
SeaLand®

GRAVITY DISCHARGE TOILET OWNER'S MANUAL

SeaLand® 4300, 4400 Series All-Ceramic Toilets



4300 Series
(with flush handle)



4400 Series
(with remote flush switch)



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** *SeLand*®

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www.DometicUSA.com

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**WARNING – ELECTRICAL SYSTEM.**

Turn off electrical power before servicing.

**WARNING – MOTOR STARTS AUTOMATICALLY.**

Turn off electrical power before servicing.

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

TOILET MODEL IDENTIFICATION

The model identification label is located on the inside wall of the toilet under the access cover. It will show the model number and serial number.



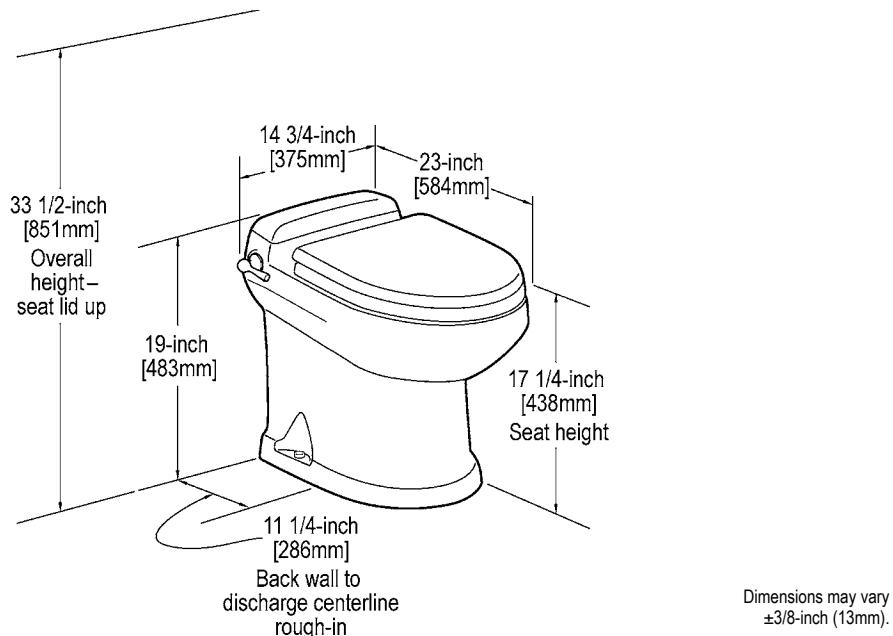
ORDERING PARTS

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 separate Parts List)

Sealand is a registered trademark of
Dometic Corporation.

TOILET DIMENSIONS



INSTALLATION INSTRUCTIONS

System Requirements:

- 4 GPM (15 lpm) or larger water pump.
- 1/2-inch (12.7 mm) water line terminating in 1/2-inch MPT fitting (to connect to toilet water supply hose).
- 4-bolt floor (closet) flange. SeaLand flanges available include 3-inch spigot, socket, MPT, or 45-degree swivel socket.
- 12 VDC through 2-amp fuse or circuit breaker. Use 14-gauge stranded copper wire.

IMPORTANT: If replacing an existing gravity-discharge toilet, make sure the center of the existing discharge flange is at least 11-1/4 inches from the back wall, then proceed to Step 5 for proper positioning of water line and electrical wiring.

STEP 1: Carefully unpack the toilet bowl, rear access lid and floor flange adapter. **CAUTION: HANDLE THE VITREOUS CHINA TOILET AND ACCESS LID WITH CARE. SET THE LID IN AN AREA WHERE IT CANNOT BE BROKEN. PLACE LID ON TOILET ONLY AFTER TOILET INSTALLATION IS COMPLETE.**

STEP 2: Position the china bowl in the space intended. Confirm that adequate clearance is available for using the flush handle and opening the seat and lid.

STEP 3: Mark the floor at the rear corners of the toilet bowl (fig. 1). Measure the distance between the two marks and divide by 2 to find the toilet centerline. Mark the floor at the rear wall for the centerline.

STEP 4: Place a carpenter's square against the back wall, and draw a center line on the floor at least 14 inches (356 mm) long (fig. 2). Mark the centerline for the floor flange at 11-1/4 inches (286 mm) from the wall (fig. 3).

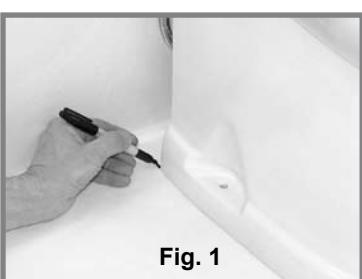


Fig. 1

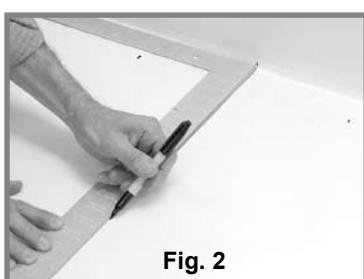


Fig. 2

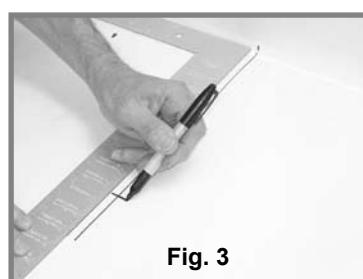


Fig. 3

STEP 5a: For through-the-floor water line and electrical wires, mark another centerline 6 inches (152 mm) from the back wall (fig. 4).

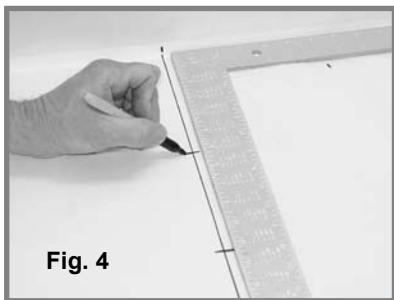


Fig. 4

STEP 5b: For through-the-wall water line and electrical wires, mark a centerline 8 inches (203 mm) up from the floor centerline (fig. 5).

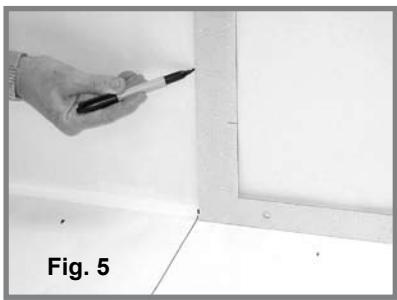


Fig. 5

STEP 6: Make a 4-3/4 inch (121 mm) diameter hole (for most floor flanges) or a 5-1/8 inch (130 mm) diameter hole (for swivel joint floor flange) at the centerline mark furthest from the wall. Make a 1 inch (25 mm) hole at the mark closer to the wall for the water line and electrical wires (fig. 6).

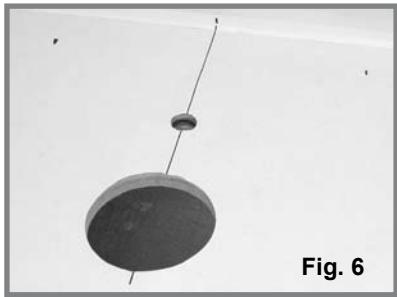
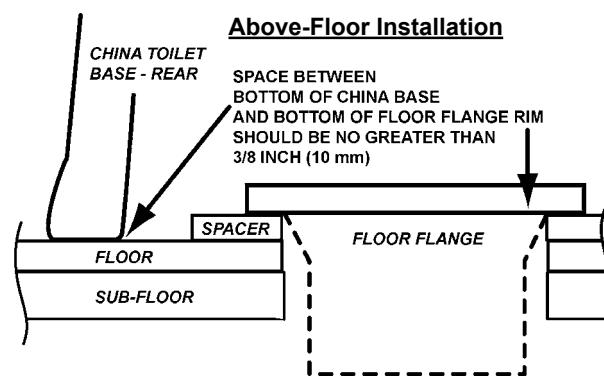
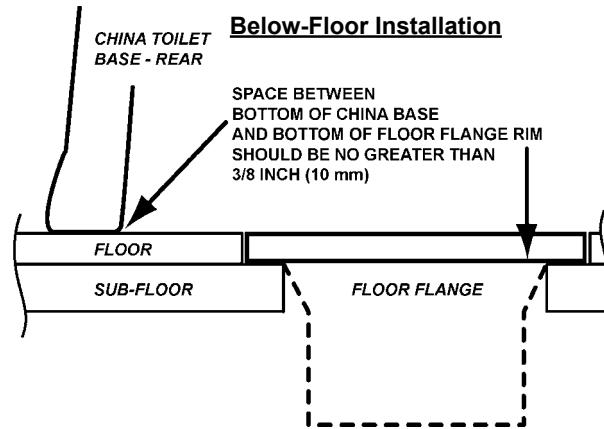


Fig. 6

IMPORTANT: The preferred floor flange installation method is to mount the floor flange directly on the finished floor. However, if the bottom of floor flange and bottom of china toilet must be mounted at different heights, the floor flange must be mounted within 3/8 inch (10 mm) of the bottom of the toilet (see illustrations in next column) or leakage may result.



STEP 7: Insert floor flange into larger hole and secure to the floor with #12x3/4-inch long flat head wood or sheet metal screws (fig. 7).



Fig. 7

STEP 8: Route 1/2-inch (13mm) PEX tubing through the smaller hole and install a PEX 1/2-inch MPT fitting (fig. 8).

NOTE: A water shut-off valve should be installed in the water line to the toilet for maintenance requirements.



FOR MODEL 4400 TOILET WITH REMOTE SWITCH OPERATION, see page 7 for wall switch installation instructions.



STEP 9: WITH THE ELECTRICAL POWER OFF, route #14 gauge stranded copper wire from 12 VDC ground and positive 12 VDC from the fuse panel through a 2-amp fuse or circuit breaker. Leave at least 12 inches (305 mm) of wire for connecting to toilet (fig. 9).

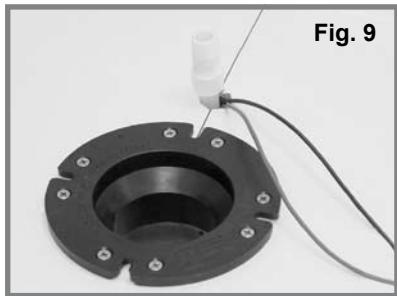


Fig. 9

STEP 10: Connect the holding tank to the bottom of the discharge flange.

STEP 11: Slide the four T-bolts into the slots of the floor flange. Install the flange gasket over the T-bolts (fig. 10).

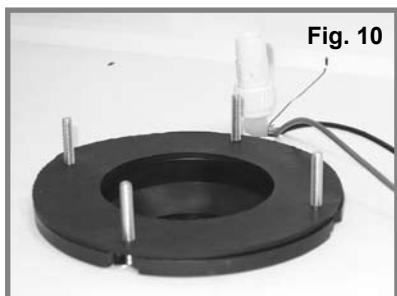


Fig. 10

STEP 12: Install floor flange adapter with words "THIS SIDE UP" facing up. Tighten adapter to floor flange using four flat washers and hex nuts. Tighten in criss-cross pattern (fig. 11).

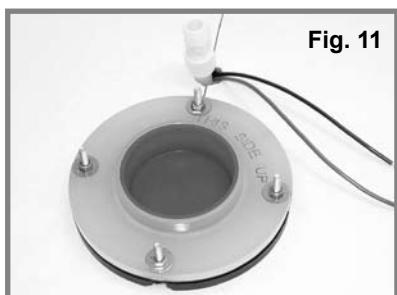


Fig. 11

IMPORTANT: If replacing an existing toilet that uses a 2-bolt floor flange, drill two 5/16-inch dia. holes in old floor flange that align with two additional holes in floor flange adapter. Use two #10 or 12 x 1-1/2-inch wood screws and washers for these drilled holes, and two T-bolts with flat washers and nuts to fasten flange gasket and floor flange adapter to old floor flange. Do not use old hardware or seal.

STEP 13: Temporarily set the toilet in place on the floor flange (fig. 14).



Fig. 14

STEP 14: Mark the holes for the two toilet mounting bolts (fig. 15).

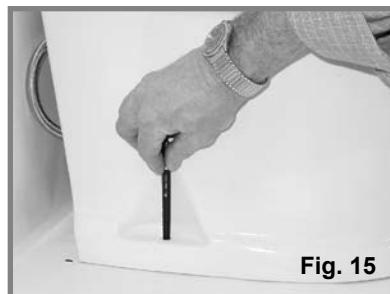


Fig. 15

STEP 15: Pick up toilet and set aside. Drill 3/16-inch pilot holes in the floor (fig. 16).



Fig. 16

STEP 16: With toilet close to floor flange, connect flexible water supply hose to the water line fitting (fig. 17).

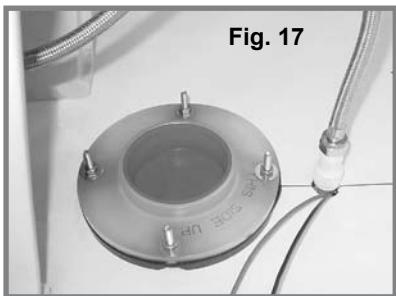


Fig. 17

STEP 17: Connect the **positive (+)** 12 VDC wire to the red power wire that's connected to the toilet base. Connect the **negative (-)** 12 VDC wire to the black wire (fig. 18).

IF INSTALLING A 4400 SERIES TOILET WITH REMOTE FLUSH SWITCH, FOLLOW INSTRUCTIONS ON PAGE 7 BEFORE PROCEEDING.

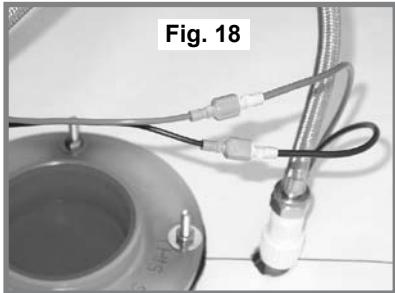


Fig. 18

STEP 18: **REMOVE RED CAP FROM MIDDLE OF FLANGE ADAPTER BEFORE FINAL TOILET INSTALLATION.**

IMPORTANT – DO NOT ATTEMPT TO SLIDE THE TOILET OVER THE FLANGE ADAPTER. THE TOILET MUST BE SET DOWN OVER THE ADAPTER TO PREVENT POSSIBLE DAMAGE.

STEP 19: Set the toilet in place (fig. 19) and secure to floor with the #14x2-1/2 inch long lag bolts (fig. 20). Install decorative bolt caps by pushing them onto bolt heads (fig. 21).



Fig. 19



Fig. 20



Fig. 21

STEP 20: Place the rear access cover on the back of the toilet. Press down firmly to seat the fastening strips.

STEP 21: Turn on electrical power and water to toilet. Lift flush handle and fill toilet bowl with water. Wait one hour, then inspect the floor around and under the rear of the toilet for leaks or dampness.

If no leaks are present, toilet is ready for operation.

MODEL 4400 REMOTE FLUSH SWITCH INSTALLATION

4400 series toilets feature a remote flush switch to control the “Flush” and “Add Water” functions. Follow the instructions below for switch installation.

STEP 1: Select a location for the switch. 8 feet of cable (2.4 m) is provided. You may need to supply more wire, depending on how far you locate the switch from the toilet.

STEP 2: Cut an opening 1-1/4" wide x 1-5/8" high (see diagram at right).

STEP 3: If installing the switch in a shallow wall, you may need to use the spacer between the wall and the switch assembly cover to allow space for the wire connectors. If so, route the cable through the spacer before proceeding to the next step.

STEP 4: Route the 3-conductor cable through wall cut-out and on to toilet. Cable can be routed with water supply line and power wires (fig. 22). Leave a minimum of 12 inches (305 mm) of cable to allow easy wiring at toilet.

STEP 5: Fasten the switch assembly to the wall with the #6x1" screws (included), making sure to install with the label “THIS SIDE UP” on top. Otherwise, the “Flush” and “Add Water” functions will be reversed.

STEP 6: Snap cover onto switch assembly to complete switch installation on wall.

STEP 7: **WITH THE ELECTRICAL POWER OFF**, connect the red, black and white wires from the switch to the red, black and white wires of the Remote Flush Cable from the toilet (fig. 22).

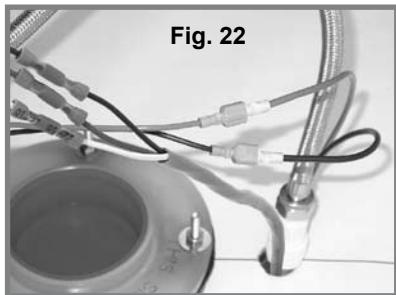
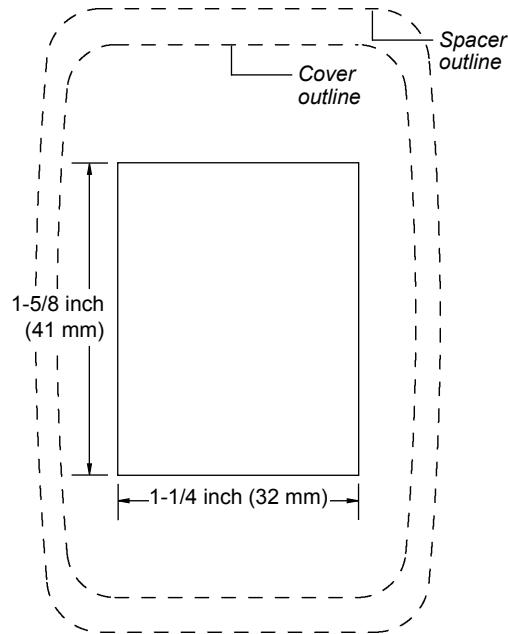
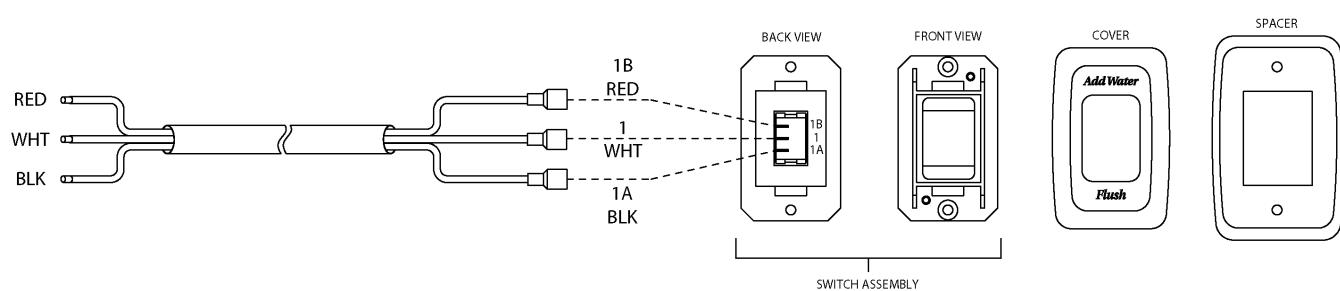


Fig. 22

REMOTE FLUSH SWITCH COMPONENTS



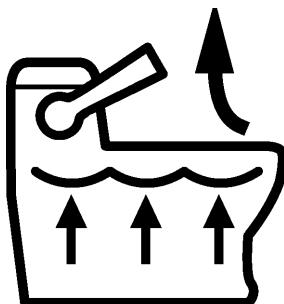
IMPORTANT INFORMATION BEFORE OPERATION

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. **4300 models:** Follow instructions below. **4400 models:** "Add Water" and "Flush" are clearly marked on the remote switch. See more information below.
3. Shut off the toilet system before servicing and do not leave the vehicle with toilet system circuit breaker on.
4. **Never use drain openers, alcohol, solvents, etc. in the toilet.**
5. If the toilet does not function properly, refer to the Troubleshooting section of this manual and repair as necessary. If problem persists, contact your local SealLand product dealer or see the Customer Service section of this manual.

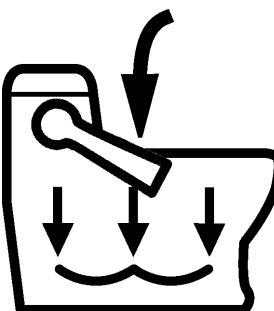
ELECTRONIC TOILET OPERATION

FLUSH HANDLE TOILET

1. To add water to the toilet before using (if necessary), raise flush handle until desired water level is reached.



2. To flush toilet, press flush handle down.



REMOTE FLUSH SWITCH TOILET



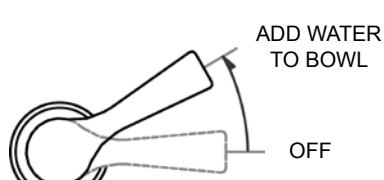
1. To add water to bowl, press top part of switch.
2. To flush, press bottom part of switch.

DO NOT FLUSH FOREIGN OBJECTS THROUGH TOILET

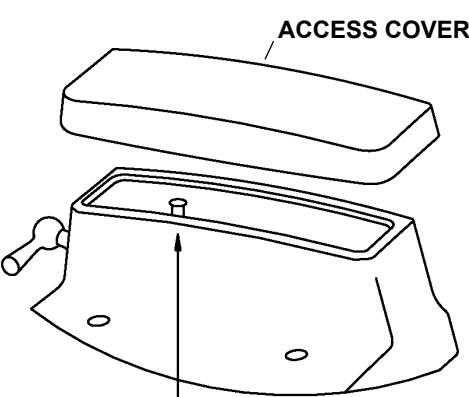
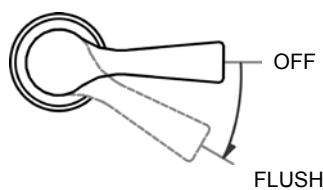


Do not dispose of sanitary napkins or other non-dissolving items in toilet, such as facial tissue or paper towels. These items can cause plugging of the system.

TOILET CONTROLS

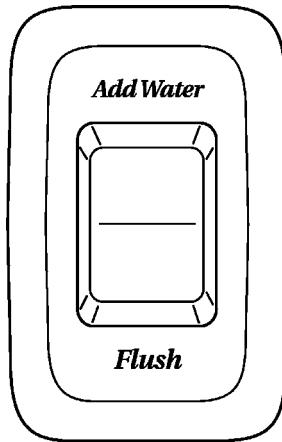


FLUSH HANDLE
(4300 models)



MANUAL OVERRIDE
LEVER - PUSH
DOWN TO FLUSH

REMOTE FLUSH SWITCH (4400 models)



ELECTRONIC TOILET OPERATION (cont'd)

1. Adding More Water To Toilet Bowl

Pull up the flush handle (4300 model) or push "Add Water" switch (4400 model) until the desired water level is attained.

2. Flushing The Toilet

Push the flush handle down (4300 model) or push "Flush" switch (4400 model) for a moment, then release it.

MANUAL OVERRIDE

In the event of a power failure, you can use the "Manual Override Lever" to open the flush ball (for toilet use) until power is restored. The flush ball will close only when electrical power is restored.

PROPER CLEANING AND MAINTENANCE

Clean your SeaLand toilet regularly for maximum sanitation and operating efficiency. You can clean it just as you would a household toilet. **Do not use caustic chemicals, such as drain-opening types, as they will damage the seals.**

BOWL CLEANING: For stubborn stains, use SeaLand Toilet Bowl Cleaner (Fig. A). It's made especially for use with SeaLand toilets. Where water is hard, a build-up of lime may dull the toilet bowl finish. Restore the shine with this cleaner. If you cannot find our brand in your area, contact SealLand Product Customer Service for your nearest dealer. If it 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.



Fig. A

SEAL CLEANING: After an extended time, mineral deposits from hard water can build up under the edge of the bowl seal, resulting in a slow breakdown of water from the bowl. To prevent this mineral build-up, periodically clean under the bowl seal with SeaLand Toilet Bowl Cleaner (Fig. B).

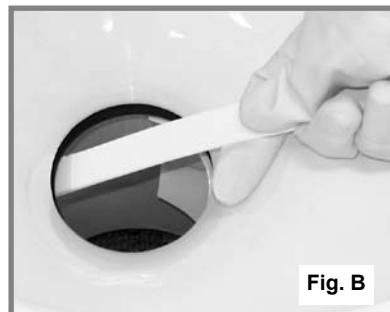


Fig. B

1. Shut off electrical power supply to toilet.
2. Apply cleaner onto a cleaning tool (soft-bristle brush, etc.). Open the flush ball by pressing on Manual Override Lever. Scrub under entire seal, making sure to scrub all parts of seal that come into contact with flush ball.
3. Remove cleaning tool. Wait 2-3 minutes.
4. Use water and cleaning tool to rinse cleaner and loosened deposits away.
5. Turn on electrical power to close flush ball. Water will flow into bowl when power is restored to toilet.

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 traveling season, the SeaLand toilet system must be winterized for storage. The following procedure should be used:

1. Pump out waste holding tank.
2. Thoroughly flush toilet 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**.

SPARE PARTS

The following spare parts should be kept available at all times:

Description	Part Number	Quantity	Description	Part Number	Quantity
Flush Ball Seal Kit	see parts list	1	Water Valve	see parts list	1
Flush Ball	see parts list	1	Vacuum Breaker Assembly	see parts list	1

DEODORANTS, CLEANERS AND SPECIAL TISSUE

Your SeaLand toilet requires 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.



SeaLand® Granulated Deodorant
Six 2-oz. pouches
Part No. 379626002

SeaLand® Liquid Deodorant
Two 8-oz. bottles
Part No. 379224008



SeaLand® Clean 'n Green Bowl Cleaner & Tank Deodorant
12-2 oz. drop-in pouches
Part No. 379512602

SeaLand® Rapid-Dissolving Toilet Tissue
Four 400-sheet rolls
Part No. 379441204



SeaLand® Liquid Deodorant - Environment Friendly
32-oz. bottle
Part No. 379114032



SeaLand® Toilet Bowl Cleaner
16-oz. bottle
Part No. 379314016



BASE ASSEMBLY COMPONENTS

1. To access base assembly components, remove decorative screw caps and unscrew two bolts that hold china toilet to floor.

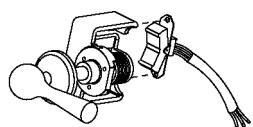
2. Remove access cover from top of china and set it aside.



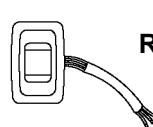
3. Lift china toilet straight up from base and set it down just in front of floor flange. Turn off water to toilet and disconnect flexible water line. Disconnect power wires and/or flush switch wires if necessary.



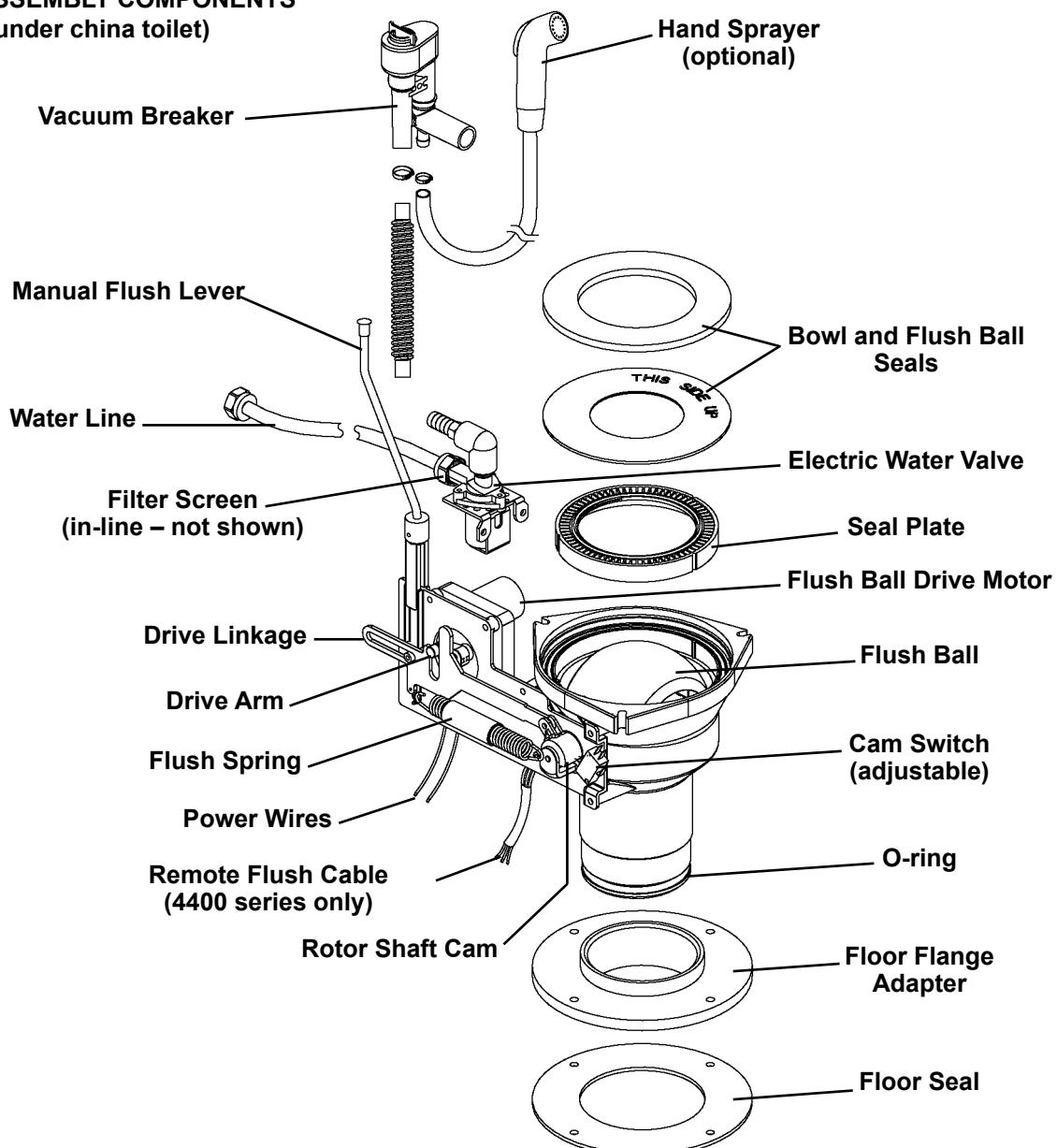
Flush Handle
(4300 series)



Remote Flush Switch
(4400 series)



BASE ASSEMBLY COMPONENTS (under china toilet)



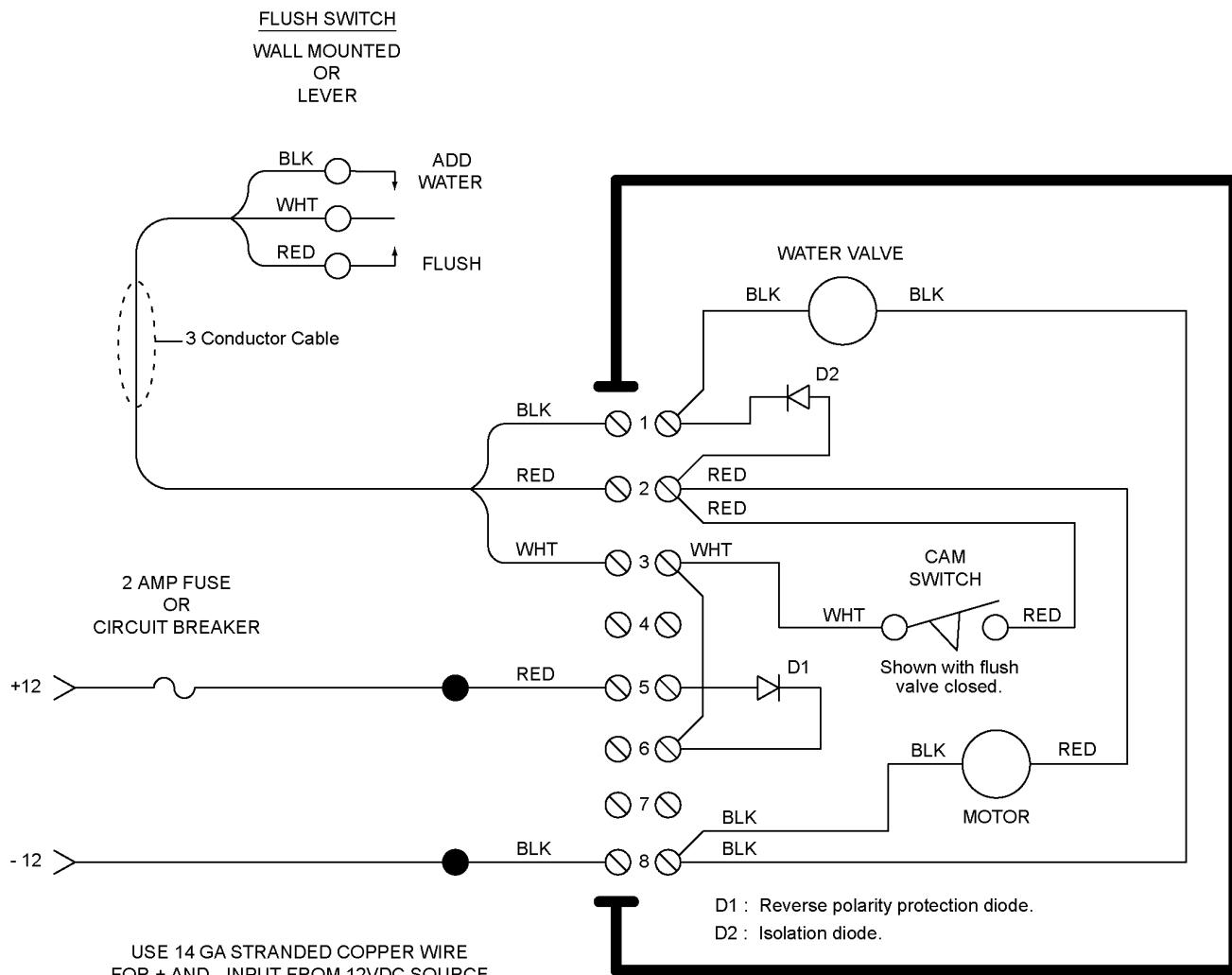
ELECTRICAL SPECIFICATIONS

12VDC

Maximum operating current (amps):	1.5
Flush motor locked rotor current (amps):	1.0
Maximum voltage:	14.5
Minimum voltage:	9
Input power wire size	14 ga.
All other wires size:	18 ga.
Fuse size (amps)	2

WIRING DIAGRAM

4300 and 4400 SERIES TOILETS



TROUBLESHOOTING

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

Condition

Fuse blown or circuit breaker is tripped:



Possible Causes

- Check toilet fuse or circuit breaker at DC distribution panel.
- Check for loose or defective wiring between power source and toilet terminal block pins 5 and 8.
- Check for reverse polarity of incoming power.
- Check for defective diode D1 at pin 5 of terminal block.

SYMPTOM 2. Water enters toilet bowl, but toilet will not flush.

Condition

Electrical or mechanical failure related to flush valve:



Possible Causes

- Check for loose or defective wiring between flush switch and toilet terminal block pins 2 and 3.
- Flush switch may be defective. Replace if necessary.
- Check for loose flush ball motor wires at terminal block pins 2 and 8.
- Flush ball motor may be defective. Replace if necessary.
- Flush motor drive arm failure. See page 17 for replacement instructions.
- Drive linkage failure. See page 17 for replacement instructions.

SYMPTOM 3. Water will not enter toilet bowl, but toilet flushes.

Condition

Blocked water supply or electrical failure:



Possible Causes

- Blockage in water line to toilet. Remove line and clear.
- Filter screen at water valve inlet is clogged with debris. Remove water line and clear debris.
- Loose or defective wiring between water valve and terminal block pins 1 and 8.
- Defective water valve. Replace with new water valve.

SYMPTOM 4. Water will not enter toilet bowl when flush handle or remote switch is in “Add Water” position.

Condition

Electrical connection failure:



Possible Causes

- Loose or defective wiring between flush switch and terminal block pins 1 and 3.
- Defective flush switch. Replace with new flush switch.

SYMPTOM 5. Water will not shut off and overflows toilet bowl.

Condition

Water valve-related failure:



Possible Causes

- Debris in water valve.
- Defective water valve. Replace with new water valve.

TROUBLESHOOTING (cont'd)

SYMPTOM 6. Flush ball constantly cycles between open and closed position.

Condition

Component adjustment required or defective component:

Possible Causes

- Cam switch needs adjustment. See adjustment procedure for flush ball over-travel on page 16.
- Cam switch is defective. See replacement instructions on page 17.
- Drive linkage defective. See replacement instructions on page 17.
- Shorted wiring between flush switch and terminal block pins 2 and 3.
- Flush switch is defective. See replacement instructions on page 17.

SYMPTOM 7. Flush ball opens slowly and will not open when manual flush lever is pressed.

Condition

Component adjustment required or defective component:

Possible Causes

- Flush spring is defective. Replace.
- Excessive drag between flush ball and flush ball seal. Lubricate flush ball and seal with silicone spray.

SYMPTOM 8. Flush switch must be held in "Flush" position to close flush ball.

Condition

Defective electrical component:

Possible Causes

- Loose or defective wiring between cam switch and terminal block pins 2, 3 and 6.
- Cam switch is defective. See replacement instructions on page 17.

SYMPTOM 9. Flush ball will not close completely.

Condition

Component adjustment required or defective component:

Possible Causes

- Cam switch needs adjustment. See adjustment procedure for flush ball over-travel or under-travel on page 16.
- Cam switch is defective. See replacement instructions on page 17.
- Rotor shaft cam is loose or defective. If defective, see replacement instructions on page 17.
- Drive linkage is worn. See replacement instructions on page 17.

SYMPTOM 10. Flush ball will not open completely.

Condition

Component adjustment required or defective component:

Possible Causes

- Rotor shaft cam is loose or defective. If defective, see replacement instructions on page 17.

SYMPTOM 11. Squeaky noise occurs when flush ball is opening.

Condition

Lubrication of component(s) is required:

Possible Causes

- Drive arm/drive linkage joint needs lubricated with silicone grease.
- Flush ball and seal needs lubricated with silicone spray.

TROUBLESHOOTING (cont'd)

SYMPTOM 12. Water will not stay in bowl (leaks down through flush ball seal).

Condition

Incomplete seal between flush ball and Teflon® seal:

**Possible Causes**

- Cam switch needs adjustment (see adjustment procedure for flush ball over-travel, page 16).
- Mounting bolts that hold base assembly to ceramic toilet need tightened. **Caution:** Excessive tightening of bolts can damage toilet.
- Flush ball seal is worn and needs replaced. See instructions on page 17.
- Flush ball is worn and needs replaced. See instructions on page 17.

SYMPTOM 13. Toilet flushes in both "Add Water" and "Flush" switch positions.

Condition

Defective electrical component:

**Possible Cause**

- Diode D2 on terminal block pins 1 and 2 is defective. Replace with new diode.

SYMPTOM 14. Water will not enter toilet bowl during "Flush" cycle.

Condition

Defective electrical component:

**Possible Cause**

- Diode D2 on terminal block pins 1 and 2 is defective. Replace with new diode.

SYMPTOM 15. Water is leaking from toilet onto floor.

Condition

Loose connection or defective component:

**Possible Causes**

- Loose water line connection. Tighten connection.
- Loose or defective vacuum breaker. Replace if defective.
- Defective water valve. Replace with new water valve.
- Bowl seal is defective and needs replaced. See instructions on page 17.
- Mounting bolts that hold base assembly to ceramic toilet need tightened to 20-25 in.-lbs. of torque. **Caution:** Excessive tightening of bolts can damage toilet.

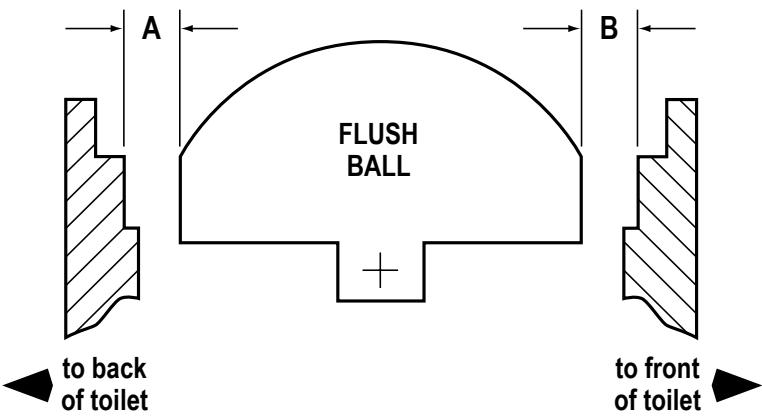
TROUBLESHOOTING (cont'd)

ADJUSTING CAM SWITCH/ FLUSH BALL ALIGNMENT

The flush ball is properly positioned so that the "A" and "B" distances are equal (see illustration at right). If the flush ball becomes misaligned (resulting in water leaking from bowl or other flushing problems), follow instructions below to resolve problem.

REMOVING TOILET FROM FLOOR

1. Turn off water and electrical power to toilet.
2. Remove access lid from top of toilet and set aside.
3. Remove toilet from floor and turn it upside down.
MAKE SURE POWER WIRES REMAIN SECURE.

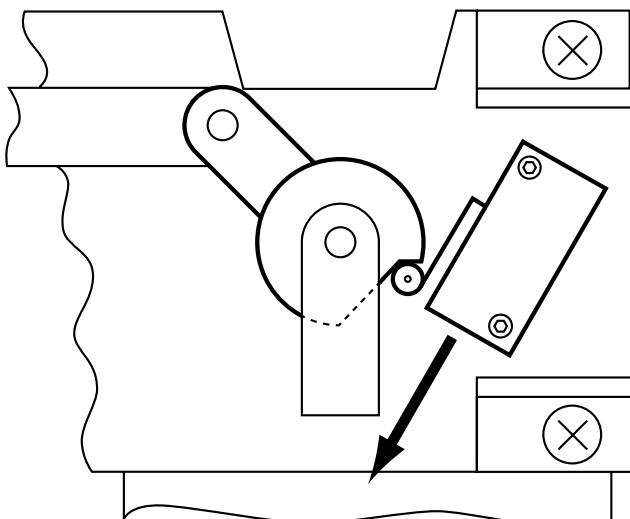
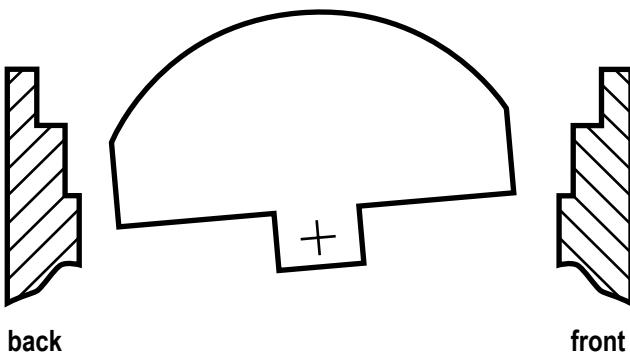


TO CORRECT SYMPTOMS 6, 9 AND 12

4. Loosen cam switch mounting screws with 3/32-inch hex tool and 1/4-inch box-end wrench. Slide cam switch up or down (see illustrations below) depending on flush ball position.

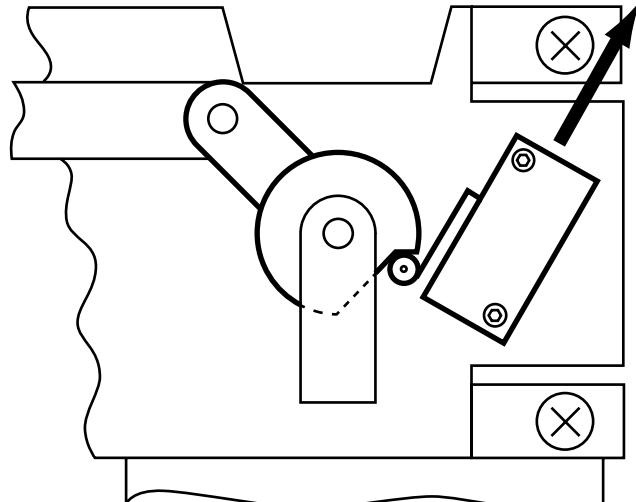
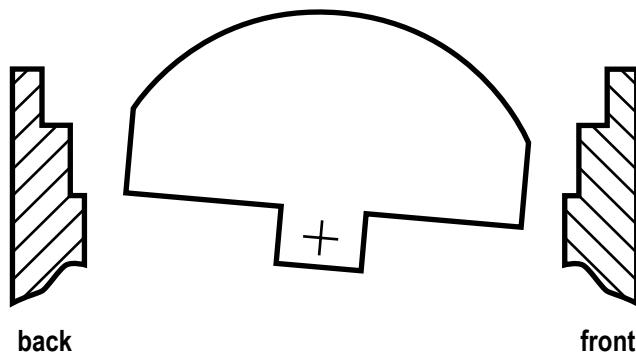
5. Tighten cam switch mounting screws, apply electrical power and check adjustment. Repeat as necessary.
6. After cam switch and flush ball are properly positioned, connect water line and reinstall toilet.

OVER-TRAVEL CONDITION



Slide cam switch down.

UNDER-TRAVEL CONDITION



Slide cam switch up.

TROUBLESHOOTING (cont'd)

REPLACING THE FLUSH BALL SEAL AND BOWL SEAL

1. Turn off water and electrical power to toilet.
2. Remove access lid from top of toilet and set aside.
3. Remove toilet from floor and turn it upside down.
MAKE SURE POWER WIRES AND WATER LINE REMAIN SECURE.
4. Remove the three nuts and flat washers securing the base assembly to the ceramic toilet bowl using a 1/4-inch drive ratchet wrench, 7/16-inch deep-well socket and extension.
5. Pull the vacuum breaker out of the sealing grommet that's located in rear of toilet bowl.
6. Lift the base assembly from the toilet.
7. Replace the old seals with a complete seal kit.
8. Reconnect base assembly to ceramic toilet with new mounting bolts (L-shaped) in seal kit. Tighten nuts to 20-25 in.-lbs. of torque.
9. Reassemble and reinstall toilet.

REPLACING THE FLUSH BALL

1. Turn off water and electrical power to toilet.
2. Remove access lid from top of toilet and set aside.
3. Open the flush ball with the manual flush lever.
4. Remove toilet from floor and turn it upside down.
MAKE SURE POWER WIRES AND WATER LINE REMAIN SECURE.
5. Disconnect the water line, input power wires (pins 5 and 8), and flush switch wires (pins 1, 2, 3).
6. Pull the vacuum breaker out of the sealing grommet that's located in rear of toilet bowl.
7. Remove the three nuts and flat washers securing the base assembly to the ceramic toilet bowl using a 1/4-inch drive ratchet wrench, 7/16-inch deep-well socket and extension.
8. Lift the base assembly from the toilet.
9. Remove the bowl seal, flush ball seal, and retainer plate to expose the flush ball.
10. Disconnect the drive linkage from the manual flush lever using a phillips-head screwdriver. Remove one end of the flush spring.
11. Rotate the flush ball to expose the flush ball screw head. Remove the screw, rotate the ball to the closed position, and remove the flush ball from the rotor shaft. Lift the flush ball out of the base.

12. Remember to keep the rotor shaft in the closed position when installing the new flush valve.
13. The cam switch will require readjustment after flush ball installation. See "Adjusting Cam Switch" on page 16.
14. Remember to tighten new mounting bolts to 20-25 in.-lbs. of torque.

REPLACING THE ROTOR SHAFT OR ROTOR SHAFT CAM

1. Follow disassembly steps under "Replacing the Flush Ball."
2. Loosen the set screw in the rotor shaft cam using a 1/8-inch hex tool.
3. Pull or pry the rotor shaft out from the inside of the base.
4. Align the flat section on the rotor shaft with the flat section in the cam during reassembly.
5. Reverse the disassembly procedure.

REPLACING THE DRIVE LINKAGE

1. Follow disassembly steps under "Replacing the Rotor Shaft or Rotor Shaft Cam."
2. Remove the linkage pin clip and pin.
3. Insert the new linkage.
4. Reverse the disassembly procedure.

REPLACING THE MOTOR DRIVE ARM

1. Follow disassembly steps 1-4 under "Replacing the Flush Ball."
2. Remove one end of flush spring.
3. Remove one end of manual flush lever spring and push manual lever until drive arm is exposed.
4. Replace drive arm using a 3/32-inch hex tool.
5. Reverse the disassembly procedure.

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.

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MANUFACTURER'S TWO-YEAR AND TEN-YEAR LIMITED WARRANTIES

Dometic Corporation warrants, to the original purchaser only, that this SeaLand® gravity discharge toilet, if used for personal, family or household-like purposes, is free from defects in material and workmanship for a period of two (2) years from the date of purchase.

Dometic also warrants, to the original purchaser only, that the vitreous china toilet bowl will not discolor, stain, scratch or craze for a period of ten (10) years if used for personal, family or household-like purposes, and is regularly cleaned as described in the product's owner's manual.

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.

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