## Spare Parts List

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
<th>Qty per Toilet</th>
<th>Part No</th>
<th>Qty per Repair Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BOWL COMPACT TOILET</td>
<td>5</td>
<td>29040-0000</td>
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<tr>
<td>2</td>
<td>BOWL REGULAR TOILET</td>
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<tr>
<td>3</td>
<td>SEAT LID &amp; HINGE SET</td>
<td>5</td>
<td>29017-1000</td>
<td>29027-1000</td>
</tr>
<tr>
<td>4</td>
<td>BASE MOUNTING KIT</td>
<td>1</td>
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<tr>
<td>5</td>
<td>INTEGRAL SEAT &amp; INTAKE ELBOW</td>
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<tr>
<td>6</td>
<td>BASE, PLUG &amp; LID ASSY</td>
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<td>29041-2000</td>
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<tr>
<td>7</td>
<td>PLUG + GASKETS ASSY</td>
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<tr>
<td>8</td>
<td>D-RING (FLUSH)</td>
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<tr>
<td>9</td>
<td>D-RING (VALVE)</td>
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<tr>
<td>10</td>
<td>BOLT (SS)</td>
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<td>11</td>
<td>NUT (SS)</td>
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<tr>
<td>12</td>
<td>WASHER (SS)</td>
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<tr>
<td>13</td>
<td>WASHER (NYLON)</td>
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<td>14</td>
<td>RING (PISTON)</td>
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<td>15</td>
<td>PIN (PISTON)</td>
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<tr>
<td>16</td>
<td>BASE VALVE GASKET</td>
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<tr>
<td>17</td>
<td>HANDLE</td>
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<td>18</td>
<td>SEAL HOUSING ASSY</td>
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<tr>
<td>19</td>
<td>TOP VALVE SEAT</td>
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<td>20</td>
<td>CAM</td>
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<td>D-RING VALVE GASKET</td>
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<td>22</td>
<td>D-RING (FLUSH LEVER)</td>
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<tr>
<td>23</td>
<td>D-RING (CONTROL LEVER)</td>
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<tr>
<td>24</td>
<td>SCREW (FLUSH LEVER)</td>
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<tr>
<td>25</td>
<td>SCREW (CONTROL LEVER)</td>
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<tr>
<td>26</td>
<td>SCREW (VALVE COVER)</td>
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<tr>
<td>27</td>
<td>NECK COUNTERSINK</td>
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<tr>
<td>28</td>
<td>PUMP CYLINDER</td>
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<tr>
<td>29</td>
<td>RING, HOUSING &amp; GASKET ASSY</td>
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<tr>
<td>30</td>
<td>O-RING (PISTON)</td>
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<tr>
<td>31</td>
<td>O-RING (CYLINDER)</td>
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<td>32</td>
<td>O-RING (FLUSH)</td>
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<tr>
<td>33</td>
<td>O-RING (WASTE)</td>
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<td>34</td>
<td>O-RING (PUMP)</td>
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<tr>
<td>35</td>
<td>O-RING (FLUSH LEVER)</td>
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<td>1</td>
</tr>
<tr>
<td>36</td>
<td>O-RING (CONTROL LEVER)</td>
<td>1</td>
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</tbody>
</table>

### Repair Kits

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
<th>Qty per Repair Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>SERVICE KIT UP TO 1997</td>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td>SERVICE KIT FROM 1998 TO 2000</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>SERVICE KIT FROM 2001 TO 2007</td>
<td>1</td>
</tr>
<tr>
<td>D</td>
<td>SERVICE KIT FROM 2008 TO 2008</td>
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</tbody>
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Warranty: All products of the company are sold and all services of the company are offered subject to the company's warranty and terms and conditions of sale, copies of which will be furnished upon request.
Installation Instructions

YOUR TOILET is just one part of a system. Correct installation of the whole system is essential if you want the toilet to perform properly, operate reliably and safely, and give satisfactory service of long life. The toilet is delivered assembled for right-handed operation. If you wish, both Regular and Compact Bowl models may be re-assembled with the pump on the left hand side. The seat and lid is delivered boxed and unfitted for its protection.

NB: Key numbers, e.g. (Key 31), are references to the exploded view diagram on the back page.

1. Re-assembly for left hand use
If you wish to change the pump mounting from right to left hand, do so before installing the toilet.

- Pull off the hose (key 4) that runs from the pump to the bowl.
- Remove the 4 screws (key 31) that secure the pump assembly to the base.
- Lift off the pump assembly and leave the base valve gasket (key 16) on its 3 locating pegs.
- Remove the 4 bolts (key 11) that secure the bowl to the base.
- Rotate the bowl 180° and re-secure it, using the nylon washers (key 14) to protect the ceramic from the stainless steel washers and nuts (key 13,12).
- Rotate the pump assembly 180° and re-secure it.
- Rotate the push-fit intake elbow (key 6) 180° and refit the hose between the pump and the bowl.

2. Location
Select a location that will give sufficient clearance all round and above the toilet. Ensure that there is room to operate the pump and that there is access to the drain plug at the end of the base. The mounting surface must be flat, rigid and strong enough to support a man’s weight and should be at least 50mm (2”) wider and 50mm (2”) deeper than the base of the toilet. You will need sufficient clearance below the mounting surface to be able to secure the mounting bolts. The seat and lid should be able to swing up and over at least 110°, so that they will not fall forward when the craft heels or pitches. When they are swung up they must be supported so that the hinges are not strained.

3. Mounting
YOU WILL need:

- 4 x 6mm (5/32”) diameter stainless steel bolts of length to suit the thickness of the mounting surface.
- 4 stainless steel nuts, preferably self-locking, if you do not use self-locking nuts you will need some nut-locating compound.
- 8 large stainless steel washers not more than 21mm (5/8”) diameter.
- A small tube of white silicone sealant.

Offer up the toilet in the selected position and, using the holes in the base as a guide, mark the positions for the 4 bolt holes on the mounting surface. Remove the toilet and drill 4 vertical holes of 3mm diameter through the mounting surface. Apply a bead of white silicone sealant to the outer rim of the base. Bolt down the toilet and tighten the fastenings securely. If you are not using self-locking nuts, use nut-locating compound.

4. Through Hull Fittings
YOU WILL need:

- 29mm (1-1/8”) bare search for the flushing water inlet, and if you are discharging the waste overboard, a 38mm (1-1/2”) bare search for the waste outlet.
- Follow the seacock manufacturer’s own instructions concerning materials and methods of installation.
- Ensure the inlet seacock is positioned where it will be below the waterline at all times when the craft is underway, and also ensure that any outlet seacock is both aft of, and higher than, the inlet seacock.

HAZARD RISK: Through Hull Fittings. If the installation of the toilet results in it being connected to ANY through-hull fitting that may possibly be below the waterline at any time, whether when the craft is at rest, underway and heeling or rolling or pitching, you must install the toilet in accordance with these Installation Instructions. If you do not, water may flood in, causing the craft to sink, which may result in loss of life.

FOLLOW THESE INSTRUCTIONS!

HAZARD RISK: Accidental Damage. If the toilet is connected to ANY through-hull fittings, and if the toilet or pipework is damaged, water may flood in causing the craft to sink, which may result in loss of life. Therefore, if you are making connections between the toilet and ANY through-hull fittings that may possibly be below the waterline at any time, full bore seacocks MUST be fitted to those through-hull fittings, to allow them to be shut off. The seacocks MUST also be positioned where they are easily accessible to all users of the toilet. If, for any reason, it is not possible to do this, then secondary full bore marine quality valves MUST be fitted to the hoses where they are easily accessible.

USE SEACOCKS!

CAUTION: Use lever operated, full bore marine seacocks and valves. The use of screw-down gate valves is not recommended.

5. Pipework - selection of correct method
YOU MUST select the correct method for the inlet pipework from 2 options and for the outlet pipework from 4 options, according to whether the toilet is above or below the waterline, and to whether it discharges the waste overboard or into an on-board holding tank.

HAZARD RISK: Pipework Becomes Loose. If the toilet is connected to ANY through-hull fittings and if the pipework becomes disconnected, either from a through-hull fitting or seacock, or from the toilet or any secondary valve, water may flood in and may cause the craft to sink, which may result in loss of life. Therefore the ends of ALL flexible hoses fitted directly or indirectly between the toilet and ANY through-hull fitting that may possibly be below the waterline at ANY time, MUST be secured to the hose tail to which they are connected, using two stainless steel worm-drive hose clips.

USE HOSE CLIPS!

Trouble Shooting

- Bowl fills when toilet is not in use - Shut Seacocks.
- Waste water re-appears in bowl - Check Bottom Valve Gasket (16) and Jokker Valve (33).
- Bowl does not empty & difficult to push handle down - Check Inlet Hose connections.
- Bowl does not empty & difficult to pull handle up - Fit Non-Return Valve (29).
- Bowl does not empty although handle is easy to push & pull - Fit Vented Loops.
- Water does not come in although handle is easy to push and pull - Check Top Valve Gasket (21) and Piston O-ring (30).
- Check Inlet hose connections are airtight.
- Shorten Inlet hose from much Seacock.
- Vent Loop not allowed between Inlet Seacock & Pump.
- Fit between Pump & Bowl.
- Fit Non-Return Valve (29).
- Installations Instructions (29255-1011) next to Inlet Seacock.

Dimensions and Weights

<table>
<thead>
<tr>
<th>Model No</th>
<th>Description</th>
<th>Net Weight</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>29090-3000</td>
<td>Manual Toilet Compact Bowl</td>
<td>10.4kg</td>
<td>291</td>
<td>292</td>
<td>293</td>
<td>294</td>
<td>295</td>
<td>296</td>
<td>297</td>
</tr>
<tr>
<td>29120-3000</td>
<td>Manual Toilet Regular Bowl</td>
<td>10.9kg</td>
<td>301</td>
<td>302</td>
<td>303</td>
<td>304</td>
<td>305</td>
<td>306</td>
<td>307</td>
</tr>
</tbody>
</table>

All dimensions in millimetres with inch equivalents in brackets.
ATTACH WARNING NOTICE! 
If you are not disassembling the toilet:  
1. Reconnect all hose ends and secure them with their hose clips.  
2. Replace the drain pipe securely.  
3. Reconnect the valve in the discharge elbow.  
4. Secure the hose clamp securely.  
5. Reconnect the discharge hose and have to be not synder using the discharge flange, whilst relying any leverage from the discharge hose. If you do not, the part may not seal.  
6. Fasten down the seat, lid and pump handle to prevent use and attach a warning notice. 

4. Servicing - Overhaul 

YOU WILL need:  
1. A Service kit, part number 29045-2000, which contains all wearing parts, refer to the Parts Kit section. 
3. Dismantle the pump assembly as follows:  
   a. Remove the 6 screws (key 26) that secure the valve cover (key 27).  
   b. Open the cover (key 27) before lifting off the valve cover assembly and picking up the top valve gasket (key 26), the valve seat (key 19) and the valve spring (key 35).  
   c. Remove the handle and the seal assembly by following the SERVICING INSTRUCTIONS for SEAL REPLACEMENT.  
   d. Withdraw the piston assembly (key 29) and prise off the piston O-ring (key 30).  
   e. Do NOT remove the bowl from the base.  
   f. Clean and disinfect all parts, refer to OPERATING INSTRUCTIONS for CLEANING.  
   g. Reassemble the parts in the list as necessary. 

5. Pipework - General instructions for all options 

YOU WILL need:  
1. A new plastic O-ring (key 30) and lubricate with petroleum jelly (vaseline).  
2. The following SERVICING INSTRUCTIONS for SEAL REPLACEMENT fit the rear seal and handle (key 17).  
3. Lubricate pump cylinder bore with petroleum jelly (vaseline).  
4. Locate the valve seat (key 19) on top of the cylinder, locate the top valve gasket (key 27) on its pins on top of the cylinder, locate the valve spring (key 35) on its pin in the valve cover, and Open the cover (key 27) before refitting the valve cover (key 27).  
5. Locate the valve seat (key 33) in the discharge elbow (key 34).  
6. Secure the discharge elbow and hose to the pump by using pipe clamp (key 32), before you refit the pump assembly to the base (key 7), so that the joint is not under leverage from the discharge hose. If you do so, the joint may not seal.  
7. Locate the bottom valve gasket (key 16) on its pins on the base.  
8. Secure the pump assembly to the base whilst relying any leverage from the discharge hose. If you do not, the joint may not seal.  
9. Examine all hoses through their length for leaks, shafts and splits under hoses clip. Check all hose clips for corrosion and replace worn or damaged parts.  
10. Reconnect all hose ends and secure them with their hose clips.  
11. Ensure that the base drain plug (key 8) is securely in place.  

6. Servicing - Testing 

SPECIAL NOTE 1: The smaller bore inlet pipework is more hazardous than the larger outlet pipework. Unless there is a ventilated anti-syphon loop in the inlet pipework, water will flow into the bowl whenever both the inlet seacock is open and the rim of the bowl is below the actual waterline. Always flush the Control Lever (key 16) to ensure that the flow has been established and no air is left in the system.  

SPECIAL NOTE 2: Make a loop in the hose without fitting a vent to it and fit it on the bowl. This may be just as hazardous as no loop at all, because water may syphon from the bowl and syphon the toilet over a loop. It is the vent that actually prevents the syphon.
Installation Instructions

5.3 Outlet Pipework - 4 options

Option 1: Toilet below the waterline and discharging overboard.

- Run the outlet hose up from the discharge elbow to form a loop at least 20cm (8”) above the highest possible waterline, and fit the vented loop at the highest point.
- Ensure that you can keep some water in the base of the toilet without risk of it being siphoned away.

Option 2: Toilet above the waterline, and discharging overboard.

- Shut BOTH SEACOCKS!
- Open inlet and outlet seacocks (and secondary valves if fitted).
- Half fill the bowl with warm fresh water.
- Keeping the Flush Control Lever (key 23) in the Shut ( ) position, pump out the warm water.

Option 3: Toilet waste discharging into holding tank, top of holding tank above discharge elbow at anytime.

- Shut both seacocks before use, ensure that there is enough water in the bowl to prevent the toilet paper becoming compacted at the bottom of the bowl.
- If the bowl is empty, move the Flush Control Lever (key 23) to the Open ( ) position and pump the handle (key 17) up and down until the flushing pump is primed and water enters the bowl.
- Then Shut ( ) the Flush Control.
- Operate the pump with long, smooth strokes for efficient and easy operation.
- Do not use pump as necessary to keep the contents of the bowl low enough for comfort.
- Use only small or soft household toilet paper, but do not use more than necessary.
- After use, keep the Flush Control Shut ( ) and pump until the bowl is empty.
- When the bowl is empty, Open ( ) the Flush Control again, and continue to pump until all waste has either left the bowl, or reached the holding tank (allow 7 complete up/down strokes per meter (yard) length of discharge pipework).

Option 4: Toilet waste discharging into holding tank, discharger elbow always above top of holding tank.

- Shut BOTH SEACOCKS!
- Open inlet and outlet seacocks (and secondary valves if fitted).
- Half fill the bowl with warm fresh water.
- Keeping the Flush Control Lever (key 23) in the Shut ( ) position, pump out the warm water.

Operating Instructions

The toilet is one of the most used pieces of equipment on your crew and craft.

1. First use

After periods without use the toilet may benefit from lubrication.
- Open outlet and inlet seacocks (and secondary valves if fitted). Operate the pump with long, smooth strokes for efficient and easy operation.
- Do not use pump as necessary to keep the contents of the bowl low enough for comfort.
- Use only small or soft household toilet paper, but do not use more than necessary.
- After use, keep the Flush Control Shut ( ) and pump until the bowl is empty.
- When the bowl is empty, Open ( ) the Flush Control again, and continue to pump until all waste has either left the bowl, or reached the holding tank (allow 7 complete up/down strokes per meter (yard) length of discharge pipework).

2. Normal use

Open inlet and outlet seacocks (and secondary valves if fitted).

3. Cleaning

CAUTION: Do NOT use aggressive chemical agents such as Acetone or Bleach because plastic parts may crack or melt.
- To clean the bowl, use any liquid or cream ceramic cleaner. Polish with a dry cloth only.
- To clean the rest of the toilet, including the seat and lid, use a non-abrasive liquid cleaner. Polish with a dry cloth only.

4. Testing

Refer to the Operating Instructions and follow the procedure “2 Normal use”.

5. Maintenance

- Ensure that this INSTRUCTION MANUAL reaches the owner, skipper or operator of the craft as it contains essential safety information.

6. Safety

- 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.

7. General

- Ensure that this INSTRUCTION MANUAL reaches the owner, skipper or operator of the craft as it contains essential safety information.

8. Joint Use

- Ensure that ALL users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves.

9. Induction

- Ensure that ALL users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves.

10. Storage

- Ensure that ALL users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves.

11. Replacement

- Ensure that ALL users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves.

12. Disposal

- Ensure that ALL users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves.

13. Maintenance

- Ensure that ALL users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves.

14. Repair

- Ensure that ALL users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves.

15. Service

- Ensure that ALL users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves.

16. Inspection

- Ensure that ALL users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves.

17. Troubleshooting

- Ensure that ALL users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves.

18. Parts

- Ensure that ALL users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves.

19. Accessories

- Ensure that ALL users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves.

20. Technical Data

- Ensure that ALL users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves.

Therefore, 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.

SHUT SEACOCKS!
Installation Instructions

5.3 Outlet Pipework - 4 options

Option 1: Toilet below the waterline and discharging overboard.

YOU MUST fit a 38mm (1½”) Vented Loop fitting, Jabsco part number 29015-0010.

Arrange the outlet hose to form a loop which is at least 20 cm (8”) above the highest possible waterline, and fit the vented loop at the highest point.

Option 2: Toilet above the waterline, and discharging overboard.

YOU MAY fit a 38mm (1½”) Vented Loop fitting, Jabsco part number 29015-0010.

Run the outlet hose up from the discharge elbow to form a loop at least 30 cm (12”) higher than the discharge elbow.

Option 3: Toilet waste discharging into holding tank, top of holding tank above discharge elbow at anytime.

YOU MUST fit a 38mm (1½”) Vented Loop fitting, Jabsco part number 29015-0010.

If there is ANY possibility that the discharge elbow may be below the top of the tank at ANY time, a ventilated anti-syphon loop must be fitted in the outlet pipework to ensure that the contents of the tank do not syphon out through the bowl.

Arrange the outlet hose to form a loop which is at least 20 cm (8”) above the highest possible level that the tank may reach, and fit the Vented Loop at that highest point.

Option 4: Toilet waste discharging into holding tank, discharge elbow always above top of holding tank.

YOU MAY fit a 38mm (1½”) Vented Loop fitting, Jabsco part number 29015-0010.

Run the outlet hose up from the discharge elbow to form a loop at least 30 cm (12”) higher than the discharge elbow.

This will create a water seal at the Joker Valve that will prevent bad odours from escaping through the toilet.

Arrange the outlet hose to form a loop which is at least 20 cm (8”) above the highest possible waterline, and fit the vented loop at the highest point.

Option 3: Toilet waste discharging into holding tank, top of holding tank above discharge elbow anytime.

YOU MUST fit a 38mm (1½”) Vented Loop fitting, Jabsco part number 29015-0010.

Run the outlet hose up from the discharge elbow to form a loop at least 30 cm (12”) higher than the discharge elbow.

If you fit a vented loop at the top of the hose loop this will ensure that you can keep some water in the base of the toilet without risk of it being syphoned away.

Option 2: Toilet above the waterline, and discharging overboard.

YOU MAY fit a 38mm (1½”) Vented Loop fitting, Jabsco part number 29015-0010.

If you fit a vented loop at the top of the hose loop this will ensure that you can keep some water in the base of the toilet without risk of it being syphoned away.

Option 4: Toilet waste discharging into holding tank, discharge elbow always above top of holding tank.

YOU MAY fit a 38mm (1½”) Vented Loop fitting, Jabsco part number 29015-0010.

If you fit a vented loop at the top of the hose loop this will ensure that you can keep some water in the base of the toilet without risk of it being syphoned away.

6. Testing

Refer to the Operating instructions and follow the procedure "2 Normal use".

7. Safety

Ensure that this INSTRUCTION MANUAL reaches the owner, skipper or operator of the craft as it contains essential safety information.

ON COMPLETION OF INSTALLATION:

- SHUT THE FLUSH CONTROL
- CLOSE BOTH SEACOCKS

Operating Instructions

The toilet is one of the most used pieces of equipment on your crew and craft.

1. First use

After periods without use the toilet may benefit from lubrication.

- Open inlet and outlet seacocks (and secondary valves if fitted).
- Half fill the bowl with warm fresh water.
- Keep the Flush Control Lever (key 23) in the Shut position, pump out the warm water.

2. Normal use

Open inlet and outlet seacocks (and secondary valves if fitted).

- Before use, ensure that there is enough water in the bowl to prevent the toilet paper becoming compacted at the bottom of the bowl.

If the bowl is empty, move the Flush Control Lever (key 23) to the Open ( ) position and pump the handle (key 17) up and down until the flushing pump is primed and water enters the bowl.

Then Shut ( ) the Flush Control.

- Operate the pump with long, smooth strokes for efficient and easy operation.
- Drain use, pump as necessary to keep the contents of the bowl low enough for comfort.
- Use good quality hard or soft household toilet paper, but do not use more than necessary.
- Avoid using toilet paper which is too thin or hard to manage, otherwise the toilet may become blocked.
- After use, keep the Flush Control Shut ( ) and pump until the bowl is empty.
- When the bowl is empty, Open ( ) the Flush Control again, and continue to pump until all waste has either left the boat, or reached the holding tank (allow 7 complete up/down strokes per metre (yard) length of discharge pipework).

3. Cleaning

CAUTION: Do NOT use abrasive pads on any part of the toilet and do not use cream cleaners on porcelain.

- 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 non-abrasive liquid cleaner. Polish with a dry cloth only.
- To disinfect the toilet, use a liquid disinfectant diluted in accordance with the manufacturer’s instructions. You may apply it to all parts of the toilet using a sponge or soft brush as necessary.

NOTE: Do not use anything in the toilet unless you have eaten it first, except toilet paper. Do not put in: Sanitary Towels, Wipes, Strips, Matches, Chewing Gum or any solid objects, Petrol, Diesel, Oil, Solvents of any kind or water more than hand hot.
Servicing Instructions

Jabsco manual toilets do not normally require maintenance during the season, provided that they are winterised in the autumn and overridden in the spring. However, any toilet will benefit from:

- Thorough flushing - refer to OPERATING INSTRUCTIONS for NORMAL USE.
- Regular use - if not used regularly lubrication is beneficial - refer to OPERATING INSTRUCTIONS for FIRST USE.
- Regularly check all fastenings for tightness and leaks.

HAZARD RISK: Leaks
If the toilet is connected to ANY through-hull fittings and, if the toilet or the pipework develops a minor leak, it can suddenly become a major leak that allows water to flood in, causing the craft to sink, which may result in loss of life. Therefore, if ANY leak develops you MUST repair immediately.

1. Servicing & Winterisation - preparation
Jabsco manual toilets are designed to be user serviceable and no special tools or skills are required.
- Flush the toilet in accordance with the OPERATING INSTRUCTIONS for NORMAL USE, ensuring that all waste has left the discharge pipework and that the bowl is empty.
- CLOSE BOTH SEACOCKS (even if secondary valves are fitted)
- Be ready to mop up any water that may come out of the system.

2. Servicing - Seal replacement
If water begins to leak around the piston rod (key 29) at the top of the piston rod seal assembly (key 18) it must be repaired and replaced.

YOU WILL need:
- A Service Kit, part number 29045-2000, which contains all wearing parts - refer to the PARTS LIST for details.
- Loosen hose clips and disconnect the inlet hose and the flushing water hose (key 4) from the top pump.
- Remove the 2 screws (key 31) that secure the discharge flange (key 32) that holds the discharge elbow to the base (key 26).
- Do NOT remove the hose from the discharge elbow.
- Remove the 4 screws (key 31) that secure the pump cylinder to the base.
- Lift off the pump assembly and pack up the base valve gasket (key 16) and the joker valve (key 23).
- Dismantle the pump assembly as follows:
  - Remove the 6 screws (key 26) that secure the valve cover (key 27).
  - Open ( ) the flush control (key 23) before lifting off the valve cover assembly and picking up the top valve gasket (key 21), the valve seat (key 19) and the valve spring (key 35).
  - Remove the handle and the seal assembly by following the SERVICING INSTRUCTIONS for SEAL REPLACEMENT.
  - Withdraw the piston assembly (key 31) and prise off the piston O-ring (key 30).
  - Do NOT remove the bowl from the base.
  - Clean and disinfect all parts - refer to OPERATING INSTRUCTIONS for CLEANING. Remove scale and other corrosion from the cylinder bore.
  - Automaticaly remove the seal assembly and the pump cylinder (key 32).
  - Use the old parts in the kit as necessary.
- Reassemble the pump as follows:
  - Push on the new O-ring (key 30) and lubricate with petroleum jelly (vaseline).
  - Lubricate pump cylinder bore with petroleum jelly (vaseline).
  - Locate the valve seat (key 19) on top of the cylinder, locate the top valve gasket (key 21) on its top on top of the cylinder, locate the white hose (spring) (35) on its top in the valve cover, and Open ( ) the flush control (key 23) before refitting the valve cover (key 27).
  - Locate the joker valve (key 33) in the discharge elbow (key 34).
  - Secure the discharge elbow and base, using the discharge flange (key 32), BEFORE you refit the pump assembly to the base (key 26), so that the joint is not under leverage from the discharge hose. If you do so, the joint may not seal.
  - Locate the bottom valve gasket (key 16) on its top on the base.
  - Secure the pump assembly to the base whilst relieving any leverage from the discharge hose. If you do not, the joint may not seal.
  - Clean all hoses throughout their length for leaks, kinks and splits under hose clips. Check all hose clips for corrosion and replace worn or damaged parts.
  - Reconnect all loose hose ends and secure them with their hose clips.
  - Ensure that the base drain plug (key 8) is securely in place.

ATTACH WARNING NOTICE!
If you are not disassembling the toilet:
- Reconnect all hose ends and secure them with their hose clips.
- Replace the base drain plug securely.
- Replace the joker valve in the discharge elbow.
- Reconnect the discharge elbow and hose to the base without using the discharge flange, whilst relieving any leverage from the discharge hose.
- If you do not, the joint may not seal.
- Fasten down the seat, lid and pump handle to prevent use and attach a warning notice.

4. Servicing - Overhaul
YOU WILL need:
- A Service Kit, part number 29045-2000, which contains all wearing parts - refer to the PARTS LIST for details.

Wrap some tape around the piston rod within 16mm (5/8”) of the wrap some tape around the piston rod within 16mm (5/8”) of the
- Locate the joker valve (key 33) in the discharge elbow (key 34).
- Secure the discharge elbow and base, using the discharge flange (key 32), BEFORE you refit the pump assembly to the base (key 26), so that the joint is not under leverage from the discharge hose. If you do so, the joint may not seal.
- Locate the bottom valve gasket (key 16) on its top on the base.
- Secure the pump assembly to the base whilst relieving any leverage from the discharge hose. If you do not, the joint may not seal.
- Clean all hoses throughout their length for leaks, kinks and splits under hose clips. Check all hose clips for corrosion and replace worn or damaged parts.
- Reconnect all loose hose ends and secure them with their hose clips.
- Ensure that the base drain plug (key 8) is securely in place.

CAUTION: Do not lubricate top or bottom valve gaskets. Do NOT use any lubricating compounds to any hose connections.

5. Servicing - Testing

RECOMMEND OPERATING INSTRUCTIONS and follow the procedure for "2. Normal use".
- If the flushing pump is hard to prime, fill the bowl with fresh water.

ON COMPLETION OF SERVICING:
- SHUT ( ) THE FLUSH CONTROL - CLOSE BOTH SEACOCKS.

Installation Instructions

5.1 Pipework - General instructions for all options
YOU WILL need:
- Spin referred smooth bored flexible hoses for both the 18mm (V/4”) of inlet and the 38mm (1½”) of outlet pipework.
- Two stainless steel worm-drive hose clips for every hose tail connection (4, 8).
- Secure the hose so that the hoses cannot move and chafe, and so that you do not exert any leverage on the hose tail fittings to which they are connected, as this may cause adjacent joints to leak.
- Avoid sharp bends in the hoses that may cause them to become kinked.
- Keep all pipework lengths as short as possible, whilst complying with the above instructions. Unnecessary inlet or outlet hose length just makes the toilet harder to pump.
- If it is difficult to fit the hose onto the hose tails of the toilet or seaworks, lubricate it with water, or soften the hose by dipping the end in hot water.

CAUTION: Do not apply flame to the hose. Do not overtighten hose clips. Any of these actions may result in cracking or breakage of the plastic parts of the toilet.
- Secure the ends of all hoses to the hose tails with stainless steel worm-drive hose clips, ensuring that all inlet connections are airtight and that all outlet connections are watertight.
- The Discharge Elbow (key 34) may be rotated 360° to suit your installation. Always check the 2 securing screws, adjust the discharge elbow to the required position and re-tighten the 2 securing screws BEFORE you connect the hose to it.
- CAUTION: Failure to follow this procedure may result in leaks between the discharge elbow and the pump cylinder.

5.2 Inlet Pipework - 2 options

Option 1: Toilet below the waterline

YOU MUST fit a 19mm (⅝”) Vented Loop fitting, Jabsco part number 29015-0000.
- Run the inlet hose by the most direct route from the inlet seaworks to the flushing pump inlet tail.
- For an overboard discharge, use a 19mm (⅝”) in-line non-return valve next to the inlet seaworks, which will ensure that the pump remains primed in between uses.
- Install the toilet below the waterline, so that it will not flood with water in the event of the craft to sink, which may result in loss of life.

Therefore, if the rim of the toilet is less than 20cm (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 ventilated anti-syphon loop MUST be fitted in any connected pipe to a through-hull fitting, irrespective of whether inlet or outlet.

Use VENTED LOOPS!

SPECIAL NOTE 1: The smaller bowl inlet pipework is more hazardous than the larger outlet pipework. Unless there is a ventilated anti-syphon loop in the inlet pipework, water will flow into the bowl whenever both the inlet seaworks are open and the rim of the bowl is below the inlet seaworks. This may result in the bowl becoming flooded.
- Therefore, if the toilet is connected to ANY through-hull fittings, and if the rim of the bowl falls below the waterline, water may flood in causing the craft to sink, which may result in loss of life.

Therefore, if the rim of the toilet is less than 20cm (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 ventilated anti-syphon loop MUST be fitted in any connected pipe to a through-hull fitting, irrespective of whether inlet or outlet.

Use VENTED LOOPS!

SPECIAL NOTE 2: Making a loop in the hose without fitting a vent neatly avoids the risk of a loop at all, because water may syphon over a loop. It is the vent that actually prevents the syphon.
Installation Instructions

YOUR TOILET is just one part of a system. Correct installation of the whole system is essential if you want the toilet to perform properly, operate reliably and safely, and give satisfactory length of life. The toilet is delivered assembled for right-handed operation. If you wish, both Regular and Compact Bowl models may be re-assembled with the pump on the left-hand side. The seat and lid is delivered boxed and unfitted for its protection.

NB: Key numbers, e.g. (Key 31), are references to the exploded view diagram on the back page.

1. Re-assembly for left hand use

If you wish to change the pump mounting from right to left hand, do so before installing the toilet.

- Pull off the hose (key 4) that runs from the pump to the bowl.
- Remove the 4 screws (key 31) that secure the pump assembly to the base.
- Lift off the pump assembly and leave the base valve gasket (key 16) on its 3 locating pads.
- Remove the 4 bolts (key 11) that secure the bowl to the base.
- Rotate the bowl 180° and re-secure it, using the nylon washers (key 14) to protect the ceramic from the stainless steel washers and nuts (key 13,12).
- Remove the push-fit intake elbow (key 6) 180° and refit the hose between the pump and the bowl.

2. Location

- Select a location that will give sufficient clearance all round and above the toilet. Ensure that there is room to operate the pump and that there is access to the drain plug at the end of the base.
- The mounting surface must be flat, rigid and strong enough to support a man’s weight and should be at least 50mm (2”) wider and 50mm (2”) deeper than the base of the toilet.
- You will need sufficient clearance below the mounting surface to be able to secure the mounting bolts.
- The seat and lid should be able to swing up and over at least 110°, so that they will not fall forward when the craft heels or pitches. When they are swung up they must be supported so that the hinges are not strained.

3. Mounting

YOU WILL need:

- 4 x 8mm (5/32”) bolts with nuts and washers to secure the toilet to the chosen location.
- A 2mm drill to make the holes for the mounting bolts.
- A spirit level to check that the toilet is level.
- A masonry or wall plug to prevent the bolts from going through the wall or mounting surface.
- A masonry drill to fit the masonry plugs.
- A hammer to drive the plugs home.

- 4 large stainless steel washers not more than 2mm (5/64”) diameter.
- A small tube of white silicone sealant.
- Offer up the toilet in the selected position and, using the holes in the base as a guide, mark the positions for the 4 bolt holes on the mounting surface. Remove the toilet and drill 4 vertical holes of 8mm diameter through the mounting surface.
- Apply a bead of white silicone sealant to the outer rim of the base.
- Bolt down the toilet and tighten the fastenings securely. If you are not using self-locking nuts, use nut-locking compound.

4. Through Hull Fittings

YOU WILL need:

- 38mm (1 1/2”) bare hose for the flashing water inlet, and if you are discharging the waste overboard, a 38mm (1 1/2”) bare hose for the waste outlet.
- Follow the seacock manufacturer’s own instructions concerning materials and methods of installation.
- Ensure the inlet seacock is positioned where it will be below the waterline at all times when the craft is underway, and also ensure that any outlet seacock is both aft of, and higher than, the inlet seacock.

HAZARD RISK: Through Hull Fittings.

- If the installation of the toilet results in it being connected to ANY through-hull fitting that may possibly be below the waterline at ANY time, whether the craft is at rest, underway and heeling or rolling or pitching, you must install the toilet in accordance with these Installation Instructions. If you do not, water may flood in, causing the craft to sink, which may result in loss of life.

FOLLOW THESE INSTRUCTIONS!

HAZARD RISK: Accidental Damage.

- If the toilet is connected to ANY through-hull fittings, and if the toilet or pipework is damaged, water may flood in causing the craft to sink, which may result in loss of life. Therefore, if you are making connections between the toilet and ANY through-hull fittings that may possibly be below the waterline at ANY time, full bore seacocks MUST be fitted to those through-hull fittings, to allow them to be shut off.
- The seacocks MUST also be positioned where they are easily accessible to all users of the toilet. If, for any reason, it is not possible to do this, then secondary full bore marine quality valves MUST be fitted to the hoses where they are easily accessible.

USE SEACOCKS!

CAUTION: Use lever operated, full bore marine seacocks and valves. The use of screw-down gate valves is not recommended.

5. Pipework - selection of correct method

YOU MUST select the correct method for the inlet pipework from 2 options and for the outlet pipework from 4 options, according to whether the toilet is above or below the waterline, and to whether it discharges the waste overboard or into an on-board holding tank.

HAZARD RISK: Pipework Becomes Loose.

- If the toilet is connected to ANY through-hull fitting and if the pipework becomes disconnected, either from a through-hull fitting or seacock, or from the toilet or any secondary valve, water may flood in and may cause the craft to sink, which may result in loss of life. Therefore the ends of ALL flexible hoses fitted directly or indirectly between the toilet and ANY through-hull fitting that may possibly be below the waterline at ANY time, MUST be secured to the hose tail to which they are connected, using two stainless steel worm-drive hose clips.

USE HOSE CLIPS!

Trouble Shooting

- Bowl fills when toilet not in use
  - Shut Seacocks.
  - Fit Vented Loops.
- Waste water re-appears in bowl
  - Check Bottom Valve Gasket (16) and Joker Valve (33).
  - Open Outlet Seacock.
- Bowl does not empty & difficult to push handle down
  - Remove pump and check for blockage.
  - Check Piston O-ring (30), Bottom Valve Gasket (16) & Joker Valve (33).
- Bowl does not empty & difficult to pull handle up
  - Check Bottom Valve Gasket (16) & Joker Valve (33).
- Water does not come in although handle is easy to push & pull
  - Open Inlet Seacock.
  - Fully open Flush Control Lever (23).
- Water does not come in and handle springs up if pushed down
  - Open Inlet Seacock.
  - Open Flush Control Lever (23).
- Water only comes in after pumping
  - Vented Loop not allowed between Inlet Seacock & Pump.
  - Fit between Pump & Bowl.
- Non-Return Valve (29295-1013) next to Inlet Seacock.

Dimensions and Weights
### Spare Parts List

<table>
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<tr>
<th>Key</th>
<th>Description</th>
<th>Qty per Part No</th>
<th>Qty per Repair Kit</th>
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<tr>
<td>1</td>
<td>BOWL COMPACT TOILET</td>
<td>1</td>
<td>29096-0000</td>
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<td>2</td>
<td>BOWL REGULAR TOILET</td>
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<td>HANDLE</td>
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<td>INTAKE SEAL</td>
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<td>BASE VALVE</td>
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<td>SEAL HOUSING ASSY (UP TO 1997)</td>
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<td>MODEL</td>
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### Key Description

- **BOWL COMPACT TOILET**: 1
- **BOWL REGULAR TOILET**: 1
- **SEAL SET (1 PAIR)**: 1
- **HANDLE**: 1
- **INTAKE SEAL**: 1
- **BASE VALVE**: 1
- **PLUG + DRAIN ASSY (UP TO 2002)**: 1
- **D-RING (PLUG)**: 1
- **D-RING BOWL**: 1
- **BOLT (S/S)**: 4
- **NUT (S/S)**: 6
- **WASHER (Nylon)**: 4
- **BASE VALVE GASKET**: 1
- **SEAL HOUSING ASSY (UP TO 1997)**: 1

### Repair Kits

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<td>C</td>
<td>29045-3000 PUMP ASSSEMBLY</td>
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<td>D</td>
<td>29051-2000 PUMP CYLINDER ASSM BLT</td>
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<td>E</td>
<td>29047-0000 BASE TO BOWL MOUNTING KIT</td>
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</table>

### Key Description

- **TOP VALVE SEAT**: 1
- **D-RING GASKET**: 1
- **D-RING COVER**: 1
- **SCREW (FLUSH LEVER)**: 1
- **SCREW (VALVE COVER)**: 1
- **SCREW (PUMP CYLINDER)**: 1
- **SCREW (VALVE SPRING)**: 1
- **SCREW (PUMP CYLINDER)**: 1
- **SCREW (VALVE SPRING)**: 1

### Optional re-assembly by installer for left hand operation.

- **Model**: 29120-3000 Manual Toilet, Regular Bowl
- **Model**: 29090-3000 Manual Toilet, Compact Bowl

### Applications

- **Manual Toilets**
- **Regular and Compact bowl manually operated marine toilets in both power and sailing craft, either above or below the waterline, for use on sea, river, lake or canal.**
- **Your installation may discharge the waste either overboard (provided that your national and local regulations allow this), or into a treatment system or into an on-board holding tank (U.S.C.G. Marine Sanitation Devices Type I, II and III).**

### Features

- **Design**
  - **Twist ‘n’ Lock action safety handle guards against flooding and waste backflow by locking the waste outlet valve shut.**
  - **Reversible pump mounting allows re-assembly for left hand operation by installer.**
  - **Powerful self-priming, double-acting piston pump.**
  - **Strong swirl action for efficient flushing.**
  - **Automatic vacuum breaker operated by flush control lever for easier priming.**
  - **Spring assisted top valve closure for easier priming.**
  - **Vacuum breaker operated by flush control lever for easier bowl emptying.**
  - **Constant 38mm (1 1/2”) bore waste path minimises blockages.**
  - **Optional re-assembly by installer for left hand operation.**

### Materials

- **Luxury wooden seat and cover with tough baked enamel coating.**
- **Hygienic white ceramic bowl for ease of cleaning.**
- **Pump and base moulded in ABS or polypropylene with selected parts in acetal resin, fitted with 316 stainless steel fastenings, brass weights and neoprene seals and gaskets.**

### Performance

- **Flushing pump self-primes from dry up to 1 metre (3ft) below the base.**
- **Waste pump discharges up to 3 metres (9ft) above the base.**

### Dimensions

- **See the Dimensional Drawing on the back page.**

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