

Drainage

DRAINAGE SYSTEMS

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Drainage System – U.S. (21 Ft. Shower Bath)

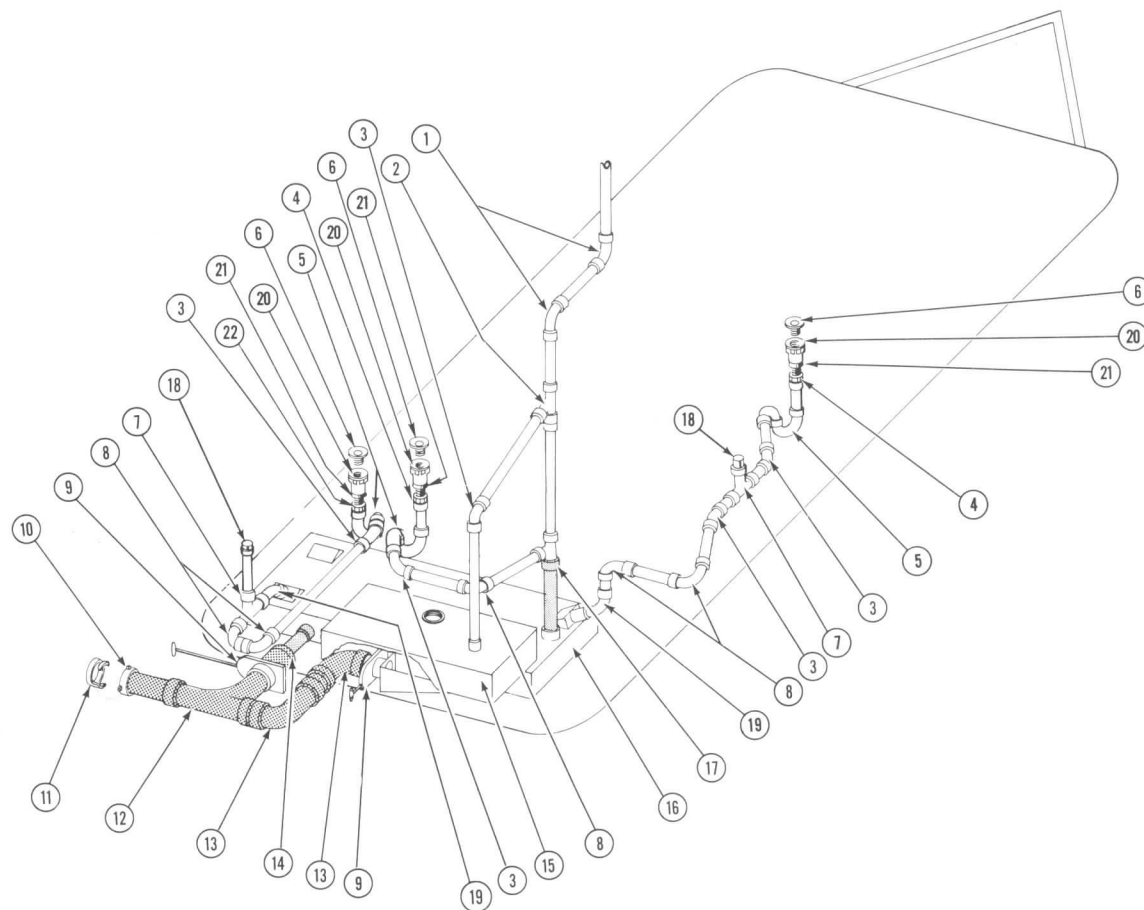


Fig. 1

DARK SHADED FITTINGS & PIPE INDICATE 3",
LIGHT SHADED FITTINGS & PIPE INDICATE 2",
ALL OTHERS 1½".

No.	Part No.	Description
1	600033	90° ELL
2	600094	45° WYE
3	600030	45° ELL
4	600152	Swivel strainer adapter
5	600144	P-trap
6	380058	Strainer, basket, Junior 2"
7	600259	Vent tee
8	600035	90° ELL
9	600398	Dump valve 2 x 13 (2 x T)
10	600222	Bayonet ring
11	600222	Cap and chain
12	600187	Tee WYE
13	600183	90° ELL
14	600188	3 x 2 Bushing
15	600319	Main holding tank
16	600320	Auxiliary holding tank
17	600147	Sanitary tee 2 x 1½ x 1½
18	600538	Auto vent
19	600027	45° ELL
20	600143	Female strainer adapter
21	600441	Fitting trap adapter
22	600442	Swivel strainer adapter

Drainage System – U.S. (23 Ft. & 25 Ft. Shower Bath)

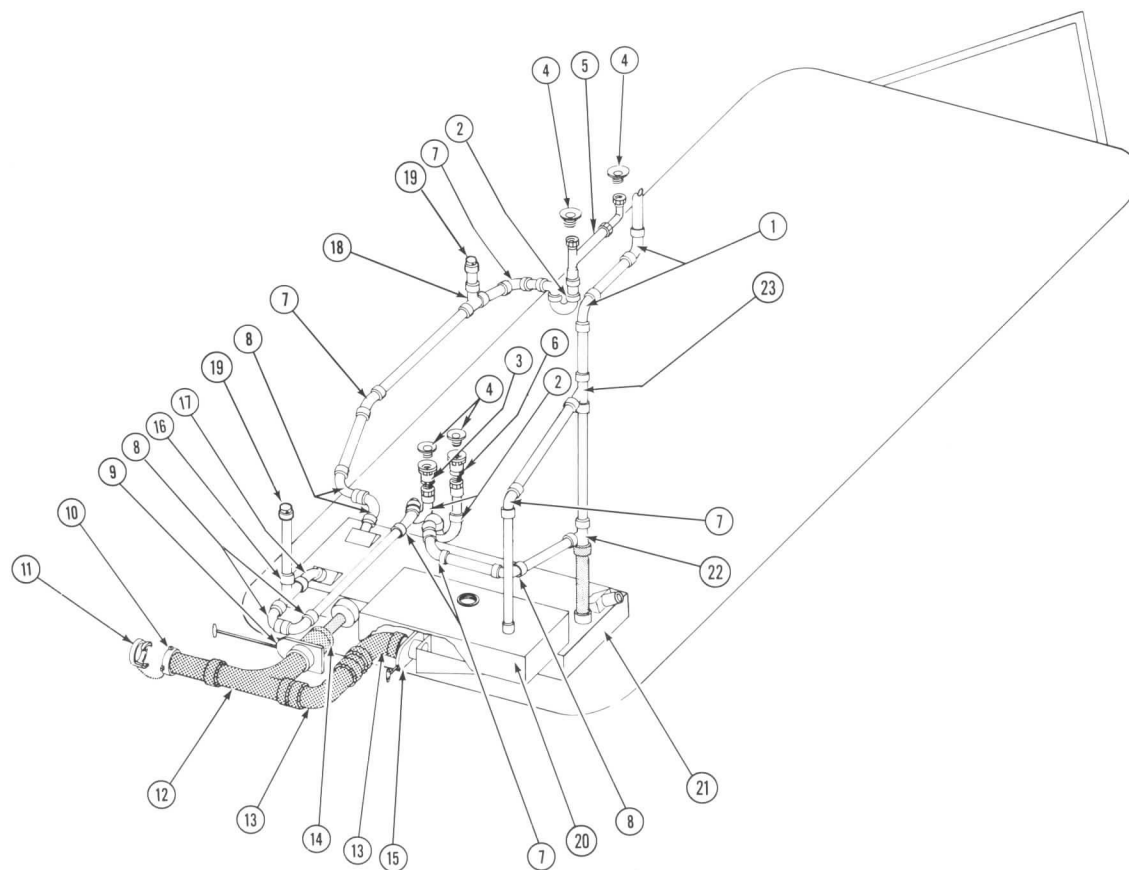


Fig. 2

DARK SHADED FITTINGS & PIPE INDICATE 3",
LIGHT SHADED FITTINGS & PIPE INDICATE 2",
ALL OTHERS 1½".

No.	Part No.	Description
1	600033	90° ELL
2	600144	P-trap
3	600143	Female strainer adapter
	600441	Fitting trap adapter
	600442	Swivel strainer adapter
4	380058	Strainer, basket, Jr. 2"
5	600378	Continuous waste 1½"
6	600143	Female strainer adapter
	600441	Fitting trap adapter
	600152	Swivel strainer adapter
7	600030	45° ELL
8	600035	90° ELL
9	600323	Dump valve 2 x 13 w/9½" handle (2 x 13)
10	600222	Bayonet ring
11	600222	Cap and chain
12	600187	Tee WYE
13	600183	90° ELL
14	600188	Bushing 3 x 2
15	600398	Dump valve 2X w/6" handle
16	600259	Vent tee
17	600027	45° ELL
18	600156	Sanitary tee
19	600538	Auto vent
20	600319	Holding tank, main
21	600320	Holding tank, auxiliary
22	600147	Sanitary tee 2 x 1½ x 1½
23	600094	45° WYE

Drainage System – U.S. (25 Ft. Full Bath)

DARK SHADED FITTINGS & PIPE INDICATE 3",
 LIGHT SHADED FITTINGS & PIPE INDICATE 2",
 ALL OTHERS 1½".

Fig. 3

Fig. 3

No.	Part No.	Description
1	600378	Continuous waste
2	380058	Strainer basket
3	600144	P-trap
4	600538	V-200 auto vent
5	600156	Sanitary tee
6	600027	45° ELL
7	600035	90° ELL
8	600030	45° ELL
9	600155	Plug
10	600141	45° WYE
11	600116	22 1/2° ELL
12	600222	Cap and chain
13	600222	Bayonet ring
14		Flange
15	600289	3" calder coupling
16	600187	WYE tee
17	600401	Dump valve
18	600183	90° ELL
19	600253	Coupling
20	600404	Dump valve
21	600371	45° ELL
22	—	Sanitary tee
23	600623	Male fitting adapter
24	600626	Fiber rubber washer
25	600442	Swivel strainer adapter
26	600625	Tray plug adapter
27	600628	Strainer assembly
28	600495	Holding tank auxiliary
29	600494	Holding tank main
30	—	Sanitary tee
31	600621	Strainer assembly
32	600620	Flanged tail piece
33	600618	Pipe trap adapter
34	600094	45° WYE
35	—	Sanitary tee

Drainage System – U.S. (27, 29, & 31 Full Bath)

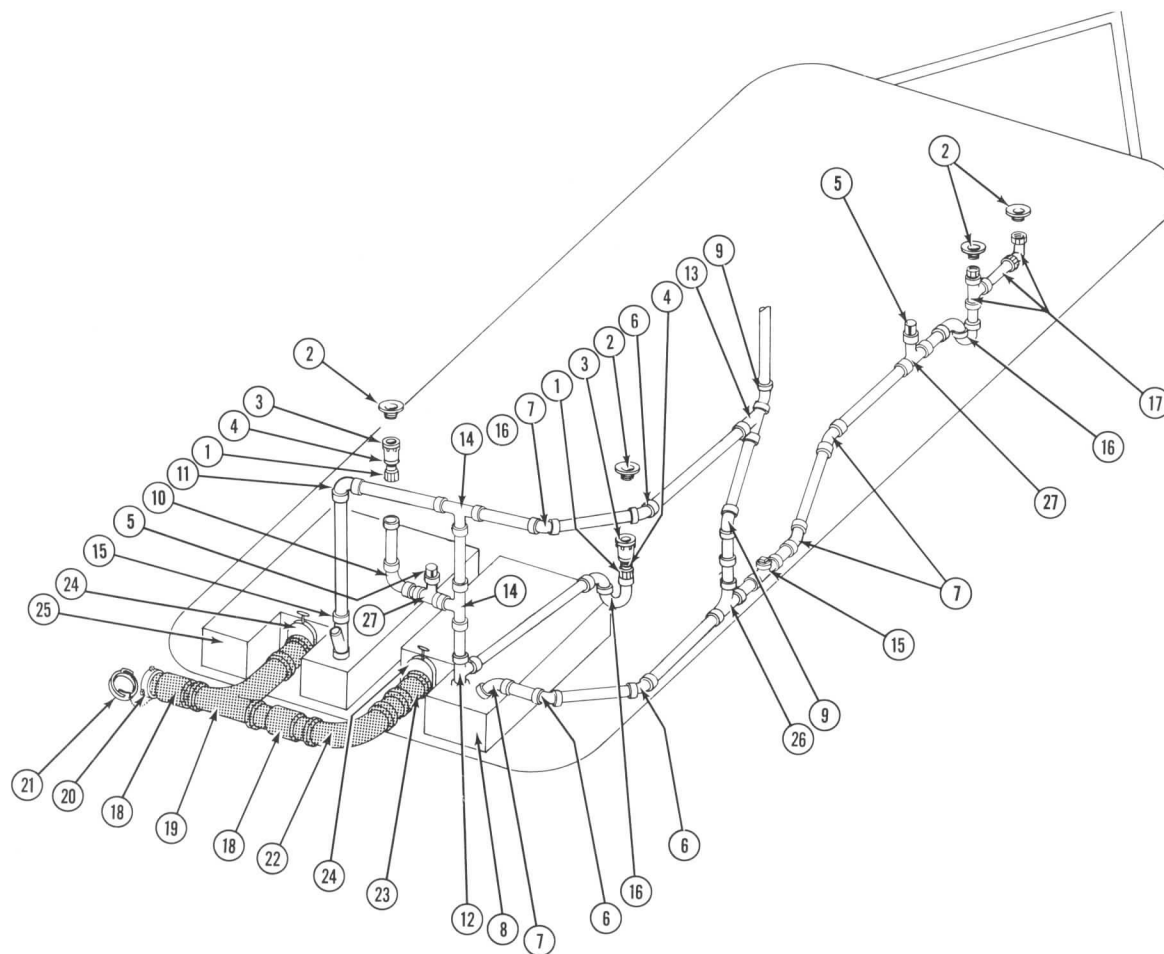
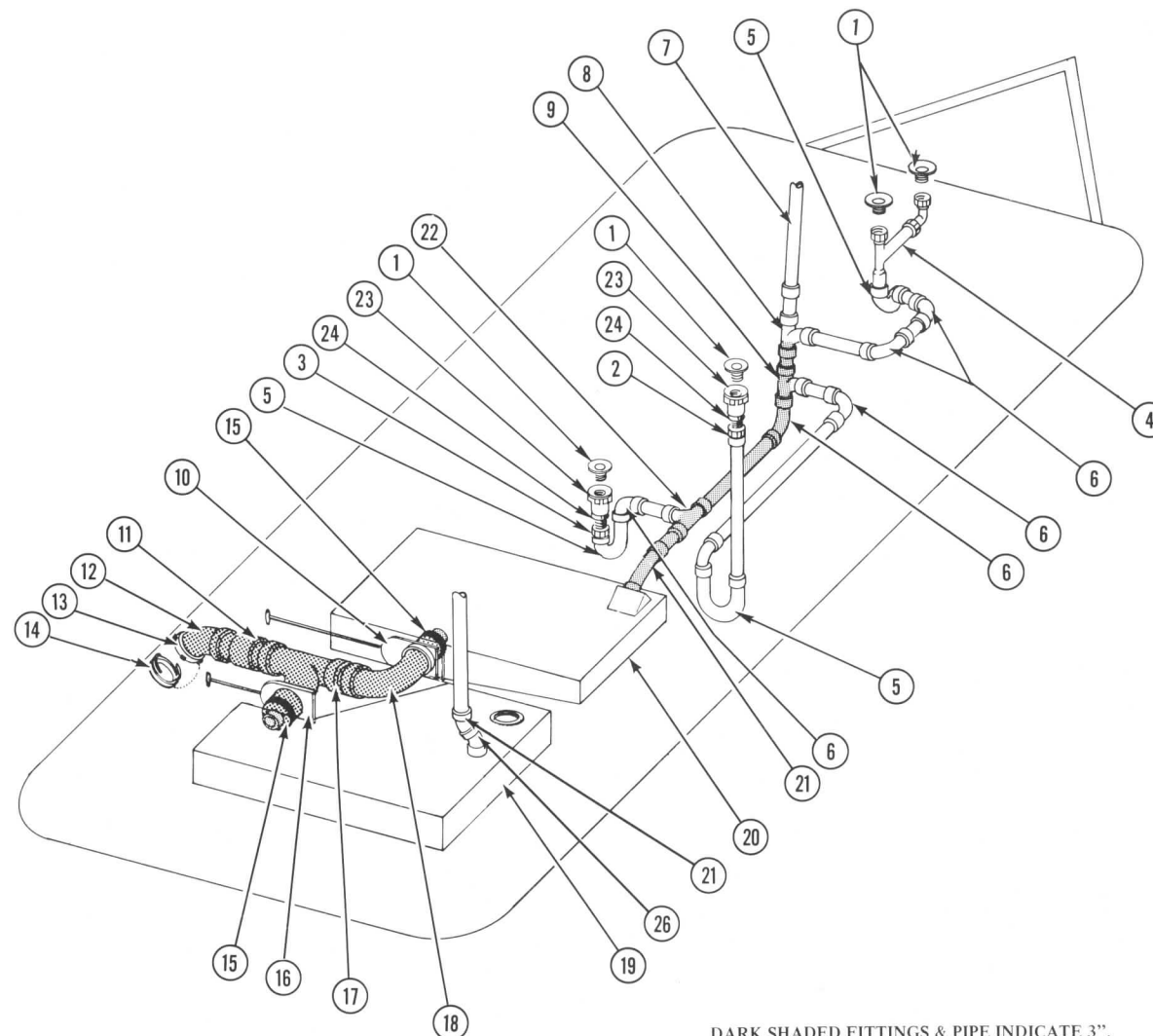


Fig. 4

DARK SHADED FITTINGS & PIPE INDICATE 3",
LIGHT SHADED FITTINGS & PIPE INDICATE 2",
ALL OTHERS 1 1/2".

No.	Part No.	Description
1	600162	Swivel strainer adapter
2	600523	Strainer basket
3	600143	Female strainer adapter
4	600441	Fitting trap adapter
5	600538	Auto vent
6	600116	22 1/2° ELL
7	600030	45° ELL
8	600495	Holding tank auxiliary
9	600027	45° ELL
10	600035	90° ELL long sweep
11	600033	90° ELL 1 1/2 vent
12	600346	San tee
13	600094	45° WYE
14	600156	San tee
15	600141	45° WYE w/clean out
16	600144	P-trap
17	600378	Continuous waste
18	600289	3" calder coupling
19	600187	WYE Tee
20	600222	Bayonet ring
21	600222	Cap and chain
22	600183	90° ELL
23	600253	Coupling
24	600401	Dump valve 2H-T-1169
25	600494	Holding tank main
26	600145	Combination WYE & 1/8 bend
27	600259	Vent tee

Drainage System – U.S. (29 & 31 Ft. Center Bath)



DARK SHADED FITTINGS & PIPE INDICATE 3",
LIGHT SHADED FITTINGS & PIPE INDICATE 2",
ALL OTHERS 1½".

Fig. 5

No.	Part No.	Description
1	380058	Strainer, basket, Junior 2"
2	600152	Swivel strainer adapter
3	600442	Swivel strainer adapter
4	600378	Continuous waste 1½"
5	600144	P-trap
6	600035	90° ELL, long sweep
7	600005	Pipe vent
8	600147	Sanitary TEE 2 x 1½ x 1½
9	600260	Sanitary TEE 2 x 2 x 1½
10	600316	Dump valve 3 x 13 w/16" handle (3 x 13) T-1169
11	600289	Calder coupling, 3"
12	600224	45° ELL
13	600222	Bayonet ring
14	600222	Cap and chain
15	600188	Bushing 3 x 2
16	600317	Dump valve 3 x 2 w/10½" handle (2X) T-1169
17	600187	Tee WYE, long sweep
18	600183	90° ELL
19	600310	Main holding tank
20	600311	Auxiliary holding tank
21	600371	45° ELL
22	600318	Tee WYE 2 x 2 x 1½
23	600153	Female strainer adapter
24	600143	Fitting trap adapter

Drainage System – Canada (21 Ft. Shower Bath)

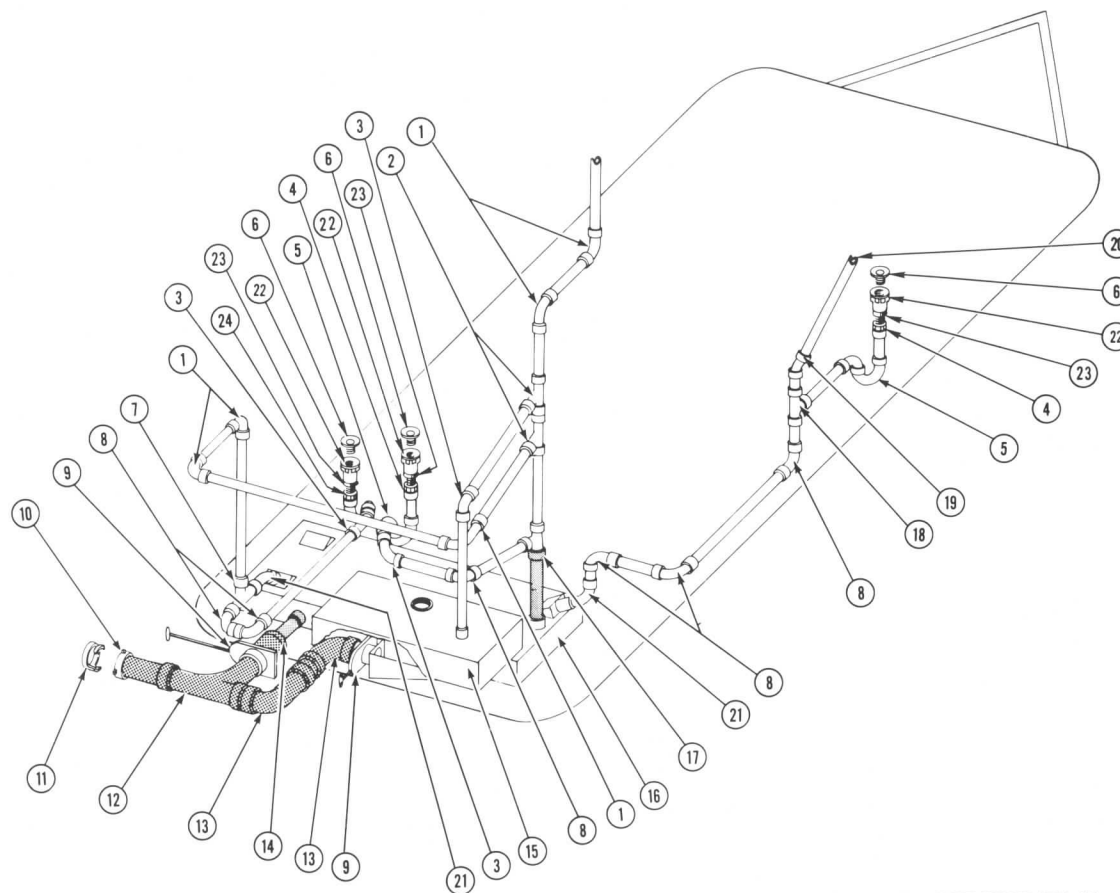


Fig. 6

DARK SHADED FITTINGS & PIPE INDICATE 3",
LIGHT SHADED FITTINGS & PIPE INDICATE 2",
ALL OTHERS 1 1/2".

No.	Part No.	Description
1	600033	90° ELL
2	600094	45° WYE
3	600030	45° ELL
4	600152	Swivel strainer adapter
5	600144	P-trap
6	380058	Strainer, basket, Junior 2"
7	600259	Vent tee
8	600035	90° ELL
9	600398	Dump valve 2 x 13 (2 x T) T-1169
10	600222	Bayonet ring
11	600222	Cap and chain
12	600187	Tee WYE
13	600183	90° ELL
14	600188	3 x 2 Bushing
15	600319	Main holding tank
16	600320	Auxiliary holding tank
17	600147	Sanitary tee 2 x 1 1/2 x 1 1/2
18	600156	Sanitary tee
19	600166	22 1/2° ELL
20	600005	Pipe, bent vent
21	600027	45° ELL 2401
22	600143	Female strainer adapter
23	600441	Fitting trap adapter
24	600442	Swivel strainer adapter

Drainage System—Canada (23 Ft. & 25 Ft. Shower Bath)

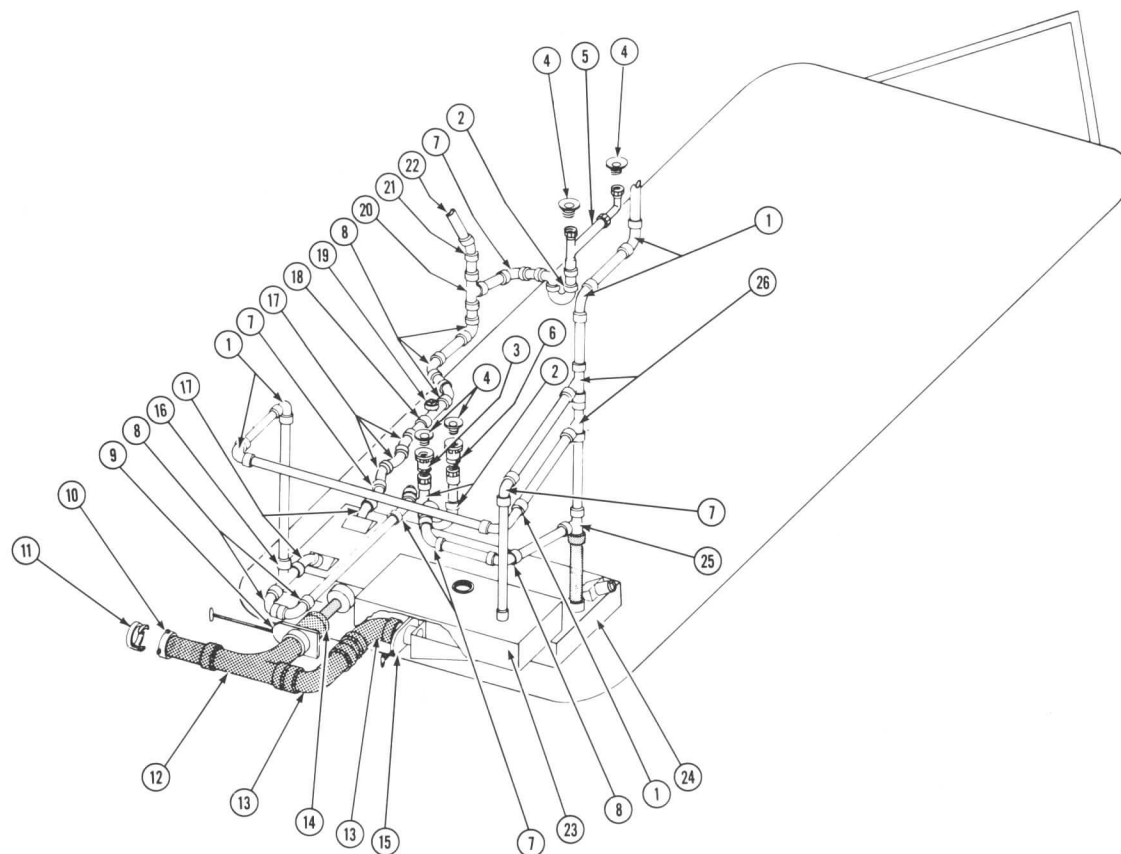


Fig. 7

DARK SHADED FITTINGS & PIPE INDICATE 3",
LIGHT SHADED FITTINGS & PIPE INDICATE 2",
ALL OTHERS 1½".

No.	Part No.	Description
1	600033	90° ELL
2	600144	P-trap
3	600143	Female strainer adapter
	600441	Fitting trap adapter
	600442	Swivel strainer adapter
4	380058	Strainer, basket, Jr. 2"
5	600378	Continuous waste 1½"
6	600143	Female strainer adapter
	600441	Fitting trap adapter
	600152	Swivel strainer adapter
7	600030	45° ELL
8	600035	90° ELL
9	600323	Dump valve 2 x 13 w/9½" handle (2 x 13) T-1169
10	600222	Bayonet ring
11	600222	Cap and chain
12	600187	Tee WYE
13	600183	90° ELL
14	600188	Bushing 3 x 2
15	600398	Dump valve 2X w/6" handle T-1169
16	600259	Vent tee
17	600027	45° ELL
18	600141	WYE cleanout
19	600155	Plug 1½"
20	600156	Sanitary tee
21	600166	22½° ELL
22	600005	Galley vent
23	600319	Holding tank, main
24	600320	Holding tank, auxiliary
25	600147	Sanitary tee 2 x 1½ x 1½
26	600094	45° WYE

Drainage System—Canada (27, 29, & 31 Ft. Full Bath)

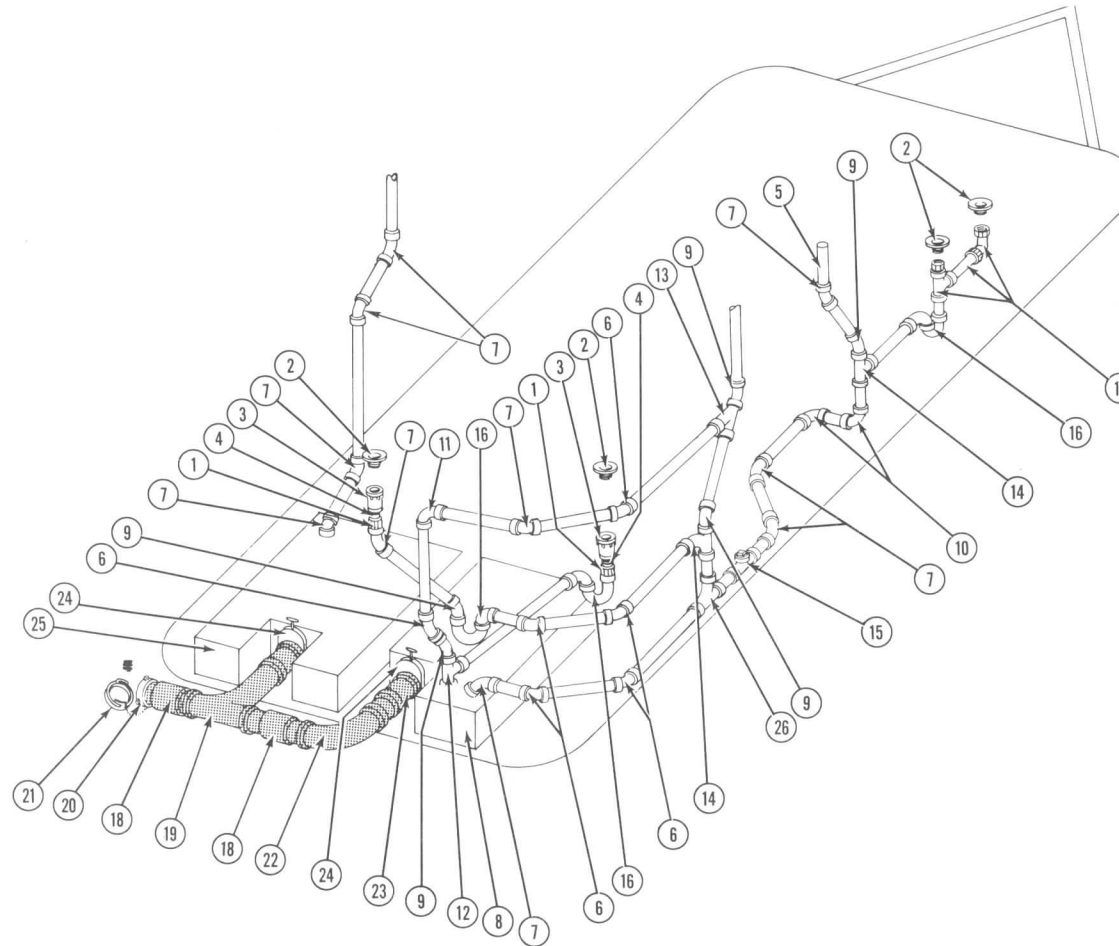


Fig. 8

DARK SHADED FITTINGS & PIPE INDICATE 3",
LIGHT SHADED FITTINGS & PIPE INDICATE 2",
ALL OTHERS 1 1/2".

No.	Part No.	Description
1	600162	Swivel strainer adapter
2	600523	Strainer basket
3	600143	Female strainer adapter
4	600441	Fitting trap adapter
5	600005	Galley vent
6	600116	22 1/2° ELL
7	600030	45° ELL
8	600495	Holding tank auxiliary
9	600027	45° ELL
10	600035	90° ELL long sweep
11	600033	90° ELL 1 1/2 vent
12	600346	San tee
13	600094	45° WYE
14	600156	San tee
15	600141	45° WYE w/clean out
16	600144	P-trap
17	600378	Continuous waste watco
18	600289	3" calder coupling
19	600187	WYE Tee
20	600222	Bayonet ring
21	600222	Cap and chain
22	600183	90° ELL
23	600253	Coupling
24	600401	Dump valve 2H-T-1169
25	600494	Holding tank main
26	600145	Combination WYE & 1/8 bend

Drainage System – Canada (29, 31 Ft. Center Bath)

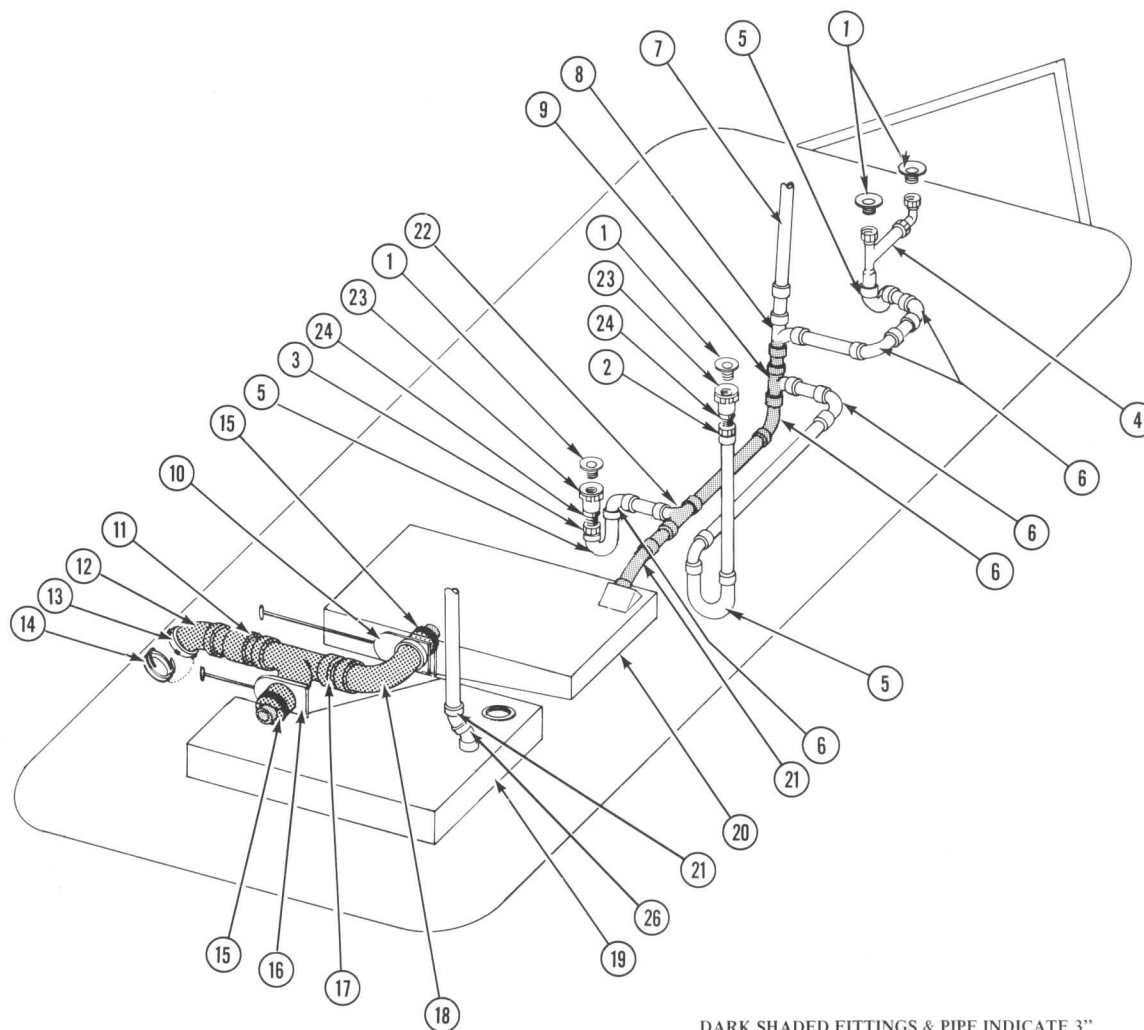


Fig. 9

DARK SHADED FITTINGS & PIPE INDICATE 3",
LIGHT SHADED FITTINGS & PIPE INDICATE 2",
ALL OTHERS 1 1/2".

No.	Part No.	Description
1	380058	Strainer, basket, Junior 2"
2	600152	Swivel strainer adapter
3	600442	Swivel strainer adapter
4	600378	Continuous waste 1 1/2"
5	600144	P-trap
6	600035	90° ELL, long sweep
7	600005	Pipe vent
8	600147	Sanitary TEE 2 x 1 1/2 x 1 1/2
9	600260	Sanitary TEE 2 x 2 x 1 1/2
10	600316	Dump valve 3 x 13 w/16" handle (3 x 13) T-1169
11	600289	Calder coupling, 3"
12	600224	45° ELL
13	600222	Bayonet ring
14	600222	Cap and chain
15	600188	Bushing 3 x 2
16	600317	Dump valve 3 x 2 w/10 1/2" handle (2X) T-1169
17	600187	Tee WYE, long sweep
18	600183	90° ELL
19	600310	Main holding tank
20	600311	Auxiliary holding tank
21	600371	45° ELL
22	600318	Tee WYE 2 x 2 x 1 1/2
23	600153	Female strainer adapter
24	600143	Fitting trap adapter

Drainage System Fittings – 1½"



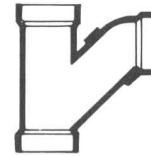
22½° Ell
600116 1½"



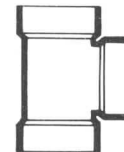
90° Ell – vent
600033 1½"



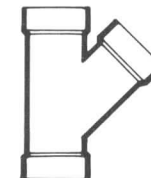
45° Ell
600030 1½"



45° Wye – combination & 1/8 bend
600182 1½"



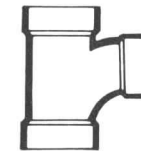
Tee – vent
600259 1½"



45° Wye
600094 1½"



45° Ell – street
600027 1½"



Tee – sanitary
600156 1½"

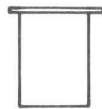


90° Ell – long sweep
600035 1½"

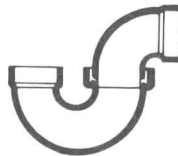
Drainage System Fittings—2", 3" & Misc.



Strainer adapter — female
600143 1½"



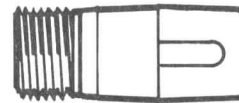
Tailpiece flanged
600620 1½" x 4"
600619 1½" x 12"



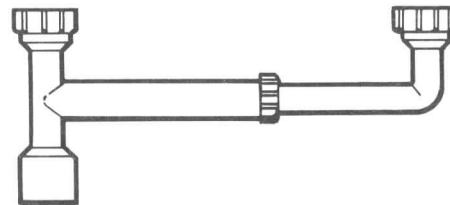
"P" trap
600144 1½"



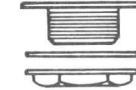
Plug — cleanout
600155 1½"



Auto vent
600538 1½"



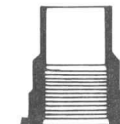
Continuous waste
600378 1½"



Strainer assembly
600621 1½"
600628 (strainer only)



Strainer adapter — swivel
600442 1½"

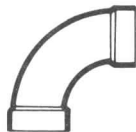


Tray plug adapter
600625 1½"

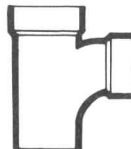
Drainage System Fittings—2", 3" & Misc.



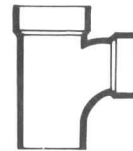
45° Ell
600371 2"
600224 3"



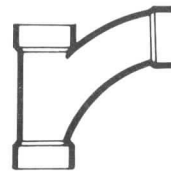
90° Ell — long sweep
600153 2"
600183 3"



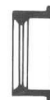
Sanitary tee
600346 2" x 1½" x 1½"



Sanitary tee
600260 2" x 2" x 1½"
600147 2" x 1½" x 1½"



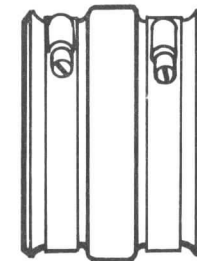
Tee wye
600138 2" x 2" x 1½"
600187 3"



Reducing bushing
600188 3" x 2"



Coupling
600253 3"



Calder coupling
600289 3"

Drain Systems Cleaning

The following cleaning agents can be used without causing harm to the system.

1. Naptha
2. Household soaps
3. Soapless detergents
4. Trisodium phosphate
5. Household ammonia
6. 10% hydrochloric acid (solution)
7. 5% sulfuric acid (solution)
8. Hypochlorite bleach (Chlorox)
9. 10% sodium hydroxide (solution)

Never use any other type cleaners unless marked approved for ABS drainage systems.

When winterizing drains, use only trailer plumbing system type anti-freeze. (These are sold through the Wally Byam stores).

Do not use abrasive cleaners.

Drain System Repair

Fittings are cemented together with ABS corlon cement and therefore cannot be successfully separated. Section to be repaired must be cut out of the drain system using a hacksaw. Surfaces to be cemented must be clean and dry. Use a small 1/2" paint brush to apply the cement. Fittings must be installed immediately as the cement dries rapidly and bonding action is in seconds. For this reason it is best to have all pieces pre-cut and a trial assembly made without the use of cement.

Cleaning of Waste Tank

1. Each time the tank is dumped, flush with clean water at least once. Shut valve after tank has been emptied and then fill tank with clean water and empty once again. This may be repeated more than once. In some instances this is not possible, such as at rallies.
2. This will keep septic tank probes clean and operable.
3. Keeps down odors.
4. Prevents built-up of solids.
5. Do not use facial or other similar tissues in holding tank as they have wet strength and do not dissolve easily. Toilet paper dissolves after a period of travel.
6. Detergents and bleaches should not be used as cleaning agents in the tank, because they remove lubricating oils and greases from the tank and valve.
7. Never use Anti-Freeze, (except type recommended for trailer systems), ammonias, alcohols, and acetones, because they may cause damage to the tank, valve parts, tank fittings, and drain hose.
8. For cleaning of tank, deodorizing, and winterizing ... use only items sold and recommended by the Wally Byam stores.

Clean Out Plug for Waste Tank (Full Bath)

1. Open rear compartment door.
2. Using crescent wrench, remove black plastic plug located in drain line "Y" in approximate center of compartment.
3. Use water hose and insert through plug opening to flush dump valve. Open tank can then be flushed.
4. After flushing, plug should be reinstalled tightly to eliminate any chance of odor.

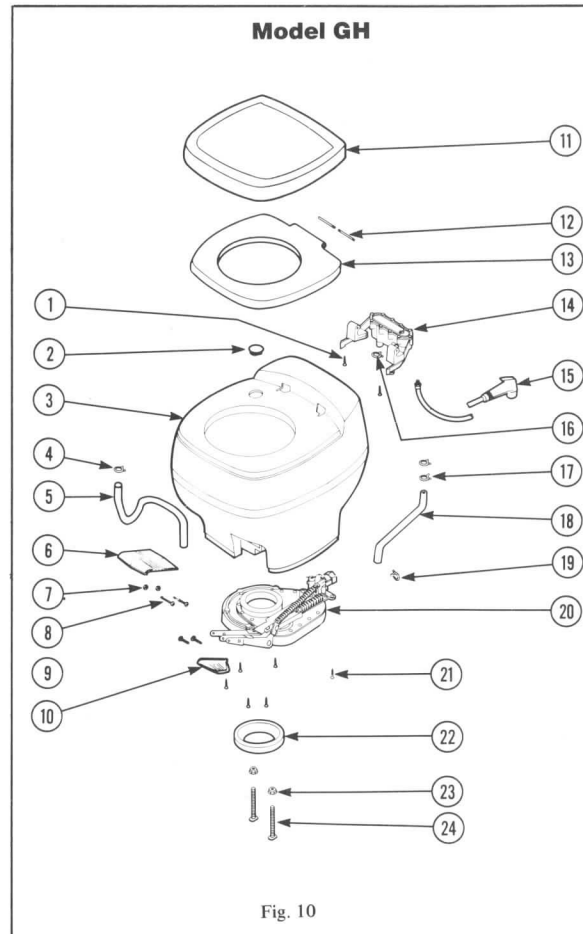
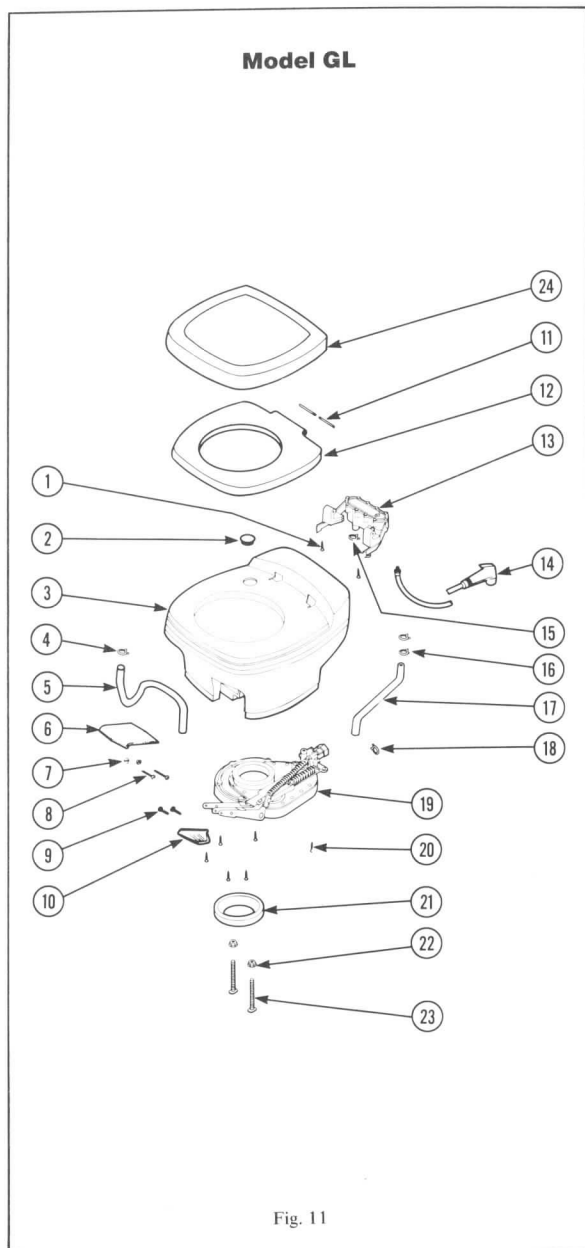
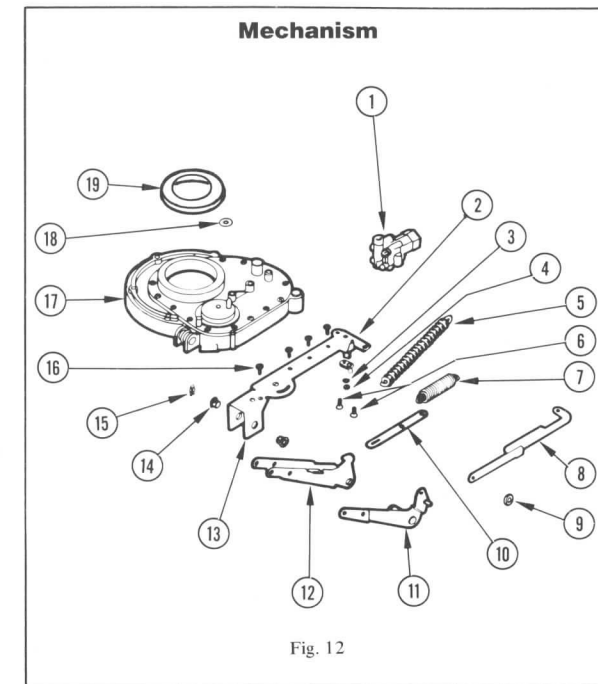


Fig. 10

No.	Part No.	Description
	600586	Complete assembly (Center bath)
	600585	Complete assembly (Full bath)
1	02694	Screw (2)
2	03895	Hole plug (included in 08556 hopper assembly)
3	08557	Hopper assembly
4	03752	Clamp
5	03727	Trap tube (27")
6	03635	Pedal
7	02020	Nut (2)
8	03648	Screw (2)
9	01663	Screw (2)
10	03636	Pedal
11	08598	Cover assembly
12	08380	Hinge pin (2)
13	03714	Seat
14	08217	Vacuum breaker assembly
15	08659	Hand spray
16	03752	Clamp
17	03752	Clamp (2)
18	03729	Tube (20")
19	03752	Clamp
20	08331	Mechanism assembly
21	03994	Screw (6)
22	02125	Flange seal
23	03669	Nut (2)
24	05001	Closet bolt (2)



No.	Part No.	Description
	600587	Complete assembly (Shower bath)
1	02694	Screw (2)
2	03895	Hole plug (included in 08557 (hopper assembly))
3	08556	Hopper assembly
4	03752	Clamp
5	03729	Trap tube (20")
6	03635	Pedal
7	02020	Nut (2)
8	03648	Screw (2)
9	01663	Screw
10	03636	Pedal
11	08141	Hinge pin (2)
12	03714	Seat
13	08217	Vacuum breaker assembly
14	08659	Hand spray
15	03752	Clamp
16	03752	Clamp (2)
17	08476	Tube (8-3/4)
18	03752	Clamp
19	08331	Mechanism assembly
20	03994	Screw (6)
21	02125	Flange seal
22	03669	Nut (2)
23	05001	Closet bolt (2)
24	08598	Cover assembly



No.	Part No.	Description
	03626	Complete Assembly
1	08215	Ball valve assembly
2	02391	Drive arm assembly
3	02792	Lock washer
4	02020	Nut
5	02802	Spring
6	08536	Screw
7	02801	Spring
8	02796	Drive arm
9	02394	Retaining ring (2)
10	02390	Push link
11	08500	Pedal arm assembly
12	03603	Pedal arm
13	05044	Lever Plate Assembly
14	03749	Bushing (2)
15	03765	External cotter
16	02388	Screw (4)
17	05613	Base and cover assembly
18	08034	Retainer
19	02489	Seal (included in 05613)

Toilet Vacuum Breaker Assembly

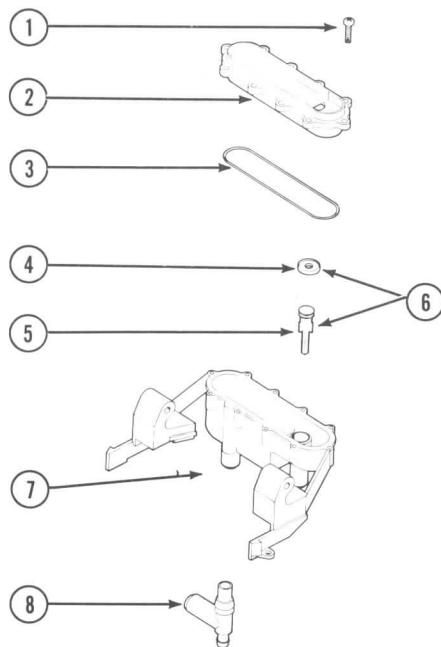


Fig. 13

No.	Part No.	Description
	08217	Vacuum breaker assembly
1	02536	Screw (10)
2	05972	Cover
3	08205	Seal
4	08203	Seal
5	08202	Float
6	08204	Float assembly
7	05964	Housing
8	05959	Diverter

Vacuum Breaker Removal and Replacement

Remove vacuum breaker from toilet as described on page 6-17. Remove 10 screws holding the cover (05972) to the housing (05964). This exposes the vacuum breaker float (08202) float seal (08203) and cover seal (08205). The float is free in its chamber and is easily lifted or dumped out.

NOTE: When reassembling the unit make sure the housing is free of dirt and the raised collar, that the float seal sits on, is clean and free of burrs.

When the cover is reinstalled, it is important that the screws be turned backwards until they jump; so that when they are tightened, they are in the original thread.

Toilet Installation

1. Water Line Connection.
 - a. Water line connections are 3/8" - 18 pipe thread using two wrenches. Turn pipe nipple or flare connector until finger-tight plus one turn. Do not overtighten. Do not solder metal fittings while they are connected to the plastic control valve.
2. Closet Flange Seal.
 - a. Place closet flange seal over the mechanism ring found on the under side of the toilet.
3. Rear Bolt Nut.
 - a. You assemble the rear closet bolt flange nut by reaching your right hand through the rear access hole (shown in Figure 12). The header points on the closet bolts will help start the nut. Tighten the nut until the base of the toilet contacts the floor.

NOTE: If the space around the toilet does not permit the above method, access to the rear nut can be gained by removing the access plug (shown in Figure 14). Plug is removed by pressing down on the plug's edge closest to the bowl. You assemble the rear closet bolt flange nut by reaching through the access hole with a socket, a universal and a 12" extender. The flange nut may be held in the socket with a small dab of sealer.

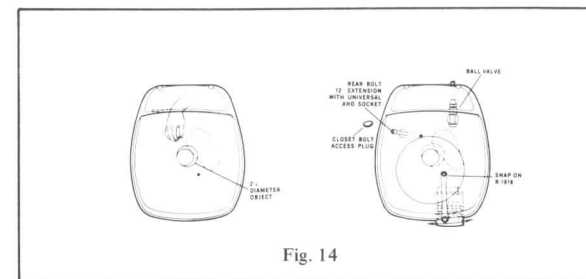


Fig. 14

4. Front Bolt.
 1. Depress the pedal and insert a round object such as a soft drink bottle into the outlet located at the bottom of the bowl. Release the pedal slowly until the blade touches and holds the object. The object will hold a pedal down and provide access to the front flange bolt.
 2. Assemble the front flange nut. Tighten nut until the base of the toilet contacts the floor. This stabilizes the toilet installation and provides an odor-tight seal to the closet flange.
5. Remove by reversing above procedure.
 - a. Cover floor area to protect from water damage.
 - b. On Land Yacht models, remove cover on cabinet behind toilet, and shut off water supply valve at rear of toilet.
 - c. On International rear bath models, remove vinyl covered folding seat by removing screws attached to hinge.
 - d. On International center bath models, shut off valve is located behind lower small door of lavatory cabinet.
 - e. Shut off water supply valve at rear of toilet.
 - f. Remove water supply line from back of toilet.
 - g. Lift toilet seat ring and remove plastic plug to gain access to rear flange bolt.

Toilet Disassembly

1. Removal of seat and cover:

Raise seat and cover; this will expose hinge pins. Remove "C" rings with a pair of pliers. Remove pins by pushing them toward the center of the toilet with a screwdriver.

2. Removal of vacuum breaker assembly:

Remove seat and cover. Turn toilet upside down. Remove water lines from vacuum breaker base. Pinch hose clamps with a pair of pliers and slide them up the water line. Pull water lines off. Remove 2 screws that hold vacuum breaker to toilet top.

3. Removal of valve mechanism assembly:

Turn toilet upside down. Remove the six screws that are now visible. Lift up mechanism to gain access to water lines 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 bowl subassembly:

Bowl subassembly may be serviced by removing the above 3 subassemblies.

5. Plastic water inlet valve removal:

The plastic water inlet valve can be removed without disassembly of the Aqua Magic. It is necessary to remove the Aqua Magic from the floor to remove this valve.

Remove the toilet from the floor and set it upside down on a padded bench. Using a 1/2" wrench, remove the 1/2" nut and the lock washer. Next, remove the two Phillips head screws. The water inlet valve can now be removed. Pull the valve free and pinch hose clamps with a pair of pliers and slide it up the plastic tube. Then remove plastic tube from ball valve.

NOTE: When disconnecting the water line, be sure to brace the inlet valve with a wrench. Under no circumstances should the water connection be either tightened or loosened without a wrench bracing the inlet valve.

Operating Instructions

1. Directions for automatic flush and refill. Depress the foot pedal until the Micro Rinse completely cleanses the bowl, then release.

2. Directions for water control pedal. If you wish to add water into the bowl without flushing, depress the small, right hand pedal until desired water level is reached, then release.

Maintenance

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 Thetford Aqua Bowl or any other high grade, non-abrasive cleaner. Do not use highly concentrated or high acid content household cleaners. They may damage the rubber seals.

Winterizing

1. Draining method:

Completely drain the toilet water supply line. Leave any water supply line valves open. Depress right hand pedal and place a block of wood or other similar object between the pedals. This will hold the water control valve open and prevent any residual water from being trapped there when frozen.

2. Non-toxic anti-freeze method:

Use Recreational Anti-Freeze. Follow directions on the container.

Trouble Shooting

1. Symptom:

Water keeps running into the bowl.

Cause: 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.

Cure: 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.

2. Symptom:

Toilet leaks. There is water on the floor. Specify the symptom. Determine if water is leaking from:

- The vacuum breaker.
- The water control valve.
- Bowl to mechanism seal (if this is the problem, the water would not stay in the bowl).
- Closet flange base seal.

Cure:

- The vacuum breaker — if the vacuum breaker leaks when flushing the toilet, replace the vacuum breaker.
- If the vacuum breaker leaks when the toilet is not in operation, replace the water control valve.
- Leaks at the bowl to mechanism seal — remove mechanism and replace mechanism seal.
- 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.

3. Symptom:

Foot pedal operates harder than normal or the blade sticks.

Cure:

- Apply a light film of Silicone spray to blade.
- Check closet belt tightness. If closet bolts are over tightened the mechanism may be distorted.

4. Symptom:

Bowl will not hold water; i.e., water leaks from bowl down into holding tank.

Cure:

Using a bent screwdriver or similar object, scrape the groove in front of the mechanism blade. Generally, paper or other foreign material is lodged in this groove causing the leak. **CAUTION:** Use care not to damage the blade seal; always make certain that the tool is under the lip of the seal, not above it.

The tool can easily be made by bending a coat hanger or screwdriver over about 7/8 of an inch.

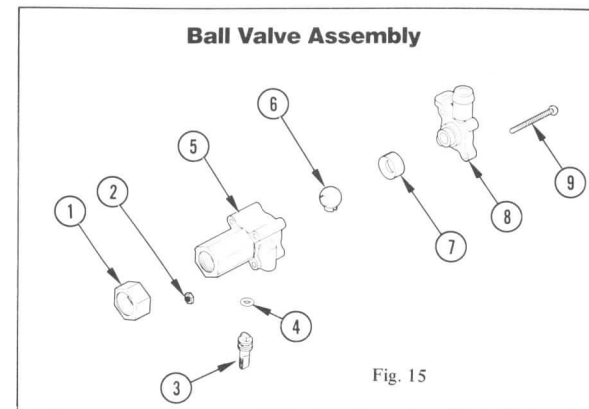
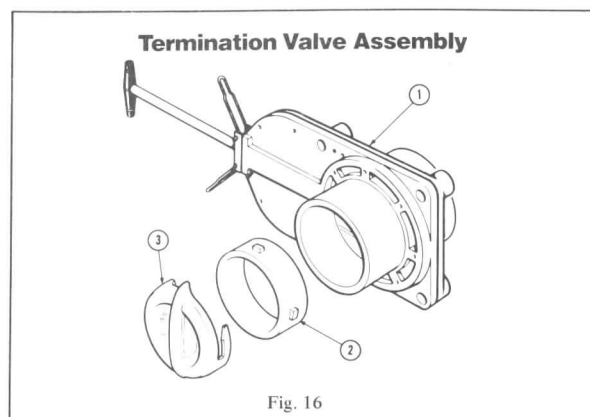


Fig. 15

No.	Part No.	Description
1	05962	Hex cap
2	02784	Nut (4)
3	08030	Ball stem
4	08213	Stem seal
5	08025	Ball valve socket
6	08051	Ball
7	03665	Seal
8	08024	Ball valve ELL
9	02783	Screw (4)



No.	Part No.	Description
1	600398	Main dump valve ass'y 2 x 6" handle ext. (shower bath)
	600399	Aux. dump valve ass'y 2 x 9½" handle ext. (shower bath)
	600405	Main dump valve ass'y 3 x 10½" handle ext. (center bath)
	600410	Aux. dump valve ass'y 3 x 16" handle ext. (center bath)
	600401	Main & aux. dump valve ass'y 2H (full bath)
2	01639	Bayonet ring
3	01664	Cap

Termination Valve Removal and Replacement (Full Bath)

1. Make sure tank is empty.
2. Remove bumper and hose carrier liner.
3. Remove the metal plates where the 3" drain assembly enters the cross member.
4. Break drain line assembly by loosening the 3" clamps on the 3" calder couplings.
5. Remove four screws securing slide portion of termination valve.
6. See instruction 6. (Center Bath Models).

NOTE: In some models there is no calder coupling in the drain line between the two tanks. In some cases, where it will facilitate removal of the termination valves, cut the section of straight drain line in two (using a hack saw). Use a calder coupling when reinstalling.

7. Reverse above for reinstallation.

Termination Valve Removal and Replacement (Center Bath – Main & Auxiliary Tanks)

1. Make sure tank is empty.
2. Remove tank pan as described in tank removal instructions.
3. Remove drive pin from termination valve rod and extension rod. Place a heavy hammer behind rod to make it solid enough for drive pin removal.
4. Break drain line assembly by loosening the 3 inch clamps on the 3 inch calder couplings.
5. Remove four screws securing slide portion of termination valve (main tank). Loosen clamp at waste tank.
6. The termination valves are cemented to the drain fittings (to eliminate any possible leaking). Therefore it is necessary to use a hack saw and saw this in two close to the valve as possible. After this is done, remove portion of valve still left in drain fitting with a hammer and screw driver. Sometimes you may find it necessary (and time saving) to replace the tee-wye or elbow fitting next to valve, rather than go through the above procedure.
7. Reverse above for reinstallation.

Termination Valve Removal and Replacement (Shower Bath)

1. Make certain tank is empty.
2. Remove bumper and hose carrier liner.
3. From inside hose carrier compartment remove the pieces of metal concealing termination valves.
4. Remove termination valve handle (for waste tank).
5. Remove tank pan as described in tank removal instructions.
6. Loosen clamp where 2 inch drain enters auxiliary waste tank.
7. Remove four screws securing slide portion of valve to main tank.
8. See instruction 6. (Center Bath Models).

NOTE: Some models did not have the 3 inch calder coupling next to main frame for removal of drain line section. In this case, cut line in two next to main frame (using a hack saw) to remove drain line section. This will make it much easier to chisel the remaining portion of the termination valve from the drain fitting. Use a 3 inch calder coupling next to the main frame when reinstalling.

9. Reverse above for reinstallation.