
SeaLand® VACUUM TOILET OWNER'S MANUAL

VacuFlush® 3600 Series All-Ceramic Toilets



IMPORTANT NOTICE

VacuFlush sanitation systems must be installed according to Dometic's recommended procedures. Do not attempt installation without first contacting a SeaLand Certified Dealer, your nearest Parts Distributor (see page 19), or Dometic.



WARNING

This manual must be read and understood before installation, adjustment, service, or maintenance is performed. Modification of this product can result in property damage.



Dometic

SeaLand®

Dometic Sanitation Corporation

13128 State Rt 226, PO Box 38

Big Prairie, OH 44611

SeaLand Product Customer Service: 1-800-321-9886

(8:00 a.m. - 5:00 p.m. ET)

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WARNING – ELECTRICAL SYSTEM.

Turn off electrical power before servicing.



WARNING – MOTOR STARTS AUTOMATICALLY.

Turn off electrical power before servicing.

CAUTION – System may contain vacuum after shut-down.

Read and understand the complete contents of this manual before operating or servicing the sanitation system. Failure to follow any precautions may result in damage to the sanitation system.

TOILET MODEL IDENTIFICATION

The model identification label is located under the toilet seat. It will show the model number and serial number.

DOMETIC CORPORATION

P.O. BOX 38, 13128 STATE RT 226 (800) 321-9886
BIG PRAIRIE, OH 44611 USA

MODEL NO. **000**
SERIAL NUMBER




000000

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of Dometic Corporation.

IMPORTANT INFORMATION BEFORE OPERATION

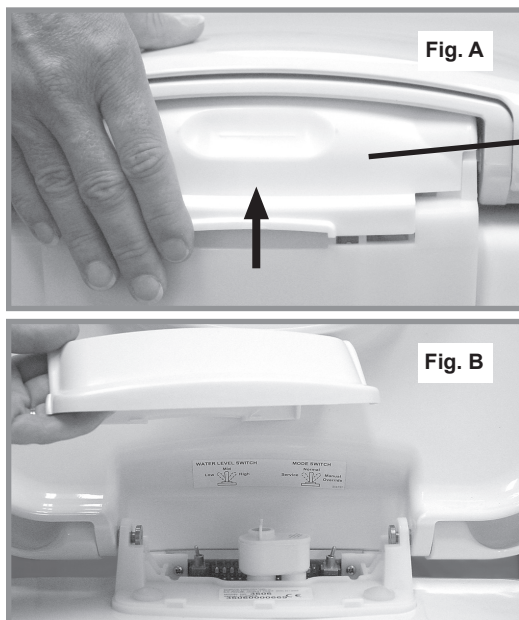
1. Fill freshwater tank and add deodorant to holding tank through toilet bowl.
2. Make sure all guests understand the operation of the toilet system and the flushing instruction label is easy for guests to read. **This label is located under the seat, and is easily read when the seat is raised.**
3. Remember the vacuum pump starts automatically. Shut off the toilet system before servicing and do not leave the boat with toilet system breaker on.
4. **Never use drain openers, alcohol, solvents, etc. in the system.**
5. If the system does not function properly, refer to the Troubleshooting section of this manual and repair as necessary. If problem persists, contact your local SeaLand dealer or see the Customer Service section of this manual.

FLUSH and FORGET® OPERATION

<p>1. To add water to the toilet before using (if necessary), press “Add Water” button until desired water level is reached.</p>  <p>ADD WATER</p>	<p>2. To flush toilet, press “Flush” button. Water will flow into bowl for two seconds, then flush ball will open. Toilet will not flush again until “OK to Flush” light is on.</p>  <p>FLUSH</p>	<p>3. Do not dispose of sanitary napkins or other non-dissolving items in toilet, such as facial tissue or paper towels. These items can cause plugging of the sanitation system.</p> 
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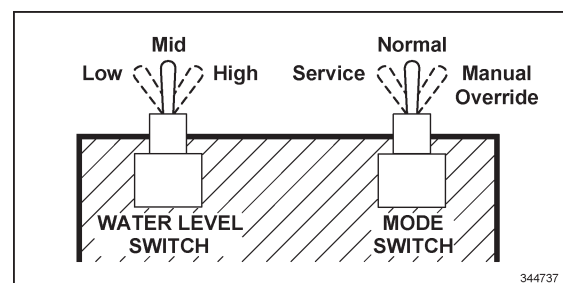
TOILET CONTROL SWITCHES

Water Level and Mode control switches are located under the control module access cover which is under the toilet seat. Remove the cover by unlatching the cover tab behind the toilet seat (Fig. A), then, with the toilet seat raised up and tilted forward slightly, lift up the cover (Fig. B). The control switch label (see below) is found under the seat behind the access cover.



CONTROL MODULE ACCESS COVER

CONTROL SWITCHES



OPERATING INSTRUCTIONS

1. Adding More Water To Toilet Bowl

Press the “Add Water” switch until the desired water level is attained. To prevent overflowing the toilet, a timer limits the amount of water that can be added.

2. Flushing The Toilet

When the flush panel’s green “OK to Flush” light is on, and the red “Do Not Flush” light is off, press the “Flush” switch down for a moment then release it. Holding the switch down will not prolong the flush cycle nor start a new flush cycle. The switch must be allowed to return to the “off” position and the vacuum must be allowed to recharge before another flush cycle can be initiated. A full holding tank will also prevent the toilet from flushing.

3. Selecting Automatic Water Refill Levels:

The Water Level switch is located under the control module access cover on the left side of the board. There are three water refill levels available. The microprocessor-controlled water valve will refill the toilet bowl according to your water level selection. To reinstall the access cover, set the cover over the control module and press the push-pins into the grommets located in the toilet seat mounting bracket.

LOW Level

Use this setting to conserve water. This position may be desirable to reduce the chance of water splashing out of the bowl during rough travel conditions. If more water is needed for flushing, press the “Add Water” flush switch. Water flow will stop after nine seconds to prevent overflow.

MID Level

Use this position to keep the toilet bowl clean, especially when family and friends may be using the toilet. If more water is still needed for flushing, pressing the “Add Water” flush switch will provide up to six seconds of additional water refill time.

HIGH Level

Use this position if the MID level does not provide a clean toilet bowl. This position is not recommended while underway. If more water is still desirable for flushing, pressing the “Add Water” flush switch will provide up to three seconds of additional water refill time.

4. Mode Switch

The Mode switch is located on the right side of the control module. It lets you switch between three function settings:

NORMAL

Use this setting for flushing the toilet.

SERVICE

Use this position for cleaning the toilet bowl and flush ball seal. The flush ball will open automatically and remain open in this position. Pressing the “Add Water” flush switch provides water. You may want to turn off power to the vacuum generator or vacuum pump when in the SERVICE position for long periods of time to prevent unnecessary vacuum pump operation.

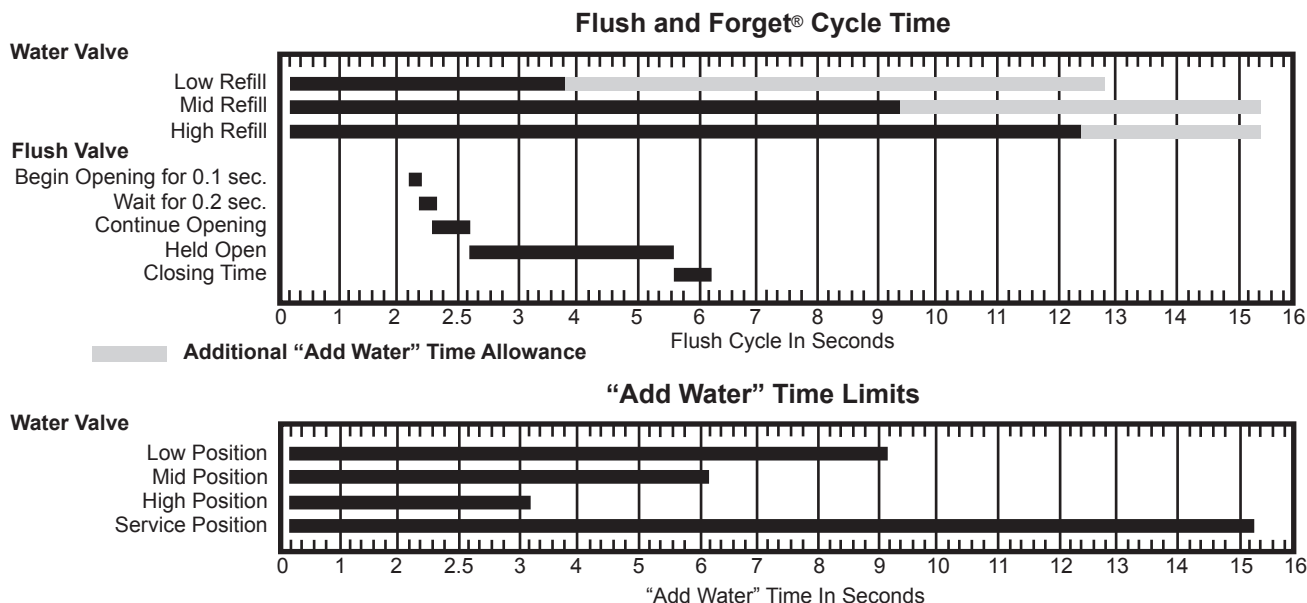
Note: The control module allows 15 seconds of water flow for cleaning. If more water is required, return the switch to the NORMAL position then back to the SERVICE position.

MANUAL OVERRIDE

Use this position to flush the toilet in the event of power or battery failure. The OVERRIDE position releases the flush valve motor brake, and allows manual opening of the flush ball via the access hole in the left side of the vitreous china base. Remove the large plug in the left side of the toilet, insert a large, flat-bladed screwdriver into the slot of the motor shaft, and turn counterclockwise to open the flush ball.

Return the switch to the SERVICE position, then to the NORMAL position to reset the control circuit in the toilet.

AUTOMATIC FLUSH OPERATION TIMING CHART



PROPER TOILET BOWL CLEANING

For stubborn stains, use SeaLand® Toilet Bowl Cleaner (Fig. C). It's manufactured especially for use with SeaLand toilets. In certain locations where water is hard, a build-up of lime may dull the toilet bowl finish. Restore the shine with this SeaLand cleaner. If you cannot find it in your area, contact Dometic for your nearest dealer. If the cleaner is not available, you can also use most non-abrasive bathroom and toilet bowl cleaners (Bar Keeper's Friend® spray cleaner, Clorox® toilet bowl cleaner, SaniFlush® toilet bowl cleaner, etc.). Please follow label instructions.



To avoid damaging the Teflon®-coated seal, DO NOT USE:

- abrasives (Comet®, Soft Scrub® cleansers etc.)
- caustic chemicals (Drano® clog remover, etc.)
- lubricants and cleaners containing alcohols or petroleum distillates (Pam® cooking spray, Pine-Sol® cleaner, WD-40® lubricant, etc.).

® Bar Keepers Friend is a registered trademark of SerVaas Laboratories Inc.
 ® Clorox, Pine-Sol and Soft Scrub are registered trademarks of The Clorox Co.
 ® Comet is a registered trademark of Prestige Brands International.
 ® Drano is a registered trademark of S.C. Johnson & Son Inc.

® Pam is a registered trademark of ConAgra Foods.
 ® Sani-Flush is a registered trademark of Reckitt Benckiser Inc.
 ® Teflon is a registered trademark of DuPont Co.
 ® WD-40 is a registered trademark of WD-40 Company.

WINTERIZING

At the end of each boating season, the VacuFlush toilet system must be winterized for storage. The following procedure should be used:

1. Pump out holding tank.
2. Thoroughly flush system with fresh water.
3. Drain freshwater tank.
4. Add freshwater antifreeze to freshwater tank.
5. Flush freshwater antifreeze and water mixture through toilet and into the waste holding tank. Each installation is different so amounts may vary. User discretion is required to assure adequate protection.
6. Turn off electrical power.

CAUTION: The use of freshwater antifreeze that contains alcohol will result in damage to your sanitation system. Only use propylene glycol freshwater antifreeze that **does not contain alcohol**.

MAINTENANCE SCHEDULE

Maintenance intervals and normal parts replacement vary widely depending on numerous factors such as frequency of system use, quality of flushing water, etc. The following chart is intended strictly as a general guide in keeping the sanitation system 100% ready for any conditions of use.

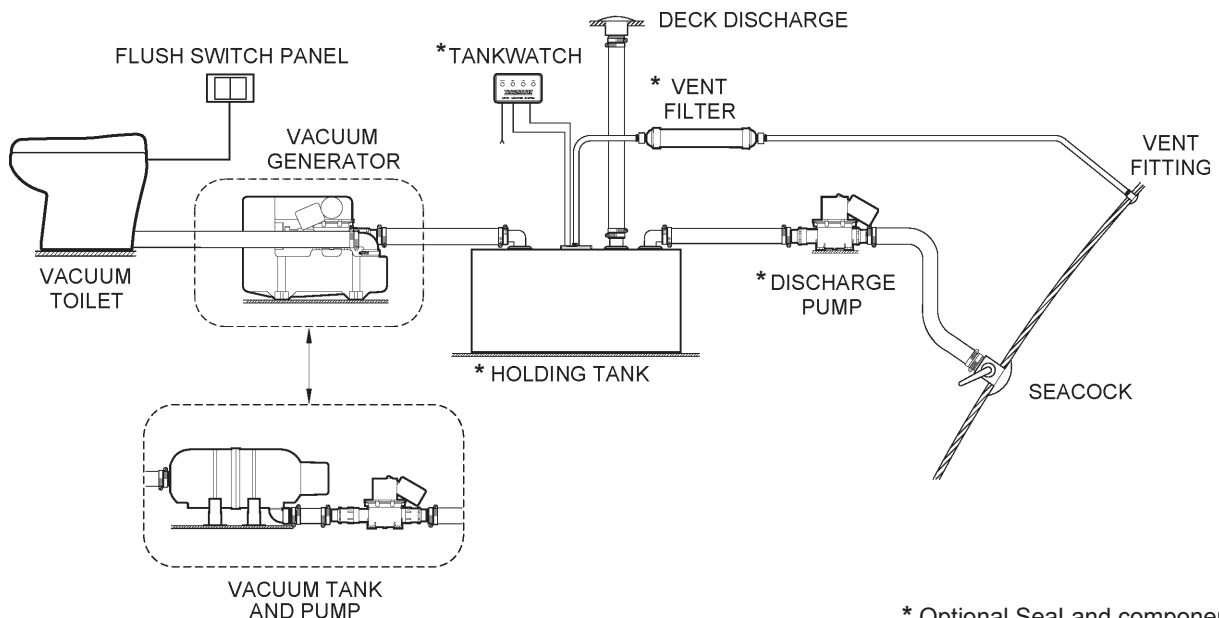
Maintenance Procedure	Recommended Date of Service	Parts Required
ROUTINE MAINTENANCE		
Toilet flush ball seal cleaning	Monthly	SeaLand Toilet Bowl Cleaner
Tighten toilet seat mounting hardware	Monthly (or as needed)	N/A
MAJOR SYSTEM MAINTENANCE		
Replace duckbill valves in vacuum pump or vacuum generator	Every three years	Duckbill Valve Kit
Replace flush ball seal and flush ball (if needed)	Every three years	Flush Ball Seal Kit Flush Ball

ON-BOARD SPARE PARTS

It is recommended that the following parts be kept on board at all times:

Description	Part Number	Quantity	Where Used
Flush Ball Seal	see parts list	1	3600 Series Toilet
Flush Ball	see parts list	1	
Water Valve	see parts list	1	
Vacuum Breaker Kit	see parts list	1	
Vacuum Switch Kit	see parts list	1	Vacuum Generating System
1.5-inch Duckbill Valve Kit (2 ea. per kit)	see parts list	1	

SANITATION SYSTEM COMPONENTS



SANITATION SYSTEM COMPONENTS (cont'd)

Vacuum Toilet: The 3600 series vacuum toilet with *Flush and Forget®* technology operates in a way different from other marine toilets. Vacuum systems use a small amount of water (a little more than a pint or .5 liter) per flush in addition to a simple vacuum. The toilet is connected to a pressurized freshwater system. Fresh water is the key to an **odor-free bathroom compartment**. VacuFlush toilets are equipped with an integral vacuum breaker which prevents the possible contamination of the freshwater supply.

Flush/Add Water Switches: Wall-mounted push-button switches provide electronic operation of flushing and adding water to the toilet bowl. Models include two-light vacuum status panel indicating the toilet is “OK to Flush” or “Do Not Flush”. Models vary.

Vacuum Generator: VacuFlush vacuum generators combine the vacuum tank and vacuum pump in one unit. It greatly reduces installation time and eliminates the hose run between the tank and pump. Our vacuum generators are available in standard or low-profile configurations, depending on installation requirements.

Vacuum Tank: The vacuum tank stores vacuum energy. System vacuum level is monitored by a vacuum switch located on the vacuum tank. When this switch senses a drop in vacuum in the system, it automatically signals the pump to energize and bring the vacuum to operating level. This process is normally completed in less than one minute.

Vacuum Pump: The vacuum pump is an electric, straight-through bellows type. It is manufactured of long-lasting polypropylene and draws only 4 to 6 amps of current at 12 VDC. This unique pump design is both an efficient air and liquid pump that handles solids without a problem. It has two duckbill valves on each side of the pump chamber to maintain vacuum and prevent backflow of waste.

TankWatch® Level Indicator (optional): The TankWatch unit utilizes micro-float switches which activate an indicator panel. The inspection cap in the holding tank contains the micro-float switch units. The adjustable probe assemblies are flexible polybutylene tubing and are designed to flex when tank contents move.

Holding Tanks (optional): SeaLand holding tanks are made of super-strong, 3/8" (10mm) thick polyethylene — 50% thicker than most other holding tanks. Each unit has a solid, one-piece construction with no seams for unmatched durability. A deodorant additive is required to keep the holding tank odor-free. See Deodorants and Special Tissue section for further information.

**VacuFlush®
3600 Series
Toilet**



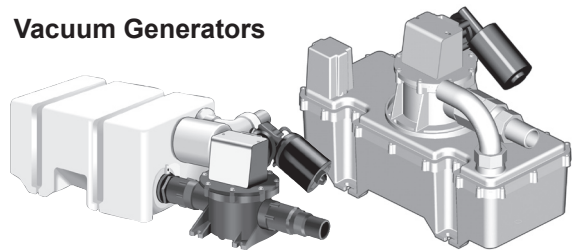
Vimar



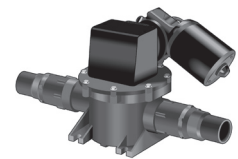
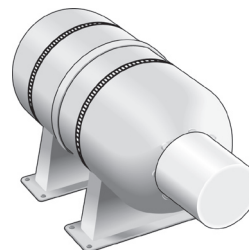
Gewiss

Flush/Add Water Switches

Vacuum Generators



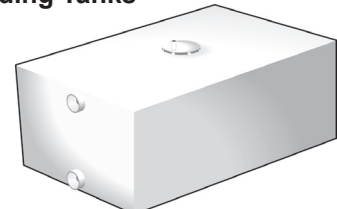
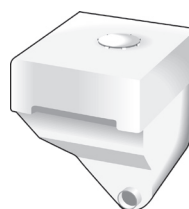
**Vacuum Tank and
Vacuum Pump**



**TankWatch
Panel and
Probes**



Holding Tanks



SANITATION SYSTEM COMPONENTS (cont'd)

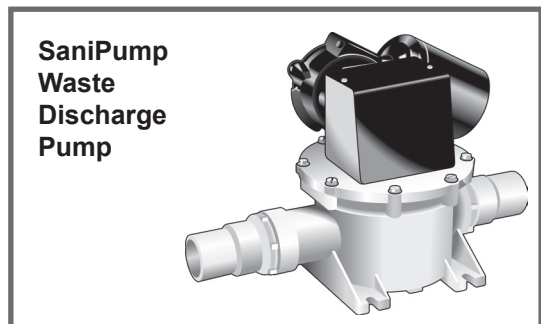
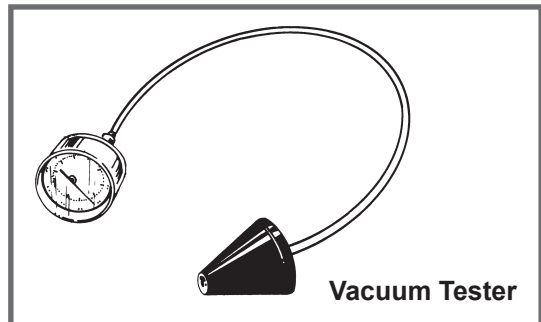
In-Line Vent Filter (optional): The SaniGard™ vent filter has special odor-removing filter materials to help keep your boat smelling clean and pleasant. Heavier-than-air mal-odors accumulate in the holding tank. This vent filter has a special type of activated filter media to remove these odors before they offend. Each cartridge is good for an entire season, and is easily replaced for a fresh start. Replacement cartridges are available (see Customer Service).

Vacuum Generator Shut-down Relay (optional): This relay automatically shuts down power to the vacuum toilet system to prevent overfilling of the holding tank. Item number 310289 (12 VDC) or 310290 (24 VDC).

Vacuum Tester (optional): Dometic has developed a simple tool to assist in identifying the location of vacuum leaks. The vacuum tester consists of a vacuum gauge and a cone-shaped plug. Inserting the plug in the inlet of the vacuum tank or vacuum generator isolates the toilet from the system. In this way a troublesome vacuum leak can easily be located in either system. Item number 530002.

SaniPump™ Discharge Pump (optional): The T-series SaniPump discharge pump can run dry without harm and draws just 6 amps at 12 VDC. Delivers flow rate of just over 3.0 gallons per minute (11.4 liters per minute). Emptying an onboard tank usually takes 4 to 6 minutes. The discharge pump is connected to a through-hull fitting. Check Marine Sanitation Regulations for areas where discharge is allowed.

NozAll™ Pumpout Adapter (optional): The NozAll pumpout adapter provides an airtight seal between your boat's deck waste fitting and the pumpout station nozzle. Just screw the NozAll adapter into your deck fitting, and be assured of an airtight connection for pumping out holding tanks. Each item contains a nylon NozAll adapter, gasket and vinyl cap. Item number 343502 (1-1/2"–11.5 tpi), 343503 (1-1/4"–11.5 tpi), or 343504 (1-1/4"–16 tpi).



ORDERING PARTS

Dometic is ready to assist you in the event service is required. Before calling, please have the following information available. Your cooperation in having this information ready is appreciated and allows us to better meet your needs. Please refer to the Parts Distributor list in the Customer Service section.

1. Toilet Model Number
2. Serial Number
3. Part Number, Description and Quantity (see Parts List.)

DEODORANTS AND SPECIAL TISSUE

Your VacuFlush toilet and sanitation system require the regular addition of a deodorant product to reduce malodors and to help break down holding tank contents. Several factors should be considered in selecting a deodorant product.

Liquid or Dry: Liquid products obviously work more quickly by readily going into solution. Granulated powder formulations, on the other hand, have the advantage of requiring less storage space and are less likely to leak if the package is inadvertently damaged.

Formaldehyde versus Non-Formaldehyde: Dometic manufactures both types of deodorants. Generally speaking, formaldehyde formulas control odor very effectively at all temperatures and with all degrees of water hardness. SeaLand® Environment-Friendly brand, which is formaldehyde free, is similarly effective.

How Much Deodorant and How to Add It: The deodorant is added directly into the toilet bowl, then flushed into the holding tank. Follow bottle or package instructions. Conditions of extremely warm weather, longer waste holding time and larger tank capacities may require more deodorant treatment. Also, to maintain optimum efficiency in odor control, the waste holding tank should be cleaned thoroughly at least once or more each season, depending on use.

Why Not Use Household Toilet Paper in Your SeaLand Toilet? Household tissues often contain adhesives which bond together the paper fibers from which the tissue is made. The adhesives prevent the tissue from breaking apart, and their use in “ultra-low flow” systems can cause system clogging. SeaLand tissue is especially designed for use in low water toilet systems. Its rapid dissolving properties minimize the amount of residual paper in the holding tank and allow deodorizers to work more efficiently.

SeaLand versus Other Brands: SeaLand constantly strives to provide our system owners with effective products that have minimal environmental impact and good value. Many deodorant products do not measure up to our standards of performance and value.

<p>SeaLand® Granulated Deodorant Six 2-oz. pouches</p>  <p>Part No. 379626002</p>	<p>SeaLand® Liquid Deodorant Two 8-oz. bottles</p>  <p>Part No. 379224008</p>	<p>SeaLand® Liquid Deodorant - Environment Friendly 32-oz. bottle</p>  <p>Part No. 379114032</p>	<p>SeaLand® Rapid-Dissolving Toilet Tissue Four 400-sheet rolls</p>  <p>Part No. 379441204</p>
	<p>SeaLand® Cleaner 16-oz. bottle</p>  <p>Part No. 379314016</p>	<p>SeaLand® Holding Tank Deodorant and Cleaner 16-oz. bottle</p>  <p>Part No. 379314016</p>	

MARINE SANITATION REGULATIONS

All boats with fixed toilets in U.S. waters and in the waters of some other countries are required to be equipped with an operable marine sanitation device (MSD). The VacuFlush sanitation system is a holding tank or Type III system as defined by the U.S. Coast Guard.

Type III systems are designed to permit operation of the toilet without the direct discharge of untreated waste after every flush. This means onboard toilet facilities can be used when the boat is near swimmers, beaches or shellfish beds.

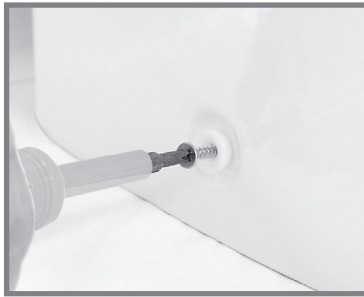
Type III systems can be discharged at marina dockside pump-out stations or, if in coastal waters, a minimum of three miles off-shore. **Overboard discharge capability must remain secured while within the three-mile limit.** The overboard discharge pump is activated by a keyed switch located in the toilet compartment. **This key should be removed at all times except when discharge pump is operating.**

Federal legislation provides grants to private marinas to install dockside pumps especially in coastal water. It is estimated that over 3,500 pump-out stations, in total, will be added due to this legislation.

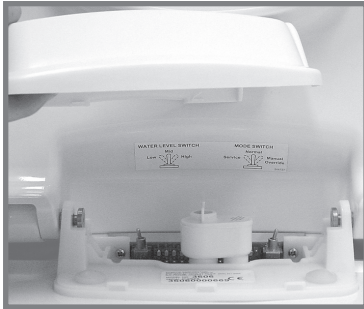
Sewage from any source should not be discharged directly into our waters. If you are interested in learning more about this issue, please contact Dometic at the phone number or address listed on the back page of this manual.

FLUSH MECHANISM COMPONENTS

1. To access flush mechanism components, remove decorative caps and unscrew fasteners that hold china toilet to floor.



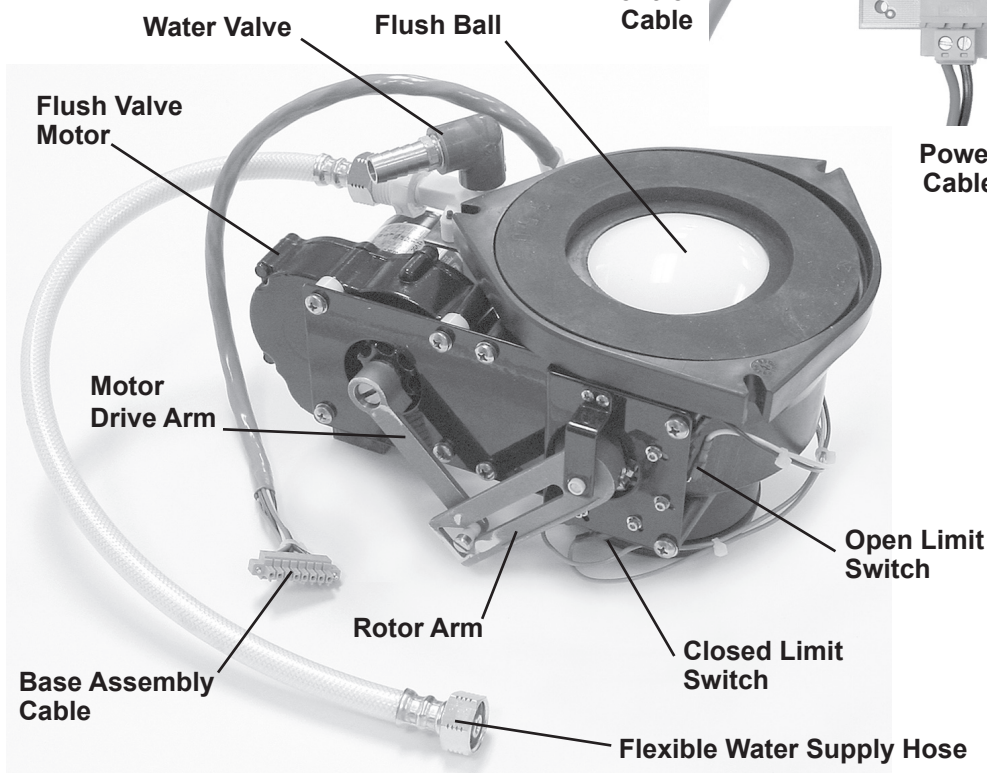
2. Remove PC board access cover and set it aside. Unscrew small screws next to control switches and lift control module. Use small screwdriver to disconnect power cable and vacuum control cable from control module. **Do not** disconnect base assembly cable.



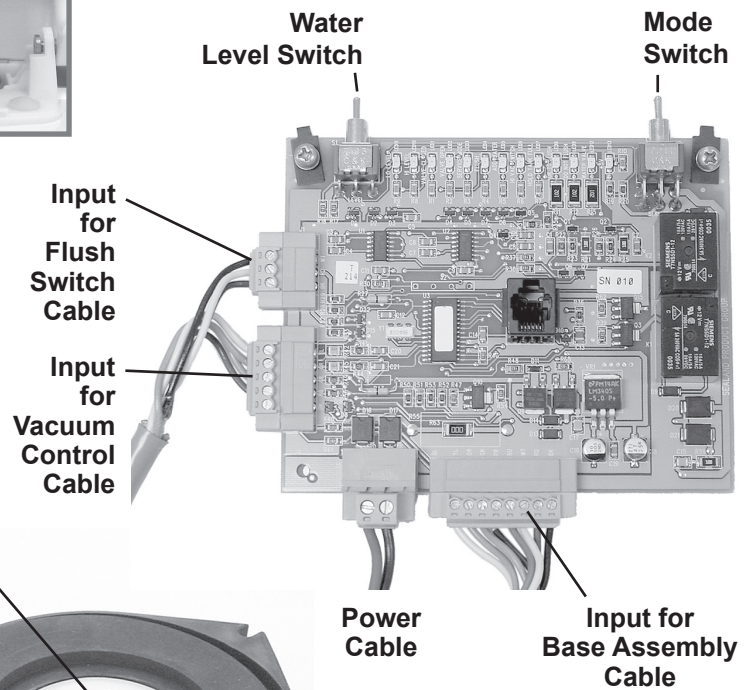
3. Lift china toilet straight up and set it down close to front of mounting adapter. Turn off water to toilet and disconnect flexible water line at rear of base assembly. The toilet is completely disconnected.



BASE ASSEMBLY COMPONENTS (under china toilet)



CONTROL MODULE



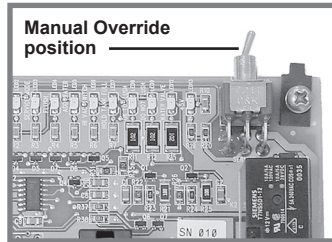
Discharge Adapter



MANUAL FLUSH OVERRIDE

In the event of an electrical failure, the flush ball can be manually operated to clear the bowl. We recommend using a long-neck screwdriver or 7/16-in. socket for the operation shown below. **NEVER PRY OPEN THE FLUSH BALL FROM INSIDE THE TOILET BOWL.** Damage to the flush ball and bowl seals may result.

1. Remove PC board access cover. Place Mode Switch in the “Manual Override” position. This disconnects flush valve motor brake from electrical circuit.



2. Locate hole on left side of china toilet. This allows access to the flush valve motor drive arm.



3. Insert screwdriver or 7/16-in. socket through access hole and onto hex head.



4. Turn screwdriver or socket **counter-clockwise**. This will open flush ball and allow bowl contents to clear. After bowl is clear, turn screwdriver or socket clockwise to return flush ball to original position.

NOTES:

Water will not enter the toilet bowl during manual flush operation.

Place Mode Switch in the “Normal” position before returning to automatic operation.

TOILET SYSTEM ELECTRICAL SPECIFICATIONS

	<u>12VDC</u>	<u>24VDC</u>
Maximum standby current (amps):	.080	.080
Maximum operating current (amps):	6.5	2.5
Flush motor locked rotor current (amps):	14.5	7.25
Maximum voltage	15	30
Minimum voltage:	10	20
Input power wire size	14 ga.	14 ga.
All other wires size:	18 ga.	18 ga.
Fuse size (amps)	8	4

NOTES: Standby current includes flush panel status light.

Operating current does not include vacuum pump or other sanitation system components.

TROUBLESHOOTING

A volt/ohmmeter (VOM) and the Toilet Wiring Diagram may be required for this section.

Caution: Portions of this section will require that power be applied to the toilet. Keep hands away from the flush ball, motor drive arm and rotor shaft to prevent personal injury during testing and troubleshooting.

The control module uses a microprocessor to provide all the automatic and timing functions. The module is under the access cover under the toilet seat. The control module has input and output status lights that can be used in troubleshooting the toilet.

The program in the microprocessor monitors the input and output signals during a normal flush cycle. If the inputs or outputs do not follow the commands of the program, then the microprocessor may go into a "standby" mode and flash an "error code." The microprocessor is reset by placing the Mode switch in the SERVICE position temporarily, then returning the switch to the NORMAL position.

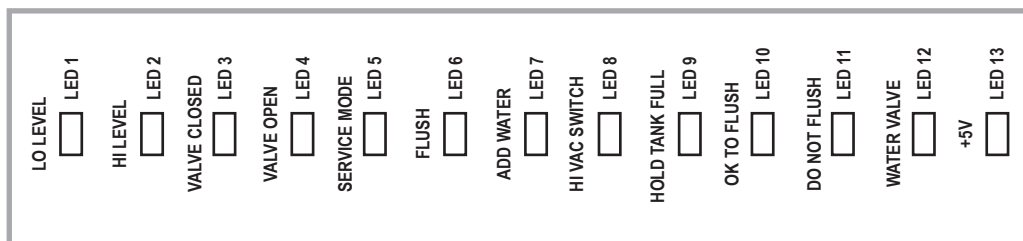
A safety circuit in the control module monitors flush ball operation. If foreign objects or low voltage prevent the flush ball from closing, this circuit prevents personal injury or damage to the flush valve motor. If this condition occurs, reset the control module by placing the Mode switch into the SERVICE position temporarily, then returning it to the NORMAL position.

Status Light	Function
1 Low Level	Water Level Switch in "Low" position.
2 High Level	Water Level Switch in "High" position.
3 Valve Closed	Flush valve Closed Limit Switch engaged.
4 Valve Open	Flush valve Open Limit Switch engaged.
5 Service Mode	Mode Switch in "Service" position.
6 Flush	Flush Switch on control panel engaged.
7 Add Water	Add Water Switch on control panel engaged.
8 High Vac Switch	High vacuum in system (allows toilet to flush).
9 Holding Tank Full	Full holding tank (prevents toilet from flushing).
10 OK to Flush	Signal to "OK TO FLUSH" light on control panel.
11 Do Not Flush	Signal to "DO NOT FLUSH" light on control panel.
12 Water Valve	Electric water valve energized.
13 +5V	Input power present.

ERROR CODES

Status Light	No. of Flashes	Pause	Condition
10 OK to Flush	1	.5 sec.	Mode Switch in SERVICE position
11 Do Not Flush	1	2 sec.	Valve Open Limit Switch problem
11 Do Not Flush	2	2 sec.	Valve Closed Limit Switch problem
11 Do Not Flush	3	2 sec.	Insufficient vacuum in system
11 Do Not Flush	4	2 sec.	Flush valve motor relay failure

CONTROL MODULE STATUS LIGHTS



TROUBLESHOOTING (cont'd)

ERROR CODE CORRECTIVE PROCEDURES

Condition

Corrective Action

Mode Switch in SERVICE position.

Return Mode Switch to NORMAL position.

Valve Open Limit Switch problem.

With the flush valve fully open, check the "VALVE OPEN" status light. If the light is **off**, then the Valve Open Limit Switch is out of alignment or defective, or related wiring is defective.

Valve Closed Limit Switch problem.

With flush valve in the fully closed position check the "VALVE CLOSED" status light. If the light is **off**, then the Valve Closed Limit Switch is out of alignment or defective, or related wiring is defective.

Insufficient vacuum in system.



Check the "HI VAC" status light. If the light is **off**, the signal from the vacuum switch located on the vacuum generator or vacuum tank is absent and preventing the toilet from flushing in the NORMAL mode. Check for loss of power to the vacuum generator or vacuum pump. Check for loose or defective wiring between the vacuum switch and the toilet.

Flush valve motor relay failure.



Replace control module.

TOILET OPERATION

SYMPTOM 1. Toilet will not flush and water will not enter toilet bowl.

Condition

Corrective Action

+5V status light is **off** (on far right of control module):



- Check toilet fuse or circuit breaker at DC distribution panel.
- Check for loose or defective wiring between control module and DC distribution panel.
- Check for reverse polarity of input power to control module.
- If all of above check OK, replace control module.

+5V status light is **on**:



- Input power must be 10 volts or higher.
- Check control module for error codes.
- Check "HI VAC" status light. If light is **off**, vacuum is low, preventing the toilet from flushing.
- Check "HOLD TANK FULL" status light. If light is **on**, black water holding tank is full, preventing toilet from flushing.
- Put Mode Switch in SERVICE position. If flush valve **opens**, go to next step. If the flush valve **does not open**, go to Symptom 2.
- Put the Mode Switch in NORMAL position and push Flush switch on control panel while observing "FLUSH" status light. The "FLUSH" status light must come **on** when the switch is pushed and go **off** when the switch is released. If the "FLUSH" status light **did not** follow commands of switch, then flush switch or related wiring is defective.

SYMPTOM 2. Flush valve will not open when the Mode Switch is in the SERVICE position or when the Flush Switch is pushed while in the NORMAL position.

Procedure

Check the voltage output to the flush valve motor at jack 6, pins 9 and 10 on the control module as follows:



Corrective Action

- Remove the two mounting screws securing the control module to the seat mounting bracket. Pull the control module out as far as the control cables will allow. Locate jack 6 at the bottom of the control module.
- Remove the purple wire from pin 6.
- With DC voltmeter test leads across pins 9 and 10, flip the Mode Switch between the NORMAL and SERVICE positions. If voltage is present for about two seconds in the SERVICE position, the flush valve motor or related wiring is defective. If voltage is not present, replace the control module.

TROUBLESHOOTING (cont'd)

SYMPTOM 3. Flush valve will not close.

Condition/Procedure

Mode Switch is in SERVICE position:

Foreign object prevents the flush valve from closing and the safety circuit locked flush valve in open position:

Check for error code at "DO NOT FLUSH" status light.

Check the voltage output to the flush valve motor at jack 6, pins 9 and 10 on the control module as follows:



Corrective Action

- Return switch to the "Normal" position.
- Reset the control circuit by putting the Mode Switch in the SERVICE position temporarily, then returning to the NORMAL position. If the flush valve **did not** close, go to next step.
- If showing error, follow the instructions in the Error Code Corrective Procedures section.
- Remove the two mounting screws securing the control module to the seat mounting bracket. Pull the control module out as far as the control cables will allow. Locate jack 6 at the bottom of the control module.
- Remove the green wire from pin 5.
- With DC voltmeter test leads across pins 9 and 10, flip the Mode Switch between the SERVICE and NORMAL positions. If voltage is present for about two seconds in the NORMAL position, the flush valve motor or related wiring is defective.
- If voltage is not present, replace the control module.

SYMPTOM 4. Water will not enter toilet bowl during a flush and when the "Add Water" switch on the control panel is pressed.

Procedure

Place the Water Level switch in the LOW position. Check the "WATER VALVE" status light while pushing the Flush switch on the control panel:



Corrective Action

- If the "WATER VALVE" status light comes on, the water valve filter screen may be plugged with debris, or the water valve or its related wiring is defective.
- If the "WATER VALVE" status light remains off, replace the control module.
- If voltage is not present, replace the control module.

SYMPTOM 5. Water will not enter toilet bowl when the "Add Water" switch on the control panel is pressed.

Procedure

Flush the toilet then place the Water Level switch in the LOW position. Then check the "LO LEVEL" status light while pushing the Add Water switch on the control panel:



Corrective Action

- If the "LO LEVEL" status light comes **on**, replace the control module.
- If the "LO LEVEL" status light does **not** come on, the Add Water switch or its related wiring is defective.

SYMPTOM 6. Water Level switch has no effect on water level in the "Low" or High" position.



Corrective Action

- Replace control module.

SYMPTOM 7. Flush valve will not open when Mode Switch is in the "Service" position but opens during a normal flush cycle.



Corrective Action

- Replace control module.

TROUBLESHOOTING (cont'd)

SYMPTOM 8. Water will not stay in bowl and system loses vacuum.

Condition/Procedure

Put Mode Switch in "Service"
Position:

Worn or damaged flush valve ball
and seal:

Corrective Action

- Clean underside of flush valve ball seal of dirt and debris.
- Remove toilet from floor and remove base assembly from toilet and replace flush valve ball and seals.

SYMPTOM 9. Water will not shut off and overflows the toilet.

Procedure

Check the "WATER VALVE" status
light:



Corrective Action

- If the light is **on** when **not** flushing the toilet or adding water, replace the control module. If the light responds correctly, go to next step.
- Dirt or debris lodged in the water valve seal. Remove the toilet from the floor, disassemble and clean water valve.
- Replace water valve.

SYMPTOM 10. Water is leaking from under the toilet.

Procedure

Remove the toilet from the
floor and inspect the following
with both water and electrical
power applied:
(place a container under the base as-
sembly to catch any water during the
inspection procedure)



- Water hoses and fittings, water valve assembly
- China toilet bowl
- Upper base seal
- Flush valve ball rotor shaft
- Base assembly

SYMPTOM 11. System leaks vacuum, but water remains in toilet bowl.

Procedure

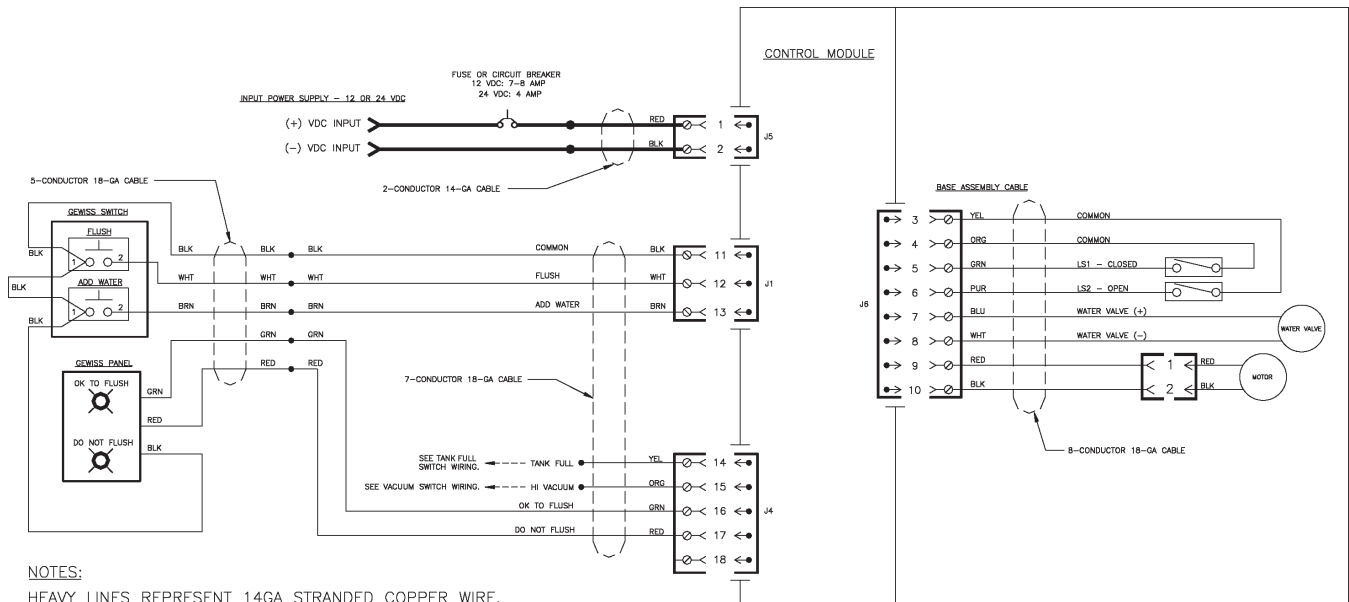
Remove the toilet from the floor
and insert a plug or vacuum tester
into the discharge port of the floor
flange or discharge adapter:

Corrective Action

- If the vacuum leaks stops, go to the next step. If the vacuum leak continues, the leak is in the discharge plumbing and not the toilet.
- Inspect the O-ring around the bottom of the base. Replace if defective.
- Inspect the inside surface of the discharge adapter or floor flange for grooves or scratches that may interfere with the O-ring seal. Replace if defective.
- If all of above appear normal, then the leak is most likely the rotor shaft O-rings. Replace the rotor shaft.

SYSTEM WIRING DIAGRAMS

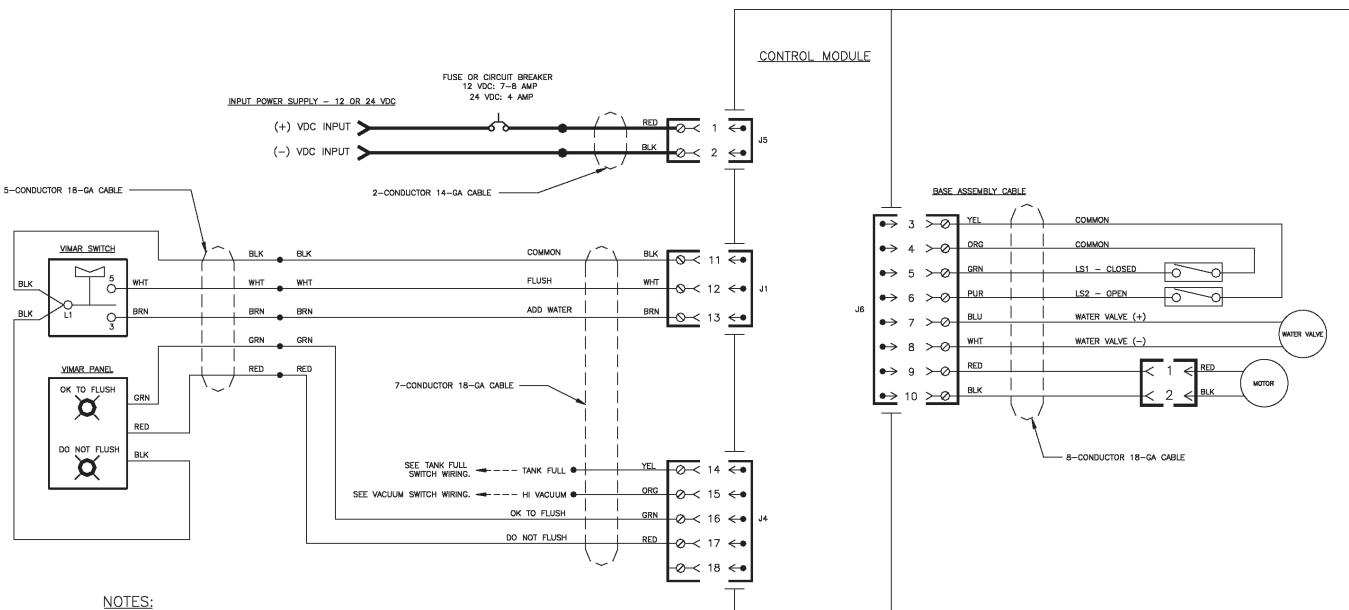
GEWISS FLUSH SWITCH OPTION



NOTES:

HEAVY LINES REPRESENT 14GA STRANDED COPPER WIRE.
ALL OTHER WIRE CAN BE 18GA STRANDED COPPER WIRE.

VIMAR FLUSH SWITCH OPTION



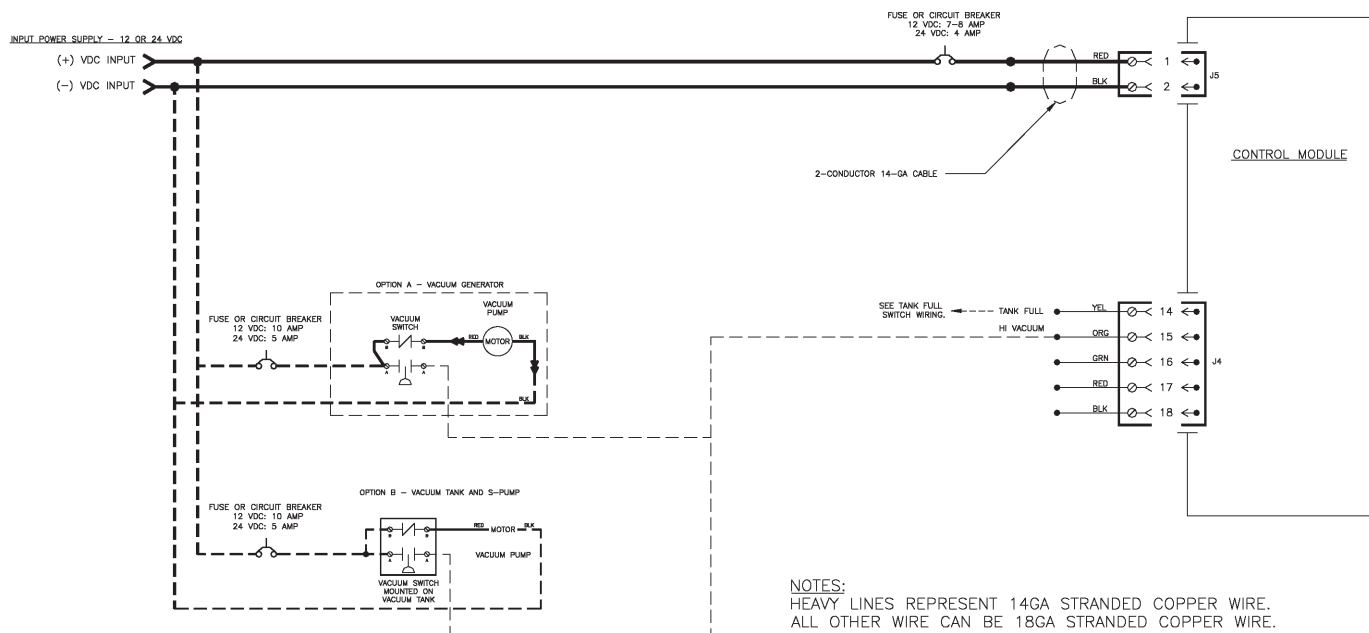
NOTES:

HEAVY LINES REPRESENT 14GA STRANDED COPPER WIRE.
ALL OTHER WIRE CAN BE 18GA STRANDED COPPER WIRE.

SYSTEM WIRING DIAGRAMS (cont'd)

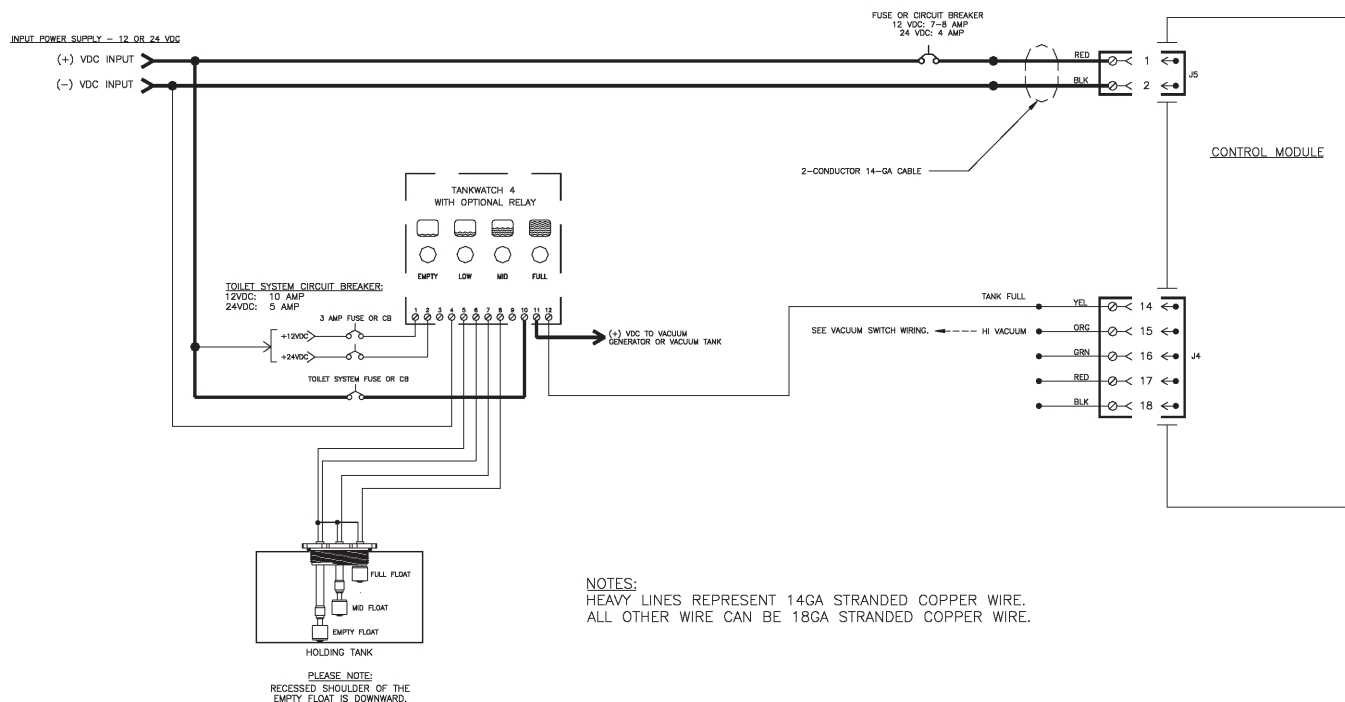
VACUUM GENERATOR/VACUUM TANK AND PUMP OPTION

NOTE: THIS DIAGRAM SUPERCEDES ALL OTHER WIRING DIAGRAMS.



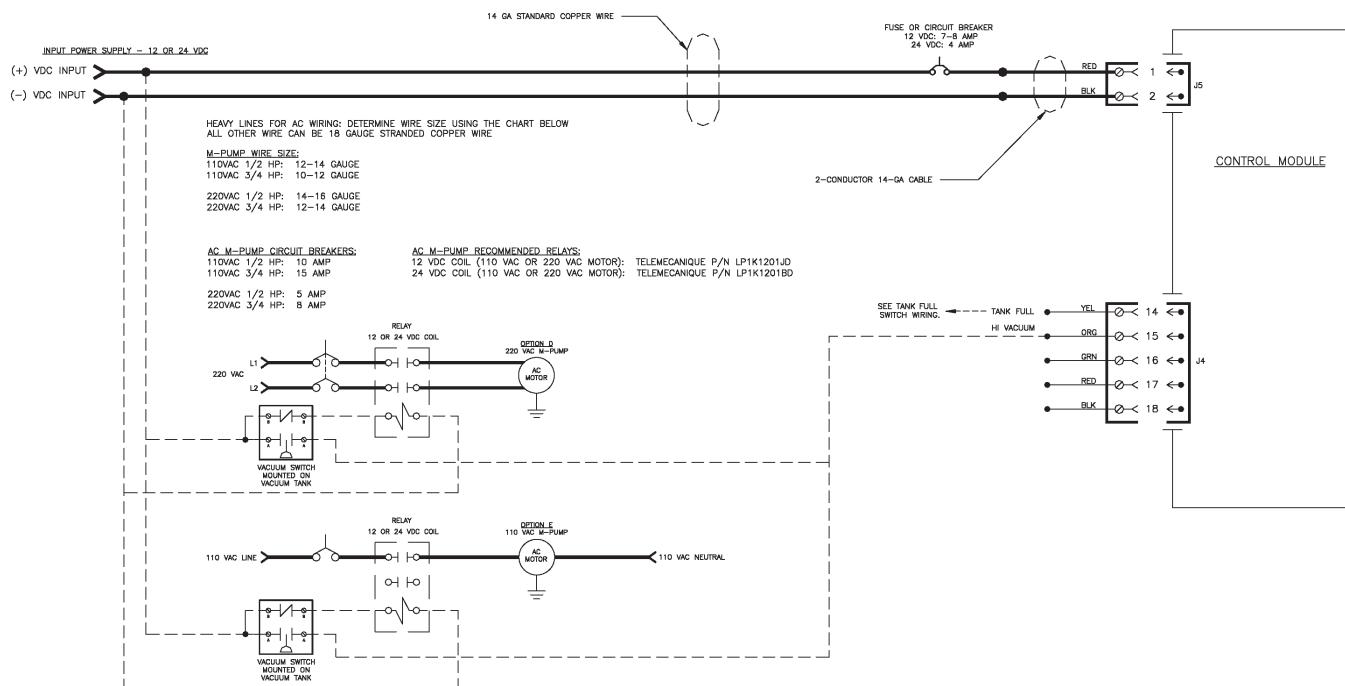
TANKWATCH OPTION

NOTE: THIS DIAGRAM SUPERCEDES ALL OTHER WIRING DIAGRAMS.

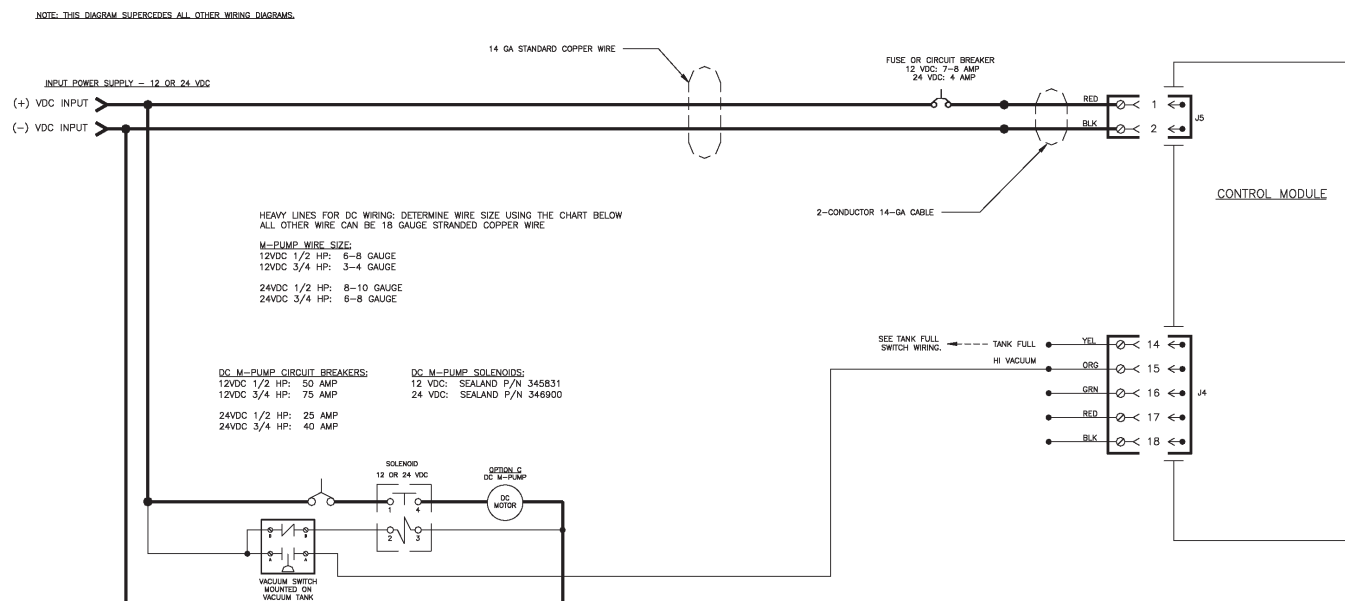


SYSTEM WIRING DIAGRAMS (cont'd)

M-SERIES VACUUM PUMP AC CIRCUIT OPTION



M-SERIES VACUUM PUMP DC CIRCUIT OPTION



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 write us at Dometic Corp., P.O. Box 38, Big Prairie Ohio 44611.

Telephone: 1 800-321-9886 U.S.A. and Canada
330-496-3211 International

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.

Fax: 330-496-3097 U.S.A. and Canada
330-496-3220 International

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888-283-7606
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800-522-2656
Fax: 954-522-5152
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Fax: 608-784-8422
E-mail: dave@powerhousemarine.com

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Fax: 714-690-1511
E-mail: foxmarco@pacificsupplyco.com

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Fax: 604-253-2656
800-663-6790
E-mail: sales@westernmarine.com

INTERNATIONAL SEALAND SANITATION SYSTEM DISTRIBUTORS

Call 1-800-321-9886, email us at sealand@dometicusa.com, or visit www.DometicSanitation.com for the distributor nearest you.

MANUFACTURER'S ONE-YEAR LIMITED WARRANTY

Dometic Corporation warrants, to the original purchaser only, that this VacuFlush vacuum discharge toilet, if used for personal, family or household-like purposes, and if installed according to Dometic's recommended procedures, is free from defects in material and workmanship for a period of one (1) year from the date of purchase.

If this Dometic product is placed in commercial or business use, it will be warranted, to the original purchaser only, to be free of defects in material and workmanship for a period of ninety (90) days from the date of purchase.

Dometic reserves the right to replace or repair any part of this product that proves, upon inspection by Dometic, to be defective in material or workmanship. All labor and transportation costs or charges incidental to warranty service are to be borne by the purchaser-user.

EXCLUSIONS

IN NO EVENT SHALL **DOMETIC** BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, FOR DAMAGES RESULTING FROM IMPROPER INSTALLATION, OR FOR DAMAGES CAUSED BY NEGLIGENCE, ABUSE, ALTERATION, OR USE OF UNAUTHORIZED COMPONENTS. THIS INCLUDES FAILURES WHICH MAY RESULT FROM NOT FOLLOWING THE WINTERIZATION OR CLEANING PROCEDURES AS DESCRIBED IN THIS MANUAL. ALL IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, ARE LIMITED TO A PERIOD OF ONE (1) YEAR FROM DATE OF PURCHASE.

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Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one (1) year from the date of purchase for products used for personal, family or household-like purposes, and ninety (90) days from the date of purchase for products placed in commercial or business use.

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Some states do not allow limitations on the duration of an implied warranty, and some states do not allow exclusions or limitations regarding incidental or consequential damages; so, the above limitations may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

To obtain warranty service, first contact your local dealer from whom you purchased this product.



Dometic is a customer driven, world-leading provider of innovative leisure products for the caravan, motorhome and marine markets. Dometic offers a complete range of air conditioners, refrigerators, awnings, cookers, sanitation systems, lighting, windows, doors and other equipment that makes leisure life more comfortable away from home.

Dometic also provides refrigerators for specific use in hotel rooms, offices and for storage of medical products and wine. Dometic's products are sold in almost 100 countries and are produced mainly in Dometic's own production facilities around the world. Dometic has more than 4,400 employees.

Dometic Sanitation Corporation

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Big Prairie, OH 44611

SeaLand Product Customer Service: 1-800-321-9886

(8:00 a.m. - 5:00 p.m. ET)

Email: sealand@dometicus.com

www.DometicSanitation.com