



SECTION 24K TOILET

STANDARD TOILET (AQUA-MAGIC)

GENERAL INFORMATION

The standard toilet (figure 1) is a fresh water, permanently installed sanitation system. It uses a pressure flushing system. This scours the bowl with

each flush. Water injection produces a "swirl effect" and uses a measured amount of water to rinse efficiently. The unit is a self cleaning type with an odor tight, gas tight, teflon seal which closes off the holding tank when not in use. Since every flush uses fresh water, no mandatory chemical additives are needed.

STANDARD TOILET TROUBLE DIAGNOSIS

Complaint	Possible Cause	Correction
Water keeps running into the bowl.	The blade in the bottom of the bowl is not closing completely, which in turn keeps the water control valve partially open. The groove into which the blade seats when completely closed is clogged with foreign material.	Insert the end of a coat hanger or similar object into the sealing groove and remove the foreign material. Avoid damaging the rubber seal while cleaning.
Toilet leaks. There is water on the floor.	Specify the symptom. Determine if water is leaking from: a. The vacuum breaker. b. The water control valve. c. Bowl to mechanism seal (if this is the problem, the water would not stay in the bowl).	a. The vacuum breaker—if the vacuum breaker leaks when flushing the toilet, replace the vacuum breaker. b. If the vacuum breaker leaks when the toilet is not in operation, replace the water control valve. c. Leaks at the bowl to mechanism seal— remove mechanism, and replace mechanism seal.

Complaint	Possible Cause	Correction
Contd. from previous page.	d. Closet flange base seal.	d. Leaks at closet flange area—check front and rear closet flange nuts for tightness. If leak continues remove the toilet, check the closet flange height. The height should be between 1/4" and 7/16" above the floor. Adjust closet flange height accordingly and replace closet flange seal.
Foot pedal operates harder than normal or the blade sticks.	This is generally caused by using cleansers or other abrasives to clean the bowl. The foreign material scrapes away the teflon on the blade seal and the amount of friction is increased to the point where dragging occurs. It can also be caused by using water, which contains a high content of suspended foreign material such as sand.	Wipe the blade completely dry, spray with a silicone spray and work the pedal several times. Repeat until blade works freely.

TOILET REMOVAL

1. Turn off water pump and release pressure at any faucet.
2. Disconnect toilet water line.
3. Depress flush pedal and insert block of wood or similar object in slide trap to keep trap open. This holds the flush pedal down for access to front mounting nut.
4. Remove front mounting nut.
5. Depress pedal and remove block.
6. Lift toilet seat lid and remove access cap for the rear mounting nut.
7. Remove rear mounting nut using at least a 12" extension and a universal socket through the access hole.
8. Lift off toilet.

DISASSEMBLY AND REPAIR

The toilet disassembles into four main subassemblies (See figure 1).

1. The seat and cover assembly.
2. The vacuum breaker.
3. The mechanism assembly.
4. The hopper assembly.

Any of these subassemblies may be removed from the toilet in the following manner:

1. Removal of the seat and cover assembly (figure 1):

With seat and cover assembly in the up position use a flat screwdriver or similar tool to pull out the seat hinge pins.

2. Removal of the vacuum breaker (figure 1):

Remove seat and cover assembly as explained in last paragraph. Then turn the toilet up-side-down. To remove water lines from vacuum breaker base, pinch hose clamps with a pair of pliers and slide them up the water line. Water lines may be pulled off. Remove the two vacuum breaker attachment screws.

3. Removal of the mechanism assembly (figure 1):

Turn the toilet up-side-down. Remove the six screws that are now visible. Lift up mechanism to gain access to water line hose clamps. Pinch hose clamps with a pair of pliers and slide them up the water line. Pull water lines off of mechanism.

4. Service and replacement of hopper assembly:

Hopper assembly may be serviced or replaced by removing the above 3 assemblies.

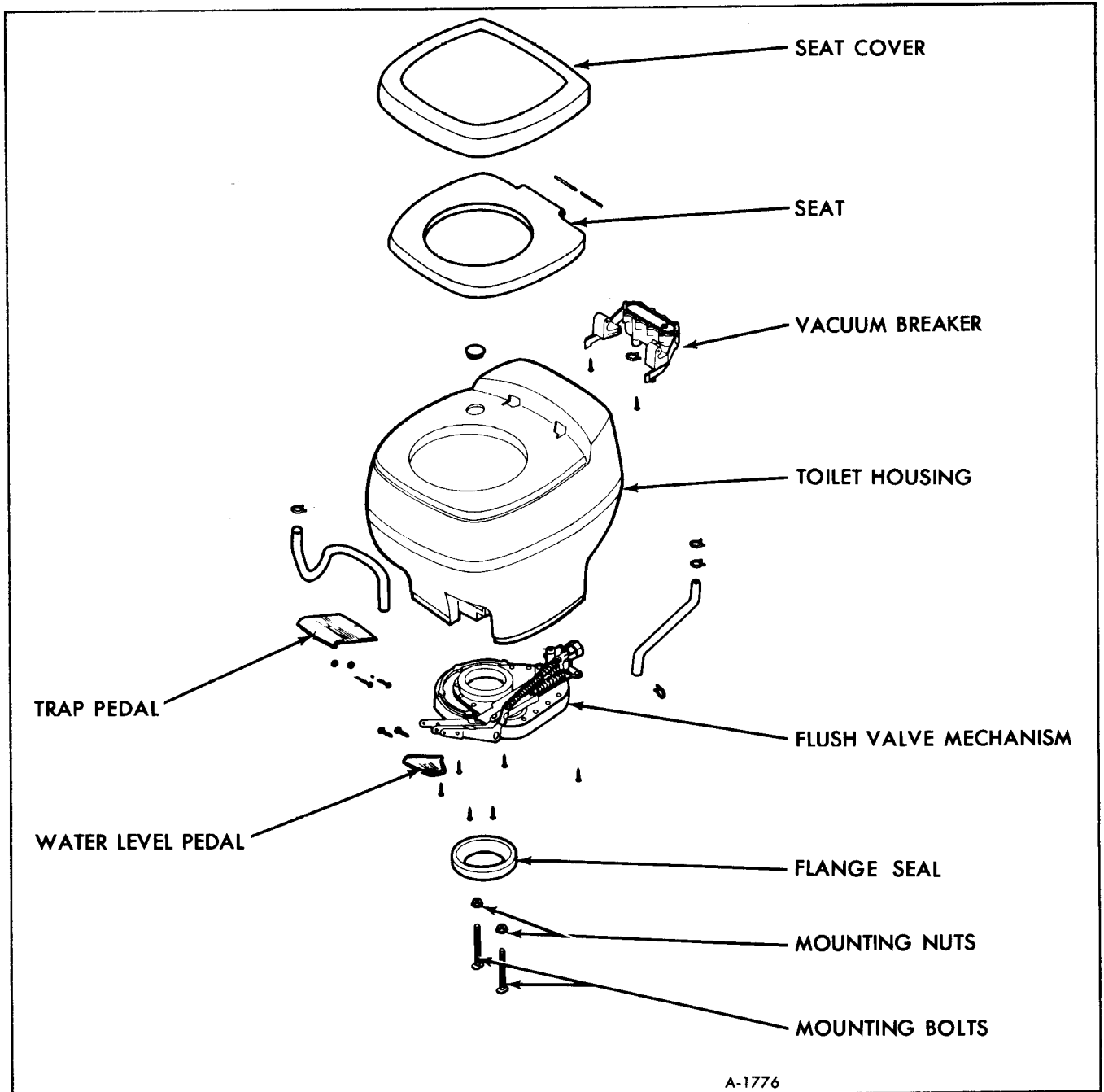


Figure 1-Standard Toilet Components

TOILET INSTALLATION

1. Install a new flange seal over mechanism ring found on underside of toilet.
2. Set toilet in place and install rear mounting nut using the 12" extension and universal socket with a small amount of grease in the socket to hold the nut in place.
3. Tighten rear mounting nut.
4. Depress toilet pedal and insert block of wood in slide trap to keep the trap open. This holds the pedal down for access to front mounting bolt. Install nut and tighten.
5. Depress pedal and remove block of wood.

6. Connect toilet water line.

MAINTENANCE

No routine maintenance is required.

If the bowl sealing blade does not operate freely after extended use, it may be restored to its original, smooth operating condition by applying a light film of Silicone spray to the blade.

To clean the toilet, use any high grade, non-abrasive cleaner. Do not use highly concentrated or high acid content household cleaners. They may damage the rubber seals.

RECIRCULATING TOILET (ELECTRA-MAGIC)

GENERAL INFORMATION

The optional recirculating toilet operates by recirculating the liquid present in the toilet and a

chemical additive. The advantage is that water is conserved when flushing and also not adding to the volume of the holding tank. The toilet operates on 12-volt DC.

RECIRCULATING TOILET TROUBLE DIAGNOSIS

Complaint	Possible Cause	Correction
1. Toilet will not flush.	<ol style="list-style-type: none"> a. Blown living area fuse. b. Blown toilet fuse. c. Pump motor defective. d. Damaged timer. 	<ol style="list-style-type: none"> a. Replace blown fuse in living area electrical compartment. b. Replace toilet fuse under toilet motor cover. c. Replace pump assembly. d. Replace timer assembly.
2. Toilet does not cycle properly (5 to 9 seconds) when button is pressed.	<ol style="list-style-type: none"> a. Source of power less than 12-volts. b. Damaged timer. 	<ol style="list-style-type: none"> a. Check batteries or power converter. b. Replace timer assembly.
3. Toilet cycles when seat cover is raised.	<ol style="list-style-type: none"> a. Actuator button protrudes too far from motor cover. 	<ol style="list-style-type: none"> a. Alternately press one side of the button, then the other, to work the button back further into the housing. If button still protrudes too far, replace timer assembly.
4. Flushing action is weak or noisy.	<ol style="list-style-type: none"> a. Unit cycling without adequate water charge. b. Source of power less than 12-volts. c. Pump damaged by continuous dry operation. 	<ol style="list-style-type: none"> a. Charge unit with water to the proper level. b. Check batteries or power converter. c. Replace pump assembly.

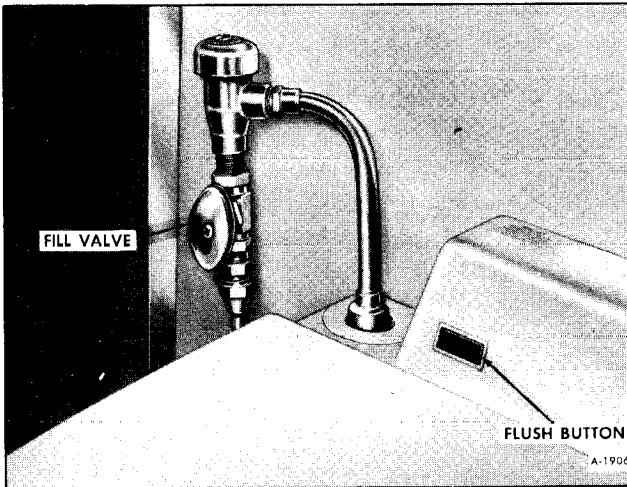


Figure 2—Toilet Water Fill Connection

TOILET REPLACEMENT

REMOVAL

1. Turn off water pump and release pressure at any faucet.
2. Disconnect toilet water fill line shown in Figure 2, and disconnect the toilet wires.
3. Remove base moldings from lower sides of toilet.
4. Remove the two nuts under the toilet securing it to the floor.
5. Lift off toilet.

INSTALLATION

1. Install new flange seal on slide valves.
2. Place toilet on flange making sure bolts line up through mounting brackets.
3. Secure toilet in place with two nuts under toilet at mounting brackets.
4. Connect toilet water fill line and wires (figure 2).

DISASSEMBLY AND REPAIR (FIGURE 3)

FUSE REPLACEMENT

1. Remove two cover mounting screws and motor cover.

2. The fuse is now accessible for checking or changing, see Figure 3.

TIMER REPLACEMENT

1. Disconnect lead wires from power source (figure 3).
2. Remove two cover mounting screws and motor cover (figure 1).
3. Disconnect leads from pump assembly motor (figure 3).
4. Remove two timer bracket mounting screws and timer assembly.
5. Install by reversing steps 1–4.

PUMP REPLACEMENT

1. Disconnect lead wires from power source.
2. Remove two cover mounting screws and motor cover.
3. Disconnect leads from pump assembly motor.
4. Completely evacuate unit.
5. Remove cover and bowl assembly screws (two in rear from top side and two in front from bottom side) and remove cover and bowl assembly (figure 3).
6. Remove four pump mounting screws (figure 3).
7. Disconnect flush tube from pump outlet (figure 3).
8. Remove pump assembly (figure 3).
9. Install by reversing steps 1–8.

SLIDE VALVE REPLACEMENT (FIGURE 3)

1. Remove toilet from module. See “Toilet Replacement” earlier in this section.
2. Turn toilet upside down and remove the four screws and remove valve.
3. Install by reversing steps 1 and 2.

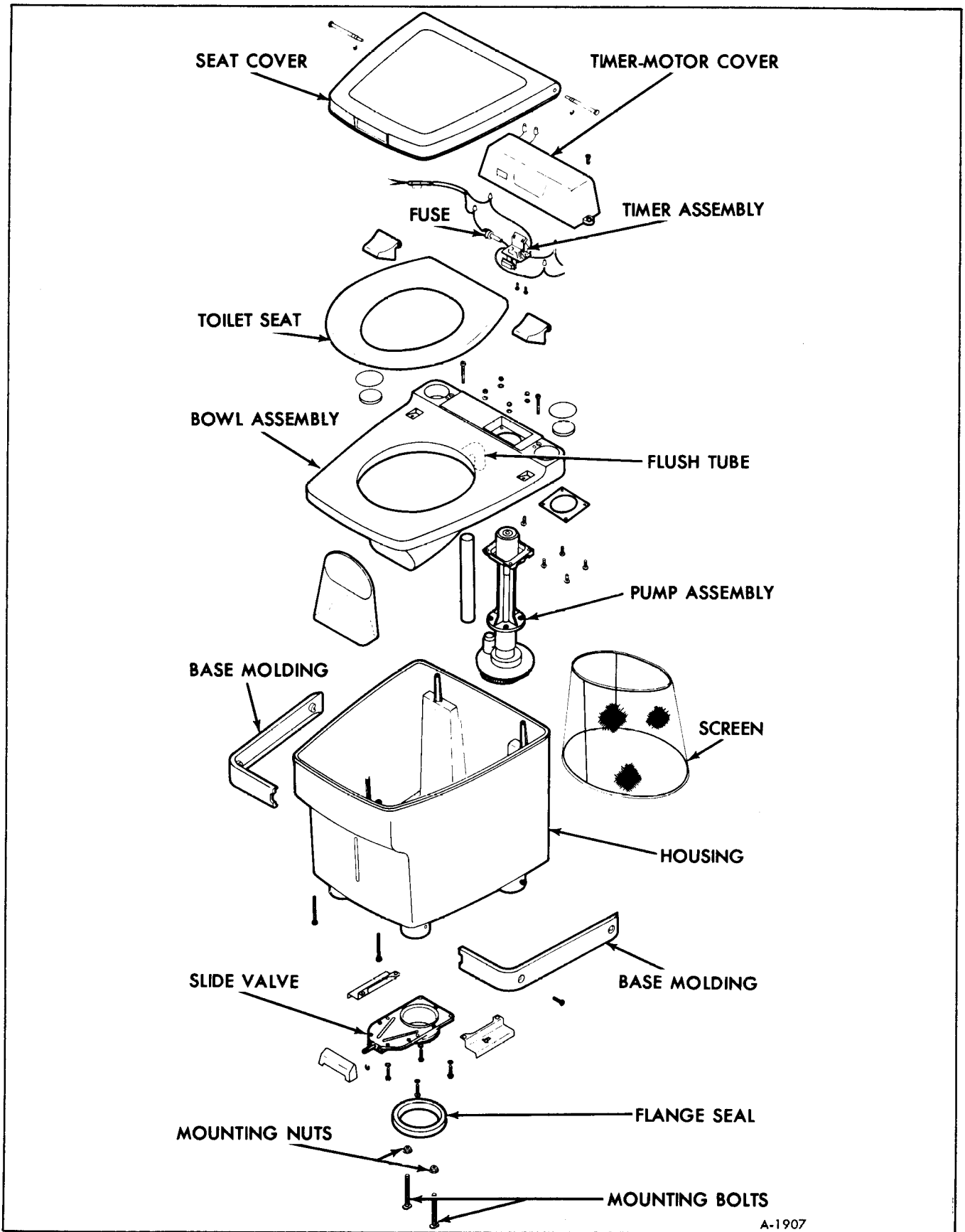


Figure 3-Recirculating Toilet Components

MAINTENANCE

No routine maintenance is required on the recirculating toilet other than "Charging Toilet" which is described as follows:

CHARGING TOILET

1. Be sure handle on dump valve is pushed in.
2. Open fill valve, filling toilet to the charge level as indicated by the letter "C" on prism. This will be approximately 3 gallons. Close the fill valve.
3. Add recirculating toilet chemical as recommended by manufacturer of chemical.