

Sealand[®]

by Dometic GROUP

EN

Pressure-assisted toilet
Operation manual



9300-9400 Series RushFlush[™] Toilets

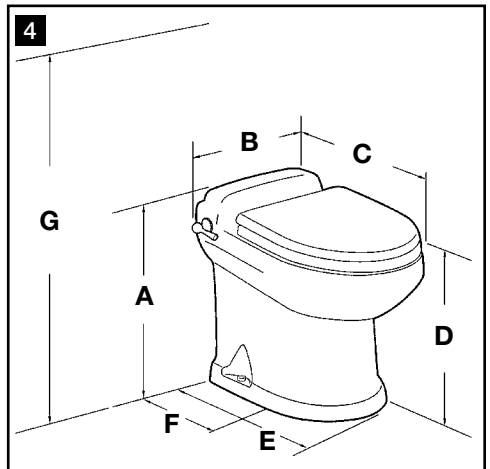
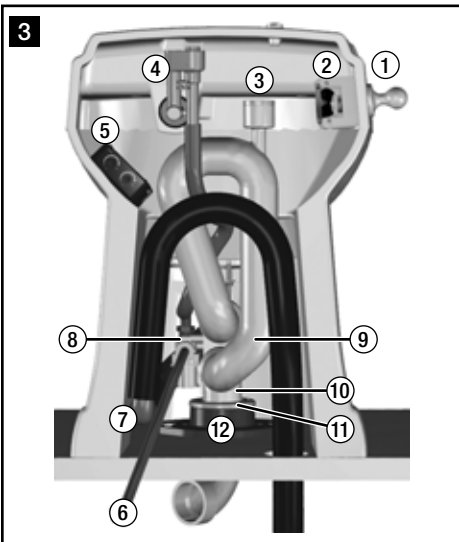
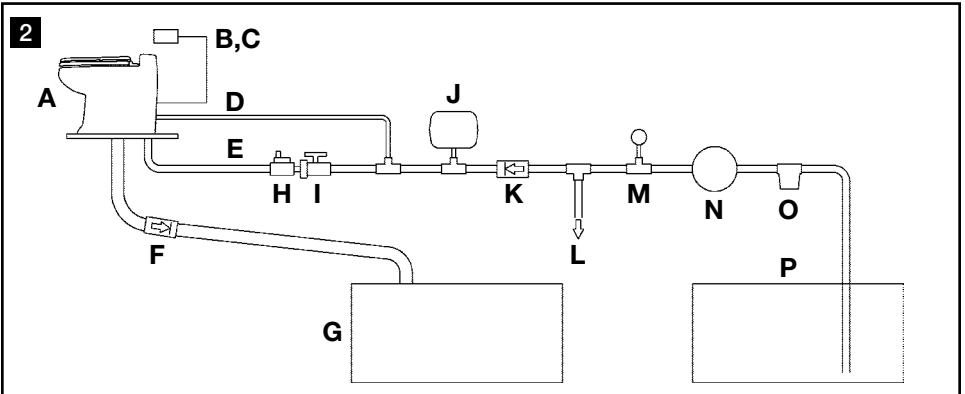
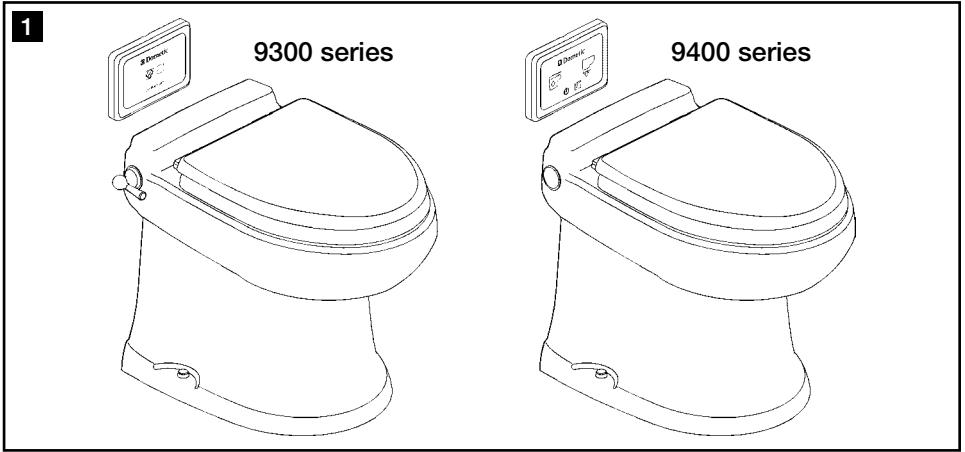


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1 Notes on using the manual



Caution!

Safety Instruction: Failure to observe this instruction can cause material damage and impair the function of the device.



Note

Supplementary information for operating the device.

fig. 1 A, page 2 : This refers to an element in an illustration. In this example, item A in figure 1 on page 2.

2 General safety instructions

The manufacturer will not be held liable for claims for damage resulting from the following:

- Faulty assembly or connection
- Damage to the unit from mechanical influences, misuse or abuse
- Alterations to the unit without express written permission from the manufacturer
- Use for purposes other than those described in the operating manual

2.1 Warnings – marine applications

The following statements must be read and understood before installing, servicing and/or operating this product on a boat. Modification of this product may result in property damage.

Dometic recommends that a qualified marine technician or electrician install or service this product. Equipment damage, injury to personnel or death could result from improper installation. DOMETIC ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR DAMAGE TO EQUIPMENT, OR PERSONAL INJURY OR DEATH THAT MAY RESULT FROM IMPROPER INSTALLATION, SERVICE OR OPERATION OF THIS PRODUCT.



Caution! NOT INTENDED FOR RAW WATER FLUSH TOILET SYSTEMS

The RushFlush toilet system is not designed to flush with seawater. To assure optimum performance, use only fresh water supply.

**Caution! Hazard of Flooding**

If toilet is connected to ANY through-the-hull fittings, ALWAYS close seacocks when toilet is not in use (even if boat is unattended for a brief period). All passengers MUST be instructed on how to close valves when the toilet is not in use. Failure to do so can result in flooding which can cause loss of property and life.

**Caution! Hazard of Flooding**

If the toilet uses fresh water for flushing and is connected directly or indirectly to a shore-side municipal water system at ANY time, shoreside water connections MUST be disconnected if the boat is unattended (even if boat is unattended for a brief period). Failure to do so can result in flooding which can cause loss of property and life.

**Caution! Hazard of Flooding**

Before beginning any work on this product, be sure that all electrical power to the unit has been turned off and that seacocks are in the CLOSED or OFF position. Failure to do so can result in flooding which can cause loss of property and life.

**Caution!**

Overfilling the holding tank can create serious damage to the sanitation system, such as rupturing the holding tank and releasing tank contents into the bilge. To prevent this possibility, Dometic recommends using the “full” tank shut-down relay in the toilet’s electronic control module. The “full” signal from the holding tank can be generated by an optional Dometic DNF (Do Not Flush) full tank monitor or DTM04 four-level tank monitor system.

3 Intended use

SeaLand 9300 and 9400 series RushFlush toilets provide an electric-flush toilet that uses a high-velocity water jet to break up effluent waste and push it to a holding tank or other effluent storage/disposal system. Operated by an electronic flush handle or wall-mounted flush switch (depending on model), the toilet allows the user to add water to the bowl (before using or flushing) and to flush the toilet by pushing a button. The Dometic flush switch panel includes lights to indicate when electric power to the toilet is activated, and when the holding tank (if applicable) is 3/4-full or completely full.

RushFlush toilets are not intended for use with a raw water or seawater flush system.

3.1 Benefits

Convenient electronic flush. Add water or flush with the touch of a button or electronic flush handle.

Adjustable water consumption settings. To optimize toilet performance and overall system operation, the rate of water flow can be adjusted separately for the upper rim of the toilet and for the lower bowl jet. This allows water consumption to range from as little as 1.25 gallon (4.7 l) up to 2.75 gallons (10.4 l) per flush. The water flow control module is located inside the back of the toilet, so adjustment should be made during installation.

“Power on”, “3/4-full” and “full tank” indicator lights. Dometic flush switch panel indicates when electrical power to toilet is activated, and when holding tank is 3/4 and completely full (when connected to holding tank level indication system).

Automatic “full tank” shut-down. When connected to a holding tank level indication system, the RushFlush toilet control module will shut off electrical power to the toilet when the holding tank is full. This safety features prevents overfilling the holding tank, which may cause damage to the boat.

4 Components

Basic system diagram* (fig. **2**, page 2)

Ref.	Description
A	RushFlush toilet
B	"Full tank" status panel (9300 only)
C	Flush switch and status panel (9400 only)
D	Rim water supply line
E	Lower bowl water supply line
F	Check valve
G	Blackwater holding tank
H	High-flow electric water valve
I	Maintenance valve
J	Potable water pressure tank
K	Check valve
L	Fresh water to other fixtures
M	Pressure gauge
N	High-flow water pump
O	Pump inlet strainer
P	Freshwater holding tank

* Recommended system configuration. Not all components may be used in your RushFlush toilet system.

Toilet diagram (fig. **3**, page 2)

Ref.	Description
1	Flush handle (9300 series)
2	Flush handle switch
3	Anti-siphon valve
4	Vacuum breaker
5	Water flow control module
6	Water supply, upper rim
7	Lower bowl water supply inlet (attached to supply line, not included)
8	Water valve, upper rim
9	Discharge loop
10	Discharge outlet
11	Sealing grommet
12	Discharge floor flange

Refer to complete parts list (packed separately) for additional information.

5 Specifications

5.1 Materials

Toilet: vitreous ceramic

Control module housing: ABS

Discharge outlet: high-tech polymer

Discharge floor flange: ABS

Flush switch panel frame: ABS

Flush switch panel: polycarbonate resin

Flush handle: plated brass (on applicable toilet models)

5.2 Approvals

- EMC Directive 2004/108/EC
- CE compliant components

5.3 Minimum System Requirements

Electrical	Power draw	1.2 amps @ 12 V DC 0.6 amps @ 24 V DC
	Circuit breaker/fuse recommended size	2 amps @ 12 V DC 1 amp @ 24 V DC
Water Supply	Upper rim	0.5 in. NPT inlet, water valve
	Lower bowl jet	1 in. NPT inlet, water valve
	Flow rate	15 gpm/57 lpm @ 30-50 PSI / 207-345 kPa
Discharge	Inside diameter	1.5 in./38 mm pipe or 1.875 in./47 mm hose
	Horizontal run	gravity drain *
Required components	Water pump **	15 gpm/57 lpm
	Potable water pressure tank **	150 PSI working pressure rating
	Electric flush switch	Dometic

* Horizontal discharge plumbing must drop a minimum of 0.125 in./3 mm for every 1 ft./30.5 cm of horizontal run.

** Purchased separately. Water pump may be part of vessel's potable water system.

Specifications subject to change without notice.

5.4 Dimensions (fig. 4, page 2) All dimensions may vary $\pm 3/8$ inch (10 mm)

Model 9331, 9341 (with flush handle)

Ref.	Dimension
A	19 in. / 483 mm
B	16.5 in. / 419 mm*
C	21.5 in. / 546 mm
D	17.5 in. / 445 mm - seat height
E	17 in. / 432 mm
F	10.5 in. / 267 mm - centerline rough-in
G	33.5 in. / 851 mm - seat lid up

Model 9431, 9441 (with flush switch)

Ref.	Dimension
A	19 in. / 483 mm
B	14 in. / 356 mm
C	21.5 in. / 546 mm
D	17.5 in. / 445 mm - seat height
E	17 in. / 432 mm
F	10.5 in. / 267 mm - centerline rough-in
G	33.5 in. / 851 mm - seat lid up

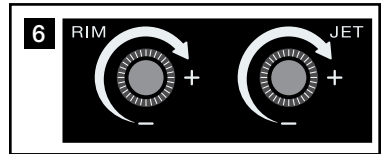
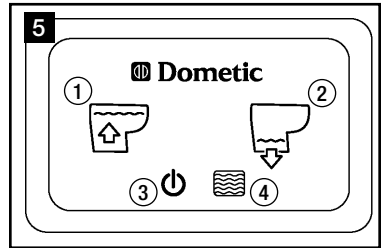
* width measurement includes flush handle

6 Operation

6.1 Toilet system start-up

1. Turn on water supply and electrical power to toilet.
2. Press “Flush” handle or switch (fig. 5 2) once.
3. Toss several sheets of toilet paper into bowl and repeat cycle. The bowl should completely clear.
4. If tissue paper does not completely discharge from toilet bowl, flow times for the rim and lower water jets may need to be increased. (See fig. 3 5, page 2, for location of control module in back of toilet.)

On water flow control module, (fig. 6), adjust water flow times to higher setting. Repeat flush test after each adjustment to assure tissue paper discharges from toilet bowl.



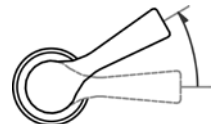
6.2.1 Normal toilet operation - flush handle and status panel (9300 series)

ADDING WATER TO TOILET BOWL

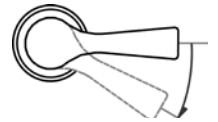
Lift flush handle until desired water level is achieved. (Water flow will shut off automatically if switch is pressed too long to avoid overflow.)

FLUSHING TOILET

Press flush handle down, then release it. This activates a powerful water jet action that breaks up and discharges effluent from the bowl, through the discharge loop and to the holding tank.



ADD WATER TO BOWL



FLUSH



Caution – Do Not Flush Foreign Objects!

Flush only water, bodily wastes and rapid-dissolving toilet tissue. Do not flush wet wipes, sanitary napkins, condoms, diapers, paper cups, cotton swabs, food, hair or liquids such as oils or solvents as clogging or damage to the toilet or toilet system may occur.



Note

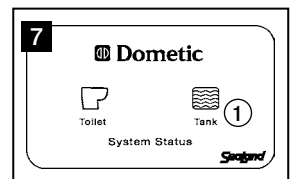
Make sure all guests understand toilet operation before use.



6.2.2 Toilet system status panel (optional)

“3/4-FULL” and “FULL” TANK INDICATOR

The SeaLand toilet system status panel (DSS) includes a bi-color light (fig. 7 1) to indicate holding tank status. When it glows yellow, the waste tank 3/4-full. When it glows red, the tank is full and electrical power to the toilet shuts off to prevent overfilling the holding tank. After the tank is emptied, the red light turns off and electrical power to the toilet is restored.



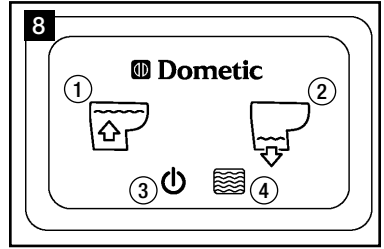
6.3.1 Normal toilet operation - flush switch and status panel (9400 series)

ADDING WATER TO TOILET BOWL

Press “Add Water” switch (fig. 8 1) until desired water level is achieved. (Water flow will shut off automatically if switch is pressed too long to avoid overflow.) More water is usually added only when flushing solids.

FLUSHING TOILET

Press “Flush” switch (fig. 8 2), then release it. This activates a powerful water jet action that breaks up and discharges effluent from the bowl, through the discharge loop and to the holding tank.



Caution – Do Not Flush Foreign Objects!

Flush only water, bodily wastes and rapid-dissolving toilet tissue. Do not flush wet wipes, sanitary napkins, condoms, diapers, paper cups, cotton swabs, food, hair or liquids such as oils or solvents as clogging or damage to the toilet or toilet system may occur.



Note

Make sure all guests understand toilet operation before use.

6.3.2 Indicator lights

“POWER ON” INDICATOR

On the Dometic flush switch panel, a steady green “Power On” light (fig. 8 3) indicates when electrical power to the toilet is activated.

“3/4-Full” and “FULL TANK” INDICATOR

The Dometic flush switch panel includes a “Full Tank” light (fig. 8 4) to indicate holding tank status (if connected to appropriate tank monitoring system) and when it should be pumped out. When the light is yellow, the tank 3/4 full. When the light is red, the holding tank is full and electrical power to the toilet automatically shuts off to prevent overflow of the holding tank. After the holding tank is emptied, the light will turn off and electrical power to the toilet is restored.

7 Maintenance and winterizing

7.1 Cleaning the toilet

To maintain the toilet's original, lustrous appearance, use SeaLand® Toilet Bowl Cleaner or other non-abrasive bathroom and toilet bowl cleaners. Please follow label directions.

**Caution**

To avoid damaging internal seals, do not clean toilet with abrasive cleaners, caustic chemicals, or lubricants and cleaners that contain alcohols or petroleum distillates.

7.2 Routine maintenance

MONTHLY

1. Inspect toilet, plumbing, and plumbing connections, wires and wire connections.
2. Open and close all plumbing valves, including seacocks.
3. Check in-line water filters and vented loops for blockage

YEARLY

Check water valve filter. Also check water valve filter if water flow into toilet becomes insufficient.

7.3 During extended periods of non-use

The RushFlush toilet and sanitation hoses should be protected if toilet will not be needed for an extended period of time (more than two weeks, especially in hot weather).

1. Flush toilet and add 4 oz. (118 ml) of liquid biodegradable laundry detergent (should NOT contain bleach or environmentally harmful substances). Note: If using sea water for flushing, shut off power to sea water pump and add fresh water by pouring directly into bowl during flush cycle.
2. Flush toilet at least five times.
3. Turn off water supply to toilet.
4. Flush the toilet without water. Repeat three times. (This procedure will minimize any remaining water in the toilet.)
5. Turn off power to the toilet.

If system will be subjected to freezing temperatures, please follow above procedure, and then winterize system as described below.

7.4 Winterizing

At the end of each season, the SeaLand toilet should be winterized for storage by using potable water-safe antifreeze (if boat or vehicle will be exposed to freezing temperatures).

**Note**

Use nontoxic antifreeze designated for potable water systems. (See boat or vehicle owner's manual.)

**Caution**

Never use automotive-type antifreeze in freshwater systems.

PRESSURIZED FRESH WATER SYSTEM

1. Drain potable water tank and empty holding tank.
2. Add freshwater antifreeze to potable water tank.
3. Flush potable water antifreeze and water mixture through toilet(s) and into entire system, including the waste holding tank, diverter valve connections, discharge pumps, etc. Turn off power to toilet.

Each installation is different, so amounts may vary. User discretion is required to assure adequate protection.

8 Troubleshooting

Problem	Possible Cause	Service Instruction
<p>1. Flush cycle operates correctly but water in the bowl empties slowly or not at all.</p>	<p>a. Discharge piping is pinched or kinked. b. Discharge piping is not sloped correctly. Minimum downward slope from toilet to waste tank is 1/8-in. (3 mm) per foot. c. Discharge piping is blocked. d. Check valve in discharge line is blocked. e. Water system pressure is too low. f. Holding tank is not venting properly.</p>	<p>a. Check discharge piping. b. Reroute discharge piping. c. Close seacocks and clear blockage. d. Clear blockage or replace check valve. e. Clear blockage at water valve inlet or adjust water system pressure switch. f. Check vent line for blockage and repair.</p>
<p>2. Insufficient or no water enters the toilet bowl (upper rim and/or lower bowl jets).</p>	<p>a. Water supply line (to upper rim or lower bowl jets) is pinched or kinked. b. Screen in water valve(s) is blocked. c. Intake water filters are blocked. d. Maintenance valve in lower bowl water supply line is closed. e. Water system is not pressurized. f. Water valve (to upper rim or lower bowl jets) is malfunctioning. g. Debris is lodged in water jet. h. Water flow control module is malfunctioning.</p>	<p>a. Check water supply lines. b. Clear blockage. c. Clear water filters. d. Open maintenance valve. e. Check for closed valves or leaks. f. Inspect/clean water system strainers. Disassemble water valve(s) and clean diaphragm or pilot hole. g. Clear blockage. h. Replace control module.</p>
<p>3. Toilet flushes continuously, or bowl fills with water when not in flush cycle.</p>	<p>a. Jet valve diaphragm or pilot hole is clogged with debris. b. Water flow control module is malfunctioning.</p>	<p>a. Inspect/clean water system strainers. Disassemble water valve(s) and clean diaphragm or pilot hole. b. Replace control module.</p>
<p>4. Flush cycle does not start after pressing flush handle or switch.</p>	<p>a. Holding tank is full and electrical power to toilet is shut off (when installed with full-tank shutdown option). b. Electrical power to toilet is disrupted. c. Flush switch is malfunctioning. d. Water flow control module is malfunctioning.</p>	<p>a. Empty the waste holding tank. b. Check wiring, circuit breakers. c. Replace flush switch. d. Replace control module.</p>
<p>5. Water pump cycles very frequently. (Problem is in pressurized water system.)</p>	<p>a. Leak in water system. b. Pressure switch not adjusted correctly. c. Water pump inlet check valve is clogged or stuck open. d. Water pressure tank air pressure is too high. e. Water pressure tank bladder is ruptured.</p>	<p>a. Find leak and repair. b. Adjust setting to 30-50 PSI. c. Clean and or replace check valve. d. Adjust air pressure 3-5 PSI below pump activation pressure. e. Replace water pressure tank.</p>

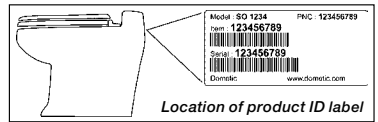
9 Limited warranty and product liability

North America and Rest of the World (excluding Europe):

THE SELLER NAMED BELOW MAKES THE FOLLOWING WARRANTY WITH RESPECT TO SEALAND 9300 AND 9400 SERIES RUSHFLUSH TOILETS

1. ONE-YEAR LIMITED WARRANTY

- 1A. This Limited Warranty will be in effect for one year from the date of purchase.
- 1B. This Limited Warranty is made only to the First Purchaser (hereinafter called the "Original Purchaser") who acquired the product for Original Purchaser's use. The Original Purchaser should retain a copy of the sales receipt or invoice as evidence of the date of purchase because proof of purchase is required to obtain warranty service.
- 1C. This warranty covers all parts of the SeaLand toilet which is warranted to be free of defects in material and workmanship under normal use. This warranty does not cover conditions unrelated to the material and workmanship of the product. Such unrelated conditions include, but are not limited to, (a) faulty installation and any damage resulting from such; (b) the need for normal maintenance and any damage resulting from failure to provide such maintenance; (c) failure to follow Seller's instructions for use of this product, including failure which may result from not following routine maintenance and winterization procedures; (d) any accident that results in damage to this product; (e) scratching or staining of any ceramic or plastic component; and (f) acts of God, or misuse of any part of this product and any alteration by anyone other than the Seller.
- 1D. For Original Purchaser (ONLY) to obtain the benefits of this Warranty during the 1-year warranty period, the following shall apply:
- Original Purchaser shall contact the local dealer from whom the product was purchased; or contact the Seller Customer Service Department at 1-800-321-9886 (8 a.m.-5 p.m. ET, USA) and provide the local dealer or Seller Customer Service Department with sales receipt or invoice, product model and serial number from product. The product model identification label is located inside the back of the toilet (see illustration).
 - If product, while still under warranty, is returned to local dealer where purchased, the local dealer will repair, replace or refund the product per this Warranty and as authorized by the Seller. Seller will provide necessary replacement parts or product free of charge to Original Purchaser, including freight on such replacement parts or product, and Seller will pay direct labor charges for such repair or replacement.
 - Under no circumstances will Seller pay or be liable for any of Original Purchaser's or dealer's travel charges or other expenses associated with bringing the product or vehicle to the dealer for repair, for providing dealer with access to the product or vehicle, or for downtime of the product or vehicle.
 - Original Purchaser may be required to return defective product or parts when requested by Seller; in such event, Seller will pay related freight costs.



2. THE SELLER DOES NOT AUTHORIZE ANY PERSON OR COMPANY TO CREATE OR EXTEND ANY WARRANTY OBLIGATIONS OR LIABILITY ON ITS BEHALF.

3. REPAIR OR REPLACEMENT OF, OR REFUND FOR, DEFECTIVE PRODUCT, AT SELLER'S OPTION, SHALL BE THE ORIGINAL PURCHASER'S SOLE REMEDY UNDER THIS LIMITED WARRANTY. IN NO EVENT SHALL SELLER BE LIABLE FOR PURCHASER'S INCIDENTAL OR CONSEQUENTIAL DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

4. SELLER DISCLAIMS ALL OTHER WARRANTIES WITH RESPECT TO THE PRODUCT, WHETHER EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SOME STATES DO NOT ALLOW LIMITATIONS ON IMPLIED WARRANTIES OR HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

5. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

SELLER:

Dometic Corporation - Sanitation Div.
13128 SR 226
Big Prairie, Ohio 44611 USA
1-800-321-9886

Europe:**Warranty and Customer Service**

Warranty arrangements are in accordance with EC Directive 44/1999/CE and the normal conditions applicable for the country concerned. For warranty or other service, please contact our Dometic Customer Service department. Any damage due to improper use is not covered by the warranty.

The warranty does not cover any modifications to the product or the use of non-original Dometic parts; the warranty does not apply if the installation and operating instructions are not adhered to and no liability shall be entertained.

Product Liability

Product liability of Dometic Group and its subsidiary companies does not include damages which may arise from: faulty operation; improper alterations or intervention in the equipment; adverse effects from the environment which may impact the equipment itself or the direct vicinity of the equipment or persons in the area.

To obtain warranty service, first contact your local dealer from whom you purchased this product or go to <http://www.dometic.com> for a dealer near you.

10 Customer service

There is a strong, worldwide network to assist in servicing and maintaining your sanitation system. For the Authorized Service Center near you, please call from 8:00 a.m. to 5:00 p.m. (ET) Monday through Friday.

You may also contact or have your local dealer contact the Parts Distributor nearest you for quick response to your replacement parts needs. They carry a complete inventory for the SeaLand product line.

Telephone:	1-800-321-9886 330-439-5550	U.S.A. and Canada International
Fax:	330-496-3097 330-395-5657	U.S.A. and Canada International
Web site:	http://www.Dometic.com http://www.SeaLand-Online.com	

Dometic Group is a customer-driven, world-leading provider of leisure products for the RV, automotive, truck and marine markets. We supply the industry and aftermarket with a complete range of air conditioners, refrigerators, awnings, cookers, sanitation systems, lighting, mobile power equipment, comfort and safety solutions, windows, doors and other equipment that make life more comfortable away from home.

Dometic Group supplies a wide range of workshop equipment for service and maintenance of built-in air conditioners. Dometic Group also provides specially designed refrigerators for hotel rooms, offices, wine storage and transport and storage of medical products.

Our products are sold in almost 100 countries and are produced mainly in wholly-owned production facilities around the world.

