SERVICE & MAINTENANCE INSTRUCTIONS
1) Before attempting to service or disassemble any component, make sure that the unit is disconnected from the power source.
2) The cleaning of reservoir should be done every six months usually at the beginning and the end of the air conditioning season.
3) Open the reservoir cover using the opening wing.
4) Clean the reservoir and the float using a solution of water containing 5% bleach. Replace the float in the initial position (Magnet Face Up) and reinstall the reservoir cover.
5) Perform the trial operation.

TROUBLESHOOTING

The unit does not run. → Check the power supply. → Check the air conditioner to see if the condensation is actually being produced. → Make sure the inlet piping is not clogged.

The unit makes loud noises even after the first dry-running phase. → Check if the pump is contacting any hard surfaces. If it is, anti-vibration materials should be positioned between the pump and the hard surface. → Make sure there is no siphoning action.

The unit runs but does not pump the liquid out properly. → Check the highest point of the discharge piping does not exceed the maximum delivery head of the pump. → Check every piping is not chipped or twisted. → Check the flow rate of the pump is sufficient for the condensation volume of air conditioner.

LIMITED WARRANTY
MICRODAM condensate removal pump is warranted against defective materials and workmanship for a period of 12 months. Any product that should fail for either of the above reasons is and will be replaced or repaired at the option of Sungshin Hsico, Ltd as the sole remedy of buyer.
For our customers located outside of Korea (R.O.K), please return the defective unit to any authorized local distributor or dealer with a brief written explanation of the problem. If there are no reappearance of customer abuse, unit will be repaired or replaced. If dispute arises over replacement of the pump, the electrician or dealer is to segregate such items and hold for inspection by a representative of Sungshin Hsico, Ltd. or notify factory with details of the problem for factory disposition and settlement of warranty claims.

DISCLAIMER: The foregoing warranty is an exclusive warranty in lieu of any other express warranties. Any implied warranties, including, but not limited to any implied warranty of merchantability or fitness for a particular purpose to the extent either applies to a pump shall be limited in duration to the periods of the express warranties given above.
Warranty will be VOID if any of the following conditions are found:
1. Sealed motor housing opened.
2. Product connected to voltage other than indicated on nameplate.
3. Cord cut off to a length less than three feet.
4. Pump allowed to operate dry (fluid supply cut off).
5. Pump used to circulate anything other than fresh water at approximately room temperature.
6. Any type of product abuse by customer.

Any oral statements about the product made by the seller, the manufacturer, the representatives or distributors, or any user shall determine the suitability of the product for the intended use, and user assumes all risk and liability whatsoever in connection therewith. We recommend each pump be used with a GFCI (Ground Fault Circuit Interrupter).

Any implied warranties are hereby disclaimed. Neither the seller nor the manufacturer makes any warranty, expressed or implied, including, but not limited to any implied warranty of merchantability or fitness for a particular purpose) to the extent either applies to a pump.
Neither seller nor the manufacturer shall be liable for any injury or loss, direct, indirect, or consequential (including, but not limited to incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss), arising out of the use or the inability to use this product and the user agrees that no other remedy shall be available to it. Before using, the user shall determine the suitability of the product for the intended use, and user assumes all risk and liability whatsoever in connection therewith. We recommend each pump be used with a GFCI (Ground Fault Circuit Interrupter).

Any question or dispute over the warranty of the product shall be subject to the laws of the place of production of the pumps, and any lawsuit shall be filed in a local court of such place. The manufacturer reserves the right to change any product description and specifications without notice or obligation.

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Smart Guard for Your Comfortable Place!
Please read this user guide carefully before attempting to install, operate or service the MICRODAM pump. Know the pump application, limitations and potential hazards. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage. Retain this user guide for future reference. Installation, connections, and after-sale service are to be made by a qualified person.
**NAME of EACH COMPONENT**

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reservoir</td>
<td>Main chamber to hold liquid</td>
</tr>
<tr>
<td>Overflow Alarm Cable</td>
<td>Cable to detect overflow</td>
</tr>
<tr>
<td>Breather Hose</td>
<td>Hose to release excess air</td>
</tr>
<tr>
<td>Breather</td>
<td>Chamber to release excess air</td>
</tr>
<tr>
<td>Power Supply Cable</td>
<td>Cable to connect power supply</td>
</tr>
<tr>
<td>Outlet Port of Pump</td>
<td>Port for liquid discharge</td>
</tr>
<tr>
<td>Motor</td>
<td>Engine to pump liquid</td>
</tr>
<tr>
<td>Filter with Magnet</td>
<td>Filter to remove impurities</td>
</tr>
<tr>
<td>Inlet Port of Pump</td>
<td>Port for liquid intake</td>
</tr>
<tr>
<td>Inlet Hose</td>
<td>Hose for liquid intake</td>
</tr>
<tr>
<td>DC Cable</td>
<td>Cable for electrical connection</td>
</tr>
<tr>
<td>DC Adhesive Tape</td>
<td>Tape for securing connections</td>
</tr>
</tbody>
</table>

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>MERCURY Pump</td>
<td>Designed to automatically remove drainage liquid from air-conditioners of maximum 7kW cooling capacity.</td>
</tr>
</tbody>
</table>

**ACTIVITIES OF WATER LEVEL SENSOR**

- The sensor works to detect the level of liquid and send a signal to the control unit.
- It is essential for monitoring and ensuring the pump operates efficiently.

**FLOW RATES at EACH HEAD**

<table>
<thead>
<tr>
<th>Head</th>
<th>0m / 0LH</th>
<th>4m / 13L</th>
<th>8m / 20L</th>
</tr>
</thead>
<tbody>
<tr>
<td>gals</td>
<td>1.00</td>
<td>2.38</td>
<td>1.59</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.92</td>
</tr>
</tbody>
</table>

**WARNING**

1. DO NOT USE TO PUMP FLAMMABLE OR EXPLOSIVE FLUIDS SUCH AS GASOLINE, FUEL OIL, ALCOHOL, ETCH.
2. DO NOT USE IN EXPLOSIVE ATMOSPHERES.
3. DO NOT USE TO PUMP HOT WATER OVER 40°C.
4. DO NOT HANDLE PUMP WITH WET HANDS OR WHEN STANDING ON A WET OR DAMP SURFACE, OR IN WATER.
5. TO REDUCE THE RISK OF ELECTRICAL SHOCK, BE CERTAIN THAT THE PUMP IS CONNECTED TO A PROPERLY GROUNDED GROUNDING TYPE RECEPTACLE.
6. CONNECT THE PUMP ONLY TO THE POWER SUPPLY SPECIFIED ON THE NAMEPLATE OF THE PUMP.
7. IF THE POWER SUPPLY CORD IS DAMAGED, IT MUST BE REPLACED BY THE MANUFACTURER OR ITS SERVICE AGENT OR A SIMILARLY QUALIFIED PERSON IN ORDER TO AVOID A HAZARD.
8. THE MEANS FOR DISCONNECTION MUST BE INCORPORATED IN THE FIXED Wiring ACCORDING TO THE Wiring RULES.
9. IN ANY INSTALLATIONS WHERE PROPERTY DAMAGE AND/OR PERSONAL INJURY MIGHT RESULT FROM AN INOPERATIVE PUMP, A BACKUP SYSTEM AND/OR ALARM SHOULD BE USED.
10. DO NOT TWIST THE DRAIN HOSE AND THE DISCHARGE HOSE.
11. BEFORE ANY MAINTENANCE OR REPAIR OF THE PUMP, PLEASE DISCONNECT THE PUMP FROM THE POWER SUPPLY TO AVOID AN ELECTRICAL SHOCK.
12. PLEASE AVOID CHILDREN'S APPROACH TO THE PUMP.
13. PLEASE KEEP IN MIND THAT THE PUMPS ARE NOT SUBMERSIBLE PUMPS.
14. EVERY INSTALLATION OR AFTER-SALES SERVICE SHOULD BE DONE BY QUALIFIED SERVICE TECHNICIANS.
15. THE INTERMITTENT RATINGS OF THESE PUMPS ARE NOT LONGER THAN 5 MINUTES.
16. THIS PUMP IS NOT DESIGNED TO RUN DRY. REPEATED RUNS IN DRY CAUSE THE EVENTUAL PUMP FAIL. THIS PUMP SHOULD NOT WORK OVER 1 MINUTE WITHOUT FLUID FLOWING THROUGH THE PUMP.

**INSTALLATION GUIDE**

1. Carefully unpack the unit and check for damage. Make sure that all of the required parts are included.
2. Select a proper mounting location. In case of MERCURY PLUS, install the included ducts next to air conditioner at first.
3. Connect the inlet hose (13) to the drain hose of air conditioner. Connect the other end of inlet hose (13) to the inlet hole of reservoir (12).
4. Connect the power supply cable (15) to the power supply of the pump.
5. Mount the reservoir (2) on a proper location using the bi-adhesive tape.
6. Connect the outlet hole of reservoir (12) and the inlet port of pump (11) with the connection hose (14).
7. Mount the unit to the wall using the bi-adhesive tape and screws.
8. Connect the over/flow alarm cable (COM and NC) into cooling signal wire of the air conditioner indoor unit, to avoid the continued operation of the air conditioning unit in the event of the pump failing.
9. Adopt to be done by qualified service technicians, who have assessed the set-up of the individual air conditioning unit!
10. Mount the pump on a proper location using the bi-adhesive tape.
11. Connect the discharge hose to an appropriate drain.
12. Make sure that every connection hose is not clogged or twisted!