

Overhaul

You will need a service kit containing all wearing parts - refer to the list of parts for further details.

Remove the pump assembly as follows:-

1. Loosen hose clips and disconnect the inlet hose and the link hose from the top of the pump
2. Remove the 2 screws which secure the discharge flange to the pump cylinder
3. Remove the 4 screws which secure the pump cylinder to the base, lift off the pump assembly and pick up the bottom valve gasket and the check valve

Dismantle the Pump assembly as follows:

4. Remove the 6 screws that secure the valve cover
5. Open the flush control before lifting off the valve cover assembly and picking up the top valve gasket and the valve seat

Reassemble the pump as follows:

6. Push on the new piston O-ring - Follow the servicing for seal replacement listed above and fit the new seal assembly, the piston assembly and the handle
7. Lubricate pump cylinder bore with Vaseline
8. Locate the valve seat on cylinder top, locate the top valve gasket on its pegs on the cylinder top and open the flush control before refitting the valve cover

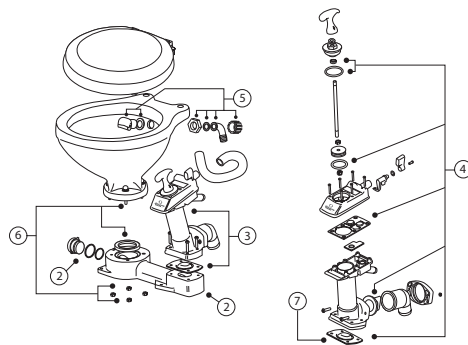
Refit Pump assembly on the toilet as follows:

9. Locate the bottom valve gasket on its pegs on the base and locate the check valve in the discharge elbow
10. Secure the discharge flange to the pump cylinder before securing the cylinder to the base
11. Examine all hoses throughout their length for chafe, kinks and splits under hose clips, check all hose clips for corrosion and replace worn out or damaged parts
12. Reconnect all hose ends and secure them with their hose clips
13. Ensure that the base drain plug is securely placed

Winterization

Drain the complete system both as a protection against frost damage and to avoid the growth in the pipework of bacteria that could cause unpleasant smells. Warning: THE USE OF ANTI-FREEZE IS NOT RECOMMENDED, as it is not possible to ensure that the product penetrates the whole toilet system. If, for any reason, an anti-freeze compound is employed, it must be glycol-based.

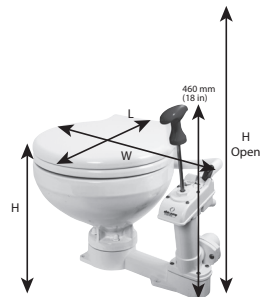
1. Open any secondary valve - remove the base drain plug
2. Loosen hose clips and disconnect all the hose ends from the seacock hose tails, the hose toilet tails and any secondary valves
3. Pump the handle to drain the toilet pump and ensure that all water is properly drained from the toilet system
4. HAZARD RISK: SEACOCKS OPENED BY MISTAKE. In case you leave the toilet disassembled and if the seacocks are opened when the boat is afloat, water will flood in by causing the sinking of the boat and the possible loss of life. Attach a warning notice to the seacocks and, if possible, wire the seacocks shut. REMEMBER TO ATTACH WARNING NOTICES!
5. If you are not disassembling the toilet: - reconnect all hose ends and secure them with their hose clips - firmly replace the base drain plug - fasten down seat, lip and pump handle to prevent any use, and attach a warning notice



Common spares	
APM part #	Description
07-91-057	2 Plastic base
07-66-018	3 Manual pump with base gasket
07-91-059	4 Gasket kit manual pump
07-99-060	5 Intake elbow 90°
07-91-061	6 Bowls gasket/screws
07-91-062	7 Check valve

APM part #	Description
07-01-001	Manual Compact
07-99-035	Compact Seat
07-99-054	Bowl Compact
07-01-002	Manual Comfort
07-99-036	Comfort Seat
07-99-056	Bowl Comfort
07-01-003	Manual Compact Low
07-99-035	Compact Seat
07-99-055	Bowl Compact Low

Part nr	Description	Net weight	Width x Depth x Height x Height open seat
07-01-001	Manual Compact	9.6 Kg 21 lbs	450 x 425 x 345 x 650 mm 17.7 x 16.7 x 13.6 x 25.6 in
07-01-002	Manual Comfort	11 Kg 24 lbs	470 x 490 x 340 x 705 mm 18.5 x 19.3 x 13.4 x 27.8 in
07-01-003	Manual Compact Low	8.5 Kg 19 lbs	450 x 425 x 310 x 610 mm 17.7 x 16.7 x 12.2 x 24 in



Warranty

Two year limited warranty.



Manual Toilet models

- Compact and Comfort models, Compact Low model for tight spaces in smaller boats
- Manual ergonomic flush pump with handle that can be mounted on left or right side
- Angled pump and long stroke for more comfortable operation
- Flush pump handle with lock and unlock function for safe operation
- Self-priming, double action piston pump
- Positionable inlet/discharge ports for flexible installation
- Full sized external seal housing allows quick clean seal replacement and instant access to pump cylinder
- Stable base for robust installation, plug & play/ interchangeable with other manual toilet models
- Spray nozzle elbow for efficient flushing
- All corrosion resistant material for use in a Marine environment.

General Installation

Your Albin Pump Marine toilet may be installed either above or below the waterline, for discharge of the waste overboard (abide by your National and International regulations) or into an onboard holding tank for treatment at an onshore processing facility. **For either of these cases, special attention must be given to the method of running the pipework for your own personal safety and the safety of your boat.**

Through-hull fittings

For overboard waste disposal and/or the use of raw water for flushing, you will need through-hull fittings.

- 19 mm (¾") bore seacock for the flushing water inlet
- 19 mm (¾") and 25 mm (1") or 38 mm (1½") vented loops
- 25 mm (1") or 38 mm (1½") bore seacock for the discharge outlet.

Follow the seacock manufacturer's instructions concerning materials and methods of installation.

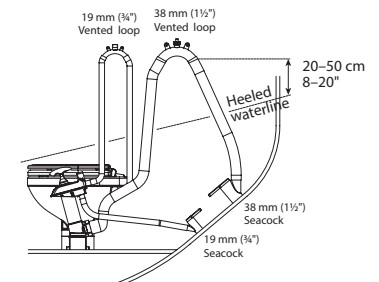
Make sure that the inlet seacock is positioned where it will be below the waterline at all times when the boat is under way and also that any outlet seacock is both aft of, and higher than the inlet seacock.

Pipework: general instructions

- Spiral reinforced smooth bore flexible hose for both the 19 mm (¾") internal diameter inlet and the 25 mm (1") or 38 mm (1½") internal diameter discharge hose
- Stainless steel hose clips for the hoses
- Secure the hose runs so that the hoses cannot move, nor exert any leverage action on the hose tail fittings to which they are connected, as this may cause adjacent joints to leak
- Avoid sharp bends in the hoses since this might cause them to become kinked
- Keep all pipework lengths as short as possible while you are carrying out these operations. Unnecessary inlet or discharge hose lengths just make the toilet harder to pump.

Pipework: Toilet below waterline or below holding tank

If the toilet is connected to any through-hull fitting and if the rim of the bowl falls below the waterline, for example during heavy seas, there is the risk of water flooding in, causing the boat to sink, which may result in loss of life. Therefore, if the rim of the toilet is less than 20 cm (8") above the waterline when the craft is at rest, or if there is any possibility that the rim of the bowl may be below the waterline at ANY time, a **vented loop MUST** be fitted in any pipework connected to a through-hull fitting, irrespective of whether inlet or discharge. The loop must be vented to avoid the siphoning of water back into the boat through the toilet.



Inlet: 19 mm (¾") Vented Loop fitting

- Run the inlet hose by the most direct way to the toilet flushing pump inlet connection
- Remove the white hose supplied with the toilet which connects the flushing pump outlet tail to the bowl elbow - using a spanner, rotate the intake seal so that the elbow points upwards - replace the white hose with a longer length of 19 mm (¾") internal diameter hose and position it in a way

so that its point is 20 – 50 cm (8 – 20") above the highest possible waterline and fit the vented loop at that highest point. Caution: DO NOT POSITION THE VENTED LOOP BETWEEN THE INLET SEACOCK AND THE FLUSHING PUMP INLET, as it will make the flushing pump difficult or harder to prime, and could prevent it from working at all.

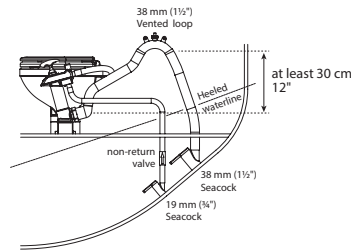
Discharge: 25 mm (1") or 38 mm (1½") Vented Loop fitting Mounting

- Arrange the discharge hose, so that its highest point is 20–50 cm (8–20") above the waterline or the highest level of the holding tank, and fit the vented loop at the highest point.
- Run the discharge hose from the toilet to the vented loop
- Run the discharge hose from the vented loop to the seacock or holding tank

Pipework: Toilet above waterline or above holding tank

Inlet: 19 mm hose

- Run the inlet hose by the most direct route from the inlet seacock to a non-return valve.
- Run the inlet hose from the non-return valve to the flushing pump inlet connection.
- For convenience of use, install an in-line non-return valve next to the inlet seacock which will ensure that the pump stays primed in between usages.



Discharge: 25 mm (1") or 38 mm (1½") hose

- Rise the discharge hose at least 30 cm (12") above the discharge elbow and fit a vented loop at its highest point—this will help to retain water in the bowl.
- Connect discharge hose connection on the toilet to the seacock or holding tank.

Mounting

Before starting the assembly, read the complete mounting instruction first. **You need the following:**

- **Stainless steel bolts:** 4 pcs, 8 mm ($\frac{5}{16}$ ") diameter of length to suit the thickness of the mounting surface.
- **Stainless steel washers:** 4 pcs. not larger than 21 mm ($\frac{13}{16}$ ")
- **Drill:** Diameter 9 mm.
- **Silicone sealant,** white.
- If you do not use self-locking nuts, you will need some **nutlocking compound.**

1. NOTE! The standard assembly for the toilet is with the pumping handle on the left-hand side. The toilet may be re-assembled with the pumping handle on the right-hand side; *instructions are on the screw kit bag.*
2. Put the toilet in the selected position. Ensure that there is room to operate the pump and that there is access to the drain plug at the end of the base.
3. Using the holes in the base as a guide, mark the positions for the 4 bolt holes on the mounting surface.
4. Remove the toilet and drill 4 vertical holes, with a diameter of 9 mm, through the mounting surface.
5. Apply the white silicone sealant to the outer rim of the bottom base.
6. Put the toilet on its place and tighten the fastenings securely. If you are not using self-locking nuts, use nutlocking compound.
7. Use the sealant around the base, towards the floor.

Operating instructions

Correct operation of the toilet is essential for the safety and comfort of your crew and boat.

The manually operated piston pump handles both rinsing/flushing and discharge; a flip switch puts the pump into either flushing or discharge mode.

First use:

8. For first time use, or after a long period of not being in use, the toilet can benefit for light lubrication.
9. Ensure that the inlet and discharge valves (full-bore, handle-operated sea cocks) are open
10. Half-fill the bowl with warm fresh water containing a few drops of vegetable oil or baby oil
11. Keeping the flush control lever in the "Shut position", pump out the warm water
12. After each operation, close both inlet and discharge valves!

Normal use:

1. Ensure that the inlet and discharge valves (full-bore, handle-operated sea cocks) are open
2. Before use, ensure that there is enough water in the bowl to prevent the toilet paper from becoming compacted at the bottom of the bowl. If the bowl is empty, move the flush control lever to the "Open" position and pump the handle up and down, until the flushing pump is primed and water enters the bowl. Then, shut the flush control.
3. Operate the pump with long, smooth strokes for efficient and easy operation
4. During use, pump as necessary as to keep the contents of the bowl low enough for comfort.

5. After use, keep the flush control shut and pump until the bowl is empty
6. When the bowl is empty, open the flush control again and continue to pump until all waste has either left the boat, or has reached the holding tank (allow 7 complete up and down strokes per metre length of discharge pipework.)
7. Afterwards, shut the flush control and pump until the bowl is empty.
8. Always leave the bowl empty to minimise odour and spillage..

After use:

1. SHUT THE FLUSH CONTROL - CLOSE BOTH SEACOCKS



Hazard Risk

If the toilet is connected to **ANY** through-hull fittings that are below the waterline at any time, and if the toilet or pipework is damaged, water may flood in, causing the boat to sink, which may result in loss of life.

- After every usage; both seacocks (or secondary valves) **MUST** be shut.
- Whenever your craft is unattended, even if only for a very short period of time, both seacocks (even if secondary valves are fitted) **MUST** be shut.
- Ensure that **ALL** users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves. Take special care to instruct children, the elderly and visitors!

Cleaning

Regularly flushing with clean (sea)-water is one of the most effective methods to keep the toilet clean and odor-free

- To clean the bowl, use any liquid or cream ceramic cleaner
- To clean the rest of the toilet, including the seat and lid, use a nonabrasive liquid cleaner Polish with a dry cloth only.
- To disinfect the toilet, use a liquid disinfectant diluted in accordance with the manufacturer's instructions. It is possible to apply it to all parts of the toilet using a sponge or soft brush as necessary.
- After applying any cleaning or disinfecting agent, always flush well. **DO NOT ALLOW THESE AGENTS TO STAND IN THE SYSTEM** because strong detergents stay on the inside of the system and burn through the rubber seals of the pump, invalidating the warranty.



NOTE: Do not put any of the following into the toilet: Sanitary Towels, Wet Strength Tissues, Cotton Wool, Cigarettes, Matches, Chewing Gum or any solid objects, Petrol, Diesel, Oil, Solvents of any kind or water that is more than hand warm. Do not put anything, other than toilet paper, in the toilet unless it has passed through your body!

Servicing

Preparation. Albin Pump Marine manual toilets are user serviceable and no special skills or tools are required to employ them. - Flush the toilet according to the operating instructions for normal use and particularly ensure that all waste has left the discharge pipework, that the bowl is empty and that both seacocks are closed (even though secondary valves are fitted) - Mop-up any water which might come out of the system.

Seal replacement

If water begins to leak round the piston rod on top of the pump, it means that the seal assembly is worn out and should be replaced. To this purpose, you will have to act as follows:

2. *You will need a service kit.* Raise the handle to the top of its travel and wrap one turn of tape around the piston rod immediately below the handle to protect the piston rod.
3. Using pliers, grip the piston rod only around the tape, unscrew the handle and remove the bumper washer. **KEEP HOLD OF THE PISTON ROD AS LONG AS THE OPERATION HAS BEEN COMPLETED**, since if you let it go, it might fall inside the pump.
4. Unscrew the seal assembly and slide it off the piston.
5. Wrap one turn of tape around the thread at the top of the piston rod to protect the new seal then slide the new seal down the piston rod and tighten it.
6. Remove the tape from the thread. Replace the bumper washer and rescrew the handle on, holding the rod by gripping the piston rod on the tape.
7. Remove the tape from the piston rod