductivity, dust explosion, corrosion-free gas in the working place.
- No shock and vibration in the working place.

### **Physical properties:**

- Gross Weight: 7.0 kgs
- Size: 484 x 210 x 83mm

### **Operation:**

- 1.Plug the AC lead / power cord of the equipment to be powered by the inverter into the AC socket. Make sure the equipment is switched OFF. (Make sure the equipment does not require a total wattage exceeding the capacity of the inverter)
- 2.Turn ON the inverter.
- 3.Turn ON the equipment.

### **Applications and Limitations**

The Sargent 2KW PSW Inverter will operate most AC products that fall within the power rating of 2000 watts. In the event that you accidentally overload the power inverter, it will automatically shut down as it protected by an overload circuit. Once the overload is removed, the inverter will resume normal operation.

### **Features of the Sargent 2KW PSW Inverter**

- Very high 12KW surge power. Capable of powering any kind of load including inductive motors.
- High 2KW continuous power that can power many appliances.
- Stand-by working mode; the inverter only powers-up when a load is detected. Idle power is less than 10W under standby working mode.
- AC Output Setting - 240VAC/3000W for worldwide use.
- 10 Amp internal charger by the AC Grid.

**Specifications:**

Model	Sargent 2kW PSW Inverter
Input voltage	12V
Input voltage range	11.5-14 VDC
DC current under full load	200A / 100A
Standby Loss	Less than 200W under normal mode. Less than 2W under load seeking mode.

<b>Input Side:</b>	
Efficiency	90% / 92%
Rated power	2000W @ 230V AC
Output surge power	6000W

<b>Output Side:</b>	
AC Voltage	230V AC
Frequency	50Hz
Output wave form (THD)	Pure Sine Wave THD <3%
Charging current	10A
Charging voltage	15-28V DC
Fuse rate	40A x 6 / 30A x 6
Battery reverse connection protection	Yes
Over temperature protection	Yes
Output short circuit protection	Yes
Overload protection	Yes

## INVERTER

**Warranty and Service**

Sargent warrants that the Sargent 2KW PSW Inverter and component parts thereof, will be free of defects in workmanship and materials for a period of three years from the date of the first consumer purchase.

Sargent will, without charge, repair or replace, at its option, defective power inverters and damaged electrical equipment upon its delivery to our factory accompanied by proof of date of first consumer purchase, such as a duplicated copy of the sales receipt.

Exclusions: This limited warranty does not apply to 1) any product damaged by accident 2) in the event of misuse or abuse of the product is the result of unauthorized alterations or repairs, 3) if the serial number has been altered, deface or removed.

The warranty is limited to a maximum claim for the cost of repair or replacement of the power inverter. The warranty does not cover loss of data of any kind nor provides any provision for loss of use or business interruption.

**Approvals****Low Voltage Directive (LVD):**

EN60950-1 General Requirements

**Electro Magnetic Compliance (EMC):**

EN55022:2010, EN61000-3 2:2006  
+A1:2009+A2:2009 & EN61000-3-3:2008, EN55024:2010, EN61000-6-3:2007+A1:2011, EN61000-6-1:2007, EN61000-4-2:2009, EN61000-4-2:2006, EN61000-4-4:2012, EN61000-4-5:2006, EN61000-4-6:2009, EN61000-4-8:2010, EN61000-4-11:2004

ALDE Compact 3020 HE boiler .....	112
ALDE zonal control .....	114
Ebeco Underfloor Heating .....	114
Dometic absorption refrigerators .....	114
Dometic Oven CU600 .....	115
Microwave oven .....	124
Extractor hood Dometic CK500 .....	126
Thetford cassette toilet .....	127
Windows and blinds .....	127
Pod vent operating instructions .....	130
Roof lights .....	131
Omnistep single step .....	134
VB Air suspension .....	135
Hydraulic levelling .....	150
Awning .....	167
Reverse camera system .....	169
Reverse sensor system .....	169
Cycle rack mounting bars .....	170
Heated seats .....	171
Bunk and luton bed safety .....	171
Table leg .....	171
TV inlet .....	171
TV aerial .....	171
TV brackets .....	173
Motorhome WIFI .....	173
Shower head.....	173
External BBQ point .....	174
External shower .....	175
Colour reference .....	175

ALDE BOILER

**Alde Compact 3020HE Boiler**



The Alde Boiler can be used in the following ways:

To provide combined room heating and water heating.

- Simultaneous heating of the room, and water contained within the appliance.

To provide water heating only.

- Heating of the water within the appliance, without room heating.

To provide room heating only, without water heating.

- If the water system has not been primed, meaning that there is no water within the appliance, it is still possible to use the Alde 3020HE to heat the room.

**Alde 3020HE Control Panel and Appliance Instructions**

Please read the user instructions before using the heating system. The instructions include warnings regarding the safe use of the system, and no liability whatsoever can be accepted for damage or injury resulting from failure to observe the instructions.

The heating system can be controlled by the Alde 3020 colour touch screen controller, or the Swift Command control panel, App., or remote control system.

For Swift Command functions please see the Swift Command literature and details within this handbook.

For use of the 3020 colour touch screen control panel, and the 3020HE system appliance, please read the information available at the following locations:

**3020 Alde Colour Touch Screen Control Panel**

[http://www.alde.co.uk/downloads/alde\\_3020\\_user.pdf#page=17](http://www.alde.co.uk/downloads/alde_3020_user.pdf#page=17)



**3020HE Alde heating system appliance**

[http://www.alde.co.uk/downloads/alde\\_3020\\_user.pdf](http://www.alde.co.uk/downloads/alde_3020_user.pdf)



**Electrical Operation of Alde 3020HE Heating System**

Before the heating system is used for heating using electrical (230v) energy, the 230v isolation button on the Sargent Power Supply Unit must be switched ON, as shown in the image below. To confirm a supply is available, the button will be illuminated when a power supply (mains hook up) is connected and the button is ON.



**Heating/Hot water**

## Alde Heat Exchanger

The Kon-tiki range of motorhomes is fitted with an Alde heat exchanger, which transfers heat from the engine of the motorhome (when available) to the heating system in the habitation area of the motorhome.

The diagram below shows a typical heating circuit, with the heat exchanger highlighted. The heat exchanger provides a link, via a series of plates, between the engine coolant from the base vehicle, and the glycol fluid in the Alde heating circuit: At no time though do these two fluids mix, so the levels of each fluid must be maintained separately.

## To use the Heat Exchanger

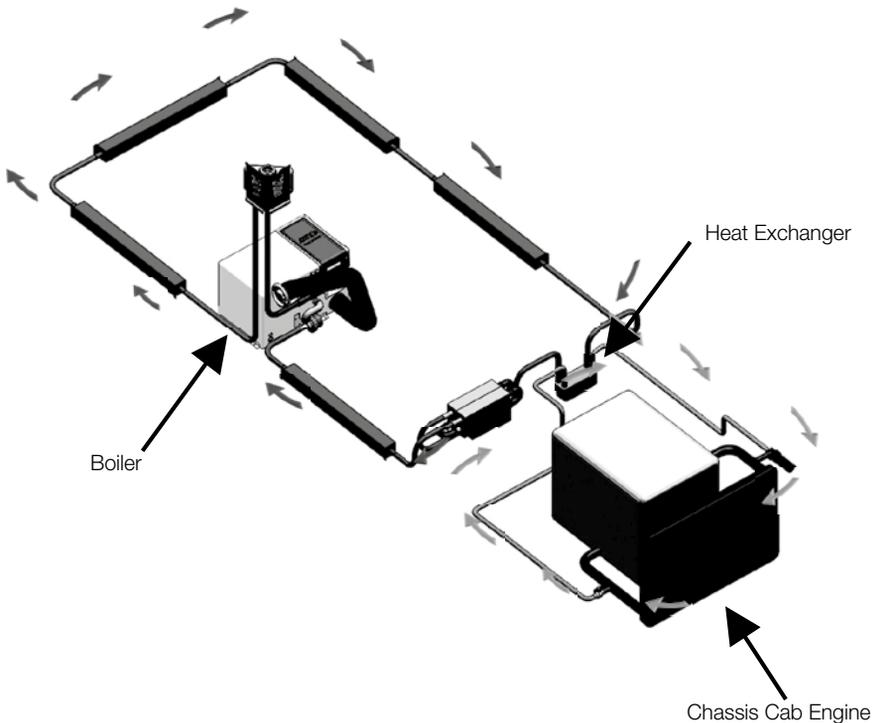
The Alde heating system must be switched on, while the motorhome engine is running, to use the heat exchanger. The following settings on the Alde control panel are suggested:

Turn Alde heating system ON using power button at bottom left of panel

Press MENU button at bottom right of panel

Using the MINUS (-) and PLUS (+) touch screen settings on the top row of the panel (Thermometer symbol) to select a desired room temperature.

During en-route use the water temperature setting on the second row of the touch screen (Shower symbol) is not relevant, and can be left in its previous setting.

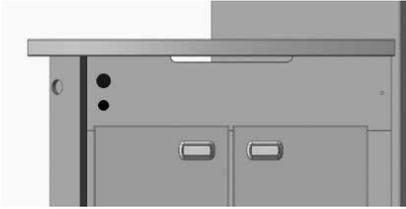


## ALDE BOILER

**Alde Zonal Control**

The Kon-tiki range of motorhomes is fitted with a second thermostat, which can be used to control the heating system.

In normal use (and on other ranges), the room temperature is measured by a sensor within the Alde touch screen control panel. With the Zonal control, it is possible to select room temperature measurement at this control panel position, or, via the secondary temperature sensor fitted in the rear lounge or sleeping area.



Typical 2nd thermostat and switch installation

The 2nd sensor is a circular furniture mounted device, which has the word 'Alde' embossed on its surface. Next to the sensor, a Black round switch will feature '0' and '1' markings.

With the switch in the '0' position, the room temperature will be measured at the Alde touch screen control panel.

With the switch in the '1' position, the room temperature will be measured at the 2nd temperature sensor position.

**EBECO Floor Heating**

The Kon-tiki range of motorhomes has an Ebeco floor heating system fitted, in layout specific areas of each motorhome. Typically this is in the front lounge area of the motorhome.

The floor heating is electrically operated, and is completely separate to the Alde heating system also installed. The motorhome must be connected to a mains (230v) supply, in order to operate the floor heating. An isolation switch normally located on a bed front close to the motorhome Power Supply Unit, with a Red illuminated indicator, is used to switch the floor heating ON or OFF. When the Red LED is on, the floor heating is ON.

The floor heating is not intended as a heat source for the entire motorhome; instead, the floor heating will raise the surface temperature of the motorhome floor, to increase comfort. The floor temperature will be automatically maintained at a pre-set level. If adding aftermarket equipment to the motorhome, do not drill through or screw into the floor in areas that are heated.

**Dometic absorption refrigerator**

Before you start using the refrigerator, please read the operating instructions carefully.

These instructions provide you with the necessary guidance for the proper use of your refrigerator. Observe in particular the safety instructions. Observation of the instructions and handling recommendations is important for dealing with the refrigerator safely and for protecting you from injury and the refrigerator from damage. You must understand what you have read before you carry out a task.

Keep these instructions in a safe place close to the refrigerator so they may be referred to at any time.

Your motorhome is fitted with an absorption refrigerator from the Dometic range. The exact model fitted varies, and the model fitted can be confirmed by the data label fixed within the fridge compartment. This label will feature a model number in the format RM8406, RMS8556, RML9336L, RMD8556 or similar.

Using this model number, please read the user instructions for the refrigerator, which are available from the following location:

<http://td.dometicgroup.com/swift.php>



If you are unable to view the documents on line, please contact the supplier, your dealer or Swift for an electronic or paper copy.

## Dometic CU600 Oven



Please read this instruction manual carefully before using the appliance.

If the appliance is given to another party, the instruction manual must also be provided.

### Explanation of symbols

	<b>WARNING</b> Security warning: Ignoring this warning could cause serious injury or death.
	<b>IMPORTANT!</b> Failure to observe this note can cause material damages and affect the operation of the product.
<b>NOTE</b>	<b>NOTE</b> Additional information relative to the use of the product.
	<b>Action</b> This symbol indicates that action is required on your part. The required action is described step-by-step.
<b>Fig. 1</b>	<b>Fig. 1 5</b> This information refers to an element in a figure; in this case, the figure is found in "position 5 in figure 1".

### General safety instructions

The manufacturer does not assume any liability for damages in the following cases:

- Damage to the product resulting from improper use
- Changes to the product without express permission from the manufacturer
- Use for purposes other than those described in the operating manual
- Non-compliant installation and/or connections

#### **WARNING:**

- This warning is located on the appliance.
- This appliance must be installed according to the regulations in force and used only in a well ventilated area.
- Refer to the instructions before installing and using this appliance.
- The appliance must be installed by specialised technicians.

#### **WARNING:**

The appliance and its accessible components become very hot during use. Be extremely careful not to touch the heating elements. Keep children aged under 8 at a safe distance from the appliance unless they are constantly supervised. This appliance can be used by children aged 8 or over and by people with reduced physical, sensory or mental capacities or who are not familiar with the appliance or have no experience in using it, provided they are supervised or have been trained to use the appliance safely in order to understand the inherent risks. Children must not play with the appliance.

 **WARNING:** This appliance must not be cleaned or serviced by children unless they are supervised.

## DOMETIC OVEN

**⚠ WARNING:**

When cleaning, do not use rough abrasive materials or sharp metal scrapers to clean the glass doors of the oven as these products may scratch the surface and cause the glass to shatter. Do not use steam cleaners to clean the appliance.

**⚠ WARNING:**

This appliance has not been designed to operate with an external timer or with a remote control system. If the power cable is damaged, have it replaced by the manufacturer, a technical service centre or a person with similar qualifications, in order to prevent all risks.

**⚠ WARNING:**

Use the appliance in accordance with the intended use. Leaving a cooker unsupervised with grease or oil can be dangerous and may cause a fire. Never attempt to extinguish a fire with water; switch off the appliance and smother the flames with a towel or fire blanket.

**Fire hazard:** Do not keep objects on the cooking surfaces.

**Intended Use****⚠ WARNING:**

This appliance can only be used to cook food. Any other use is deemed incorrect and therefore hazardous. The manufacturer declines liability for damage to property and injury to persons caused by improper, incorrect or irresponsible use.

## Technical Description

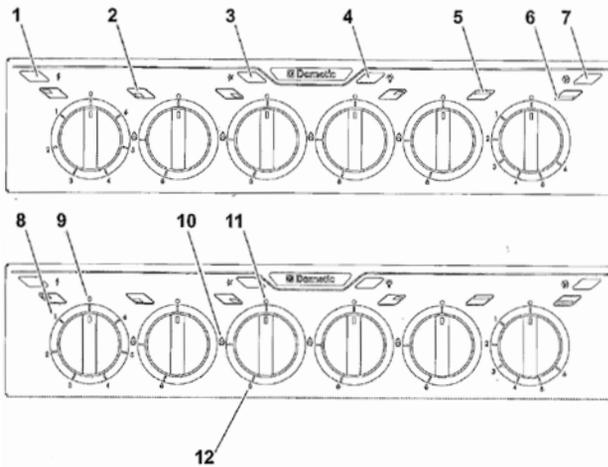


Fig 5

## Control Panel

The following table shows all the buttons and symbols on the appliance.

**NOTE:** Buttons and symbols may vary depending on the model.

Ref	Symbol	Description
1		LED light indicating that the electric hotplate is in operation.
2		Indicates the control knob of a hob burner.
3		Button to actuate electronic ignition.
4		Button to turn on the oven light.
5		Indicates the grill control knob.
6		Indicates the oven control knob.

Ref	Symbol	Description
7		LED light indicating that the fans are on.
8	1-2-3-4-5-6	Oven or electric hotplate temperature.
9	0	Electric hotplate turned off.
10		Maximum adjustment of the flame.
11		Gas turned off.
12		Minimum adjustment of the flame.

# DOMETIC OVEN

## Burners

Model	Heat Output												Rated Power		
	Semrapid			Auxiliary			Grill			Oven			Electric Hotplate		
	Ø 62mm			Ø 47mm											
No.	kW	gr/h	No.	kW	gr/h	No.	kW	gr/h	No.	kW	gr/h	No.	W	gr/h	
<b>CU601PE</b>	2	1.8	131	1	1	73	1	1.6	116	1	2	146	1	800	200/240

### Use (additional safety warning)

**⚠ WARNING:**

This appliance must only be used by responsible adults. The accessible parts may be hot during and immediately after use; do not touch them and keep children away. After cooking, return the knob(s) to the closed position(s). After use, close the main gas line tap.

**⚠ WARNING:**

This appliance may not be used by people (including children) with impaired physical and mental capacities, or with no experience in using electrical appliances, unless they are supervised and instructed by a person who is responsible for their safety.

Children must be controlled to make sure they do not play with the appliance.

The use of a gas cooking appliance leads to the generation of heat and moisture in the room in which it is installed. Make sure to provide good ventilation in the kitchen: keep natural ventilation openings open or install a mechanical ventilation device (mechanical extractor hood).

Intense and prolonged use of the appliance may require supplementary aeration such as the opening of a window or more effective ventilation such as an increase in the power of the possible mechanical extractor hood.

**NOTE:** When cooking food for the first time, leave the oven and the grill on at maximum capacity. The oven must be kept on for at least 30 minutes and the grill must be kept on for 15-20 minutes. Remove any liquids overflowing on the cover before opening.



This warning is clearly shown on the glass cover of the hob. The glass covers may break if heated. Ignition of any of the burners (hob, oven and grill) must always be done with the cover raised, and always turn off all the burners (hob, oven and grill) and leave them to cool down before closing the cover.



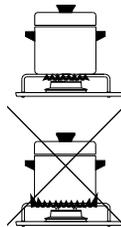
Models bearing this label on the lid have a device that only allows for gas flow when the lid is fully open.

## Hob

### Selecting the burner

**⚠ WARNING:**

The flame must not spread over the edges of the cookware. Place the cookware centrally on the burner, so that it is stable on the support grid.



Burner	Cookware Diameter
Auxiliary Ø 47mm	from 60mm to 160mm
Semrapid Ø 62mm	from 160mm to 220mm

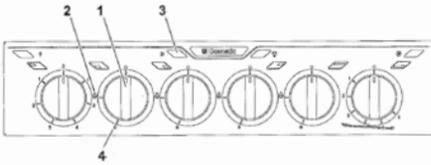


Fig 6

### Electric ignition of the hob

#### ⚠ WARNING:

Ignition must be done without any cookware or other object on the burners.

- To generate the flame, fully press down the control knob (Fig. 6 1) and turn it to the large flame position (Fig. 6 2).
- Simultaneously push down the electronic ignition button (Fig. 6 3).
- Once the flame has been generated, press the knob down for a few seconds so that the flame remains lit.

#### ⚠ WARNING:

If the burner does not turn on:

- turn the knob to the small flame position (Fig. 6 4)
- proceed with manual ignition;
- check that there is gas in the cylinder.

If the device does not work. close the gas inlet tap and contact your dealer.

### Manual ignition of the hob

If the electronic ignition does not work, the manual ignition is used as a substitute.

#### ⚠ WARNING:

Ignition must be done without any cookware or other object on the burners.

- To generate the flame, fully press down the control knob (Fig. 6 1) and turn it to the large flame position (Fig. 6 2).
- Simultaneously ignite the burner with a match or gas lighter.

- Once the flame has been generated, press the knob down for a few seconds so that the flame remains lit.

#### ⚠ WARNING:

If the burner does not turn on:

- check that there is gas in the cylinder.

If the device does not work, close the gas inlet tap and contact your dealer.

### Regulation the hob flame

- To adjust the flame, turn the knob to the desired position (Fig. 6 1).

### Oven

#### ⚠ WARNING:

The burner must only be ignited when the door is fully open. The rack, drip pan (tray) or the pan must be positioned in the oven in a way that they are not directly in contact with the flames. If the burner flame accidentally goes out, close the gas knob and wait a minute before relighting.

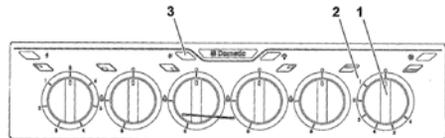


Fig 7

### Electronic ignition of the oven

- To generate the flame, fully press down the control knob (Fig. 7 1) and turn it from position 1 to 6 (Fig. 7 2).
- Simultaneously push down the electronic ignition button (Fig. 7 3).
- Once the flame has been generated, press the knob down for a few seconds so that the flame remains lit.

# DOMETIC OVEN

**⚠ WARNING:**  
If the burner does not turn on:

- proceed with manual ignition;
- check that there is gas in the cylinder.

If the device does not work, close the gas inlet tap and contact your dealer.

### Manual ignition of the oven

If the electronic ignition does not work, the manual ignition is used as a substitute.

- To generate the flame, fully press down the control knob (Fig. 7 1) and turn it from position 1 to 6 (Fig. 7 2).
- Simultaneously ignite the burner with a match or gas lighter.
- Once the flame has been generated, press the knob down for a few seconds so that the flame remains lit.

**⚠ WARNING:**  
If the burner does not turn on:

- check that there is gas in the cylinder.

If the device does not work, close the gas inlet tap and contact your dealer.

### Regulating the oven flame

- To adjust the flame, turn the knob to the desired position (Fig. 7 1).

Position	Temperature
1	120°C
2	150°C
3	180°C
4	200°C
5	220°C
6	240°C

**NOTE:** As soon as the oven burner flame is turned on, it remains at the maximum flow rate in all positions of the knob and then automatically decreases to the minimum flow rate when the set oven temperature is reached.

### Grill

**⚠ WARNING:**  
The burner must only be ignited when the door is fully open.

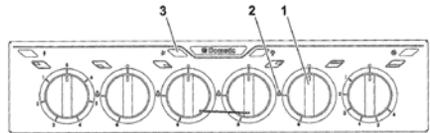
If the burner does not light immediately, release the knob and repeat the operation after 10 seconds.

The door must always be opened during operation.

Never use the grill for more than 25 minutes. The grill cannot be used as an oven.

If the burner flame accidentally goes out, close the gas knob and wait a minute before relighting.

Accessible parts may be hot when the grill is used, keep children away.



**Fig 8**

### Electronic ignition of the grill

- To generate the flame, fully press down the control knob (Fig. 8 1) and turn it to the large flame position (Fig. 8 2).
- Simultaneously push down the electronic ignition button (Fig. 8 3). Once the flame has been generated, press the knob down for a few seconds so that the flame remains lit.

**⚠ WARNING:**  
If the burner does not turn on:

- proceed with manual ignition;
- check that there is gas in the cylinder.

If the device does not work, close the gas inlet tap and contact your dealer.

### Manual ignition of the grill

If the electronic ignition does not work, the manual ignition is used as a substitute.

- To generate the flame, fully press down the control knob (Fig. 8 1) and turn it to the large flame position (Fig. 8 2).
- Simultaneously ignite the burner with a match or gas lighter.
- Once the flame has been generated, press the knob down for a few seconds so that the flame remains lit.

#### **⚠ WARNING:**

If the burner does not turn on:

- check that there is gas in the cylinder.

If the device does not work, close the gas inlet tap and contact your dealer.

### Regulating the grill flame

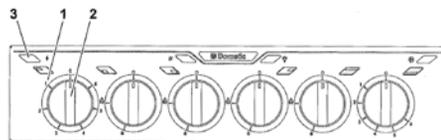
- To adjust the flame, turn the knob to the desired position (Fig. 8 1).

### Visual inspection of the flame

Depending on the type of gas used, the flame appears as follows:

- Propane (G31): flame with blue internal pin point and clear outline.
- Butane (G30): flame with slight yellow tips when igniting the burner; these tips intensify as the burner heats.

### Electric hot plate (depending on model)



**Fig 9**

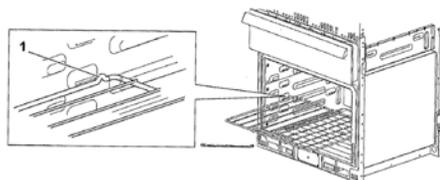
**NOTE:** When the electric hot plate is turned on for the first time, or if it has not been used for some time, the absorbed humidity must be removed by turning the plate on for 30 minutes on position 1 of the knob (Fig. 9 1). Use cookware with a flat bottom and with a diameter smaller than the diameter electric hotplate.

#### **⚠ WARNING:**

Dry the bottom of the cookware before placing it on the electric hotplate. When using the hot plate, do not leave the appliance unattended and make sure children are not nearby.

The electric hot plate is controlled by a 7-position knob (Fig. 9 2 : the off position is represented by the 0 (zero), while the positions from 1 to 6 are used to operate the electric hot plate. The scale from 1 to 6 corresponds to the increasing heat intensity generated by the electric hot plate. There is a red LED light near the knob that lights up when the electric hot plate is in operation (Fig. 9 3).

### Accessories



**Fig 10**

The rack and drip pan have a block that prevents accidental extraction (Fig.10 1). For a correct insertion, the blocks must be facing upwards and toward the inside of the appliance. To extract, slightly lift the front of the rack or the drip pan.

## DOMETIC OVEN

## LPG

**⚠ WARNING:**

The use of gas and/or a pressure different from those indicated by the manufacturer could cause irregular and incorrect operation of the appliance. The manufacturer declines all liability for the incorrect or improper use of the appliance.

**Gas leaks**

Dometic recommend using a certified electronic gas leak detector.

If you smell gas:

- open the windows and immediately get all people out of the motorhome..
- Never touch electrical switches, light matches or do anything that could ignite the gas.
- Extinguish any open flame.
- Close the gas tank valve, and do not open until the gas leak has been detected and eliminated.
- Contact an authorised technician.

**Cleaning and maintenance****Cleaning the appliance****⚠ WARNING:**

Before cleaning, switch off the appliance, disconnect it from the mains power supply and wait for it to cool down.

**Note:** Hot surfaces could be damaged if they come into contact with cold water or a damp cloth.

Do not use abrasive, corrosive, chlorine-based products, scourers or steel wool.

Do not leave acid or alkaline substances (vinegar, salt, lemon juice, etc.) on appliance surfaces.

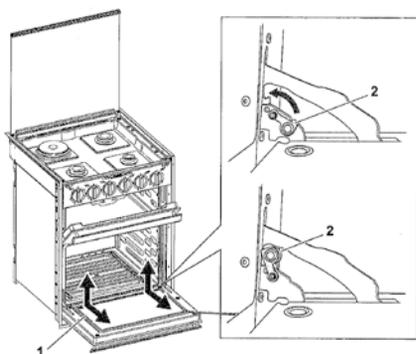
For stainless steel surfaces and enamelled parts: wash with soap and water or mild detergent, rinse and dry. Use clean sponges and cloths.

**⚠ WARNING:**

Do not use rough abrasive material or sharp metal scrapers to clean the glass oven doors as these products may cause the glass to shatter. Do not use steam cleaners to clean the appliance.

- Clean surfaces with soap and water or mild detergent, rinse and dry. In particular, remove oil residues and encrusted grease.

## Removing the door



**Fig 11**

To facilitate cleaning, you can remove the door from the oven as follows:

- fully open the oven door (Fig. a 1).
- Position the hooks of both hinges as indicated (Fig. a 2).
- Slightly raise the front of the door (Fig. a 1) and pull it out.

To replace the door follow the procedure in reverse.

## Warranty

The statutory warranty period applies. If the product is defective, please contact the local manufacturer in your country (the address is on the back of the instruction manual) or your reference specialised dealer.

For repair and warranty processing, the following documents must be included when sending the appliance:

- a copy of the receipt showing the date of purchase;
- a reason for the claim or a description of the fault.

## MICROWAVE

## Microwave oven general user instructions

**Note:** Always refer to the microwave operating instructions supplied with the vehicle.

**Note:** Take precautions to avoid possible exposure to excessive microwave energy

**⚠ WARNING:**

- a. Do not attempt to operate this oven with the door open since open door operation can result in harmful exposure to microwave energy. It is important not to defeat or tamper with the safety interlocks.

**⚠ WARNING:**

- b. Do not place any objects between the oven front face of the door or allow soil or cleaner residue to accumulate on sealing surfaces.

**⚠ WARNING:**

- c. If the door or door seals are damaged, the oven must not be operated until it has been repaired by a competent person.

**⚠ WARNING:**

- d. It is hazardous for anyone other than a competent person to carry out a service or repair operation.

**⚠ WARNING:**

- e. Liquids or other foods must not be heated in sealed containers since they are liable to explode.

**⚠ WARNING:**

- f. Only allow children to use the oven without supervision when adequate instruction has been given so that the child is able to use the oven in a safe way and understands the hazards of improper use.

**⚠ WARNING:**

- g. When the appliance is operated in the combination mode, children should only use the oven under adult supervision due to the temperature generated. (if provided)

## Important safety guidance

**⚠ WARNING:** To prevent fire, burns, electric shock and other warnings. Listed below are, as with all appliances, certain rules to follow and safeguards to assure high performance from this oven.

### Important instructions

1. Do not use the oven for any reason other than food preparation, such as for drying clothes, paper, or any other non food items or for sterilizing purposes.
2. Do not use the oven when empty, this could damage the oven.
3. Do not use the oven cavity for any type of storage, such as papers, cookbook, cookware etc.
4. Do not operate the oven without the glass tray in place. Be sure it is sitting properly on the rotating base.
5. Make sure you remove caps or lids prior to cooking when you cook food sealed in bottles.
6. Do not put foreign material between the oven surface and door. It could result in excessive leakage of microwave energy.
7. Do not use recycled paper products for cooking. They may contain impurities which could cause sparks and/or fires when used during cooking.
8. Do not pop popcorn unless popped in a microwave approved popcorn popper or unless it's commercially packaged and recommended especially for microwave ovens. Microwave popped corn produces a lower yield than conventional popping; there will be a number of unpopped kernels. Do not use oil unless specified by the manufacturer.
9. Do not cook any food surrounded by a membrane, such as egg yolks, potatoes, chicken livers, etc., without first piercing them several times with a fork.
10. Do not pop popcorn longer than the manufacturer's directions. (Popping time is generally below 3 minutes). Longer

cooking does not yield more popped corn it can cause scorching and fire. Also, the cooking tray can become too hot to handle or may break.

11. If smoke is observed, switch off or unplug the appliance and keep the door closed in order to stifle any flames.
12. When heating food in plastic or paper containers, keep an eye on the oven due to the possibility of ignition.
13. The contents of feeding bottles and baby food jars shall be stirred or shaken and the temperature checked before consumption, in order to avoid burns.
14. Always test the temperature of food or drink which has been heated in a microwave oven before you give it to somebody, especially to children or elderly people. This is important because things which have been heated in a microwave oven carry on getting hotter even though the microwave oven cooking has stopped.
15. Eggs in their shell and whole hard-boiled eggs should not be heated in microwave ovens since they may explode, even after microwave heating has ended.
16. Keep the waveguide cover clean at all times. Wipe the oven interior with a soft damp cloth after each use. If you leave grease or fat anywhere in the cavity it may overheat, smoke or even catch fire when next using the oven.
17. Never heat oil or fat for deep frying as you cannot control the temperature and doing so may lead to overheating and fire.

18. Liquids, such as water, coffee, or tea are able to be overheated beyond the boiling point without appearing to be boiling due to surface tension of the liquid. Visible bubbling or boiling when the container is removed from the microwave oven is not always present.

**This could result in very hot liquid suddenly boiling over when a spoon or other utensil is inserted into the liquid.**

**To reduce the risk of injury to persons:**

- a. Do not overheat the liquid.
- b. Stir the liquid both before and halfway through heating it.
- c. Do not use straight-sided containers with narrow necks.
- d. After heating, allow the container to stand in the microwave oven for a short time before removing the container
- e. Use extreme care when inserting a spoon or other utensil into the container.

## MICROWAVE / COOKER HOOD

**Care of the microwave**

1. Turn the oven off before cleaning
2. Keep the inside of the oven clean. When food spatters or spilled liquids adhere to oven walls, wipe with a damp cloth. Mild detergent may be used if the oven gets very dirty. The use of harsh detergent or abrasives is not recommended.
3. The outside oven surface should be cleaned with soap and water, rinsed and dried with a soft cloth. To prevent damage to the operating parts inside the oven, water should not be allowed to seep into the ventilation openings.
4. If the Control Panel becomes wet, clean with a soft dry cloth. Do not use harsh detergents or abrasives on the Control Panel.
5. If steam accumulates inside or around the outside of the oven door, wipe with a soft cloth. This may occur when the microwave oven is operated under high humidity conditions and in no way indicates malfunction of the unit.
6. It is occasionally necessary to remove the glass tray for cleaning. Wash the tray in warm sudsy water or in a dishwasher.
7. The roller guide and oven cavity floor should be cleaned regularly to avoid excessive noise. Simply wipe the bottom surface of the oven with mild detergent water or window cleaner and dry. The roller guide may be washed in mild sudsy water.
8. The oven should be cleaned regularly and any food deposits removed;
9. Failure to maintain the oven in a clean condition could lead to deterioration of the surface that could adversely affect the life of the appliance and possibly result in a hazardous situation.

**Dometic CK500 Cooker Hood**

The Dometic CK500 cooker hood is fitted to Kon-tiki models, and features a filter that is detachable and washable, LED lighting and two 12v fans.

For details of the operation and maintenance of the cooker hood, please read the information at the following locations:

<http://www.manuals.dometic.com/swift.php>



## Thetford Toilet



Your motorhome is fitted with a Thetford C260 toilet, which is plumbed directly into the motorhome water system, and does not have its own flush tank. Using the C260 model number, please read the user instructions for the toilet, which are available from the following location:

<https://www.dropbox.com/s/uwbfrtwcium021z/C260%20UM%20EN.pdf?dl=1>



If you are unable to view the documents on line, please contact the supplier, your dealer or Swift for an electronic or paper copy.

## Windows

### Seitz Window Systems

To open, depress the button on the handle and turn the handle, the majority rotate anti-clockwise with one handle on the right stay that will rotate clockwise.

Once all catches are open swivel the window pane open to the desired position. These positions are set by a ratchet on the stay, it has 3 pre-set positions. To close, open the window all the way past the last position and it will then close.

All opening windows have two catch positions. The first position is for ventilation the second seals the window from ventilation and rain.



### Window Friction Stays

Friction stays allow for positioning of window at any point through its opening angle.



Catcher enables three positions of the window. Open position is where the handle is open placed on the outer part of the catcher. If the handle is placed in the middle of the catcher, this is position for ventilating. Closed position is position where the handle is closed on the inner part of the catcher.

## WINDOWS

### Window Condensation

Some windows are not vacuum sealed. Instead the double panes of acrylic plastic are fitted with a breathable plug on the inner pane.

It is possible, in weather where extremes in temperatures occur between night and day, you may notice condensation between the panes.

The same phenomenon may also occur when washing your vehicle on a hot day.

The condensation should clear itself when the ambient conditions return to normal and the air between the panes dries. However, if this is taking a longer time than required, the breathable plug (normally located in the top corner of the window) can be removed, with a pin or sharp object, and replaced when the panes are dry. Care should be taken when doing this.



### Acrylic (Plastic) Window Cleaning

The material used to produce most motorhome windows is acrylic plastic. While the acrylic used is very durable, it is able to be scratched with relative ease and therefore, care must be taken when cleaning your vehicle not to use aggressive cleaning products.

Equally, care should be taken when using a drying cloth that it is clean and free from grit.

### While Driving

When vehicle is in motion all windows must be fully closed.

### Sun blinds

Never use blind on direct sunlight. If you use the blind on direct sunlight, also for a shorter period, heat will accumulate between window and blind and the window may get damaged (will start bending, ballooning).

### Cleaning

Never use abrasive and corrosive substances or solvents on windows, such as turpentine, spirit, dishwasher detergents, as they will damage acrylic and/or print. We recommend cleaning with generous amount of water or mild cleaner intended for use on acrylic. Even cleaning with dry cloth can damage the acrylic and leave scratches; always use moist sponge or moist soft cloth. Never clean windows with high pressure washer. Also carwash can damage windows and cause scratches or other damages.

**Note:** Acrylic material can get scratched very easily, please consider above instructions for cleaning, so that you will not cause scratches or other damages while cleaning.

### Condensation

Condensation can appear on the window or between both panes. This is a normal occurrence that appears because of different temperatures inside and outside and properties of acrylic itself. Condensation will disperse after some time. This doesn't mean that there is something wrong with the window or that it is leaking. With properly ventilating the vehicle, you can in most cases prevent condensation.

## Horrex Window Blinds

To operate, pull down or up by holding the finger bar.

- The blind will come up from the bottom of the cassette to close and the flynet will come down from the top
- Only operate by holding the finger(s) - pulling on one side will cause uneven running and snagging.
- It is not recommended that blinds and/or flyscreens are left in the down position for long periods, or when travelling, as this can result in fatigue of the spring.
- Clean the cassette, side track and fabrics with mild detergent and water.
- Lubrication of mechanism or spring is not required or recommended.

For more detailed information, see manufacturer's instructions.

### Blind Advice

In case of prolonged exposure to the sun roller blinds should not be completely closed as this could cause excessive heat concentration at the top of the window, due to characteristics of the glazing material the windows could be adversely affected.

Blinds that shade from the bottom upwards it is necessary to leave a gap of a few centimetres open at the top, this way the heat between window and blind can escape. A fly screen does not cause an obstruction.

Blinds that shade from the top downwards must be kept completely open, or be opened regularly to allow the heat to escape.

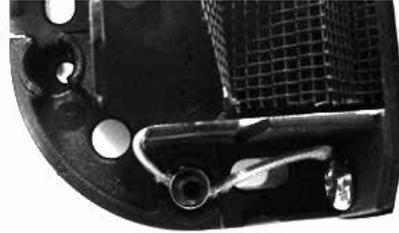
Keeping the windows in ventilation position allows heat to escape.

Never fully close a roller blind system when storing the vehicle or when not in use for longer periods!

For vehicles containing blinds from the top downwards or with other types of reflective blinds / curtains, please make sure that these blinds are also ventilated or not fully closed.

Ensure that all windows and roof vents are closed when the vehicle travels on the road.

### To adjust the tension of the Horrex blind:



In each corner piece there is an cord tensioner (see photo). By unscrewing the hexagon screw, the cord can move through the cord tensioner. When you pull the cord, the tension will get higher, when you let it move back the tension will get less.

**Care instructions:** Clean the blind only with a damp sponge. Clean on a regular basis to avoid dirt particle build up as this can damage the blind material.

Use only water or with mild suds or a vacuum cleaner.

In order to avoid material fatigue, do not leave the flynet closed for a long time.

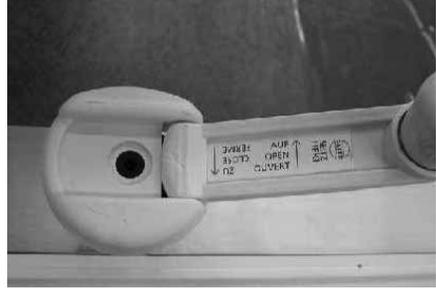
## POD VENT

**Pod Vent**

A large opening vent is provided in the luton bed area for ventilation purposes. To open the vent, press the buttons on the handles and turn the handles to release the catches. Once all the catches are released the vent will open until the gas struts restrict any further travel. Please note that the vent is only designed to open through a small angle.



**⚠ WARNING:** Before setting off, the vent must be shut and all catches engaged. To do this, pull the vent shut by the handles, press the buttons and turn them to engage the catches. Should the engine be started with the vent open, an audible warning will sound. Please be aware this warning will not alert the driver if the catches have not been properly engaged, only if the vent is left open when the engine is running.

**All roof windows and Skyviews**

Before starting off, check the roof light for damage in the dome (tension cracks) and the opening mechanism which could arise owing to, for example, branches and other natural causes. Do not put weight on the screen.

Do not leave the vehicle with the roof light open (danger of burglary and water penetration).

Do not open in strong wind, rain or snowfall. Before opening, remove snow, ice, dirt etc. from the dome.

Malfunctions must be repaired by an approved dealer at once. Do not use caustic detergents (danger of tension cracks in the dome).

Before setting off close the glazed panel dome and check the locking mechanism.

Avoid high speed (maximum speed recommended is 130 km/h). Do not close the blind more than 2/3 during the day (danger of heat build up). Before starting off, open the blind.

**Care instructions**

Clean the dome with the Seitz acrylic cleaner.

Opaque spots and light scratches on the dome can be removed with the Seitz Acrylic Polish and the Seitz Special Polishing cloth.

Use talcum powder regularly (4 times yearly) to care for the rubber seals.

Clean the blinds only with water and mild soap suds or a vacuum cleaner.

**Note:** The guarantee becomes null and void if the care and safety instructions are not followed.

**Roof lights**

When opening the roof lights, care must be taken to release the locking mechanism as the unit is raised.

Roof lights must be fully closed when driving. Roof lights provide essential fixed levels of ventilation.

**Roof light blind and flyscreen**

The blind and flyscreen operate Independently of each other and are engaged by connecting to each other and sliding.

**Safety precautions:**

1. Repairs should be carried out only by trained personnel.
2. Inform an approved dealer in case of defects and malfunctions.
3. Before starting off, check the rooflight for damage in the acrylic dome (tension cracks) and the winding mechanism which could arise owing to, for example, branches and other natural causes.
4. Do not step on the acrylic dome.
5. Close the roof light before starting off (check whether it is locked).
6. Do not leave the vehicle with the rooflight open (danger of burglary or from rain).
7. Do not open in strong wind or rain.
8. Before opening, remove snow, ice, dirt, etc. from the acrylic dome.
9. Malfunctions are to be repaired by an approved dealer at once.
10. Do not use caustic detergents (danger of tension cracks in the acrylic dome).
11. Do not operate whilst the vehicle is moving.

# HEKI ROOFLIGHTS

## Midi-Heki rooflight

### Opening the Dome



### Intermediate position for the dome

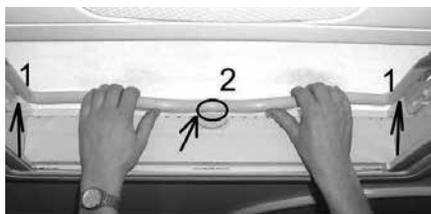
By pushing the bar into the marked rest position, two extra opening angles, apart from the one in which the dome is fully opened, can be chosen.



### Closing the Dome

#### (drive and rest position)

Push the bar with both hands on the right and the left side in such a way that the hook bolt (1) the dome on the left and the right side and the bar lies on the push button (2). Check if the dome is locked.



**⚠ WARNING:** The retaining catches are designed to hold the skylight open to the selected position. In gusty or windy conditions the Skylight should be closed to prevent it from being blown fully open or slamming shut.



#### With crank

To open, rotate the crank until a resistance is noticeable during the operation.

To close, reverse the operation and then check if locked into position.



#### Electric version

To open, push button until desired position is reached or the electric motor switches off.

To close, reverse the operation and then check if locked into position.

#### Care instructions:

- Please clean the acrylic panes with the Seitz Acrylic Cleaner.
- Stains and light scratches on the acrylic pane can be removed by using the Seitz Acrylic Polish and the Seitz special polishing cloth.
- Use talcum powder (4 times yearly) to care for the rubber seals
- Clean the blinds only with water and mild soap suds
- The guarantee becomes null and void if these instructions are not followed.

## OMNISTEP

**Omnistep single step****Operation**

The OMNISTEP is operated by the lever switch.

**Important:** when extending the step, hold the switch until the step is completely extended. Never mount the step if retracted or if not fully extended, because then the blocking is not working and the motor can be damaged.

Check if the step is retracted before departure.

**Maintenance**

Dirt and frost can prevent the step from operating properly. In this case the moving parts should be cleaned or defrosted.

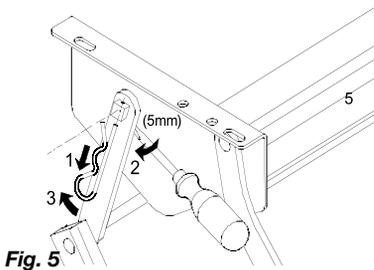
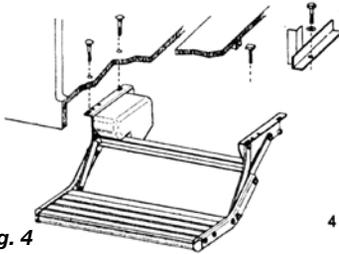
All points of movement are layered in maintenance-free bearings.

**In case of electrical failure**

If the step does not retract by motor: Loosen the square connection according to fig. 5 (actions 1, 2 and 3), push the footboard in (4) and tie it to the frame.

**Current drawn**

5 A. When fully extended or retracted:  
14-18 A



## VB Air Suspension

### System overview

Your system is equipped with one of the fully automatic air suspension systems shown below.

In view of the many possibilities and options, the design of your system may differ from that described here and certain options may not be included.

**Note:** Read and follow all the safety instructions. This is important for your own safety.

### Product description

VB-FullAir is a fully automatic, electronically-controlled air suspension system for light commercial vehicles, motorhomes and special vehicles. The electronic control system ensures that the vehicle maintains the same ride-height in any load situation. The ride-height is controlled by height sensors mounted between the chassis and the axle. Height control is always active after switching on the ignition or during the extra time.

Manual operation for raising or lowering the vehicle can be activated in two ways. This depends on the option supplied to you.



VB-FullAir-2C



VB-FullAir-4C



VB-FullAir-2C



VB-FullAir-3C



VB-FullAir-4C

## AIR SUSPENSION

Depending on the available spring travel, the vehicle can be levelled when standing still using the AutoLevel function.

- Automatic level control with the VB-Airsuspension system cannot prevent damage to the vehicle or superstructure due to overload.
- Always make sure the vehicle is not overloaded. When using the air suspension system, overloading is not visible. If you are in any doubt, VB-Airsuspension advises you to weigh the axles before driving the vehicle.

### Use

The VB-Airsuspension system improves the suspension and automatically controls the height of the front and rear axles on the chassis.

Improper use can have undesirable consequences. VB-Airsuspension is not liable for any resulting damage.

### Safety instructions

**Note:** The built-in air suspension system must not be modified.

- Never drive the vehicle with a setting other than ride-height or SPORT, except with caution and at a speed not exceeding approximately 30 km/h. This is advisable to avoid damage to the chassis or the air suspension system.
- Before raising or lowering the vehicle when standing still:
  - Secure vehicle against rolling away
  - Make sure there is no possibility of injury or damage to people and property.
- Do not depress the brake pedal (if it is possible) while raising or lowering the vehicle. This is advisable to relieve the brake and avoid tension in the chassis.
- Always use a jack or vehicle lift to change a wheel or carry out service work.
- Before raising one or more axles with a jack or vehicle lift, switch off the air suspension system with the SERVICE button.

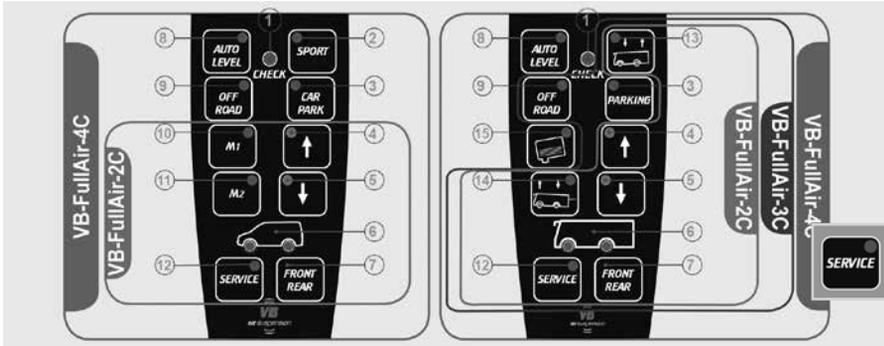
- The air suspension system must not be used to lift wheels from the ground during service work (to change a wheel for example).
- Errors and/or faults in the air suspension system can have an undesirable effect on driving stability. This may cause the vehicle to sway and/or swing.
- When using snow chains, do not allow the vehicle to fall below the ride-height.

#### **WARNING:** Risk of damage!

In case of damage or faults that cannot be rectified, press this button to deactivate the system. Contact an approved VB-partner immediately. The check light comes on to indicate a fault. If this happens, drive extra carefully and at much lower speed.

#### **WARNING:** Removing the fuses deactivates the system.

## Controls



Button	Summary	Speed
1	Check light	
2	Sport	> 0 km/h
3	Car Park	< ± 30 km/h
	Parking	< ± 30 km/h
4	Vehicle height - up	< ± 5 km/h
5	Vehicle height - down	< ± 5 km/h
6	Display - selected axle	< ± 5 km/h
7	Front - Rear	< ± 5 km/h

Button	Summary	Speed
8	AutoLevel	
9	OffRoad	< ± 5 km/h
10	Vehicle height 1	< ± 5 km/h
11	Vehicle height 2	< ± 5 km/h
12	Service	< ± 5 km/h
13	Forward position	< ± 30 km/h
14	Backward position	< ± 5 km/h
15	Water tank	

**Note:** When raising or lowering, make sure there is enough space above, under and along the vehicle.

The air suspension system is ready for use when you switch on the ignition.

While driving, the control functions are limited or unavailable. In such situations, the safe ride-height is controlled automatically.

“When raising or lowering with the handbrake on, tension or noises may occur in the vehicle. If you then release the handbrake, there may be unexpected, slight up-and-down movements.”

# AIR SUSPENSION

## Starting the air suspension system

1. Switch on the air suspension system
- The check light comes on for one second: The system has started correctly.



- LED of the front and/or rear axle comes on: The vehicle is at driving level. The height of the selected axle(s) can be adjusted.
- LEDs of the front and/or rear axle and a function button come on: The selected level has been reached.

### 'Selected axle' display

One or both LEDs in the displayed vehicle show the axle(s) for which manual adjustment is enabled.



An extra control switch can be fitted - on the rear doors for example.

### Commercial vehicle ride-height/axle selection



1. Switch on ignition, apply handbrake. Vehicle standing still or driving at  $< \pm 5$  km/h.
2. Give FRONT REAR button a short press: at vehicle height, one or both LEDs come on.
3. Give FRONT REAR button a long press: axle selection active.



## Raise vehicle



1. Switch on ignition, apply handbrake. Vehicle standing still or driving at  $< \pm 5$  km/h.
2. Keep UP arrow button pressed until the desired level is reached.
  - The button flashes during raising.
  - The button is lit continuously when the level is reached.



### Alternatively

1. Give the UP arrow button a short press. The vehicle is raised to the highest position.
  - The button flashes during raising.
  - The button is lit continuously when the highest level is reached.



## Ending the function

- Give the DOWN arrow button a short press.
- Give the FRONT REAR arrow button a long press.



### Lower vehicle



1. Switch on ignition, apply handbrake. Vehicle standing still or driving at  $\pm 5$  km/h.
2. Keep DOWN arrow button pressed until the desired level is reached.
  - The button flashes during raising.
  - The button is lit continuously when the level is reached.



### Alternatively

1. Give the DOWN arrow button a short press. The vehicle is lowered to the lowest position.
  - The button flashes during lowering.
  - The button is lit continuously when the lowest level is reached.



### Ending the function

- Give the UP arrow button a short press.
- Give the FRONT REAR arrow button a long press.



### Reset commercial vehicle to ride-height



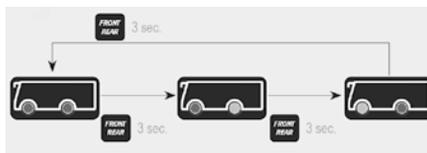
- From unknown level:
1. Give the FRONT REAR button a long press  
Vehicle is brought to ride-height.

Lowering the vehicle can make it easier for people to get in and out, etc.

### Motorhome ride-height/axle selection



1. Switch on ignition, apply handbrake. Vehicle standing still or driving at  $\pm 5$  km/h.
2. Give the FRONT REAR button a short press: at vehicle height, one or both LEDs come on.
3. Give the FRONT REAR button a long press: axle selection active.



### Raise motorhome



1. Switch on ignition, apply handbrake. Vehicle standing still or driving at  $\pm 5$  km/h.
2. Keep UP arrow button pressed until the desired level is reached.
  - The button flashes during raising.
  - The button is lit continuously when the level is reached.



### Alternatively

1. Give the UP arrow button a short press. The vehicle is raised to the highest position.
  - The button flashes during raising.
  - The button is lit continuously when the highest level is reached.

### Ending the function

- Give the DOWN arrow button a short press.
- Give the FRONT REAR arrow button a long press.



## AIR SUSPENSION

**Lower motorhome**

1. Switch on ignition, apply handbrake. Vehicle standing still or driving at  $< \pm 5$  km/h.
2. Keep DOWN arrow button pressed until the desired level is reached.
  - The button flashes during raising.
  - The button is lit continuously when the level is reached.

**Alternatively**

1. Give the DOWN arrow button a short press. The vehicle is lowered to the lowest position.
  - The button flashes during lowering.
  - The button is lit continuously when the lowest level is reached.

**Ending the function**

- Give the UP arrow button a short press.
- Give the FRONT REAR arrow button a long press.

**Reset motorhome to ride-height**

- From unknown level:
1. Give the FRONT REAR button a short press  
Vehicle is brought to ride-height.

**Save level you have set**

1. Switch on ignition. Vehicle standing still or driving at  $< \pm 5$  km/h.
2. Press FRONT REAR button to select the desired axle
3. Press UP button or DOWN button to select the desired level.
4. Keep M1 button or M2 button pressed until a signal is given.

**Activate stored level**

1. Switch on ignition. Vehicle standing still or driving at  $< \pm 5$  km/h.
2. Give M1 button or M2 button a short press
  - The button flashes while the level is moved towards.
  - The button is lit continuously when the level has been reached.

## AutoLevel



**Note:** This function can be used for 6 minutes after the ignition is switched off. During this period the vehicle uses the extra time (option).

With the AutoLevel option, the vehicle is set to a horizontal position (levelled) automatically. This is only possible if the vehicle is standing still and adequate suspension travel is available.

1. Switch on ignition
2. Switch off the ignition and within 6 minutes briefly press AUTOLEVEL button.



- The button flashes during adjustment.
- The button is lit continuously for 10 seconds as soon as the vehicle is in the optimum position.

The system then switches off.

### End function and reset vehicle to ride-height

1. Switch on the ignition and press AUTOLEVEL button briefly.



2. As soon as UP button or DOWN button are no longer lit, the vehicle is at driving level once more.



## Alternatively

After you drive away, the AutoLevel function automatically switches off. The vehicle is reset to ride-height.

**Note:** However, VB-Airsuspension recommends that you reset the vehicle to ride-height before driving away. If you omit to do so, the system automatically resets to ride-height to minimise possible damage.

Your remote control may not include all functions. Find out what you can do.

### OffRoad setting (high driving position)



Press OFF ROAD button to raise the whole vehicle.

This increases the ground clearance.

1. Switch on ignition. Vehicle standing still or driving at  $< \pm 30$  km/h.
2. Give OFF ROAD button a short press.
  - The button flashes during adjustment.
  - The button is lit continuously when the level is reached.

### End function and reset commercial vehicle to ride-height



Give FRONT REAR button or OFF ROAD button a long press.

### End function and reset motorhome to ride-height



Give FRONT REAR button or OFF ROAD button a short press.

## AIR SUSPENSION

### Parking (low driving position)



Press PArkING button to lower the whole vehicle.

To remind you, a beeping sound can be heard while the vehicle remains in the low driving position.

1. Switch on ignition. Vehicle standing still or driving at  $< \pm 30$  km/h.
2. Give PArkING button a short press.
  - The button flashes during adjustment.
  - The button is lit continuously when the level is reached.

### End function and reset commercial vehicle to ride-height



- Give the PArkING button or FRONT REAR button a long press.

### End function and reset motorhome to ride-height



- Give the PArkING button or FRONT REAR button a short press.

### Sport



Press the SPoRT button to lower the whole vehicle while driving. This provides greater stability at higher speeds.

1. Switch on ignition.
2. Give the SPoRT button a short press.
  - The button flashes during adjustment.
  - The button is lit continuously when the level is reached.

### End function and reset commercial vehicle to ride-height



- Give the SPoRT button or FRONT REAR button a long press.

### End function and reset motorhome to ride-height



- Give the SPoRT button or FRONT REAR button a short press.

### Water tank (Tilt vehicle)



The WATER TANK (TILT VEHICLE) button allows you to tilt the vehicle to the side. This makes it easier to empty wastewater tanks of vehicles.

1. Switch on the ignition, vehicle standing still.
2. Give the WATER TANK (TILT VEHICLE) a short press.



- The button flashes during adjustment.
- The button is lit continuously when the maximum tilt angle is reached.

#### End function and reset motorhome to driving level

- Give the WATER TANK (TILT VEHICLE) a short press

### Forward position



The FORWARD POSITION button allows you to tilt the vehicle forwards.

This can be useful if you need ground clearance at the back when manoeuvring.

1. Switch on ignition. Vehicle standing still or driving at  $< \pm 30$  km/h.
2. Give the FORWARD POSITION button a short press.

- The button flashes during adjustment.
- The button is lit continuously when the level is reached.

#### End function and reset motorhome to ride-height



- Give the FORWARD POSITION button or the FRONT REAR button a short press.

### Backward position



The BACKWARD POSITION button allows you to tilt the vehicle backwards.

This can be useful for loading and unloading.

1. Switch on ignition. Vehicle standing still.
2. Give the BACKWARD POSITION button a short press.

- The button flashes during adjustment.
- The button is lit continuously when the level is reached.

#### End function and reset motorhome to ride-height



- Give the BACKWARD POSITION button or the FRONT REAR button a short press

# AIR SUSPENSION

## Service

**⚠ WARNING:** Does the vehicle have a tailgate and/or jacks? Remember: If any of these systems are active at the same time as the air suspension system, the air suspension system must be switched off with the SERVICE button.



- The SERVICE button has only one function:
  - Switching service mode on and off.

**Note:** Service mode can be used to switch off the system in order to carry out work on the air suspension or read out possible faults. To guarantee total safety, we recommend you remove the fuses from the air suspension system.

## Switch service mode on and off



- Press the SERVICE button once
  - The button is lit continuously.

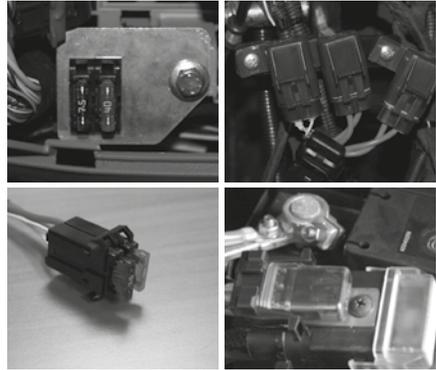
## Reset System

- Switch the ignition off and on again.

## Alternatively

- Remove the fuse (7.5 A) from the fuse box. This is located in the dashboard or under the driver's seat.
  - 7.5 A fuse – for the controller
  - 40 A fuse – for the compressor

**Note:** 7.5 A fuse – for the controller  
40 A fuse – for the compressor



**Note:** The constant ride-height of the vehicle reduces tyre wear and lowers fuel consumption.

## Changing a wheel

### **WARNING: Risk of damage!**



Before raising one or more axles with a jack or vehicle lift, switch off the air suspension system with the SERVICE button.

- The VB-Airsuspension system must not be used to lift wheels from the ground during service work.
- Always use a jack or vehicle lift to change a wheel or carry out other service work. Remove the 7.5 A fuse and replace it afterwards.

## Troubleshooting

- Malfunctions can be diagnosed with the table below. If you cannot correct the fault, contact your nearest trained partner from VB-Airsuspension.
- In case of air loss, immediately contact an authorised specialist workshop and drive extra carefully at much lower speed (max ± 30 km/h).
- Information about trained partners and the spare parts you might need can be obtained from VB-Airsuspension Aftersales. They will be pleased to help.

# AIR SUSPENSION

## Tracing faults

Fault	Possible Cause	Remedy
Vehicle is tilted	Load was moved after the air suspension was switched off	Switch on the air suspension, lower the vehicle and reset the vehicle height
The remote control does not respond.	Ignition switched off	Switch on ignition
	7.5 A fuse faulty	Replace the 7.5 A fuse
	Battery voltage too low	Charge the battery
Compressor not working	Ignition switched off	Switch on ignition
	40 A fuse faulty	Replace the 40 A fuse
	Battery voltage too low	Charge the battery
Compressor does not switch off	Compressor relay faulty	Remove 40 A relay
	Air loss	Consult workshop
Air suspension does not lower	Driving too fast	Stick to speed limit
	7.5 A fuse faulty	Replace the 7.5 A fuse
Air suspension does not raise	Vehicle too heavily loaded	Reduce load
	Driving too fast	Stick to speed limit
	7.5 A fuse faulty	Replace the 7.5 A fuse

**Note:** In case of faults that are not mentioned in this table or that you cannot rectify yourself, contact a trained partner of VB-Airsuspension.

### Basic remote control

In some vehicles the air suspension system is equipped with a 'basic remote control'. This remote control has three fixed modes: highest position, ride-height and lowest position.

#### Check light

1. Activate manual operation:

- The check light comes on for one second:  
*The system has started correctly.*
- The check light remains lit:  
*The vehicle is not at ride-height.*
- The check light keeps flashing:  
*The system detects a fault (see error code for solution).*

#### Switch

1. Activate manual operation:

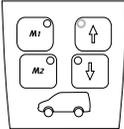
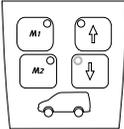
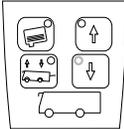
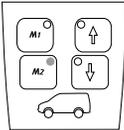
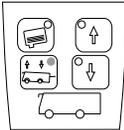
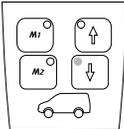
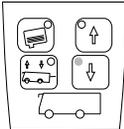
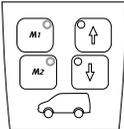
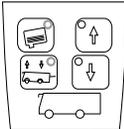
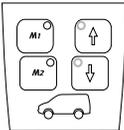
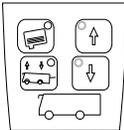
- From highest position, press switch briefly downwards:  
*Vehicle sets itself to ride-height automatically.*
- From lowest position, press switch briefly upwards:  
*Vehicle sets itself to ride-height automatically.*
- From ride-height, press switch briefly downwards:  
*Vehicle sets itself to the lowest position.*
- From ride-height, press switch briefly upwards:  
*Vehicle sets itself to the highest position.*

Error code				
If the system detects a fault, the CHECK-LED on the remote control flashes. If you then press the SERVICE button, a combination of lit and flashing LEDs on the various buttons provides an error code.				
				LEDs on the buttons are off
				LEDs on the buttons are flashing
				LEDs on the buttons are lit

## AIR SUSPENSION

There follows possible error codes and the faults they refer to.

**Note:** In view of the many possibilities and options, your remote control may differ from the example. However, the error codes are the same in all cases.

Commercial vehicle	Motorhome	Basic	Description of fault	Remedy
		 (2)	Compressor used too intensively. Thermal cutout.	Allow compressor to cool down.
		 (2)	Valve block used too intensively. Thermal cutout.	Allow valve block to cool down. Contact workshop if the fault keeps coming back.
		 (4)	Maximum permitted load exceeded.	Reduce load.
		 (4)	Compressor's maximum working pressure reached.	Reduce load.
		 (5)	Battery voltage too low to raise the air suspension.	Start the vehicle's engine.
		 (5)	Start the vehicle's engine.	Charge the vehicle's battery.

### Correcting malfunctions

To clear a fault, turn the ignition on and off again. The fault is now cleared. Contact your conversion station if the fault keeps coming back.

**Note:** In case of faults that are not mentioned in this table or that you cannot rectify yourself, contact your conversion station or a trained partner of VB-Airsuspension.

## Maintenance

VB-Airsuspension systems are low maintenance. However, regular cleaning and visual inspections will help to reduce natural wear.

The following components must be checked for wear, leaks and damage during servicing:

- Air springs
- Air tubes
- Shock absorbers

The level of the vehicle may fall gradually if it is not used for long periods. To avoid permanent deformation and damage to the air springs:

- The vehicle should be supported with corner steadies (accessories).
- The air springs should be re-inflated with compressed air once a week.

### Permitted cleaning agents:

- Soap solution
- Ethanol
- Methanol
- Isopropyl alcohol

### Not permitted:

- Organic solvents
- Abrasives
- Steam and high-pressure cleaners
- Naked flames

## Contact

You may contact us at any time if you have questions or if anything is unclear. Send an email to [info@vbairsuspension.com](mailto:info@vbairsuspension.com)

# HYDRAULICS LEVELLING

## The E&P Hydraulics levelling system (when fitted)

### Operating of the level system

The E&P Hydraulics levelling system is an electrically/hydraulically driven system.

A hydraulic pump is powered by a 12V or 24V direct current motor, which will pump hydraulic oil through a system of hydraulic hoses and four hydraulic jacks. This with the aim stabilizing and levelling the vehicle. Mounted to this pump are the oil tank, the valve block and solenoid (magnetic) valves.

The E&P Hydraulics level system is electronically controlled by an operating system or so called main-unit, which is mounted on a central location in the vehicle.

The level system can be operated either fully automatically or manually by means of a built-in control panel and/or (optional) remote control.

In most frequent cases the control panel is mounted in the sidewall at the entrance of the vehicle.

The four hydraulic jacks are mounted directly to the chassis of the vehicle. The jacks have the bearing and levelling capacity your motorhome requires.

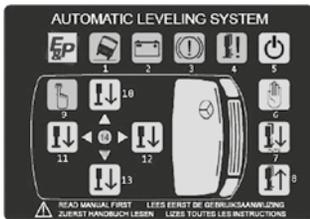
Each hydraulic jack has a 230 mm stainless steel foot plate on a flexible pivot guaranteeing the greatest firmness possible on any surface.



**Pump unit**



**Operating system**



**Control panel**



**Hydraulic jacks**

### Using the level system

- Park the camper on a surface that is as level as possible.
- The HAND BRAKE of the vehicle must be engaged.
- The transmission must be in a neutral position or in the parking position.
- When the levelling system is operating, persons or animals are not allowed in the vehicle.
- The ignition of the vehicle must be switched on.

### Specific characteristics of the level system

- Automatically extending the jacks from a retracted position.
- Automatically retracting the jacks from a extended position.
- Automatically or manually levelling the jacks.
- Alarm mode (jacks not retracted and hand brake disengaged).
- Automatic error message jacks and error mode.
- Configuration function for levelling zero point.

### Safety warnings

**⚠ WARNING:** Not observing the following warnings may lead to damages to the vehicle and/or serious physical injuries.

- Using the E&P Hydraulics levelling system for other purposes than supporting the vehicle is officially forbidden according to E&P Hydraulics limited warranty.
- This product is exclusively developed as a levelling system and may not be used for other work under the vehicle such as changing the tyres, maintenance or applying snow chains.
- When the system is operating, all persons and animals should keep their distance.
- Body parts (e.g. hands and eyes) should never come into contact with released fluids. Oil leaving the hydraulic levelling system may be under high pressure and could cause serious injuries to the skin.
- Never fully lift the vehicle. If the tyres no longer reach the floor, this could lead to unstable and dangerous situations.
- The vehicle should be parked on a solid, level and non-slippery surface. The parking location must be free of holes and free of waste and surrounding objects.
- If the vehicle is parked on very soft soil, you must place a support plate under each jack in order to distribute the weight.
- Check if the installation of the hydraulic level system is performed by a skilled mechanic with sufficient practical experience and technical E&P Hydraulics training.
- In case of repairs/malfunctions to the hydraulic level system: know what you are doing. Never try to repair it yourself, but consult your installer or dealer.
- Fully read this user manual, before using the hydraulic levelling system.
- After deploying the hydraulic level system ALWAYS make an inspection tour around the vehicle. Just to be sure the vehicle stands stable (all hydraulic jacks are on the ground).

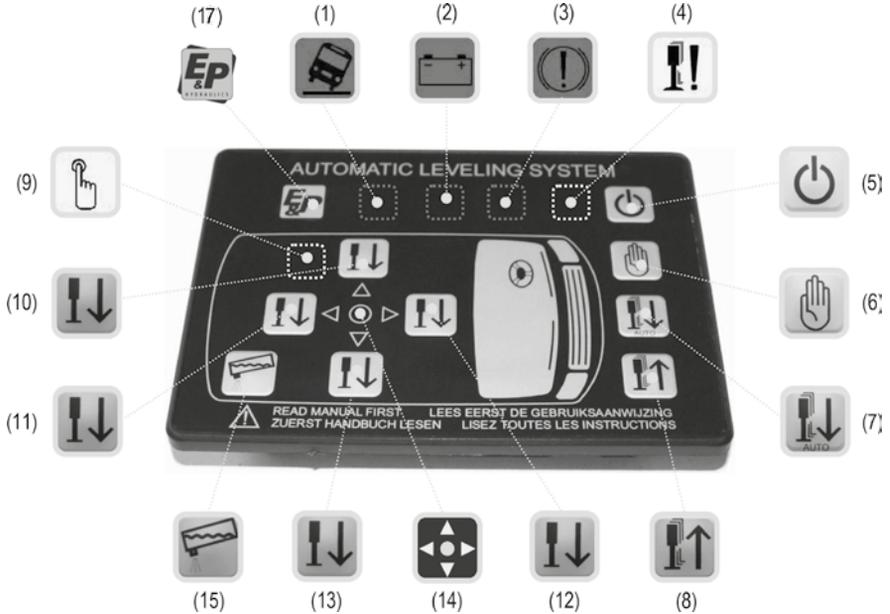
# HYDRAULICS LEVELLING

## Control functions

### Functions on the control panel

The diagram below shows the appearance of the control panel. By using the control panel you can operate the hydraulic level system.

**Note:** See also page 153 for the extensive function declaration concerning buttons and indicator LED's.



### Function declaration

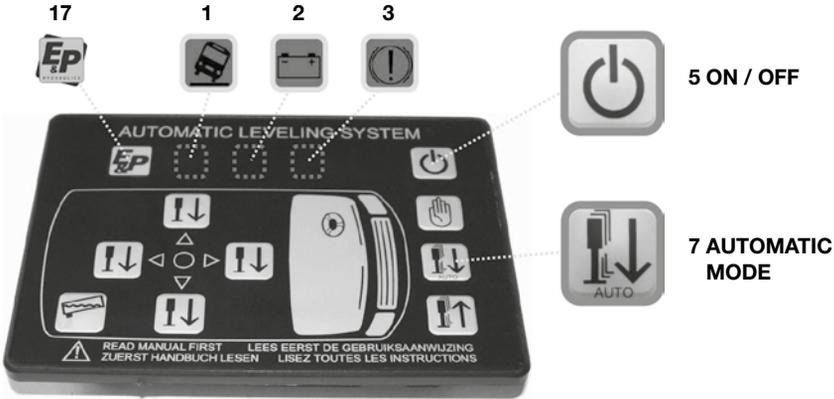
- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li><b>(1)</b> LED: Slope too steep</li> <li><b>(2)</b> LED: Vehicle battery low voltage</li> <li><b>(3)</b> LED: Engage the handbrake</li> <li><b>(4)</b> LED: Jacks not (fully) retracted</li> <li><b>(5)</b> Button: ON / OFF</li> <li><b>(6)</b> Button: Manual mode</li> <li><b>(7)</b> Button: Automatic mode</li> <li><b>(8)</b> Button: Retract all Jacks</li> </ul> | <ul style="list-style-type: none"> <li><b>(9)</b> LED: Manual mode</li> <li><b>(10)</b> Button: Left side</li> <li><b>(11)</b> Button: Rear side</li> <li><b>(12)</b> Button: Front side</li> <li><b>(13)</b> Button: Right side</li> <li><b>(14)</b> LED: Level indicator</li> <li><b>(15)</b> Button: Inclination function</li> <li><b>(17)</b> LED: E&amp;P logo</li> </ul> |
|---|--|

Extensive function declaration			
1		SLOPE TOO STEEP	<b>LED:</b> In this position the vehicle cannot be levelled. (the surface is not even enough) If necessary switch over to manual mode.
2		BATTERY LOW VOLTAGE	<b>LED:</b> The vehicle battery is empty or the voltage is too low to be able to work safely.
3		ENGAGE HAND BRAKE	<b>LED:</b> Message indicating that the handbrake is disengaged. When the hand brake is engaged again, the LED will go out.
4		JACKS NOT (fully) RETRACTED	<b>LED:</b> One or more jacks are extended or not fully retracted.
9		MANUAL MODE	<b>LED:</b> Indicates that the vehicle can now be brought to the correct level manually.
14		LEVEL (zero point)	<b>LED:</b> Indicates that the vehicle can now be brought to the correct level manually.
16		BATTERY 9V VOLTAGE	<b>LED:</b> The battery voltage of the remote control is too low. (only present on the remote control)
17		E&P LOGO	<b>LED:</b> Indicates that the level system is switched on. (only present on the control panel)
5		ON / OFF	<b>BUTTON:</b> Switches the level system on or off.
6		MANUAL MODE	<b>BUTTON:</b> Switches the level system into manual mode for levelling the vehicle.
7		AUTOMATIC MODE	<b>BUTTON:</b> Switches the level system into automatic mode for levelling the vehicle.
8		RETRACT ALL JACKS	<b>BUTTON:</b> Automatically retracts all jacks.
10		LEFT SIDE	<b>BUTTONS:</b> Controls retracting and extending the left jacks.
11		REAR SIDE	<b>BUTTON:</b> Controls retracting and extending the rear jacks.
12		FRONT SIDE	<b>BUTTON:</b> Controls retracting and extending the front jacks.

## HYDRAULICS LEVELLING

<b>13</b>		FRONT SIDE	<b>BUTTONS:</b> Controls retracting and extending the right jacks.
<b>15</b>		INCLINATION	<b>BUTTONS:</b> To empty easily the waste-watertank.

### Operating the level system



#### Automatic levelling

Before starting the automatic levelling procedure: Make sure that the vehicle's parking brake is engaged, the engine is running (the ignition is on). Also note that everyone has exited the vehicle, including yourself.

##### Step 1

Press 1x on the button "ON / OFF" **(5)** to switch the level system ON.

When there is insufficient or no battery voltage, the indicator LED: LOW VOLTAGE **(2)** lights up.

If the hand brake is not engaged, the indicator LED: ENGAGE HAND BRAKE **(3)** lights up.

When the vehicle leans too steeply, the indicator LED: SLOPE TOO STEEP **(1)** lights up.

**Note:** When the vehicle stands too skewed, the vehicle cannot be automatically levelled. You now have two options: Stop the levelling procedure and place the vehicle on a flatter surface and start again with automatic levelling procedure. Or let the vehicle stand as it is and go further with manual levelling procedure..

##### Step 2

Press 1x on the button AUTOMATIC MODE **(7)** to start the automatic levelling procedure.



When the levelling procedure is complete, the indicator LED: LEVEL **(14)** lights up GREEN.

**Note:** Depending on the angle of the terrain and type of vehicle, the automatic levelling procedure takes about 1 minute.

##### Step 3

Press 1x on the button ON / OFF **(5)** to switch the level system OFF.

## Manual levelling

Before starting the automatic levelling procedure: make sure that the vehicle's parking brake is engaged, the engine is running (the ignition is on). Also note that everyone has exited the vehicle, including yourself.

The manual levelling function is mainly used when automatic levelling is not possible due to a large tilt of the vehicle. With the help of this feature it is also possible to change the position of the vehicle; think of your sleeping comfort. Most people prefer to sleep with their head up slightly. Depending on the orientation of the vehicle with this feature you can manually adjust the angle where necessary.

**⚠ IMPORTANT:** Before levelling the vehicle manually (in case of considerable slope) it is advisable to put some extra materials (e.g. wooden plates) under the footplate of the jacks on the lower side, this with the aim to compensate on extreme height difference. This will avoid the risk that the system is not able to level the vehicle due too large difference in height. When the difference in height is too large the hydraulic supports can come to the end of their stroke.



### Step 1

Press 1x on the button "ON / OFF" (no.5) to switch the level system ON.

The E&P-logo LED lights up, indicating that the level system is switched on.

When there is insufficient or no battery voltage, the indicator LED: LOW VOLTAGE (2) lights up.

If the hand brake is not engaged, the indicator LED: ENGAGE HAND BRAKE (3) lights up.

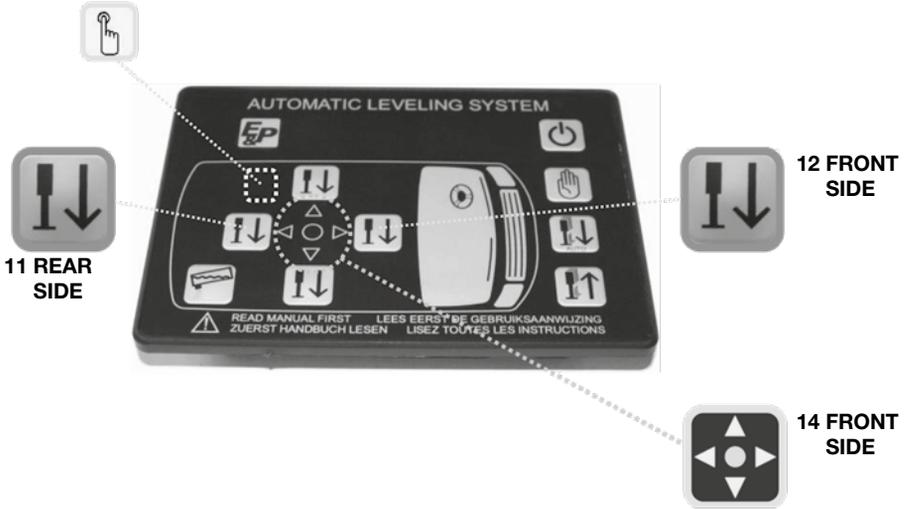
When the vehicle leans too steeply, the indicator LED: SLOPE TOO STEEP (1) lights up.

### Step 2

Press 1x on the button MANUAL MODE (6)

The indicator LED: MANUAL MODE (9) lights up, indicating the manual levelling procedure may begin

## HYDRAULICS LEVELLING



### Step 3

Press the button **FRONT SIDE (12)** and hold it down until the front jacks have reached the ground. Hold the button down a little longer to allow the vehicle to lift approx. 3 centimetres on the front side.

**⚠ IMPORTANT:** Always level the vehicle on the front side first.

### Step 4

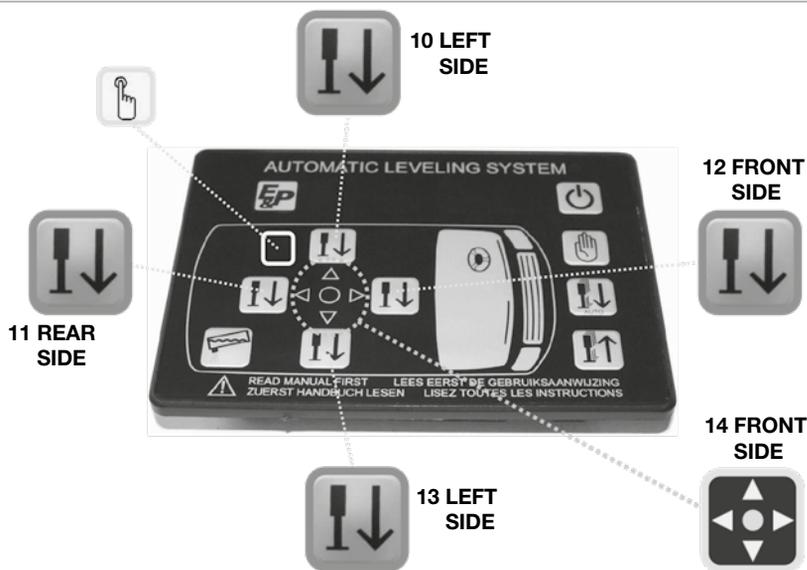
Press the button **REAR SIDE (11)** and **hold it down** until the rear jacks have reached the ground. Hold the button down a little longer to allow the vehicle to lift approx. 3 centimetres on the rear side.

The illumination of one or two **ORANGE** arrows on the indicator LED **(14)** central on the control panel clears the position of the vehicle.

In the unlikely event that the vehicle is already level, then the indicator LED **(14)** lights up **GREEN**

Depending on the position of the vehicle 1 of the 9 LED lights up.





**Step 5**

Depending on the lean of the vehicle with the aid of the button's: FRONT SIDE (12), REAR SIDE (11), LEFT SIDE (10) or RIGHT SIDE (13) level the vehicle.

Keep the buttons pressed until the level system automatically stops levelling, the ORANGE arrow(s) on the indicator LED (14) will go out by itself.

**Note:** When two orange arrows light up, level the vehicle gradually, not first completely leveling one side until the level system stops and then completely leveling the other side. Perform this action(s) in small (alternating) steps. In this way the system is working optimally.

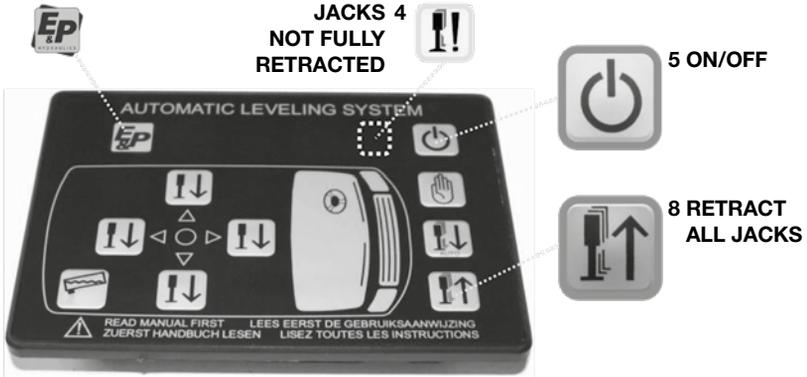
	SLOPE TOO STEEP	<b>LED:</b> In this position the vehicle cannot be levelled. (the surface is not even enough) If necessary switch over to manual mode.
	BATTERY LOW VOLTAGE	<b>LED:</b> The vehicle battery is empty or the voltage is too low to be able to work safely.
	ENGAGE HAND BRAKE	<b>LED:</b> Message indicating that the handbrake is disengaged. When the hand brake is engaged again, the LED will go out.
	JACKS NOT (fully) RETRACTED	<b>LED:</b> One or more jacks are extended or not fully retracted.
	MANUAL MODE	<b>LED:</b> Indicates that the vehicle can now be brought to the correct level manually.

**Step 6** Press 1x on the button ON / OFF (5) to switch the level system OFF.

## HYDRAULICS LEVELLING

### Retracting the jacks

Follow the procedure below to retract the hydraulic jacks.



#### AUTOMATIC

##### Step 1

Press 1x on the button ON / OFF **(5)** to switch the level system ON.

The E&P-logo LED lights up, indicating that the level system is switched on.

##### Step 2

Press 1x on the button RETRACT ALL JACKS **(8)** once.

The indicator LED: JACKS NOT FULLY RETRACTED **(4)** goes out when all jacks have been fully retracted and, within a few seconds, the hydraulic pump stops.

##### Step 3

Press 1x on the button ON / OFF **(5)** to switch the level system OFF.

#### MANUAL

##### Step 1

Press 1x on the button ON / OFF **(5)** to switch the level system ON.

The E&P-logo LED lights up, indicating that the level system is switched on.

##### Step 2

Press the button RETRACT ALL JACKS **(8)** and hold until all jacks are withdrawn

The indicator LED: JACKS NOT FULLY RETRACTED **(4)** goes out when all jacks have been fully retracted and, within a few seconds, the hydraulic pump stops.

##### Step 3

Press 1x on the button ON / OFF **(5)** to switch the level system OFF.

**Note:** Depending on how the system is connected, all jacks are retracting also when the parkbrake is released or the ignition is switched on.

## Extra functions

### Calibration (setting the zero point)

The calibration procedure described below has already been carried out at your dealer/installer.

You don't have to perform this procedure by yourself. E&P Hydraulics has decided to include this chapter as an extra in this manual in case of failure and/or service & repair matters.

Consider setting the zero point \*\* as a condition to make it possible to level the vehicle automatically- and/or manually. When this operation, for some reason, has not been done or has been carried out incorrectly, it is not possible to level the vehicle.

\*\* The zero point is the point (level) at which the hydraulic leveling system (in an automatic cycle) returns.

### Start: Manual levelling

Before automatic levelling can be activated, you must set the "zero point". For setting the "zero point", you must first perform the manual levelling procedure.

**Note:** Do this by placing a spirit level in the center of the vehicle.

### Setting the zero point

#### Step 1

Press 1x on the button "ON / OFF" (no.5) to switch OFF the level system after manual levelling (see chapter 4.2 of manufacturers handbook for help with manual levelling).

#### Step 2

Press 1x on the button "ON / OFF" (no.5) to switch the level system ON.

#### Step 3

Press 5x on the button "FRONT SIDE" (no.12).

#### Step 4

Press 5x on the button "REAR SIDE" (no.11).

#### Step 5

All LED's on the control panel light up (the vehicle stands in zero mode)

#### Step 6

Press 3x on the button RETRACT ALL JACKS (8).

The zero point is programmed.

Press 1x on the button ON / OFF (5) to switch the level system OFF.

**Note:** when the vehicle is provided with air suspension, see page 135

## HYDRAULICS LEVELLING

### Inclination wastewater-tank (set/programming)

The calibration procedure described below has already been carried out at your dealer/installer.

You don't have to perform this procedure by yourself.

E&P Hydraulics has decided to include this chapter as an extra in this manual in case of failure and-or service & repair matters.

If the inclination of the vehicle is not set or programmed, or you want to adjust the tilt, then this can be done with this procedure:



#### Step 1

Put the vehicle in the desired (new) tilt position. Do this using the manual procedure see page 155

#### Step 2

Press 1x on the button ON / OFF (5) to switch OFF the level system after manual levelling.

#### Step 3

Press 1x on the button ON / OFF (5) to switch the level system ON.

#### Step 4

Press 5x on the button FRONT SIDE (12).

#### Step 5

Press 5x on the button REAR SIDE (11).

#### Step 6

Press 3x on the button INCLINATION (15).  
**The desired tilt (inclination) position is activated.**

#### Step 7

Press 1x on the button ON / OFF (5) to switch the level system OFF.

## Emergency control

In case of emergency, the electronic levelling system can also be operated manually by means of auxiliary tools, such as a battery powered drill, or a battery powered screwdriver. This way, in case of a failure in the system, you can retract the jacks manually and depart to a new destination.

**⚠ WARNING:** Depending on the type of hydraulic pump the valves could be adjusted by hand OR by using an Allen key. Please do this **VERY CAREFULLY** when both **opening** and **closing** the valve.

**Step 1a**



**Step 1b**



**Step 2**



**Step 3**



**Step 4a**



**Step 4b**



## Operating the emergency system

### Step 1a-b

Turn the four valves on the pump **CAREFULLY CLOCKWISE** to the fully open position, by hand or by means of the supplied Allen key.

### Step 2

Remove the protective label on the front side of the electric motor whereby a coupling becomes visible.

### Step 3

Insert the supplied hexagon-bit (1/4" HEX) into the coupling and turn it with the auxiliary tool **ANTI-CLOCKWISE** to retract all the jacks.

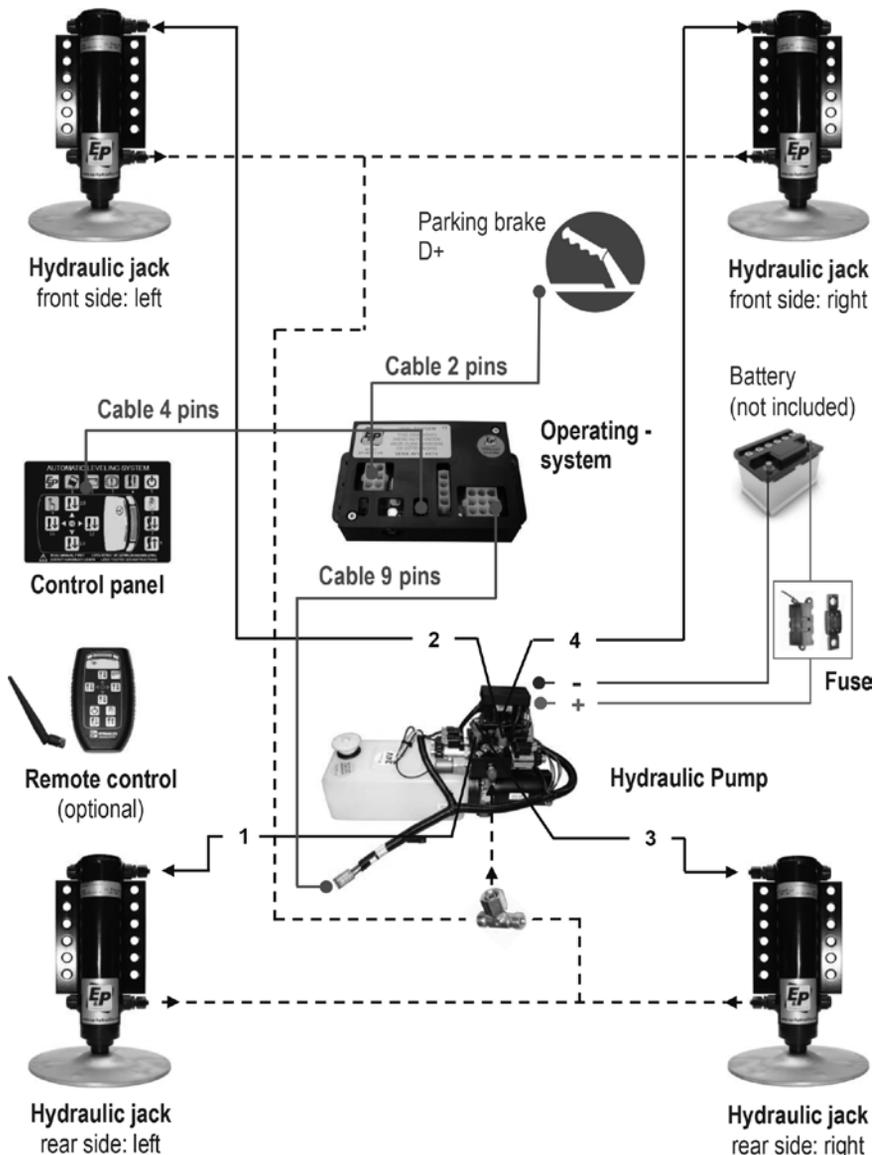
### Step 4a-b

When all jacks are fully withdrawn, turn the four valves on the pump **CAREFULLY ANTI-CLOCKWISE** to the original position.

# HYDRAULICS LEVELLING

## Schematic diagram of the hydraulic level system

Below the schematic view/diagram of the E&P Hydraulics level system.



## Remarks and recommendations

### Below is an overview concerning remarks and recommendations (tips) of the hydraulic level system:

- After 4 minutes of no operation, the system will switch off automatically.
- The automatic levelling cycle can only be started after all jacks have been retracted. If the jacks are not retracted when the automatic cycle starts, the system will do this automatically. So it is not possible to make short adjustments to the jacks; the system will always first completely retract its jacks.
- At a low battery voltage, the system will automatically switch off.
- Jacks are extended and you accidentally drive off: the system will immediately give an alarm and the jacks are automatically retracted as soon as the hand brake is disengaged. In case of vehicles with a pneumatic brake installation, this takes place when the engine is started.
- All normal functions of the system are switched off in error mode.
- The jacks always operate 2 at a time at 1 side. The left side, right side, front side and rear side. Only when retracting do they operate all 4 at the same time.
- Some vehicles have swivel chairs that do not function when the hand brake is engaged. As soon as the levelling system is finished and the ignition switch is off, you are able to disengage the handbrake. Before doing that, you must of course check if the car is in gear.
- During winter conditions (e.g. in snow and ice) put something (e.g. a piece of carpet) under the jacks to avoid sliding.

- During bad weather conditions (heavy frost) when levelling is ready and the ignition is switched off you can release the parking brake. TAKE CARE you put the vehicle in gear before releasing the parking brake.
- Manual operation is mainly recommended for uneven surfaces.
- In manual operation, all four jacks should always be extended before leveling starts.
- The system cannot handle all angles, the limit values differ per vehicle.
- If the system makes a slope angle that is too big and no longer responds to requests for automatic levelling, we recommend bringing the vehicle as close as possible to the zero point in manual mode.
- You will notice that the system also has a semi-automatic function. During manual operation, 1 or 2 arrows can light near the green LED 14. In this way, the system indicates where the lowest points are at that moment.

**Example:** First extend the rear jacks by manual operation (vehicle is moving). Wait a moment, then press the arrow for the front jacks. It will stop automatically when the zero point is reached.

Another option, in case of a slope angle that is too high, is to drive the vehicle on wedges and to extend the jacks from this position (please do take the stability into account).

## HYDRAULICS LEVELLING

**Troubleshooting**

In case of an error message, check whether the hand brake is engaged, whether the ignition is switched on, whether the battery has sufficient voltage, whether the oil level is correct, whether there is any damage to the jacks, and check all the cables.

If this does not lead to a solution for the fault, the fault could be located in the drive units. As the drive unit does not have any repairable parts, you should contact your E&P Hydraulics dealer/installer.

**The error mode**

If the ignition switch is not switched on or the hand brake is not engaged, the level system cannot be switched on, unless the jacks have been lowered and the hand brake is being disengaged, in which case the PARKBRAKE indicator LED **(3)** will flash and the BUZZER will beep.

You are now able to switch on the hydraulic level system with the button ON / OFF **(5)**.

If, when retracting the jacks, the pump is running on overpressure for a few seconds, the retracting action should stop (in both manual and automatic mode). If necessary switch off the hydraulic level- system by pressing the button ON / OFF **(5)**.

A timer will run, which will count up when the pump is running and count down when the pump is not running. If this timer reaches a value that is too high, the pump will stop running in order to prevent overheating.

Under normal circumstances, all LED's are off and the unit will only respond by pressing the button ON / OFF **(5)** switching the system on.

The hydraulic level system does not work	
Possible cause(s)	Solution(s)
<ul style="list-style-type: none"> <li>• The ignition of the vehicle is not on</li> <li>• The parking brake is not engaged</li> <li>• The control panel switched itself off (4 minute rule)</li> </ul>	<ul style="list-style-type: none"> <li>• Switch on the ignition</li> <li>• Engage the parking brake</li> <li>• Press button ON / OFF <b>(5)</b></li> </ul>
The indicator LED: BATTERY lights up	
Possible cause	Solution
<ul style="list-style-type: none"> <li>• The battery is almost empty</li> </ul>	<ul style="list-style-type: none"> <li>• Start the vehicle to charge the battery</li> </ul>
Indicator LED message RETRACT ALL JACKS will not go out This while the supports are withdrawn and possibly in combination with the failure of the automatic levelling (flashing alarm)	
Possible cause	Solution
<ul style="list-style-type: none"> <li>• The oil level is too low</li> <li>• The button for retracting the jacks does not work</li> </ul>	<ul style="list-style-type: none"> <li>• Check the oil level and fill if necessary</li> <li>• Check wiring connections or replace</li> </ul>
The jacks will not (fully) go out, while the pump is in operation	
Possible cause	Solution
<ul style="list-style-type: none"> <li>• Too little or no oil in the tank</li> <li>• Valve or pump does not work</li> <li>• Between the operation system and the valve there is no electrical contact</li> </ul>	<ul style="list-style-type: none"> <li>• Control the oil level and fill if necessary</li> <li>• Clean, repair or change</li> <li>• Check cables for voltage loss. Repair if necessary</li> </ul>

**Note:** For all other reports and/or malfunctioning of the system, please contact your dealer/installer

## Maintenance

The E&P Hydraulics level system does not have parts that need to be maintained periodically. When parts have been taken apart, the warranty will become invalid. If necessary parts could be substituted, repaired and/or exchanged (warranty). Please contact your E&P Hydraulics dealer/installer if necessary.

**⚠ WARNING:** In control/service-works secure the vehicle by placing suitable axle stands under the front and rear axles. By not doing this you create a real danger of personal injury or serious accident.

## Preventative controls

- Periodically checking the hydraulic oil level.
  - Check the oil when the jacks are fully retracted. When checking the oil level, the level should be about two to five centimetres below the filling hole.
  - Only fill the tank when the jacks are fully retracted. If this is done with extended jacks, the oil may overspill when they are retracted again.
  - The oil should be replaced every 36 months.
  - Only use transmission oil 'A' (Automatic Transmission Fluid - ATF). E&P Hydraulics recommends ATF with Dexron III or Mercon

## HYDRAULICS LEVELLING

- 5 or a mixture of both. Under freezing point, the jacks may move slower due to the viscosity of the oil. Under extremely cold weather conditions, you should use a special type of oil for low temperatures. Consult E&P Hydraulics or a recognized dealer, before using a different type of oil.
- Periodically check the electronic cables and connections.
  - Periodically check the hydraulic jacks.
    - Remove dirt, sand, mud and other contamination that settles during use, it may obstruct the operation of the hydraulic leveling system.
    - If the jacks remain extended for a longer period of time, the exposed legs must be protected by spraying them with a silicon lubricant. Do this more frequently, if the vehicle is located in a salty environment.
    - We recommend spraying the complete cylinders, including hose connections, with an anti-corrosive agent. This layer (e.g. tectyle) will protect the system against corrosion. This should already have been done during assembly. Annual application of anti-corrosive agent to the system will significantly increase the product's life span. Spray when the supports are withdrawn/retracted.
  - Periodically check the hydraulic jacks.
  - **In winter (slippery) conditions** we advise you to take additional safety and precautionary measures. Especially because your safety during operation of the system. For optimal performance in frequent use under extreme conditions we recommend the use of a special hydraulic oil for low temperatures (consult an authorized dealer).
  - **During the winter period** we have to deal with situations in which de-icing salt will tack to the outside of the system. Preventative maintenance should be:
    - Good cleaning of the jacks.
    - Clean the stainless steel cylinder (piston rod) and spray with a silicone lubricant.
    - Remove dirt from the stainless steel foot plate (especially at the bottom, this is the area your vehicle stands on).
    - Try to put the vehicle in a location as clean and flat as possible.
    - Place a piece of rubber (e.g. piece of carpet) between the frozen (slippery) surface and the the footplate.
    - Before leaving make an additional check round the vehicle, if necessary remove snow and ice from the jacks, then you are free to withdraw the jacks.

### **E&P Hydraulics UNITED KINGDOM contact details**

[www.ep-hydraulics.co.uk](http://www.ep-hydraulics.co.uk)

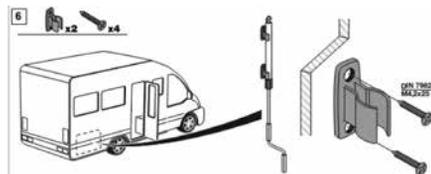
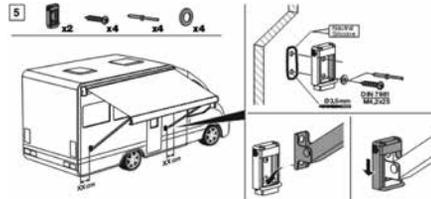
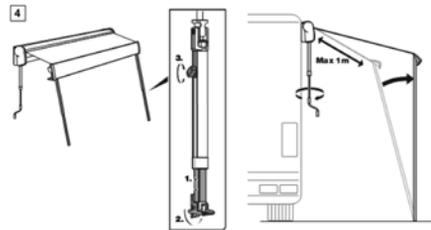
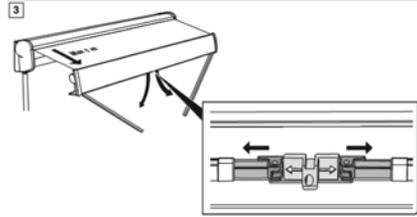
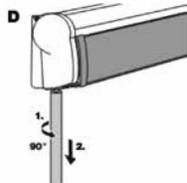
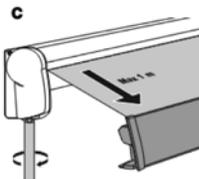
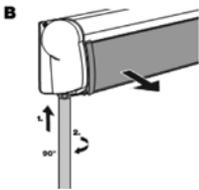
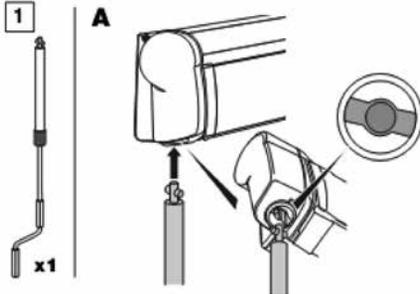
[info@ep-hydraulics.co.uk](mailto:info@ep-hydraulics.co.uk)

phone: + 44 (0)1254 297 785

## Awnings

-For the mounting height of the bottom mounting brackets ask your dealer.

-An awning is a sun and not an all-weather protection. The awning should be closed in case of storm, snow or heavy rain fall (avoid formation of a water pocket)

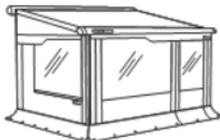


AWNINGS

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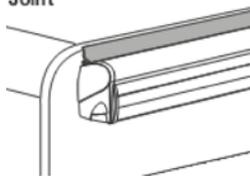
Safari-Residence



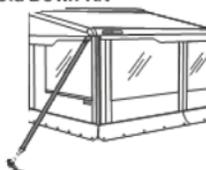
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Joint



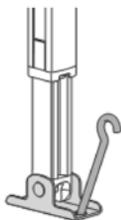
Hold Down Kit



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## Reverse Camera System

Four lens camera system mounted at high level on the rear of the motorhome, connected to an LCD screen which forms part of the windscreen mounted rear view mirror.

The reverse camera system is powered whenever the vehicle engine is running.

### Four lens camera system.

The four lens camera system consists of two cameras mounted at high level on the rear of the motorhome, and one camera mounted at high level on each side of the motorhome. The rear mounted cameras provide close range and distance views, and the side mounted cameras give views along each side of the motorhome.

**Note:** The rear view camera (or reverse sensor system) is a driving aid, it is not a supplement to, nor a replacement for, safe driving and good all-round driver observation. The driver is responsible for the safe manoeuvring and detection of pedestrians, objects and obstacles particularly when reversing.

The rear view camera image may be distracting or disorientating to some drivers and as such extra care and awareness must be observed at all times when using the camera. When reversing a responsible adult should assist in guiding the driver into confined spaces particularly where obstacles or pedestrians may be present or when visibility or lighting levels are reduced.

The mandatory required rear view door mirrors must be maintained and used as the primary rear visibility aid.

The image quality available from the cameras can be affected by dirt, road spray, rain droplets, snow and ice and as such the camera lens will require regular inspection and cleaning. Image quality will be reduced at night-time or by bright lights shone in low level lighting conditions.

## Reverse Sensor System

If a reverse sensor system is fitted to your motorhome, this will use a row of sensors fitted at low level on the motorhome, to detect obstacles. The system will automatically switch on when Reverse gear is selected.

A buzzer located close to the driver's seat (within a bed base) will then sound when an obstacle has been detected and is close to the rear of the motorhome. An intermittent tone indicates an obstacle at the maximum distance of the sensors range, and the time interval between tones will reduce as the distance to the obstacle reduces, until a constant tone is heard.

Please consider that the distance is measured from the rear bumper of the motorhome – if an accessory such as a cycle rack is added, the driver must take into account the additional clearance required beyond the bumper, when reversing toward an obstacle.

## CYCLE RACKS

### Cycle racks

The Swift Group allows the fitment of a towbar mounted rack system).

See table for options recommended by Swift.

Thule Bike carrier type	Thule Velo Space XT 2bike	Thule Velo Space XT 3bike	Thule Easy-Fold XT 2bike	Thule Easy-Fold XT 3bike
				
Thule reference	938021	939021	933300	934300
Capacity (# bikes)	2+1	3+1	2	3
Max load (kg)	60	60	60	60
Max bike weight (kg)	30	30	30	30

## Heated seats

Your motorhome is fitted with heated driver and passenger seats in the Iveco cab area. For further details of the operation of these seats, please see the IVECO base vehicle manual.

## Bunk and luton bed safety

Where the sleeping surface is over one metre above floor level the following notices apply.

**⚠ WARNING:** Use upper bunks for sleeping only, with the provided protection against fall out in position.

**⚠ WARNING:** Care shall be taken against the risk of fall out when the upper bunks are being used by children, especially under 6 years of age, these bunks are not suitable for use by infants without supervision.

Layouts with an over-cab bed (luton bed), access may be restricted when the lower bed (model specific) is fully extended at night time.

## Telescopic table operating instructions (where fitted):

In addition to being height adjustable the telescopic table incorporates a sliding & rotation mechanism.

### To adjust the height:

The table has two height positions. The higher position for dining and the lower position for sleeping.



Turn the lever (below the table top) to the right in order to lock the table at its preferred height. If you wish to lower the table, pull the lever 180° so that it is to the left. You can then push the table down as the “brake” has been released. As soon as the table is in the lowest

position turn the lever 180° again (to the right) in order to fix it in its lowest position.

**Note:** Make sure the table is in its lowest position, otherwise the “brake” will not operate correctly.

To place the table in its upper position, turn the lever 180° once more and it will move upwards. To fix it in its upper position turn the lever again 180° to lock it in place.

### To rotate the table top:

The 360° rotation mechanism is situated in the base of the table leg. Simply rotate the table to its desired orientation.



**Note:** Some layouts have a folding table that incorporates an extension leaf to support the table once extended. Slide the extension out before unfolding the table top in order to support it.

## CARE OF FURNITURE / TV INLET

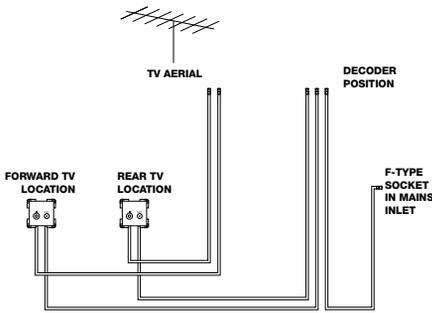
## Care of laminate tops, tables, furniture and doors

**Do not** use abrasives, chemically treated cloths or aggressive detergents as these may cause damage

**Do not** place hot objects on laminated surfaces i.e. tops, tables. Any temperatures 70°C and over will cause permanent damage.

Clean worktop surfaces, furniture and door fascias with a soft, slightly damp cloth, dry off with a soft cloth.

## TV inlet



A short co-ax lead featuring a screw on co-ax connection will be present behind the Blue mains inlet connector. A co-ax cable will be fitted and connected within the motorhome, from the back of this connection, to the location intended for the later fitment of a satellite decoder or similar receiver. The external connection can be used to link an external dish or signal, to the decoder / receiver position.

In addition to the co-ax cables fitted between the TV aerial and the TV sockets on the furniture within the motorhome, further co-ax cables will be routed from the decoder position, to those same furniture mounted TV sockets. Each socket will be marked for aerial and 'sat' connections.

Depending on the type of decoder / receiver, and whether the TV used has an integral satellite receiver, it is possible that further equipment may be needed (a modulator), to convert the output from the decoder / receiver (SCART or HDMI) into a signal that can be sent through the co-ax cable to the furniture mounted TV sockets. Please ask your dealer or satellite system installer for more details, which are specific to the types of aftermarket equipment fitted.

## Status 570 Digital antenna system

### Travelling

#### Do not travel:

- with the antenna raised
- with the antenna set for vertical signals

To reduce the possibility of damage when travelling, point the antenna backwards.

The RED SPOT on the bottom of the mast indicates the front of the Antenna.

Your motorhome is fitted with a Status 570 TV aerial. Please read the user instructions for the TV aerial, which are available from the following location:

<http://www.visionplus.co.uk/assets/pdfs/2016/570%20RETAIL%20Instructions%20A3%20Lilac%2018-08-15.pdf>



If you are unable to view the documents on line, please contact the supplier, your dealer or Swift for an electronic or paper copy.

**After performing any of the 'Actions' above you must re-tune your TV.**

## TV Brackets

A bulkhead mounted bracket is supplied to mount the TV on. Whilst the bracket has a travel lock it is good practise to unclip the TV from the bracket and store securely for transit.

## Motorhome Wifi

A 3G/4G antenna is pre-fitted, which is connected to a MiFi (My Wifi) device. This system connects to the cellular network, and provides a Wifi connection inside your motorhome for up to 10 devices to connect to.

Please check with your dealer whether the MiFi device is fully installed in your motorhome, and whether the SIM card supplied with the device has been pre-installed. The position within the motorhome is layout specific, but typically in a wardrobe or in a cupboard above a fridge/freezer.



Once the SIM card is installed and components are connected, basic operation is as follows:

- Turn on the power to the device, using the switch on the base of the unit, at the left hand side. A Red LED will illuminate, and a charging / battery symbol will appear in the display on the front of the unit.
- Press the power button on the front of the unit. The display will change while the device starts, and once the unit is ready, a network name and passkey will appear on that display.
- Search for Wifi on your mobile phone / tablet / laptop, looking for the network name as displayed on the device. Connect, and when prompted for the passkey/password, use the code as displayed on the screen.

Complete user instructions, including how to fit the SIM card and mount and connect the MIFI device if still required, can be located at the address below. Please read these instructions before using the system.

[www.motorhomewifi.com/swift/](http://www.motorhomewifi.com/swift/)



If you are unable to view the documents on line, please contact the supplier, your dealer or Swift for an electronic or paper copy.

## Shower

When using the shower, always ensure that the shower door is fully closed thus avoiding water spray on unprotected areas

## Shower head

- The Orbit shower head is provided with a button at the side of the head to allow users to control the flow.
- Care should be taken as water may become hot temporarily when switched on until it mixes and regulates.
- Small children should be supervised at all times when using the shower.
- We recommend unfastening the shower head before travelling and storing safely to prevent it becoming detached whilst travelling.

## EXTERNAL BBQ POINT

**External BBQ point**

The external barbeque point can be used to power any gas appliance suitable for the gas used in the motorhome, at the working pressure shown on the label in the barbeque outlet box. Please note when using the outlet that the fitted regulator will allow a maximum of 1.5kg per hour of gas to be taken from the gas tank. Therefore the consumption of gas from both the appliances within the motorhome and the appliance connected to the barbeque point cannot exceed a total of 1.5kg per hour at any one time. If you are in any doubt please consult your dealer for advice. To use point proceed as follows.

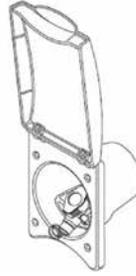
When external gas equipment is being connected, the operating pressure of the gas supply of 30 or 50 mbar must correspond with the operating pressure of the equipment that is being connected (see data plate).

The plug-in connection can only be made if the quick-acting valve is closed. The safety locking mechanism can be released by sliding back the coupling sleeve.

The coupling K-valve is designed such that the quick-acting valve can only be opened if the connection is being made via the plug-in connection. The connection is made by inserting the plug-in connection into the safety coupling.

This operation can be carried out using one hand. After uncoupling the equipment, seal off the valve opening using the protection cap.

**Note:** The external gas socket is only suitable for removing gas, not for feeding gas into the gas system.



**⚠ WARNING:** Care should be taken when using the external barbeque point. Never barbeque next to an awning or tent.

**⚠ WARNING:** The barbeque point should only be used as an outlet point for gas, never connect a gas bottle direct to the outlet.

## External shower point



The external shower point, if fitted, will be supplied with a separate shower head and hose assembly.

To connect the shower, simply align the plug with the socket and push into position.

To remove, pull the lower trigger and pull the plug from the socket.

## Colour reference

The colour code for touch ups or resprays for all white Swift coach built habitational body components is Fiat White 249. For the IVECO cab contact your IVECO dealer to obtain a colour match.

Please be aware that colours can fade over time, and therefore, if the vehicle is more than a few years old, it is suggested a colour match be obtained. If these are small areas that do not require a full respray of the entire panel you can use an over the counter polishing compound to return the original finish. We would always recommend that an inconspicuous area of the motorhome is tested beforehand.



Vehicle Modifications & non-standard parts .....	178
Motorhome exterior .....	178
Condensation .....	178
Motorhome interior care .....	180
SwiftShield fabric .....	181
Corian® work surface .....	182
LED replacement .....	185
Winterisation .....	186
Caring for the environment .....	188

## MODIFICATIONS

### Vehicle modifications & non-standard parts

As the owner of a Swift Group Product, you are able to make any modifications you wish, either by yourself or through a dealer, without affecting the Swift 3/6 Year Warranty.

However, please be aware that any issues, resulting directly or indirectly, from a modification or fitment of a non-standard part, will not be covered by The Swift Group Warranty.

**WD40 is not recommended for external or internal use**

**WD40 attacks paintwork and sealants.**

**If a lubricant is required for Interior hinges, Sliding door tracks, Exterior door hinges, Plastic tracking etc. We recommend "Ambersil 40+" this is readily available from most DIY/ Automotive spare part retailers**

Before carrying out any DIY work within the warranty period (3/6) years please check with your Swift Group dealer.

Note: In the interests of safety, replacement parts for an appliance shall conform to the appliance manufacturers specifications and should be fitted by him or his authorised agents.

## Motorhome exterior

### Cleaning

1. Wash the motorhome regularly with mild detergent. Rinse with cold water and leather off.
2. For better protection a similar coloured good quality car wax may be applied.

For sealed areas a mild soap is the best way to clean without affecting the sealant.

Acid or alkaline based cleaners or solvents should not be used.

**⚠ WARNING:** Under no circumstances use any abrasive cleaning agents or solvents on the exterior. Do not wash your motorhome with a high pressure washer as these can permanently damage the seals of your motorhome. Care should be taken as the silicon in some polishes can attack the rubber used on the exterior for seals and gaskets.

### Acrylic Windows

Wash windows carefully, as you would with the paintwork of your car, do not scrub windows prior to removing surface dirt and film with a hose pipe - trapped dirt could cause scratching.

Wash with a solution of warm soapy water, windows can then be dried off with a leather.

Small scratches can be removed, consult your dealer.

Catches and stays do not require any special attention or lubrication.

### Acrylic (Plastic) Window Cleaning

The material used to produce most caravan and Motorhome windows is acrylic plastic. While the acrylic used is very durable, it is able to be scratched with relative ease and therefore, care must be taken when clearing your vehicle not to use aggressive clearing products. Equally, care should be taken when using a drying cloth that it is clean and free from grit.

## Condensation

### What is condensation

Condensation is the process of change of water from its gaseous form (water vapour) into liquid water when it comes into contact with a surface that is cold. Condensation generally occurs when warm air cools quickly and loses its capacity to hold water vapour, and as a result water vapour condenses to form droplets.

### Why condensation occurs

Condensation occurs when warm moist air meets a cold surface. The level of condensation will depend upon humidity

levels, how moist the air is and how cold the surfaces are they come into contact with.

If the temperature falls below the dew point temperature, it is quite normal for condensation to occur on any material within the caravan that is cold, for example the external walls, plastic windows etc.

### When condensation occurs

Condensation occurs usually in winter months, because ambient temperatures are colder (leading to cold surfaces) and windows and roof vents are opened less so the moist air cannot escape.

### Where condensation occurs

Condensation will occur where warm moist air is put into the atmosphere in areas such as in bathrooms (during showering) and in kitchen areas (during cooking).

In the enclosed space of a motorhome, the moist air from the kitchen or bathroom areas will inevitably transfer to the rest of the vehicle, which in turn condenses on cold surfaces leading to visible water droplets. This issue is compounded by warm moist air being generated from normal breathing.

Condensation will also form in cold areas where air movement and ventilation is restricted (e.g. cupboards, wardrobes, under beds, etc.)

### What is important

It is important to provide ventilation and air flow, so that warm moist air can escape, or be externally cooled, and to use the heating reasonably by not making the motorhome too warm such that people perspire, as this will only serve to generate more moist air and therefore more condensation.

However, in particularly cold periods, where the external ambient temperatures are low, condensation may still form on external walls as the insulation levels may well not be thermally able to cope with the difference between the internal and external temperatures.

## How can you prevent condensation

### Provide ventilation so that moist air can escape.

- a. Good ventilation of the vehicle when cooking or when drying clothes, footwear or pets is essential. Observe when windows begin to show signs of misting and increase ventilation by opening slightly by 1cm or opening a roof vent, as these will help, but keep the habitation door closed as much as possible to retain heat.
- b. If drying damp clothes or towels, open a window to ventilate the area and allow the moist air to escape.
- c. Try to make sure that the motorhome is partially heated. It can take a long time for a cold motorhome to warm up, so it is better to have a small amount of heat for a long period than a lot of heat for a short time.
- d. After showering, keep the bathroom window or skylights open, and shut the bathroom door long enough to dry off the room.
- e. In all other areas provide some ventilation. Fixed ventilation is provided in accordance with BS EN 721: 1998 this is through skylights and 'Heki roof lights' in the roofs and from ventilators through the floor under cookers, doors and in bed boxes. It is important not to block these.
- f. Electrical heating is dryer than gas heating, and introduces less moisture into the atmosphere. Do not use additional portable paraffin or flue-less gas heaters at all.
- g. If left unoccupied and unheated for long periods of time the temperatures can soak down thermally into the entire product and become very cold. Whenever possible, put the heating on at a low level before use by pre heating in cold weather.
- h. Even with reasonable ventilation it is likely if the temperature is less than 5°C and the humidity is high that condensation will occur. Ideally the temperature should be kept about 20°C when occupied.

Too much ventilation in cold weather is uncomfortable and wastes heat. All that is

## MOTORHOME INTERIOR

needed is a very slightly opened window or skylights. Opening a skylight or 'Heki; rooflights partially or windows opened to about 1 cm will usually be sufficient.

#### Provide reasonable heating

- a. Do not use portable paraffin or flueless gas heaters at all.
- b. If drying damp clothes or towels, open a window enough to ventilate the area and turn on the electric element of the space heater but do not hang items over the heater.
- c. Try to make sure that all areas are at least partially heated. Condensation most often occurs in unheated areas.
- d. To prevent condensation, the heat has to keep room surfaces reasonably warm. It can take a long time for a cold motorhome to warm up, so it is better to have a small amount of heat for a long period than a lot of heat for a short time.

Motorhomes use only carefully selected insulation materials but unlike most rooms at home all walls are exterior walls, so they lose heat through all walls as well as the roof and floor.

Even in a well insulated motorhome with reasonable ventilation, it is likely that during cold weather (less than 10 deg C) condensation will occur. Ideally the temperature should be kept about 20°C although this is not always possible.

#### Mould Growth

Any sign of mould growth is an indication of the presence of moisture and if caused by condensation gives warning that heating or ventilation may require improving.

#### New vehicles

New products take a long time before they are fully 'dried out' because of the moisture in the materials used during manufacture. While this is happening extra heat and ventilation will be required.

#### Corrosion

Your motorhome has been designed and built using the corrosion resistant materials (e.g. GRP (Glass Reinforced Plastic) panels, stainless steel fixings, hot dip galvanised chassis and powder coated extrusions), which if looked after will extend the life and aesthetics of the product in normal service. In certain conditions, for example, if sited for extended periods in close proximity to sea and sand spray, you may experience premature ageing and/or corrosion of the vehicle than under normal conditions.

To help prevent this, we advise regular cleaning and application of a good quality external car polish. For extended periods (where the vehicle is not in use), we recommend the use of well fitted breathable vehicle cover as protection from harsh coastal elements.

#### Changing Exterior Bulbs

##### Always replace like for like.

For individual replacement bulb specification, see p206 in Technical Section.

#### Motorhome interior

Follow these guidelines to ensure your investment is receiving the very best attention.

#### Side Walls, Roof Lining

A simple wipe over with a damp cloth and a very mild detergent is all that is needed.

#### Soft Furnishings

Should be vacuumed occasionally to remove grit and sand and help to keep its smart appearance over the lifetime of the upholstery. The upholstery can be cleaned with a mild, reputable upholstery cleaner. It is recommended that the curtains and pelmets are specialist cleaned only. The foam used in cushions is manufactured to meet fire regulations. It requires time to return to its normal position after prolonged use.

#### Cupboard Catches

It is advisable to lubricate all cupboard catches, sliding bolts and hinges from time to time. We recommend "Ambersil 40+" this is readily available from most DIY/ Automotive spare part retailers

## Doors

In order to provide customers with the latest designs of door furniture it is possible, due to the use of natural wood, that warping may occur. This should not detract from the correct functioning of items fitted in the motorhome.

## Information

During the normal travelling vehicle vibration and flexing may cause some of the furniture doors to become out of alignment.

For your convenience many hinges are adjustable.

## Leather care

Leather furniture, in a normal contract and domestic environment, requires little maintenance, although obviously leather in lighter shades will need more attention.

Regular care of leather does ensure its lasting quality and some general rules for regular cleaning and maintenance are:

- Clean the leather with a soft damp cloth taking care not to soak the leather.
- For a more thorough clean, use the Bridge of Weir Leather Cleaning and Protection kit available directly from the distribution centre.
- Do not use saddle soap, wax polishes or spray polishes.
- Do not use any product or any method of cleaning not recommended by the manufacturer.
- Avoid letting any buckles, studs and zips come into direct contact with the furniture.
- Avoid drying out the leather by taking extra care where there is heating or an open fireplace.

**Note:** The above cleaning instructions DO NOT apply to Nubuck Suede or any other uncoated leather.

## Swift Shield Fabric

The Swift Shield fabric infills on the seating is a luxury stain resistant durable fabric using Aquaclean® technology. This is a revolutionary fabric treatment that allows you to clean stains using water only.

This provides you with simple fabric maintenance in the minimum amount of time.

## Cleaning Instructions

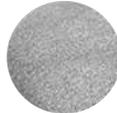
Aquaclean® helps to remove the majority of household stains (wine, ink, sauce, fat, mud, chocolate, cream, etc.) in three simple steps:



1. Remove any excess residue on the upholstery



2. Apply water over the stain, either directly or using a damp cloth. Wait a few seconds.



3. Press down over the stain with a damp cloth and rub gently over the fabric in circular movements. If the stain does not come off completely, repeat the process as required.

For further details and stain cleaning demo videos visit the Cleaning Gallery on the Aquaclean® web site: [http://www.aquaclean.com/ES\\_en/home](http://www.aquaclean.com/ES_en/home).

Aquaclean fabrics cannot accept any responsibility for misuse of the fabric by allowing bleach or dissolvent substances coming into contact with it.

## CORIAN® WORK SURFACE

## Kon-Tiki Dynamic kitchen work tops Corian® solid surface work top maintenance

### Consumer Cleaning, Care & Repair

Corian® solid surfaces are stain resistant, easy to clean and hygienic, ideal for kitchen countertops, vanity tops, and other surfaces subject to the hazards of moisture and heavy wear.

Even the most used areas won't succumb to coffee, ink, or other stains.

No special cleaning products are needed to keep Corian® looking beautiful day in and day out.

While Corian® is extremely tough and durable, like any other fine material it can be damaged if abused or mistreated.

Reviewing this care and cleaning instructions can assist you in understanding how easy it is to care for your new Corian® surface and how you can prevent more severe damage that may require special repairs.

With a little knowledge, you can enjoy the elegance and beauty of Corian® for years to come.

### Getting used to Corian®

On installation, a Corian® worktop will have an overall satin sheen finish. However, as you use it, Corian® eventually acquires a smoother, more silken finish. To ensure that this luster develops evenly, consult our cleaning guidelines included herein. You'll be pleased to see how Corian® maintains its beauty over time

### How to clean Corian® kitchen tops & sinks

Although liquids cannot penetrate Corian®, it is best to wipe up spills as they occur. Just use a damp microfibre cloth with a standard household kitchen spray, such as Cif or Mr. Muscle.

Always clean using a circular motion. If a stain needs more attention, refer to our cleaning methods stated herein.

### Dealing with resistant stains:

On any problem area, try the easy way first.

### Common household spills, such as vinegar, coffee, tea, lemon juice, dyes, ketchup, red wine or vegetable spills

First, try the easy methods, then progress with an abrasive plastic scouring pad and a detergent or an ammonia based hard-surface cleaner.

Only with a really persistent stain such as lily pollen, or saffron, or with a light scratch, should you need to resort to an abrasive plastic scouring pad and rub over the stain with some bleach

Rinse several times with warm water and dry with a soft cloth.

Always restore the overall luster afterwards, using a damp cloth and a mild cream abrasive cleaner and blend the scrubbed area into the entire surface by rubbing in a circular motion.

If hard water scale has built up around the waste or taps, use an abrasive plastic scouring pad and rub over the stain with a standard household lime-scale remover and follow the manufacturer's instructions.

Rinse several times with warm water and dry with a soft cloth.

Restore the gloss level as described above.

### Heat marks and scorching

Always use a heat protection pad, trivet (with rubber feet) or protective sink mat for hot cookware, or leave cookware to cool on the hob first. Never put hot pans, particularly cast iron, directly on a Corian® top or in a sink. Such heat can damage any surface!

- Pouring boiling liquids directly into sinks without turning on the cold tap may damage your Corian®.
- Always use the correct size pan on the burner and place it centrally. An overhanging pan scorches surrounding surfaces.

**Scratches**

- Like all materials DuPont™ Corian® will develop slight abrasion marks in normal daily use:
- Never cut or chop on Corian® - it will score the work surface! Use a chopping board instead.

**Chemical Spillage**

Accidental spills of strong chemicals (e.g. paint stripper, brush cleaners, metal cleaners, oven cleaners, cleaners containing methylene chloride, acid drain cleaners, acetone based nail varnish removers etc.) should be flushed promptly with plenty of soapy water to avoid damaging worktops!

For nail varnish spills, non-acetone based remover can be used, and then flushed with water. Undetected or prolonged exposure to chemicals may damage the surface.

**Corian® use & care - stain removal guidelines**

Common household spills	Procedure
For everyday cleaning	<b>A-B-D</b>
Vinegar, coffee, tea, lemon juice, vegetable, dyes, ketchup	<b>A-B-C-E-I</b>
Grease, fat and oil residues	<b>A-B-C-D-I</b>
Hard water scale, soap, minerals	<b>A-B-F-I</b>
Lily pollen, saffron, a light scratch, cigarette burns, shoe polish, ink, marker pen	<b>A-B-C-E-I</b>
Mercurochrome, blood, red wine, perfume	<b>A-B-C-D-E-I</b>
Nail varnish spills	<b>A-B-C-G-I</b>
Iron or rust	<b>A-B-C-H-I</b>
Iodine, mildew	<b>A-B-C-E-I</b>

**Cleaning methods\***

- Remove excess with a soft cloth;
- Rinse surface with warm water and dry with a soft cloth;
- Use a damp microfibre cloth and a mild abrasive cleaning product (e.g. Barkeeper's Friend.);
- Use a microfibre cloth and rub over the stain with a detergent or a standard household kitchen spray (e.g. Flash, Mr. Muscle, Cif);
- Use a microfibre cloth and rub over the stain with some diluted bleach\*\*. Rinse several times with warm water and dry with a soft cloth;
- Use a microfibre cloth and rub over the stain with a standard household lime-scale remover or vinegar (Mikal, Lime-lite). Rinse several times with warm water and dry with a soft cloth;
- Use a microfibre cloth and rub over the stain with a non-acetone based Nail varnish remover. Rinse several times with warm water and dry with a soft cloth;
- Use a microfibre cloth and rub over the stain with a metal cleaner or rust remover. Rinse several times with warm water and dry with a soft cloth;
- If the stain persists, contact our Warranty Centre (see details inside)

\* Always clean using circular motion.

\*\* Bleach can discolour Corian® if not removed completely by rinsing with water afterwards.

## SINK BOWLS AND WORK SURFACES

**Stainless Steel Bowl Care Instructions**

After use always remove any plastic bowl or mat, rinse down the surface and dry with a soft cloth to prevent spotting. For more stubborn dirt or grease a non-abrasive multi-purpose cream cleaner, such as CIF, may be used. To preserve the appearance of your appliance we recommend plastic bowls or mats are not stored in the sink during transit.

The quality of water can affect your bowl's appearance. If the water has high iron content, a brown surface stain can form on the bowl giving the appearance of rust. Additionally, in areas with a high concentration of minerals, or with over-softened water, a white film may develop on the sink. To combat these problems, towel dry the sink after use, and clean at least once every week .

Surface scratching will be most noticeable on highly polished components. These marks are usually only superficial and can be removed with a proprietary stainless steel cleaner/polish. If the surface has a directional polished grain always clean along the grain and **NOT** across. Never use wire wool pads to clean the surface.

Cleaning agents containing bleach should **NOT** be left in contact with stainless steel. This includes many of the new "trigger-dispense" products and some multi purpose cream cleaners. Also leaving rubber mats or dishpans in the sink can lead to surface rust or pitting, always remove them after use.

**Work Surfaces**

You should not stand very hot items on any of the work surfaces, especially models with polycarbonate moulded sinks and drainers.

**Kitchen Equipment**

All the thermoplastic parts in these areas have easy clean surfaces. To ensure long life and to prevent damage you must not use any cleaning materials at all and ensure water temperatures do not exceed 70°C (putting cold water in first is suggested). After every use it is essential that you rinse with clean water only and wipe with a soft damp cloth. Failure to follow these simple instructions may result in premature failure or cracking which will not be covered by any guarantees (including extended warranties).

### **Bathroom/Shower**

These products should be cleaned immediately after use. Apply a warm, mild soapy water solution with a soft cloth and rinse with clean water immediately. Abrasive materials must never be used.

### **Washroom bi-fold doors**

- Panels should be cleaned with warm soapy water and a non-abrasive cloth/sponge.
- An abrasive or aggressive cleaning agent is never to be used
- A proprietary plastic cleaner Vuplex®, can also be used. This can be obtained from outlets such as Amazon, ebay etc.

### **Furniture**

A simple wipe over with a damp cloth should be all that is required. Polishing with a proprietary brand of wax polish enhances and maintains furniture in showroom condition.

It must be remembered that because the frames of the doors are made of ash, which is a natural product, they can be affected by temperature and humidity and may bow under certain conditions. As conditions change they should revert to their original positions.

### **Kitchen Drainer and Cutting Board**

You should not stand hot items on to the removable plastic kitchen drainer. To wash use only warm soapy water, do not use chemicals and bleach.

### **Changing interior bulbs**

The majority of interior lights are LED, and in the unlikely event of a failure, the replacement of the whole unit is required. It is not possible to replace the "bulb" on these units.

For non LED lights remove the lens or lampshade to access the bulb.

### **Always replace like for like**

### **LED Replacement (interior)**

In many applications LED lights are fitted which contain no user serviceable parts. In the unlikely event of failure of one of these lamps, the entire lamp will need to be replaced – several types of LED light are intended for semi-permanent installations using self adhesive mounts etc, and dealer assistance may be required should damage or other need for replacement occur.

# SINK BOWLS AND WORK SURFACES

## Winterisation

The Swift Group recommends the following winterisation points for customers:

### Servicing

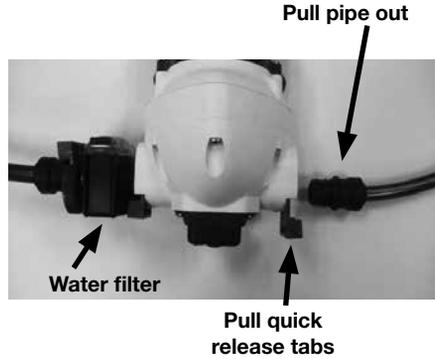
Arrange (in advance) the yearly service and habitation check, if the motorhome's next service is due while the vehicle is stored.

### Plumbing

Water expands as it is frozen, and so trapped water, when it expands, can damage the tap / valve / pump or pipe it is trapped within. For this reason, (in addition to reasons of hygiene), the water system should be fully drained when not in use, particularly in colder weather.

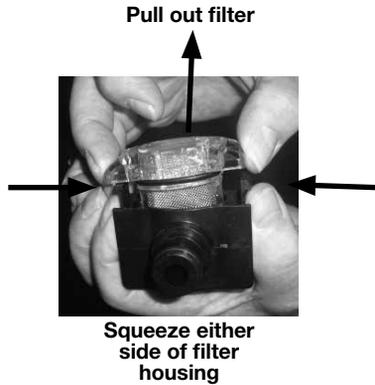
- Use the control panel above the entrance door, to open both the fresh tank and water waste tank drain valves. Ensure that waste water drains into a designated waste water collection area, either directly or by collecting the water in a container for later disposal. For further detail see the Swift Command section of this handbook.
- Open the drain valve (yellow handle) next to water heater, and leave open.
- Fully open all the taps and shower mixer, move mixer position to the middle, and leave all taps in the open position.
- Unscrew the shower head and shower hose, shake out remaining water and allow water to drain. It is advised to leave the shower head and hose disconnected.
- Run pump for a short time, until all water is expelled.
- After a short while the majority of water will have left the plumbing system. At this point however it is still important to ensure that the pump itself is 'dry'. During this part of the winterisation, a suitable absorbent cloth or container should be used to catch a small amount of spilled water that will result.

Disconnect the pipe work from the pump by pulling the blue quick release tabs, at either side of the pump, at right angles to the pipe work, then pulling the pipe and connectors from the pump. See Fig.1 Run the pump for a short while to expel any remaining water within the pump.



**Fig.1**

This is a good time to de-assemble and clean the pump filter. Squeeze either side of the filter housing to release the retaining tabs and pull the filter cassette out of the housing. See Fig 2



**Fig.2**

Clean waste pipes and tanks using a sterilising fluid. See "Waste Tank" section under services Page 45.

**Electrical**

If vehicle is being stored while connected to 230v Mains Hook-up:

- Ensure that the leisure battery is connected and the 20A local fuse(s) is connected.
- The isolator switch on PSU should be in the 'ON' position, however, the control panel should be switched 'OFF'.
- The installed Alde system includes a frost protection setting, which can be used. See Alde user instruction manual.
- Vehicles can be left in this condition for extended periods, with the charger operating to maintain the battery. However, periodic maintenance and inspection is recommended, this should include the battery condition.

If vehicle is being stored not connected to 230v Mains Hook-up:

- Charge the leisure battery for 24 hours prior to placing motorhome in storage.
- Ensure the isolation button on PSU is in the 'OFF' position.
- The battery should not be adversely affected by winter temperatures but the level of charge should be maintained to maximise the life span of the battery. This can be achieved using an automotive type battery charger as and when required.

**⚠ WARNING:** Your motorhome is fitted with Swift Command Tracker (by Sargent) which monitors battery voltage. If you plan to disconnect or remove your leisure battery for maintenance or external charging, then please contact the monitoring station before you remove or disconnect the battery. If a leisure battery is not fitted, please also contact the Tracker monitoring station before removing the mains hook up. The Swift Command Tracker monitoring station can be contacted on 0345 6027302.

**Gas system**

- Ensure the gas supply is isolated at the gas tank, and ensure that the gas manifold taps are off.
- Check the age and condition of the regulator, and replace if required.

**Appliances**

Check the battery expiry date on the smoke alarm and CO detector and replace or remove as required.

- Ensure the fridge is turned off.
- Clean the inside of the fridge.
- Prop the fridge door open, and if possible, the internal freezer compartment door for ventilation.
- Fit fridge vent winter covers (if available).
- Ensure all hob / oven / microwave surfaces are clean.
- If the motorhome is going to be left connected to 230v supply while not in use, ensure the microwave is unplugged.
- Clean the toilet and empty the cassette and lubricate the seals with an acid free lubricant such as Thetford High Grade Seal Lubricant. See Thetford toilet Users manual

**Exterior (Body / Chassis)**

- Ensure that all windows, skylights and access doors are closed and secured.
- Ensure all fixed ventilation points (high and low) are clear from debris and obstructions.
- Ensure the vehicle is not parked where falling debris (i.e. leaves, tree sap) could cause damage.
- Avoid leaving the vehicle parked in soft ground, long grass or a potential area where standing water may form.
- Lubricate relevant points on the chassis.

**Wheels and Tyres**

- Do not store in one position with partially deflated tyres. The tyre walls will suffer and do present a real danger of blow outs, especially when travelling at faster speeds than are allowed in the UK.

## WINTERISATION

The wheels should be turned every couple of weeks. If you are removing the wheels, follow the jacking procedure for changing a wheel. Check your tyres regularly for signs of age and deterioration, particularly wear, cracking and blistering. If in doubt consult a reputable tyre fitter.

- A purpose made cover maybe used, but please ensure the cover is a good fit, breathable and securely fitted.

**Note:** A poorly fitted cover can rub and damage the bodywork. Non-breathable covers will encourage mould to grow.

### Interior (Furniture / furnishings)

- Open all lockers and internal doors, to ensure good circulation.
- Remove cushions and store them in a dry location or ensure all cushions are placed in a well ventilated area.
- Close all blinds and curtains. Customers are reminded to check the tension on blinds after storage if left closed for long periods.
- Thoroughly ventilate the motorhome by opening doors or windows periodically.
- Placing water absorbent crystals in the van during the winter months, will help reduce moisture levels and mould growth.
- We do not recommend leaving portable heaters in the motorhome unattended.

### Recomissioning the water system

Re-connect the water pump by positioning the pipe connectors into the pump housing and pushing the blue tabs into position. It is advisable, after a period on non-use, to flush the water system with a sterilising fluid such as Milton 2. Fill the fresh water tank with water and sterilising fluid (Refer to sterilising fluid instructions for the amount to use). Turn the pump on and open all the taps, ensuring that the water drains away safely to the waste tank. When the waste tank is full empty the fluid into a designated waste water area. Re-fill the tank with fresh water and flush through the system as described above; repeat this until all traces of the sterilising fluid have been flushed out.

(See "priming the Water System" and "Waste Tank" sections on page 44)

Prepare the toilet system by adding water and Thetford fluid to the toilet waste tank. See "Preparing the Thetford Cassette Toilet for Use" in the user instructions, link on page 127.

### Appliances

Before starting the motorhome after storage, check all gas appliances and electrical points.

**Note:** Preferably not less than once a year, the electrical installation should be inspected and tested by a qualified electrician.

After storage it is advisable to air the Motorhome and clean throughout, especially cooking appliances and the refrigerator.

Replace the bedding if it was removed for storage.

**⚠ WARNING:** Always follow the manufacturers recommended procedures after use of fitted equipment in the Motorhome, before storing for any length of time.

### Caring for the environment

After many years of service you may decide that your motorhome has become beyond economic repair and should be disposed of. Please ensure that you comply with the end of life vehicle legislation and take it to an authorised treatment facility where it will be properly dealt with to minimise any negative environmental impact. The transaction will be logged at the DVLA, identifying that you are no longer the owner of the vehicle.

Water ..... 190  
Gas ..... 192  
Cassette Toilet ..... 193

# WATER FAULTS

## Water

Fault	Cause	Remedy
Water not flowing from any tap when operated but pump runs	Freshwater tank empty Pump wired in reverse Pump not primed Pipe inlet or outlet pipe disconnected Pump pipes restricted by kinking Blockage in pump inlet or outlet pipe Blocked in-line filter of pump filter Air leak in suction line to pump	Check Check wiring, refer to pump manufacturers instructions Refer to pump manufacturers instructions Check connections Check pipes run Check, starting inside freshwater tank Dismantle and clean Check for bubbles & secure with clip
Pump does not run	Pump or tap incorrectly wired Pump fuse blown Battery disconnected Pump seized or overheated Pressure pump sensing switch may have failed Contacts may be faulty Wiring connections may be faulty	Refer to pump/tap manufacturers instructions Check wiring connection and then replace with fuse of correct rating Check connections Refer to pump manufacturers servicing instructions Refer to pump manufacturers servicing instructions Check contacts in plug and socket are clean and making contact Check wiring connections
Water flows from cold tap but not from hot	Feed pipe to water heater incorrectly connected to the heater outlet Blockage in hot pipeline Heater inlet or outlet pipes kinked preventing flow Hot tap not connected Hot tap failed or blocked Heater non-return valve jammed	Refer to installation instructions Disconnect pipes and inspect Check and re-route if necessary. Ensure that hose is Carver recommended type Refer to installation manual Disconnect and inspect Seek service attention

**Water**

<b>Fault</b>	<b>Cause</b>	<b>Remedy</b>
Water flows from hot tap but has reduced flow from cold	<p>Cold water pipe kinked preventing flow</p> <p>Blockage in cold pipe line</p> <p>Cold tap not connected</p> <p>Cold tap failed or blocked</p> <p>If a water filter is fitted, the cartridge is exhausted</p>	<p>Check and re-route if necessary</p> <p>Disconnect pipes after 1st Y connector and check up to tap</p> <p>Refer to installation instructions</p> <p>Disconnect and inspect</p> <p>Replace cartridge</p>
Reduced flow from both hot and cold taps	<p>Battery condition low causing pump to run slowly</p> <p>If new taps have been fitted they may be restricting flow</p> <p>Pump needs servicing</p> <p>Partially blocked pump filter or in-line filter, if fitted</p> <p>Pump outlet pipe kinked restricting flow</p> <p>Water leak</p>	<p>Check battery state of charge, refer to electrical supply note</p> <p>Disconnect and check that they have at least 1/4" (6.3mm) bore</p> <p>Refer to pump servicing instructions</p> <p>Dismantle and clean if necessary</p> <p>Check and re-route if necessary</p> <p>Check all water connections</p>
Reduced flow from either tap	<p>Y' connector(s) fitted incorrectly</p> <p>Pipe kinking restricting flow</p> <p>Bore size difference in taps</p>	<p>Refer to installation instructions</p> <p>Check and re-route if necessary</p> <p>Use taps of equal bore size</p>
If pump motor runs steadily and will not stop	<p>Battery voltage may be too low (below 10.5 volts)</p>	<p>Check that there is water in the container</p> <p>Adjust switch and/or re-charge battery</p> <p>Check all connections in pipework</p>

GAS FAULTS

**Gas**

<b>Fault</b>	<b>Cause</b>	<b>Remedy</b>
Hob does not light	No gas  Air in pipe	Check level of gas in bottle Check gas bottle valve is on Check gas taps are on  Purge system Refer to hob manufacturers instructions
Oven does not light	No gas  Air in pipe	Check level of gas in bottle Check gas bottle valve is on Check gas taps are on  Purge system Refer to oven manufacturers instructions
Combi Boiler	No gas  Over gassed Air in pipe	Check level of gas in bottle Check gas bottle valve is on Check gas taps are on Check exhaust outlet is clear  Turn off appliance, wait 2 minutes and try again Purge system Refer to space heater or boiler manufacturers instructions
Fridge does not light	No gas  Air in pipe	Check level of gas in bottle Check gas bottle valve is on Check gas taps are on  Purge system Refer to fridge manufacturers instructions

## Cassette toilet

Fault	Remedy
<p>Bowl does not drain when toilet is flushed.</p> <p>Cassette is overfilled</p>	<p>DO NOT REMOVE CASSETTE. While inside the motorhome turn flush knob anti-clockwise to open valve blade and leave it in the open position. Open access door on side of motorhome. Rotate pour-out spout outward. Place appropriate size container under spout cap. Remove cap carefully. Allow bowl contents to drain into container. This will lower the water level in the bowl. Replace cap and return pour-out spout to stored position. DO NOT REMOVE CASSETTE. Go inside the motorhome and turn the flush knob clockwise to close valve blade. Now, the cassette may be removed following the normal removal and emptying procedure.</p>
Odours	Use proper amount of holding tank deodorant specified on bottle.
Toilet tissue does not fit into compartment.	Since some tissues are supplied on larger rolls, it may be necessary to use some tissue before storing into compartment.
Soiled bowl after flushing	Partially fill bowl to cover soiled portion of bowl. Next flush will dissolve waste. Tip: Leave valve blade open during use.
No power to add water to toilet bowl	<p>Check cassette safety sensor switch and fuse-holder for proper engagement and operation.</p> <p>Note: Cassette has to be removed to reach switch and fuse.</p> <p>Insert cassette and try adding water to toilet bowl.</p> <p>Toilet can be flushed manually. Add water. Add water to bowl from a separate container. Turn flush knob anti-clockwise to open valve blade. Turn clockwise to close valve blade.</p>
Cassette cannot be removed	<p>Check for obstacles under retaining clip. Depress retaining clip several times to check operation. Remove cassette. Flush knob and valve blade in partial open position. Close valve blade by moving knob clockwise.</p> <p><b>CAUTION: If valve blade is open during cassette removal, severe damage to system can occur. Never force insertion or removal of the cassette tank.</b></p>
Valve blade mechanism sticks or is hard to open	Spray light film of silicone on blade.
Major unit malfunction	Contact your original Motorhome Dealer.



Specification .....196

Capacities .....198

Towing Capabilities .....199

Jacking .....200

Wiring Diagrams .....201

Bulb Replacement .....208

## SPECIFICATIONS

Model	Kon-Tiki Dynamic 675		Kon-Tiki Dynamic 675 Lounge	
	Manual	Auto	Manual	Auto
Roof Profile	Highline			
Engine Power	180bhp	205bhp	180bhp	205bhp
Engine Capacity	3.0L		3.0L	
Chassis	Iveco / Meier			
Wheel base	5.10m/16'9"			
Designated Passenger Seats excluding Driver	5	5	3	3
Berths (sleeping positions)	6			
Overall Length (no ladder)	9.04m/29'8"			
Overall Width (mirrors folded)	2.35m/7'9"			
Overall Height	3.24m/10'8"			
Maximum Technical Permissible Laden Mass (A)	7200kg			
Mass in Running Order (B)	5061kg*	5095kg*	5031kg	5065kg
Maximum User Payload (A-B)	2139kg*	2105kg*	2169kg	2135kg
Unladen Weight	4823kg*	4857kg*	4793kg	4827kg
Essential Habitation Equipment	0kg			
Thermal Insulation Grade	Three			
<b>Bed Sizes</b>				
Front Double	204cm x 135cm/ 6'8" x 4'5"			
Rear Double	203cm x 138cm/ 6'8" x 4'6"			
Rear Offside Single	193cm x 81cm/ 6'4" x 2'8"			
Rear Nearside Single	193cm x 81cm/ 6'4" x 2'8"			
Overcab Bed	190cm x 134cm/ 6'3" x 4'5"			

\* Estimated

**Note:** 1. The **Maximum User Payload** includes:

- a) **Conventional load** (this is the allowance for passengers)
- b) **Essential habitation equipment** (items and fluids required for safe and proper functioning of habitation equipment)
- c) **Optional equipment** (items available from the manufacturer over and above the standard specification)
- d) **Personal effects** (those items not covered by the above)

2. The **Mass in Running Order** is the mass of the unladen vehicle including a 75kg allowance for the driver plus engine coolants and 90% of the fuel tank and 80% of the LPG gas tank @ 28kg.
3. The **Mass in Running Order** is calculated with the fresh water tank and water heater empty. If you travel with water in the fresh water tank or water heater then the payload will reduce accordingly.

4. PLEASE TAKE CARE TO ENSURE THAT YOU HAVE ALLOWED FOR THE MASSES OF ALL ITEMS YOU INTEND TO CARRY IN THE MOTOR CARAVAN, e.g. passengers, optional equipment, essential habitation equipment and personal effects, such as clothing, food, pets, bicycles, sailboards, sports equipment etc.
5. **WARNING** - UNDER NO CIRCUMSTANCES SHOULD THE MAXIMUM TECHNICAL PERMISSIBLE LADEN MASS OF THIS MOTOR CARAVAN BE EXCEEDED.

## CAPACITIES

**Water Tank Capacities**

	Fresh Water Tank	Waste Water Tank	Water Heater	Toilet Tank (Flushing)
All models	230 litre	145 litre	8.5 litre	0 litre

**LPG Tank Capacity**

	Capacity
All models	70 litre (28.5kg gas)

**Note:** For technical data on the base vehicle please refer to the manufacturer's handbook.

## Kon-Tiki Dynamic 675 Towing Capabilities

Model	MTPLM	Permissible Front Axle Load	Permissible Rear Axle Load	Recommended Maximum Trailer Weight	Gross Train Weight
All models	7200kg	2700kg	5000kg	3500kg	10700kg

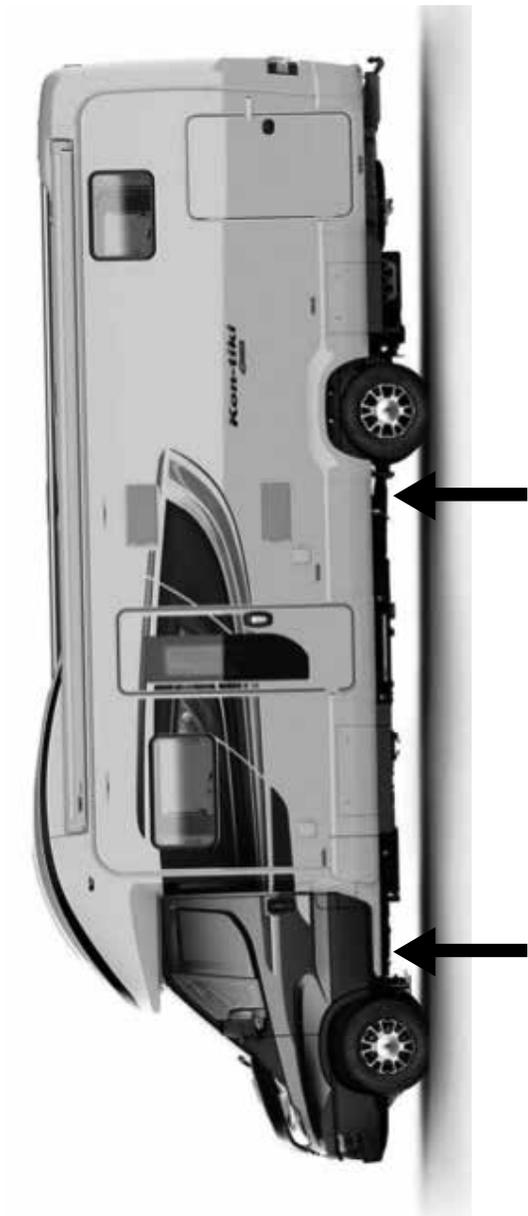
Please note that the additional weight of the tow bar and trailer nose weight increases the rear axle loading of the motor home so care should be taken that the rear axle load is not exceeded when towing.

To ensure adequate road holding, the load on the front axle, under all conditions, must not be less than 30% or more than 70% of the total weight.

Care must be taken when distributing loads. The loadings and weights above are maximums and must not be exceeded under any circumstances.

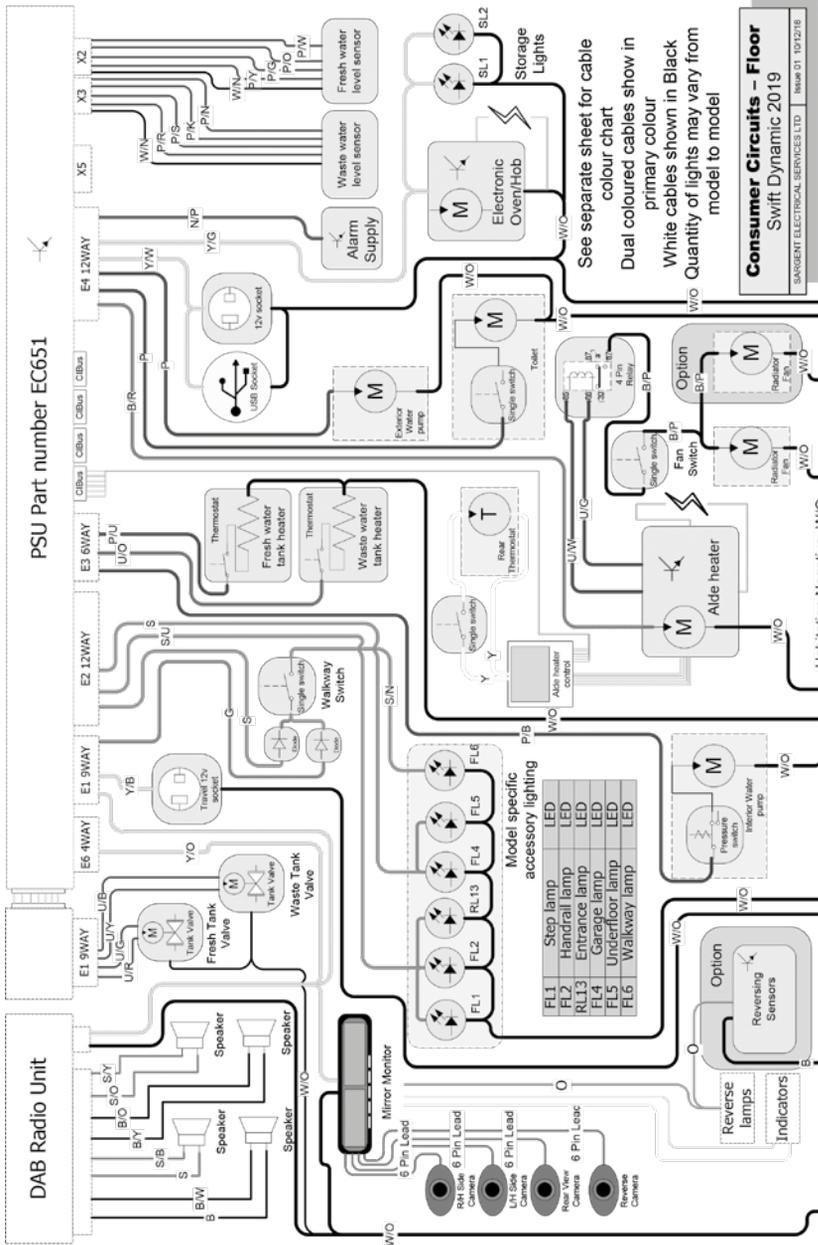
**⚠ CAUTION:** When fitting a towbar, it must meet certain minimum requirements as specified by Type Approval Regulations. The bar will have marked on it the approval standard (94/20/EC or 55R ECE) and the maximum download, or noseweight, that it can accept. It must fit the manufacturer's approved mounting points and must not obscure the towing vehicle's number plate.

JACKING POINTS



Jacking Point: ▲  
See Iveco handbook for further details

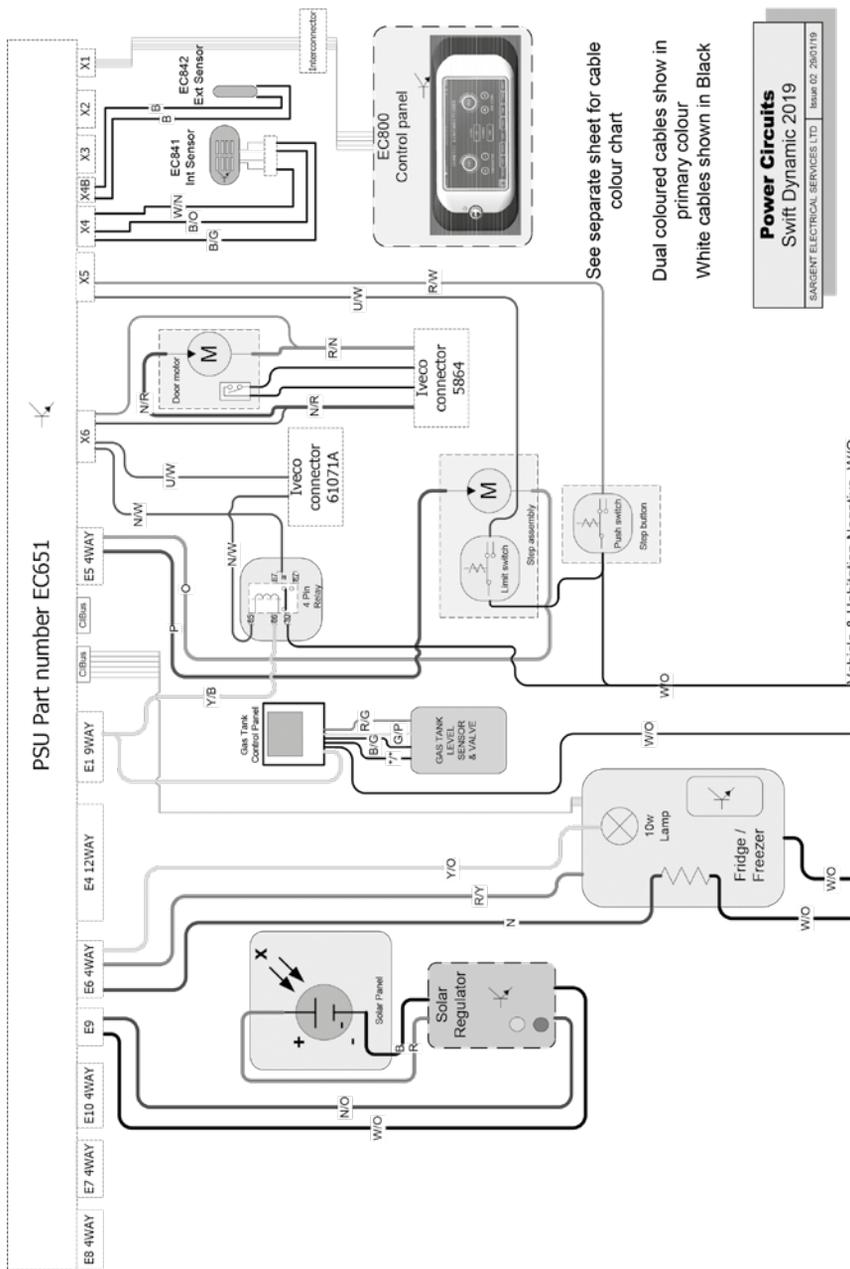
Consumer circuits floor



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WIRING DIAGRAMS

Power circuits A

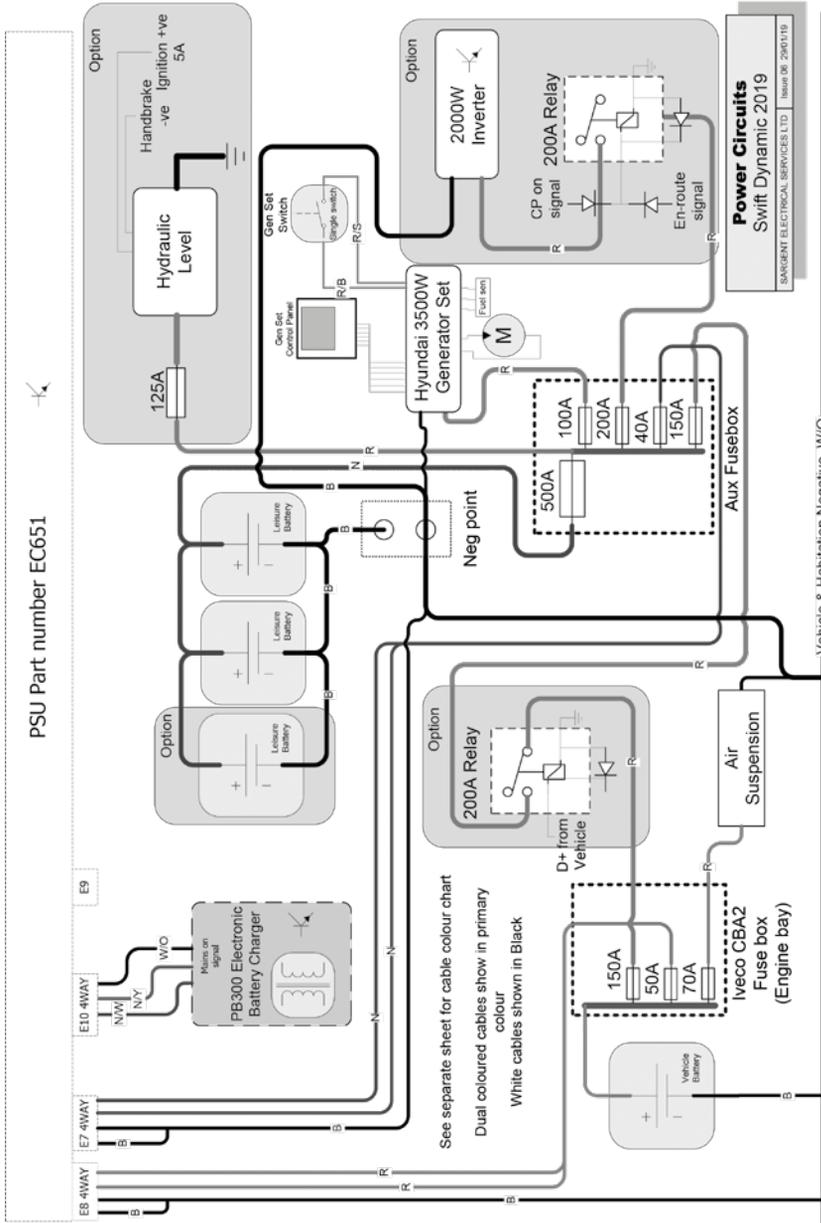


**Power Circuits**  
 Swift Dynamic 2019  
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Vehicle & Habitation Negative W/O

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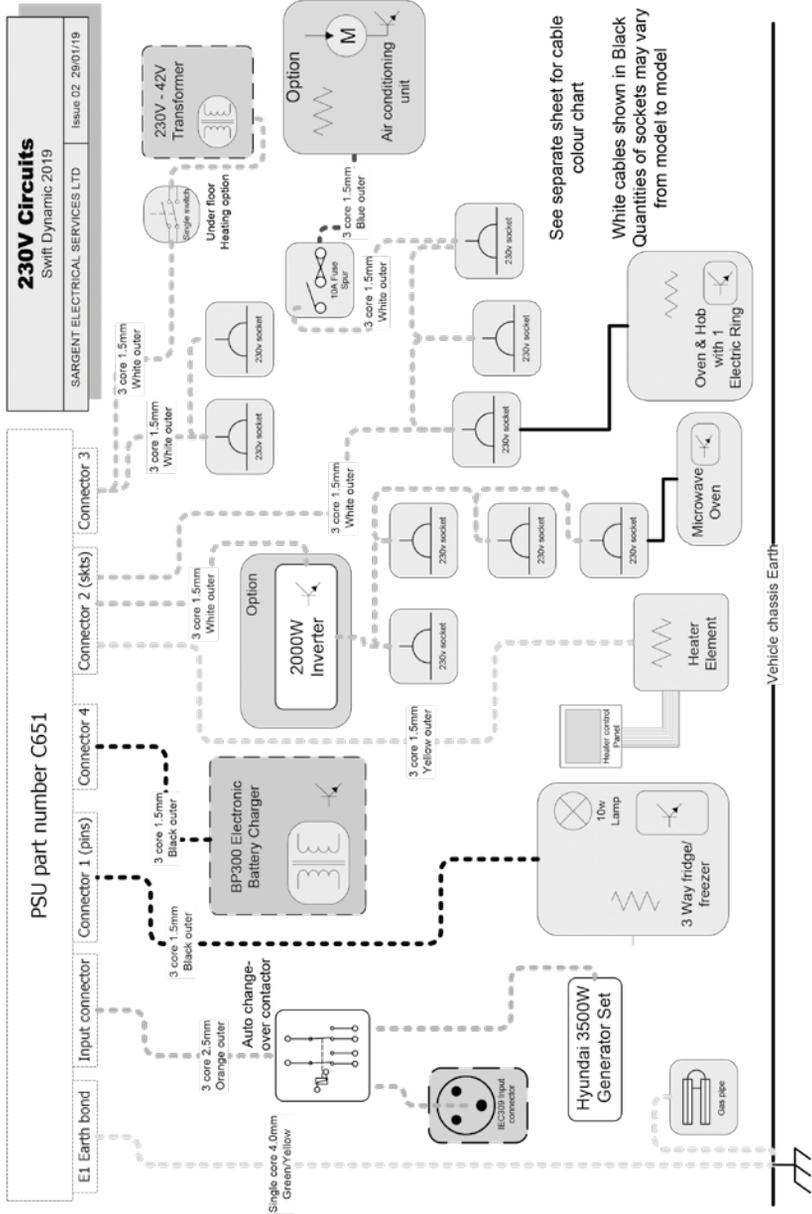
Power circuits B



**Power Circuits**  
 Swift Dynamic 2019  
 SARGENT ELECTRICAL SERVICES LTD | Issue 06 / 2019/19

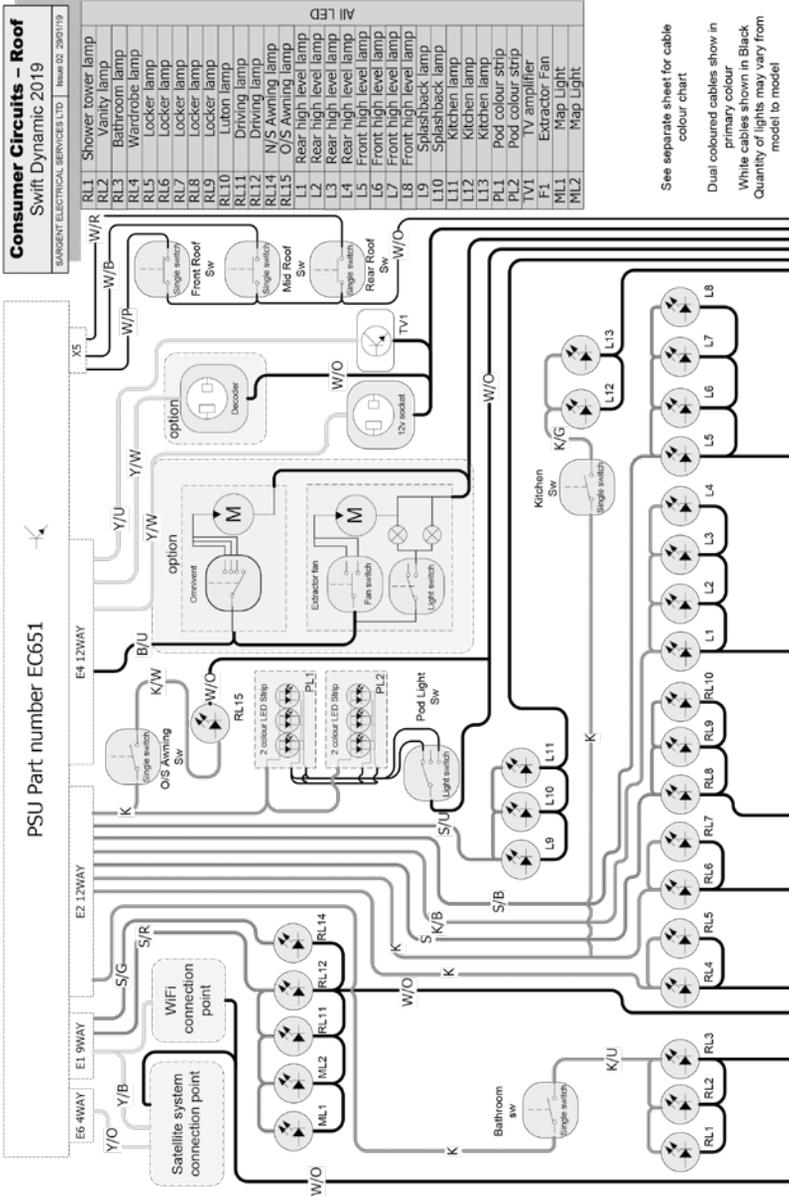
WIRING DIAGRAMS

230v circuits



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Consumer circuits roof

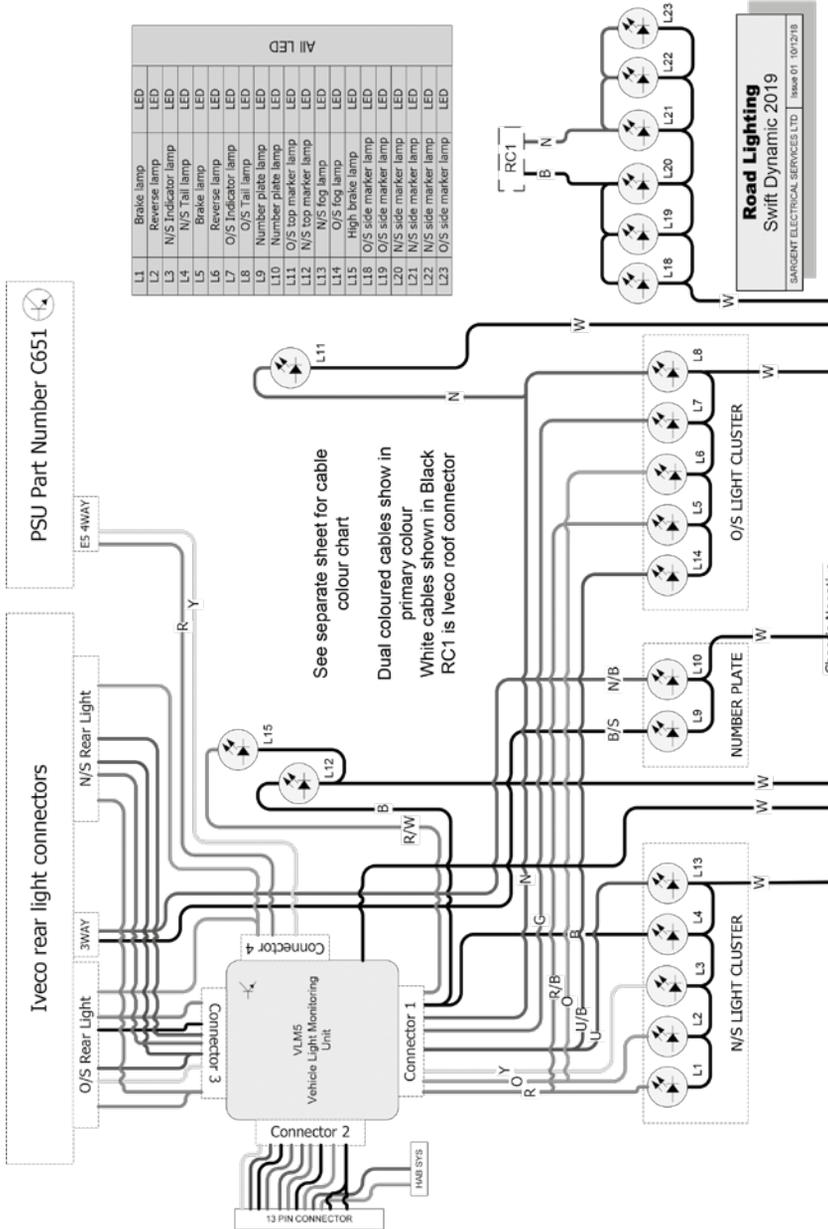


See separate sheet for cable colour chart  
Dual coloured cables show in primary colour  
White cables shown in Black  
Quantity of lights may vary from model to model

Habitation Negative W/O  
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WIRING DIAGRAMS

Road lighting



L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17	L18	L19	L20	L21	L22	L23	
Brake lamp	Reverse lamp	N/S Indicator lamp	N/S Tail lamp	Brake lamp	Reverse lamp	O/S Indicator lamp	O/S Tail lamp	Number plate lamp	Number plate lamp	O/S top marker lamp	N/S top marker lamp	N/S fog lamp	O/S fog lamp	High brake lamp	O/S side marker lamp	O/S side marker lamp	N/S side marker lamp	O/S side marker lamp					
LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED

**Road Lighting**  
Swift Dynamic 2019  
SARGENT ELECTRICAL SERVICES LTD Issue 01 10/2018

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Example



**Y/U**

Yellow cable with Blue stripe

### Cable Colour Chart

Swift Group

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#### 12v Cable Colours

<b>B</b>	BLACK
<b>N</b>	BROWN
<b>R</b>	RED
<b>O</b>	ORANGE
<b>Y</b>	YELLOW
<b>G</b>	GREEN
<b>U</b>	BLUE
<b>P</b>	PURPLE
<b>S</b>	SLATE GREY
<b>W</b>	WHITE
<b>K</b>	PINK

#### 230v Cable Colours

<b>B</b>	BLACK
<b>N</b>	BROWN
<b>W</b>	WHITE
<b>O</b>	ORANGE
<b>Y</b>	YELLOW
<b>G</b>	GREEN
<b>U</b>	BLUE

## Cable colour chart

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## BULB REPLACEMENT

### ROAD LIGHT BULB ACCESS

#### REAR LIGHT CLUSTERS (CONTAINING INDICATOR, TAIL / STOP, REVERSE AND FOG LAMPS)

- These multi-function lights are LED and have no user serviceable parts inside.
- Replacement clusters can be fitted in the following way:
- Remove three screws visible around the perimeter of the cluster
- Pull the cluster away from the rear panel of the tourer, taking care to not put excessive strain on the electrical connections behind the lamp
- Unplug the electrical connection from the rear of the lamp, by releasing the tab and lifting the connector upwards relative to the cluster
- Plug the connector back into the replacement lamp, position the lamp into the recess and replace the three fixing screws.

#### NUMBER PLATE LAMPS, LED

- These lamps are LED and have no user serviceable parts inside.
- Replacements should be undertaken by your dealer, as the lamps are sealed onto the mounting panel.

#### HIGH LEVEL BRAKE LAMP

- These lamps are LED and have no user serviceable parts inside.
- Replacements should be undertaken by your dealer, as the lamps are sealed onto the mounting panel.

### FRONT AND REAR UPPER MARKER / POSITION LAMPS

- These lamps are LED and have no user serviceable parts inside.
- Replacements should be undertaken by your dealer, as the lamps are sealed onto the mounting panel.

### SIDE MARKER / POSITION LAMPS

- These lamps are LED and have no user serviceable parts inside.
- Replacements should be undertaken by your dealer, as the lamps are sealed onto the mounting panel.

### ROAD LIGHTING, FRONT OF VEHICLE

Please see the information contained within the Iveco handbook for details of access to headlight or side repeater bulbs.





Owners Club .....	212
Spares and after sales Supercare .....	212
Repair facilities .....	212
Caravan Clubs .....	213
Motoring Associations .....	213
Trade Association .....	213
Index .....	214
Change of ownership .....	218

## USEFUL INFORMATION

### Owners club

The Owners Club is a completely independent organisation run for the benefit of the motorhome owners. They have numerous rallies during the year in various parts of the country. Apart from the friendliness and companionship the Club generates it is also actively engaged in charity work for those less fortunate than ourselves. The address of the Secretary of the Owners Club can be obtained from the Swift Group website.

### Spares and after sales customer service

A catalogue of spare parts are available through our Swift Group Dealer Network, from door catches through to spare wheels. Please note, all parts enquiries must be directed through your dealer, as the Swift Group does not operate a direct retail service.

We endeavour to supply parts for vehicles up to 8 years old. If the original part is no longer available your dealer should be able to source a suitable alternative.

**Note:** Please remember to quote chassis VIN (Vehicle Identification Number) when ordering any items from your dealer. This can be found at the bottom of the front windscreen, on the plate on the front cross member within the engine compartment and on the Swift manufacturers plate situated on the bulkhead directly behind the front driver/passenger seat.

### Repair facilities

Should you be unfortunate to encounter damage to your vehicle, we have a number of approved workshops and dealerships with workshop facilities to undertake such repairs. Details of which can be found via our website: [www.swiftgroup.co.uk/find-a-dealer](http://www.swiftgroup.co.uk/find-a-dealer)

The enjoyment of motorhoming can be greatly enhanced by membership of one or more of the various motorhome/caravanning, motoring and holiday clubs. Here are some useful addresses:

## Caravan Clubs

**The Caravan Club,**  
East Grinstead House,  
East Grinstead  
West Sussex, RH19 IUA  
Tel: 01342 326944  
[www.caravanclub.co.uk](http://www.caravanclub.co.uk)

**The Camping and Caravanning Club,**  
Greenfields House,  
Westwood Way,  
Coventry,  
West Midlands.  
Tel: 0845 130 7631 or 024 7647 5448  
[www.campingandcaravanningclub.co.uk](http://www.campingandcaravanningclub.co.uk)

## Motoring Associations

**Automobile Association (AA)**  
Fanum House,  
Basingstoke,  
Hants. RG1 2EA  
Tel: 08705 448866  
[www.theaa.co.uk](http://www.theaa.co.uk)  
e-mail: [customer.services@theaa.com](mailto:customer.services@theaa.com)

## RAC Motoring Services

RAC Motoring Services  
8 Surrey St  
Norwich  
Norfolk  
NR1 3NG  
Tel: 01922 437000  
[www.rac.co.uk](http://www.rac.co.uk)

## The Society of Motor Manufacturers and Traders Limited (SMMT)

Forbes House,  
Halkin Street,  
London SW1X 7DS  
Tel: 020 7235 7000  
[www.smmt.co.uk](http://www.smmt.co.uk)

**Green Flag**  
Tel: 0845 246 1557  
[www.greenflag.com](http://www.greenflag.com)

**RBS Insurance**  
Churchill Court  
Westmoreland Road  
Bromley  
Kent  
BR1 1DP  
0800 158 2493

## Trade Association

**NCC**  
Catherine House,  
Victoria Road,  
Aldershot,  
Hampshire, GU11 1SS  
Tel: 01252 318251  
[www.thencc.org.uk](http://www.thencc.org.uk)  
[www.motorhomeinfo.co.uk](http://www.motorhomeinfo.co.uk)  
e-mail: [info@thencc.org.uk](mailto:info@thencc.org.uk)

**Symbols**

230V mains electrical equipment power consumption ..... 61

**A**

Accessory harnessing..... 95  
 Acrylic windows..... 178  
 Airbag..... 24  
 Air Suspension ..... 135  
 Air Suspension faults ..... 146  
 Alarm Power Supply ..... 95  
 Alde Compact 3020HE Boiler..... 112  
 Alde heat exchanger..... 113  
 Alde Zonal Control..... 114  
 Annual service ..... 10  
 Assistance..... 9  
 Awnings ..... 167  
 Awnings and Tents ..... 40

**B**

Bathroom/shower care ..... 185  
 Bulb replacement ..... 208  
 Bulb replacement LED interior ..... 185  
 Bulbs interior ..... 185

**C**

Caravan clubs ..... 213  
 Care of laminate tops, tables, furniture and doors..... 172  
 Cassette toilet faults ..... 193  
 Central Locking ..... 20  
 Change of ownership ..... 9, 218  
 Children..... 34  
 Child seats ..... 23  
 Cleaning water system ..... 45  
 CO alarm..... 35  
 Coastal code ..... 18

Code of conduct ..... 16  
 Colour reference..... 175  
 Condensation ..... 178  
 Connecting cable wiring ..... 62  
 Corian kitchen work tops..... 182  
 Country code ..... 18  
 Cruise control ..... 30  
 Cycle racks..... 170

**D**

Dometic absorption refrigerator ..... 114  
 Dometic CU600 oven ..... 115  
 Doors ..... 181  
 Driving ..... 17  
 Driving licence ..... 25

**E**

EBECO Floor heating..... 114  
 Electrical fault finding ..... 96  
 Electrical system..... 59  
 En-route heating..... 55  
 Environment ..... 18  
 Escape paths ..... 34  
 European touring..... 27  
 External 12v fill socket ..... 43  
 External barbeque point..... 55  
 External BBQ point..... 174  
 External shower point..... 175  
 Extractor hood..... 126

**F**

Fault finding..... 189  
 Fire ..... 34  
 Fire extinguisher ..... 34  
 Fresh water system ..... 43  
 Fresh water tank..... 43

**G**

Gas fault finding.....	58
Gas faults .....	192
Gas safety advice .....	56
Gas Tank operation .....	53
Gas tank re-filling.....	54
Generator usage.....	59
Grill.....	120

**H**

Habitation relay.....	95
Heated seats .....	171
Heki midi rooflight.....	132
Hob.....	118
Hydraulics levelling system .....	150
Hyundai Generator .....	100
Hyundai generator fault finding .....	105

**I**

Inspection record.....	10
Inverter .....	106
Inverter usage.....	60
ISOFix child seat restraint .....	24

**J**

Jacking points .....	200
----------------------	-----

**K**

Kitchen care .....	184
--------------------	-----

**L**

Large storage areas.....	22
Levelling the motorhome .....	40
Loading of vehicle.....	21
LPG tank capacity.....	198

**M**

Microwave oven .....	124
Modifications .....	178
Motorhome battery.....	92
Motorhome exterior .....	178
Motorhome interior .....	180
Motorhome terms.....	20
Motorhome Wifi.....	173
Motoring associations.....	213
Moving off .....	20

**O**

Omnistep single step.....	134
Owners club .....	212

**P**

Parking.....	17
Parking sensors.....	32
Passenger seating .....	23
Pod Vent .....	130
Positioning.....	40
Pressure switch .....	46
Pressure switch adjustment.....	47
Pressure switch troubleshooting .....	48
Priming the water system .....	44

**R**

Recomissioning the water system.....	188
Repair facilities.....	212
Roof light blind and flyscreen .....	131
Roof lights .....	131
Roof loading .....	22

**S**

Satellite Power Supply .....	95
Seat belts .....	23, 25
Security .....	35
Shower.....	173
Shower head .....	173
Solar panel .....	94
Spares and after sales customer care ....	212
Spare wheel changing .....	30
Spare wheel on Meier conversion .....	30
Specifications .....	196
Stainless steel bowl care .....	184
Status 570 digital antenna .....	172
Supplier contacts .....	13
Swift Command App .....	88
Swift Command - Bluetooth pairing.....	78
Swift Command - common fault table ....	85
Swift Command power control panel - key features .....	68
Swift Command power control system ....	66
Swift Command technical information.....	81
Swift Command Tracker by Sargent .....	36
Swift Connect Direct.....	9
SwiftShield fabric .....	181
Swift Talk .....	2

**T**

Tank heaters.....	44
Thermal insulation heating .....	57
Thetford cassette toilet .....	127
Tow bar connection .....	95
Towing.....	26
Towing capabilities.....	199
Trade association.....	213
TV Brackets.....	173
TV inlet .....	172

Typical appliance consumption figures.....	63
Typical gas schematic drawing .....	52
Tyre pressures .....	23
Tyres.....	22

**V**

Vehicle identification number.....	35
Ventilation.....	35
VIN CHIP .....	37

**W**

Warranty.....	6
Waste water system .....	46
Water faults .....	50, 190
Water level sensor & cleaning .....	49
Water system .....	42
Water tank capacities .....	198
Wild camping .....	17
Window blinds.....	129
Windows .....	127
Winterisation.....	186
Wiring diagrams .....	201
Wiring of connecting cable and motorhome mains inlet .....	62
Work surfaces .....	184



All Swift Group models have been certified by the NCC for compliance with stringent European Standards, British Legislation and industry SET Codes of Practice specifically relating to health and safety issues.

The approval process covers the testing and inspection of critical areas of the product from fire safety, weights and dimensions, to gas, electrics and ventilation. Every motorhome carries the “NCC Approved Motorhome” badge.

The NCC also conduct unannounced inspections at the Swift factory to ensure continued compliance. NCC Approval gives you peace of mind that your motorhome is legal and safe.

All Swift Group motorhomes are European Whole Vehicle Type Approved.

This is your assurance that these motorhomes meet all European regulations, and have been constructed and conform to approved safety, environmental and manufacturing control standards.

## CHANGE OF OWNERSHIP

**Change of ownership****Notification of change of ownership**

As the new second hand owner, please notify the Swift Group of the change of ownership by completing this page and sending it to:

Customer Services  
Swift Group Limited,  
Dunswell Road,  
Cottingham,  
East Yorkshire HU16 4JX.

**Note:** Warranties are only transferable providing the terms and conditions of the warranty have been met by the previous owner(s). Please see warranty information at the beginning of this handbook for full details. The 'Extended Body shell warranty' is a non-transferable warranty

## CHANGE OF OWNERSHIP

<b>Details of motorhome:</b>	Model:	
	Chassis No:	
<b>New owner:</b>	Name:	
	Address:	
	Email:	
	Telephone:	
	Mobile:	
	Date of purchase:	
<b>Previous owner:</b>	Name:	
	Address:	
	Email:	
	Telephone:	
	Mobile:	
	Date of purchase:	





