



Flow Max™ RV Toilet

Installation and Owner's Manual

(For Aftermarket Applications)

Flow Max RV Toilet		
Part Number	Description	Qty
2022113192	Flow Max RV Toilet	1

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Introduction

The Flow Max RV Toilet is designed for use in recreational vehicles (RVs). These products are lightweight, residential-size toilets for installation directly above a holding tank. It is intended for water, bodily waste, and rapid-dissolving toilet tissue. The Flow Max RV Toilet has 400 lb maximum weight rating.

Additional information about this product can be obtained from [lci1.com/support](https://support.lci1.com/support) or by downloading the free LippertNOW app in Apple App Store® for iPhone® and iPad® and also on Google Play™ for Android™ users.

App Store® and iPad® are registered trademarks of Apple Inc.

Google Play™ and Android™ are trademarks of Google Inc.

For information on the assembly or individual components of this product, please visit:

<https://support.lci1.com/sanitation-toilet-kitchenandbath>.

NOTE: Images used in this document are for reference only when assembling, installing and/or operating this product. Actual appearance of provided and/or purchased parts and assemblies may differ.

Safety

Read and fully understand all instructions before installing or operating this product.

Adhere to all safety labels.

This manual provides general instructions. Many variables can change the circumstances of the instructions, i.e., the degree of difficulty, operation and ability of the individual performing the instructions.

This manual cannot begin to plot out instructions for every possibility, but provides the general instructions, as necessary, for effectively interfacing with the device, product or system. Failure to correctly follow the provided instructions may result in death, serious personal injury, severe product and/or property damage, including voiding of the Lippert limited warranty.

WARNING

FAILURE TO FOLLOW INSTRUCTIONS PROVIDED IN THIS MANUAL MAY RESULT IN DEATH, SERIOUS PERSONAL INJURY AND/OR SEVERE PRODUCT AND PROPERTY DAMAGE, INCLUDING VOIDING OF THE COMPONENT WARRANTY.

CAUTION

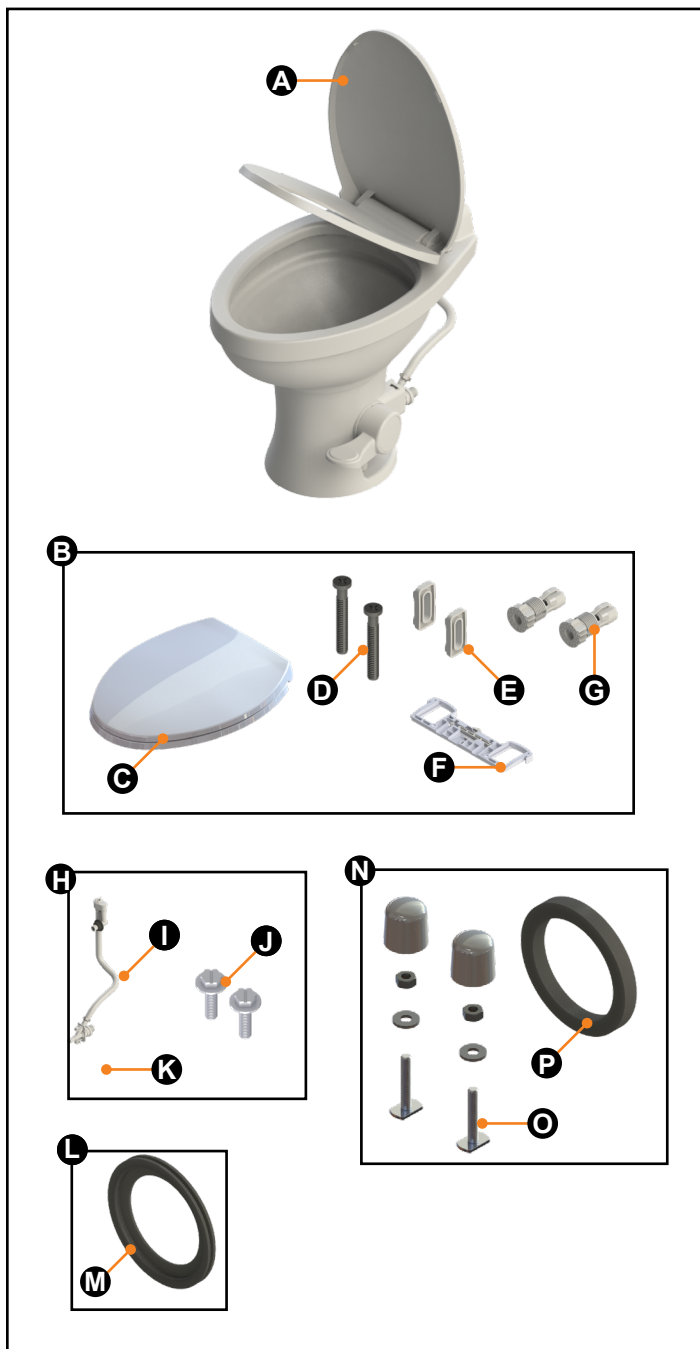
ALWAYS WEAR EYE PROTECTION WHEN PERFORMING SERVICE, MAINTENANCE OR INSTALLATION PROCEDURES. OTHER SAFETY EQUIPMENT TO CONSIDER WOULD BE HEARING PROTECTION, GLOVES AND POSSIBLY A FULL FACE SHIELD, DEPENDING ON THE NATURE OF THE TASK.

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Parts List



Flow Max RV Toilet			
Callout	Part Number	Description	QTY
A	2022113192	Flow Max RV Toilet	1
Replacement Parts Kits			
Kit-B	2022121972	Seat Assembly Kit	1
C	2020221050	Lid and Seat Assembly	1
D	2021106603	Flathead Screw, 1/4-20 X 1.75	2
E	2021106621	Adjustable Seat Block	2
F	2020221051	Toilet Seat Base	1
G	2021106608	Expanding Seat Nut, 0.72 X 1.50	2
Kit-H	2022121976	Valve Assembly Kit	1
I	2021106629	Valve Assembly	1
J	2021106602	Hex Washer, Slotted Screw 8-32 X 1/2	2
K	2020221062	Water Valve Inlet	1
Kit-L	2022121984	Flush Ball Seal Assembly Kit	1
M	2020221058	Seal Flush Ball	1
Kit-N	2022121983	Bottom Gasket with Mounting Hardware Kit	1
O	2020221067	Toilet Mounting Kit	2
P	2020221066	Gasket Bottom	1

NOTE: Part numbers are shown for identification purposes only. Not all parts are available for individual sale. All parts with a link to the Lippert Store can be purchased.

NOTE: All Replacement Part Kits can be purchased.



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Resources Required

- Pliers, Adjustable Wrench, or Torque Wrench
- Floor Flange (matching the one being replaced)
- Screwdriver
- T-Bolts
- Caulk (If installed in a wet area)
- Putty Knife (to remove flange seal)
- Elbow Adapter (depending on water supply line)
- Screws to mount flange

Installation

Removing an Existing Toilet

Follow these steps when replacing an older toilet, to prepare for the new installation:

1. Turn off the water supply.
2. Disconnect and drain the water supply line.
3. Remove the existing floor mounting caps, floor mounting nuts, and floor mounting washers.
4. Lift the existing toilet off the bolts.
5. Remove and discard the existing floor mounting T-bolts.
6. Use a putty knife to remove and discard any existing seal material from the floor and the floor flange.
7. Evaluate the floor flange. If it is damaged, remove it and install a new one, following the steps in "Installing a New Floor Flange."
8. If installing a Universal Mounting Kit, follow the instructions that came with the kit.
9. Make sure the top surface of the floor is clean and free of any debris or sealant.

Installing a New Floor Flange

NOTE: If using the existing floor flange, skip to "Installing the New Toilet."

NOTE: If installing a new floor flange, consider engaging a qualified service professional.

1. Remove the existing floor flange by unfastening and discarding the existing screws. If the floor flange is glued down, you may need additional tools to remove it.
2. Before fastening the new floor flange, verify:
 - A. The toilet mounting holes are located at preferred orientation.
 - B. The center of the floor flange is at least the recommended distance from the back wall for the toilet model.



Fig.1

3. Place the new floor flange into the outlet hole and secure it to the floor (Fig. 1).



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Installing the New Toilet

Follow these steps to install the new toilet:

1. Insert the new floor mounting T-bolts into the slots in the floor flange (Fig. 2).

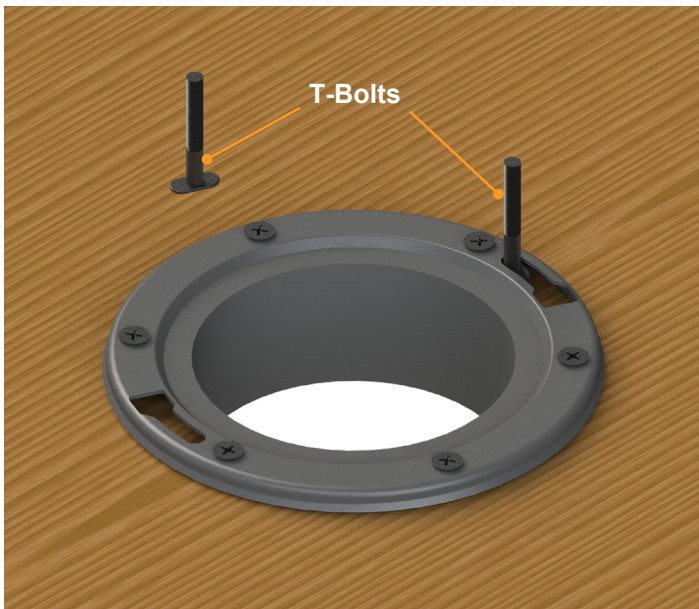


Fig.2

2. Install the new floor flange seal to the base of the toilet with the part number facing down (Fig.3).

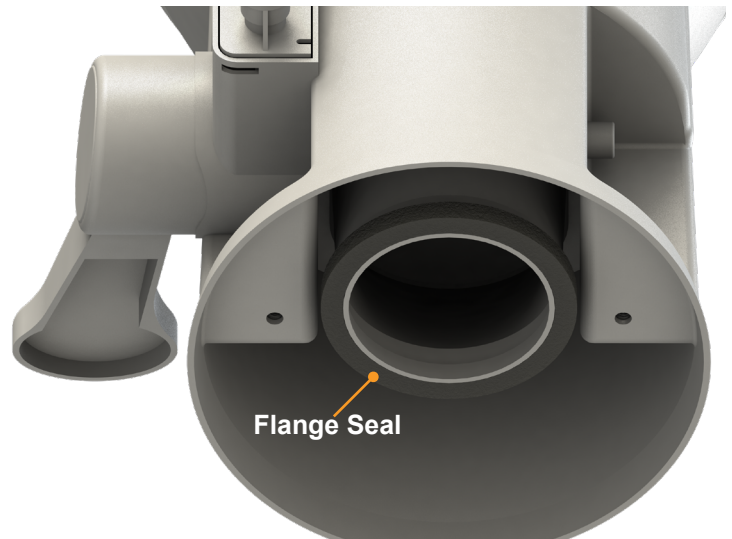
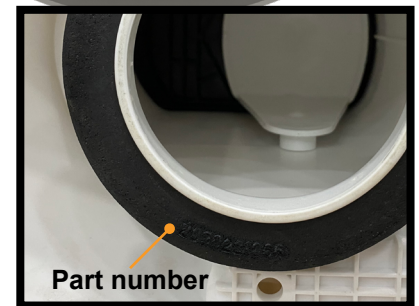


Fig.3



NOTE: On some models, it is already installed.

3. Carefully position the toilet over the floor flange.

4. Align the holes in the toilet base with the floor mounting T-bolts as you lower the toilet onto the floor flange. Be sure the entire outlet drain of the toilet base fits inside the floor flange outlet hole to avoid leaks.

NOTE: The toilet base might not rest evenly against the floor yet. The floor flange seal will compress as you complete the following steps (Fig. 3).

5. Place the new floor mounting washers and then the new floor mounting nuts onto the floor mounting T-bolts (Fig. 4).

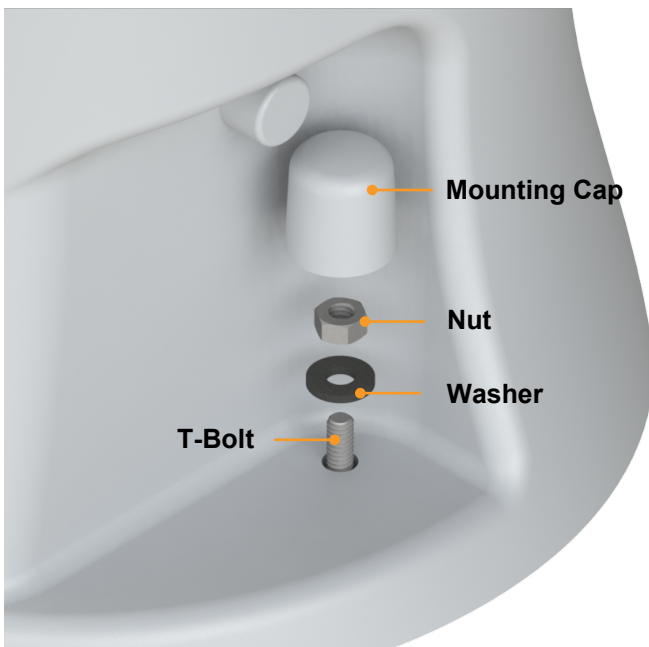


Fig.4

6. Tighten the floor mounting nuts. If a torque wrench is available, tighten them to 30–40 in-lb. Do not over-tighten. Alternate between sides when tightening to prevent distortion. When the floor-mounting nuts are tight, the base of the toilet should be securely attached and flat against the floor.



Fig.5

7. Attach the floor mounting caps onto the floor mounting nuts. If the toilet is being installed in a shower stall (or other wet area), apply a bead of caulk around the base of the toilet to prevent water seepage under the base (Fig. 5).



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8. Connect the water supply line and torque the connection to 30–40 in-lb. Do not over-tighten. If the water supply line comes out of the floor, install a ½ in. (13 mm) elbow fitting or adapter (Fig. 6).

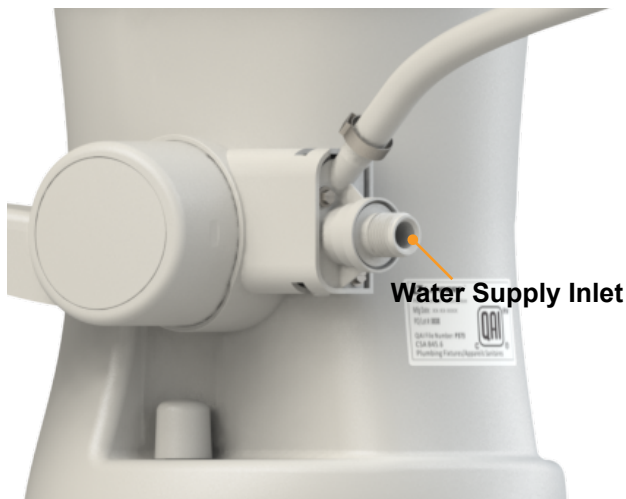


Fig.6

9. Turn on the water supply.

10. Flush the toilet several times and check for leaks. Refer to “Flushing the Toilet.”

11. Test for leaks by filling the bowl with water and letting it sit for an hour.



Fig.7

Operation

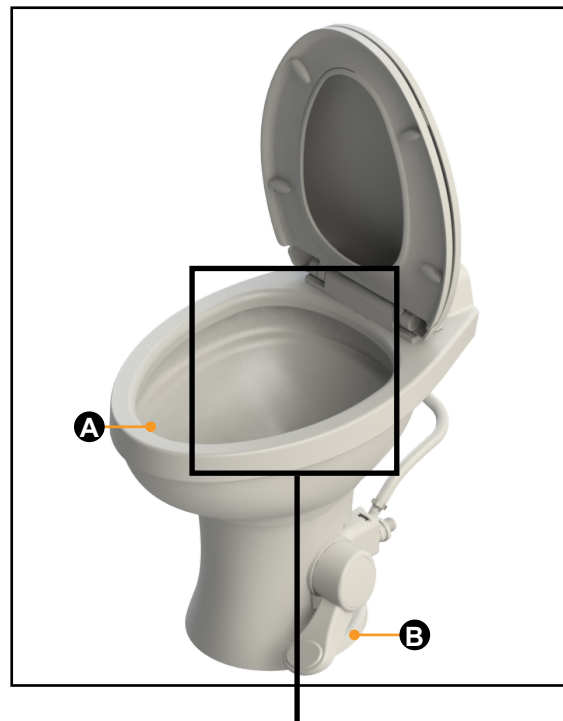
It is intended for water, bodily waste, and rapid-dissolving toilet tissue. The Flow Max RV Toilet has 400 lb maximum weight rating.

Adding Water to the Bowl

Adding water to an empty bowl helps prevent holding tank (Fig.7A) odors from entering the living space. Adding water is recommended prior to flushing solids and toilet paper.

1. Depress the flush pedal (Fig.7B) part way. Water flows into the bowl while the flush ball (Fig.7C) remains closed.

NOTE: If the flush ball moves, let up on the flush pedal slightly.





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Flushing the Toilet

1. Depress the flush pedal, approximately 1–2 seconds, until it almost contacts the floor.

2. Allow contents of the bowl to rinse from the bowl.

NOTE: Flushing longer than necessary will cause the holding tank to fill too quickly. A small amount of water will collect in the bowl after a flush to create an airtight seal.

3. Release the flush pedal after a complete flush.

NOTE: Due to the integrated rim of the toilet, water may continue to trickle into the toilet bowl for up to 20 minutes after flushing.

NOTE: To prevent tank odors from entering the living space, make sure 1" of water remains in the toilet bowl. Depending on the plumbing system and user operation, adding water may be required to achieve this water depth.

NOTE: When a toilet is stored for long periods of time, or the water becomes stagnant, flush the system.

⚠ CAUTION

FLUSH ONLY WATER, BODILY WASTES, AND RAPID-DISSOLVING TOILET TISSUE. DO NOT FLUSH FOREIGN OBJECTS. DO NOT FLUSH WET WIPES, SANITARY NAPKINS, DIAPERS, PAPER CUPS, COTTON SWABS, FOOD, HAIR, OR LIQUIDS SUCH AS OILS OR SOLVENTS. FAILURE TO FOLLOW THESE INSTRUCTIONS COULD CAUSE CLOGGING OR DAMAGE TO THE TOILET OR THE TOILET SYSTEM.

Winterization

Non-toxic Antifreeze Winterization

Recommended method:

1. Pour non-toxic antifreeze (propylene glycol) into the potable water tank according to the instructions from the antifreeze manufacturer. Review manufacturer's Owner's Manual for any special instructions.

2. Flush the toilet several times until the antifreeze flows completely through the toilet.

NOTE: For toilets with a hand sprayer, the hand sprayer must be turned on for antifreeze to cycle through the sprayer.

⚠ WARNING

DO NOT USE AUTOMOTIVE-TYPE ANTIFREEZE (ETHYLENE GLYCOL) IN FRESHWATER SYSTEMS. FAILURE TO OBEY THIS WARNING COULD RESULT IN DEATH OR SERIOUS INJURY.

⚠ CAUTION

THIS TOILET IS NOT INTENDED FOR USE WHEN EXPOSED TO TEMPERATURES BELOW FREEZING. FAILURE TO FOLLOW THE INTENDED USE GUIDELINES COULD RESULT IN MINOR OR MODERATE INJURY.



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Preventing a Frozen Water Valve

When a toilet may be exposed to temperatures below freezing, the toilet must be winterized. The toilet water valves (Fig. 8) exceed the applicable standards for maximum water pressure as defined by the North American plumbing code agencies. Water valve damage is due to severe exposure to below-freezing temperatures. To avoid damage, winterize the toilet as described in this manual.

NOTE: Use non-toxic antifreeze (propylene glycol) designated for potable water systems.

NOTE: The toilet warranty expressly excludes coverage for any damages to the toilet or the unit that may occur due to improper winterization of the toilet. Freeze damage that results in leaks to the water valve is an indicator of improper winterization.

⚠ CAUTION

IF TRAPPED WATER FREEZES IN THE PIPING THAT SUPPLIES WATER TO THE TOILET, IT EXPANDS AND CREATES HIGH PRESSURE THAT CAN DAMAGE THE VALVE.

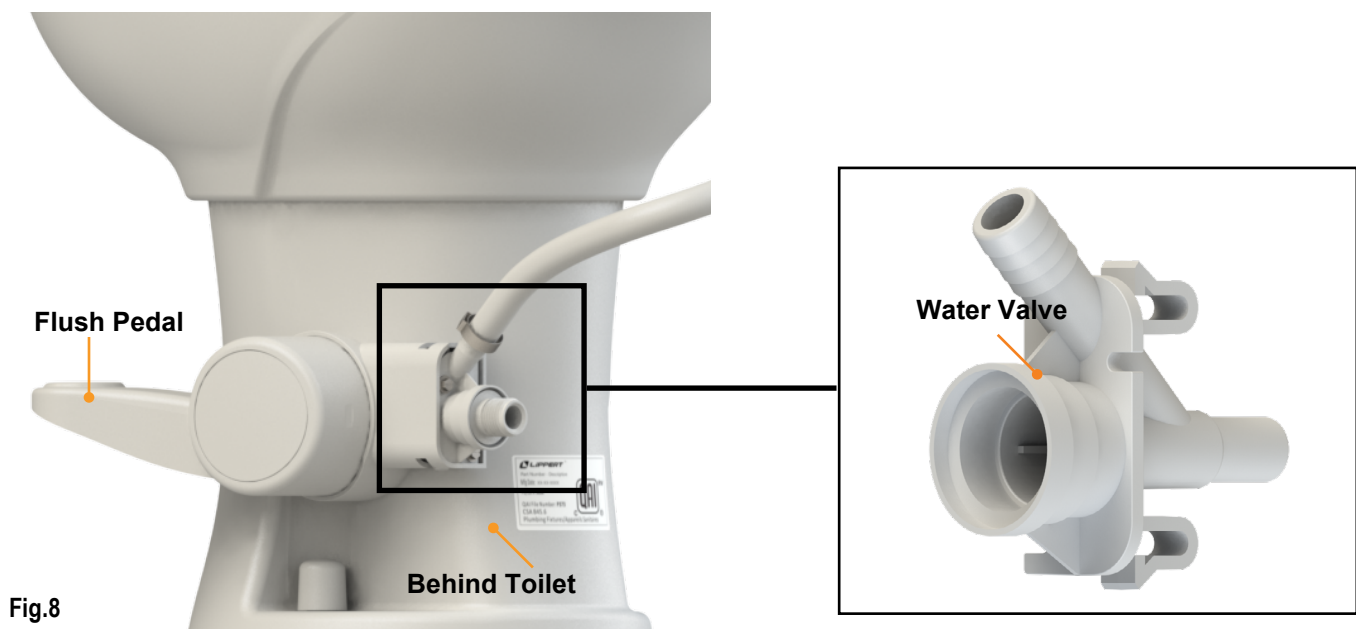


Fig.8

Maintenance

⚠ WARNING

IF THIS TOILET EVER REQUIRES SERVICE, READ THE FOLLOWING STATEMENTS BEFORE SERVICING THE PRODUCT. FAILURE TO FOLLOW THESE GUIDELINES CAN CAUSE PRODUCT DAMAGE AND CAN VOID YOUR WARRANTY COVERAGE.

Properly cleaning, winterizing, and maintaining your toilet will increase its lifespan.

- Do not separate the ceramic bowl from the plastic base. The bowl and base of the toilet should not be separated for any reason.
- Do not remove the flush pedal from the base. This toilet has a factory-sealed bowl-to-base assembly.
- Do not disassemble the components.

NOTE: The toilet does not need to be removed from the vehicle (or unfastened from the floor) for basic repairs.

Performing Routine Toilet Cleaning

Use a non-abrasive bathroom and toilet bowl cleaner for routine cleaning. Follow label instructions on cleaning solutions.

Cleaning the Flush Ball and Seal

After a period of time, mineral deposits from hard water may build up on the flush ball or seal, resulting in a slow water leak. To prevent this, periodically clean the flush ball and seal.

1. Remove minor debris from the flush ball and seal (Fig.9) by slowly depressing and releasing the flush pedal several times. This will loosen and rinse debris from the surfaces. Repeat several times for stubborn build-up.

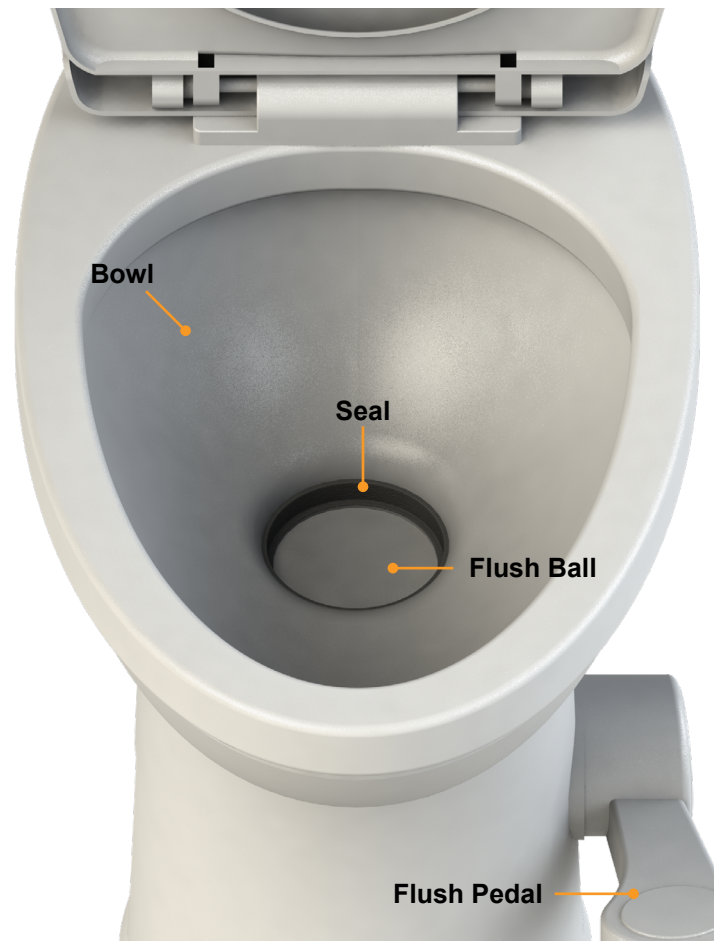


Fig.9

2. If step 1 does not fully clean the ball and seal, clean with a soft bristle brush and non-abrasive toilet bowl cleaner.

3. Fully clean the top of the flush ball and under the seal where it contacts the flush ball. After cleaning the underside of the seal, apply light, downward pressure to the top of the seal while brushing around the full perimeter of the seal.

NOTE: If the ball pivot arm becomes dislodged while cleaning inside the base beneath the flush ball and seal, re-engage it into the pivot point.



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Reconditioning the Flush Ball Seal

If you discover a water leak into the holding tank, recondition the flush ball seal into its original shape:

1. Depress the flush pedal to hold the flush ball open, then lightly press down around the edge of the seal with a finger to conform the seal to the flush ball.
2. Release the flush pedal.
3. Keeping the flush ball closed, pour 1 qt (0.9 L) of hot tap water into the toilet bowl.
4. Let the water cool completely.

Draining Water from the Toilet

1. Turn off the water supply to the toilet.
2. Remove the water supply line from the water valve.
3. Place a small bucket under the water valve inlet and supply line to catch draining water.
4. Depress the flush pedal and allow water to completely drain from the water valve and vacuum breaker.
5. Leave the water line disconnected until the threat of freezing temperatures is past.

NOTE: Do not leave the RV unoccupied for extended periods of time with a municipal water supply connected, or with the on-board water pump turned on, when there is a possibility of freezing temperatures.

Troubleshooting

What is happening?	Why?	What should be done?
Odor emits from the toilet when the flush ball is open.	The holding tank vent is plugged.	Clear obstructions from the vent.
	The odor is from the holding tank contents.	Add deodorant to the holding tank.
Odor emits from the toilet when the flush ball is closed.	There is no water in the bowl.	Add water to the bowl. Refer to "Adding Water to the Bowl."
	The flush ball seal is damaged.	Replace with Flush Ball Seal Assembly Kit (Part Number: 2022121984; Kit-L).
The flush ball will not close completely.	There is too much friction between the flush ball and the seal.	Clean and lubricate the flush ball and flush ball seal with silicone spray or furniture polish.
The flush ball will not operate properly.	The ball pivot arm may have become dislodged when cleaning beneath the flush ball and seal.	Re-engage the ball pivot arm back into the pivot point.
Water is leaking from the water valve.	The water line connection is loose or not seated properly.	Make sure that the threads are not cross-threaded and tighten the connection.
	The water valve is damaged or defective.	Replace with Valve Assembly Kit (Part Number: 2022121976; Kit-H).
Water is leaking from the toilet base.	The toilet is not secured to the floor.	Carefully tighten the toilet mounting bolts.



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What is happening?	Why?	What should be done?
Water is leaking from the rear of the toilet.	There is a loose vacuum breaker.	Make sure the vacuum breaker stem is pushed fully into the sealing grommet in the back of the bowl
	The vacuum breaker is damaged or defective.	Contact Lippert Customer Care at 432-LIPPERT (432-547-7378) or customerservice@lci1.com .
	The supply hose is damaged or defective.	Tighten the supply hose clamps. Replace the supply hose.
	The toilet bowl is cracked or defective.	Replace the toilet.
Water will not stay in the bowl.	The flush ball seal is not properly positioned.	Refer to "Reconditioning the Flush Ball Seal."
	The flush ball seal's shape is temporarily distorted.	Refer to "Reconditioning the Flush Ball Seal."
	The flush ball or flush ball seal is dirty	Refer to "Cleaning the Flush Ball and Seal."
	The flush ball seal is worn or defective.	Replace with Flush Ball Seal Assembly Kit (Part Number: 2022121984; Kit-L).
Water flow into the toilet will not stop.	The water valve is worn or defective.	Replace with Valve Assembly Kit (Part Number: 2022121976; Kit-H).
Water does not enter the toilet bowl properly.	There is an insufficient water flow rate at the toilet inlet.	Make sure the flow rate at the toilet inlet is 3–5 gpm (11.4–18.9 lpm), which is the recommended rate.
	The screen at the water valve inlet is clogged.	Clean the screen, on the inlet side, using a cotton swab or an old toothbrush. Do not disassemble the valve.
	The water valve is worn or damaged.	Replace with Valve Assembly Kit (Part Number: 2022121976; Kit-H).



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Follow proper safety practices. If in doubt, consult a professional RV technician.