

Aqua-Magic[®] IV

By THETFORD

OWNER'S MANUAL

THETFORD

CORPORATION

P.O. Box 1285
Ann Arbor, MI 48106

IN CANADA

THETFORD

SANITATION LTD.

2299 Drew Road, Unit 12
Mississauga, Ontario
Canada, L5S 1A1

RV Holding Tank Additives

The 4 new holding tank additives help solve unpleasant problems of RV sanitation systems.

1 Black Water Odor Control • 2 Grey Water Odor Control • 3 Drain Valve Lubricant • 4 Tissue Digester

Aqua-Kem[®] Concentrated Holding Tank Deodorant

- New thick, non-drip formulation • Starts working instantly • Controls odors • Fresh pleasant scent • Compatible with all sanitation systems • Biodegradable • Septic tank safe • Helps keep holding tanks clean and fresh • 8 oz. and 32 oz. bottles

Aqua-Kem[®] Toss-Ins[®] Holding Tank Deodorant in Water-Soluble Packs

- Packaged in convenient pre-measured water-soluble packs • Goes to work instantly • Fresh pleasant scent • Biodegradable • Septic tank safe • 8-1 oz. packs per can

Dri-Kem[®] Concentrated Granular Holding Tank Deodorant

- Concentrated, non-dusting granules • 40% faster acting • Longer lasting odor control • Goes to work instantly • Helps keep holding tanks clean and fresh • Biodegradable • Packaged in 6-2 oz. packs and 16 oz. unbreakable bottle.

Aqua Zyme[®] Enzymatic Waste Digester

- Non-toxic, environmentally safe • Works naturally to break down holding tank waste • Totally safe for fresh water flush toilets, septic tanks and other waste treatment systems • Dissolves fats and oils in drain traps • Fresh outdoor fragrance • Biodegradable • 32 oz. bottle

Aqua-Bowl[®] Toilet Bowl Cleaner

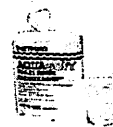
- Non-abrasive, soft scour cleaner • Cleans and freshens portable and permanent toilet bowls without scrubbing • Freshens and cleans portable holding tanks for reuse and storage • Harmless to plastic and mechanical parts and seals • Works effectively on porcelain bowls for in-home use • 32 oz. bottle

Weekender Pack Toilet Convenience Kit

The WEEKENDER PACK includes a 32 oz. bottle of Aqua-Kem[®] holding tank deodorant, a 32 oz. bottle of Aqua-Bowl[®] cleaner, a 4-pack of Aqua-Soft[®] toilet tissue.

Aqua-Soft[®] Rapid Dissolving Toilet Tissue

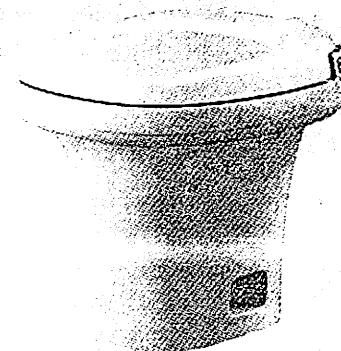
- Soft, snowy-white tissue • Flushes easily from toilet bowl • Short fiber content assures rapid disintegration • Helps prevent messy clogs • Recommended for portable and permanent sanitation systems • 4 rolls per pack



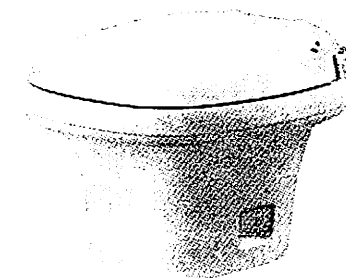
By THETFORD

Permanent Fresh-Water Flush Toilet

OWNER'S MANUAL



AQUA-MAGIC IV HIGH



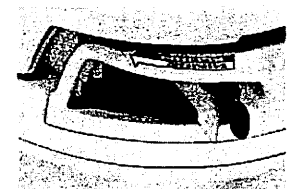
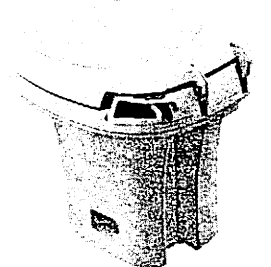
AQUA-MAGIC IV LOW

The ultimate in convenience

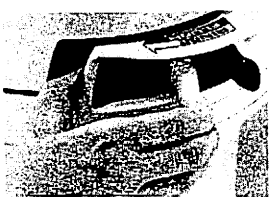
Aqua-Magic IV is an advanced, new generation low water use, fresh water flush, permanent toilet for the recreation industry. The Aqua-Magic IV installs quickly and easily using a small amount of space. Its design incorporates the comfort and convenience of a modern home toilet. Flushing and water lever controls are located on the side of the unit for ease of operation. The beautifully sculptured styling of Aqua-Magic IV compliments any bathroom decor. Both Aqua-Magic IV high and low are available in Ivory.

OPERATING INSTRUCTIONS

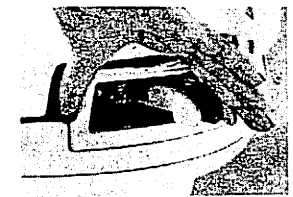
The Aqua-Magic IV is equipped with two operating levers located on the right side of the toilet when facing the unit. To flush, pull the black lever forward (clockwise) until rinse clears bowl, release lever slowly. Movement of the flush lever opens the waste valve and allows waste to pass into the holding tank. Water fill is activated simultaneously with flush lever (black). The lever should be held open for several seconds to allow adequate flush water coverage of bowl to develop. The water fill lever (white) can be operated independently of flush lever (black) if more than the normal 2" automatic bowl refill water is desired.



Flushing lever (black) and water fill lever (white) shown in the normal closed position.



Pull water fill lever (white) to adjust water to desired level.



Single forward motion flushes and refills bowl.

MAINTENANCE

The Aqua-Magic IV should not require any routine maintenance except for cleaning. In some installations the seat and cover can be removed to facilitate cleaning. To remove seat, both seat and cover should be in the open (up) position. Grasp assembly on both sides and pull away from you in an upward position at approximately 45°. To reinstall seat and cover, place legs of assembly in rear slots of cover until you feel them center themselves on hinge posts and gently push down at approximately 45° until you feel the engagement.

To clean units use Aqua-Bowl or any other high grade, non-abrasive cleaner. DO NOT use highly concentrated or high acid content household cleaner, nor those containing abrasive, such as cleaner or scouring powder, as these may damage the waste valve seal, or the plastic parts of the toilet.

If it becomes necessary to remove your toilet for service, or you plan to remodel or replace your toilet with an Aqua-Magic IV, follow the step by step procedure covered in the Removal and Installation Instructions.

REMOVAL & INSTALLATION INSTRUCTIONS

REMOVAL PROCEDURE

First turn off water supply to toilet (see owners manual for detailed instructions).

Disconnect the water supply line from the water valve located on rear of unit. Hold the water valve hex nut with a 1-1/16" wrench while loosening fitting on water line (Fig. 1).

Remove the nuts from the mounting flange bolts (Fig. 2). Lift toilet off mounting flange.

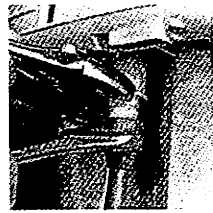


Fig. 1



Fig. 2

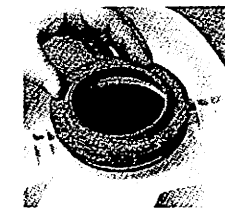


Fig. 3



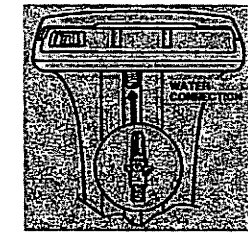
Fig. 4

INSTALLATION PROCEDURE

Put a new flange seal over the ring on the bottom of the toilet as shown (Fig. 3).

Check the position of the closet flange bolts being sure they align with mounting holes on Aqua-Magic IV toilet. It may be necessary to rotate the closet flange in order to position bolts properly (Fig. 4).

Place the toilet on the closet flange bolts so the bolts project into the side access openings at the base of the toilet. Using your body weight, press the toilet to the floor and place nuts on closet flange bolts finger tight.



The water valve is designed so that the line attaches from the bottom and is easy to drain when winterizing. The Aqua-Magic IV will accept the Quickler ball-end polybutylene tubing system without installing any special fitting into toilet. Adapters and nuts are available to make a flared tube connection using polybutylene tubing.

The male thread on the water valve end is 1/2" N.P.T. and will accept a common pipe union if adapting to another system...thread sealant is required to insure a leak tight seal. A water supply line with 3/8" nominal inside diameter is recommended to obtain a good flush with the demand pump water systems used in most current recreational vehicles. **DO NOT solder any metal fittings when connected to toilet, otherwise damage will occur to plastic parts of toilet.**

Install the water supply line to the water valve. When tightening the connection, be sure to hold the water valve hex nut with a 1-1/16" wrench. Next, tighten nuts on closet flange bolts two to three additional turns. **DO NOT OVERTIGHTEN.**

Turn on water supply and check for possible leaks. Flush toilet several times to check for proper operation.

WINTERIZING

DRAINING METHOD

Completely drain the toilet water supply line leaving the toilet water supply valve (white lever) open. The water valve may be kept open by blocking the water lever in the open position with a suitable object, such as a wad of paper. **CAUTION:** When using air pressure to blow water from lines, toilet valve should be held in open position.

ANTI-FREEZE METHOD

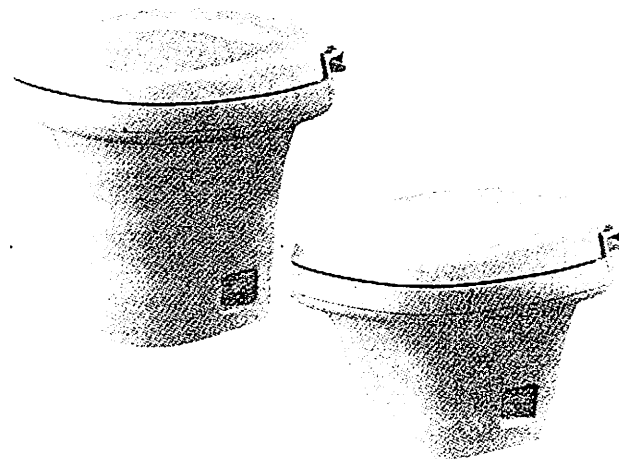
Use potable water system type anti-freeze to winterize the fresh water plumbing system. Follow directions on anti-freeze container. **CAUTION:** never use automotive type anti-freeze in fresh water system. These are highly toxic. **NOTE:** If water is inadvertently frozen in the toilet, do not attempt to flush until the ice is thawed. Otherwise damage to toilet could occur.

SERVICE AND PARTS

Contact a local Thetford Certified Service Center (CSC) or RV dealer for parts and service.

If it becomes necessary to send part(s) to a Thetford Certified Service Center for warranty consideration or to contact the factory, please include the following information:

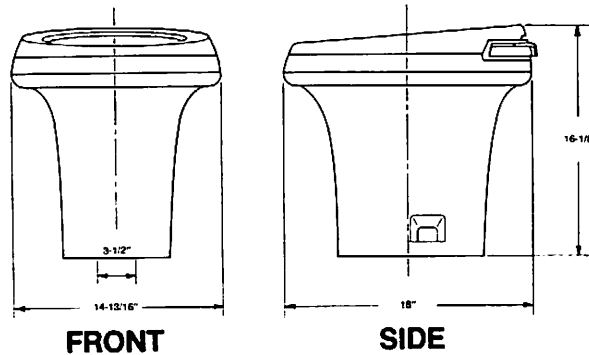
1. Your name and address.
2. The product name, model, serial number and color.
3. The type of recreational vehicle or boat (brand name and year) on which the product is used.
4. The reason for return.
5. Proof of date of purchase.



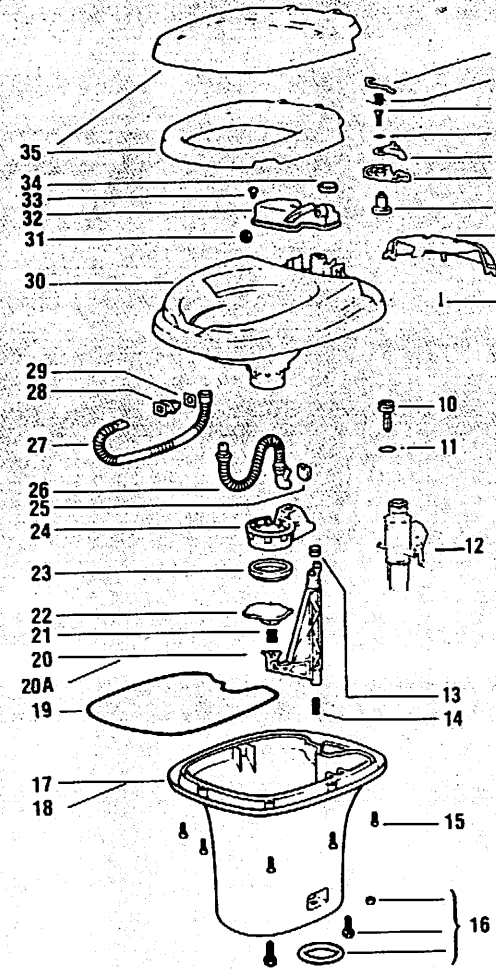
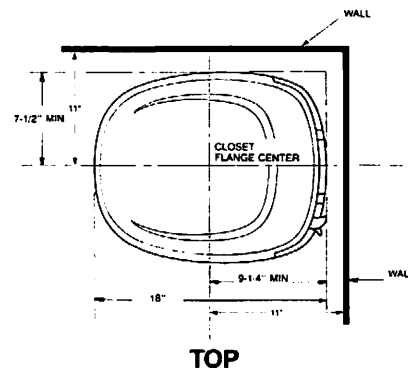
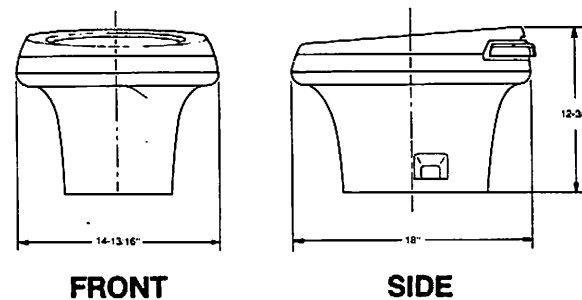
SPECIFICATIONS

DIMENSIONS

Aqua Magic® IV HIGH



Aqua Magic® IV LOW



Key No.	Part No.	Description	Key No.	Part No.	Description	Key No.	Part No.	Description
1	12513	Link (Water Valve)	13	12480	Actuator Arm Seal	26	12511	Overflow Tube
2	12423	Lever Return Spring	14	12517	Actuator Spring	27	12509	Flush Tube
3	12870	Screw (#10 x 1 5/8 - Type BT)	15	12659	Screw (Base to Bowl)	28	12522	Nozzle
4	12872	Washer	16	12524	Closest Bolt Package	29	12521	Gasket (Nozzle to Bowl)
5	12514	Water Lever	17	12450*	Base (High)	30	14582*	Bowl
6	12515	Flush Lever	18	12935*	Base (Low)	31	12508	Seal (Reservoir to Vacuum Breaker)
7	12516	Lever Pivot Bearing	19	05387	Sealant	32	12507*	Reservoir Tank Assembly
8	14583*	Mechanism Cover Screw - 9 (Base to Bowl)	20	12479	Actuator Arm (High)	33	12659	Screw (Reservoir to Bowl)
9	12659	Screw - 9 (Base to Bowl)	20-A	12923	Actuator Arm (Low)	34	12660	Retaining Band (Tank to Vacuum Breaker)
10	12504	Float Assy.	21	12519	Blade Spring	35	15017*	Seat and Cover Assembly
11	12502	Seal (Ball Valve to Bowl)	22	12482	Blade			
12	13168	Water Valve	23	12481	Blade Seal			
			24	12520	Blade Track			
			25	12512	Flange			

TROUBLE-SHOOTING

- 1. Symptom:** Water keeps running into the bowl.

Cure: Check to see that the levers return all the way to the left. Sticking may be caused by foreign material on the waste valve blade or blade seal at the bottom of the bowl. If problem persists, replace water valve.

- 2. Symptom:** Toilet leaks, there is water on the floor.

Cure: If the leak is in the back of the toilet, check the water supply line connection, and refer to the installation instructions.

If the leak is at the closet flange area, check the closet flange nuts for tightness. If leak continues, remove the toilet and check the closet flange height. The height should be between 1/4" and 7/16" above the floor. Adjust accordingly and replace the closet flange seal if damaged.

If problem persists, replace water valve assembly.

- 3. Symptom:** Poor flush.

Cure: The levers must be held fully open during the flush. A good flush should be obtained within 2 to 3 seconds.

If the problem persists, remove the water supply line and check the water supply. The water supply line flow rate should be at least ten quarts (liters) per minute to ensure an adequate flush.

HOLDING TANK HINTS

What about when you are hooked up to a sewer line?

After hook-up to sewer line at campgrounds, leave the vehicle termination valve on the Black Water (toilet waste) holding tank closed until the tank is at least 3/4 full. This provides sufficient water in the tank to insure complete flushing of waste material into the outside sewer line.

Unlike your toilet at home which uses between 4 to 7 gallons of water per flush, the average RV toilet uses from 1 cup (8 oz.) to several quarts (liters) of water per flush, which is enough water to flush the waste from the toilet into the holding tank. If there is not sufficient water in the holding tank, waste materials may not evacuate properly when the termination valve is opened and clogging could eventually result.

To empty the Black Water holding tank, open the termination valve. When holding tank is empty, rinse using Aqua-Bowl Cleaner with several gallons of fresh water. Be sure to close termination valve after emptying and rinsing out the holding tank.

NOTE: If you have two holding tanks, one for Black Water (toilet waste) and one for Grey Water (sink and shower waste), there will be two vehicle termination valves, one for each holding tank. You may leave the Grey Water termination valve open during hook up to an outside sewer line. Grey Water contains few solid particles and will not clog the holding tank. But it is a good practice to rinse the Grey Water tank with clear water and Aqua Bowl before closing the termination valve.

What happens if I use my own "home-made" deodorant in tank?

Use of "home remedies" may solve problem temporarily, but can harm RV's sanitation system in the long run. Some popular household deodorizing products contain petroleum distillates which can damage toilet seals and termination valves.

CAUTION: Do not use household detergents or cleaning compounds. They may contain chemicals that would damage the plastic drain system or termination valve seals.

For more information on holding tank hints, write for Thetford's brochure entitled "RV Sanitation...from the inside out."

THETFORD CORPORATION LIMITED WARRANTY

WARRANTY

Thetford Corporation warrants, to the original purchasers only, that all of its products that are used for personal, family or household purposes are free from defects in material and workmanship for a period of one year from the date of purchase. All Thetford Corporation products that are placed in commercial or business use are 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.

LIMITATION OF WARRANTY

This warranty does not apply to products which, in the judgment of Thetford Corporation, have been subjected to misuse, negligence, accident, fire, improper repair, installation or any other unreasonable use. This warranty will be void if the serial number of date of manufacture stamp has been effaced, altered, or removed, or if the product has been repaired or altered by persons other than Thetford Corporation.

LIMITATION OF REMEDY

The responsibility of Thetford Corporation under this warranty is limited to the repair or replacement, at the option of Thetford Corporation, of any defective part of product provided such repair or replacement is performed by Thetford Corporation.

IN NO EVENT SHALL THETFORD CORPORATION BE RESPONSIBLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND ARISING FROM THE USE OF ITS PRODUCTS...i.e., SPILLS FROM HOLDING TANK DEODORANTS OR ADDITIVE, DAMAGE RESULTING FROM TOILET FLOODING.

IMPLIED WARRANTIES

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 PURPOSES AND NINETY (90) DAYS FROM THE DATE OF PURCHASE FOR PRODUCTS PLACED IN COMMERCIAL OR BUSINESS USE.

Some states do not allow limitations on how long an implied warranty lasts, or do not allow any exclusion or limitation of incidental or consequential damages so that above limitation may not apply to you.

PROCEDURE FOR WARRANTY CLAIMS

In the event of a defect during the warranty period, Thetford Corporation will repair or replace, at its option, and at no charge to the purchaser, the product or any part of the product which is proved to the satisfaction of Thetford Corporation to have been defective at the time of purchase or which becomes defective in normal use during the warranty period. In the event of such a defect the purchaser should return the product or part to Thetford Corporation, 800 Baker Road, Dexter, Michigan 48130, freight prepaid, properly identified and with proof of purchase date.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.