SERVICES & MAINTENANCE

Allow a one minute rest after each cycle to prevent triggering the thermal protector.

• Clicking noises heard at initial start-up are normal and are usually only heard for the first few operations.
• Allow a one minute rest after each cycle to prevent triggering the thermal protector.

SERVICE & MAINTENANCE

Ensure power to the pump is disconnected before performing any service or maintenance.

1. Clean the reservoir every six months, preferably at the beginning and end of the air conditioning season.
   a. Open the reservoir cover using the opening latch.
   b. Clean the reservoir and float using a solution of water containing 5% bleach.
   c. Replace the float in the initial position (magnet facing up).
   d. Reinstall the reservoir cover.
2. Perform a TEST OPERATION (see below).

TEST OPERATION

• After installation, test pump operation by slowly pouring water into the air conditioner drain pan. Repeat this approach, 8–10 times.
• Check for any water leaks, kinked or pinched lines, or siphoning action.
• Clicking noises heard at initial start-up are normal and are usually only heard for the first few operations.
• Allow a one minute rest after each cycle to prevent triggering the thermal protector.

TROUBLESHOOTING

Ensure power to the pump is disconnected before performing any service or maintenance.

Unit runs but does not pump the liquid out properly.
• Check the highest point of the discharge hose does not exceed the maximum delivery head of the pump.
• Check hose is not clogged or kinked.
• Check the flow rate of the pump is sufficient for the condensation volume of air conditioner.

Unit makes loud noises even after the first dry-running phase.
• Check if pump has contact with any hard surfaces. If it does, anti-vibration materials should be positioned between the pump and all hard surfaces.
• Verify there is no siphoning action.

Unit does not run.
• Check the power supply.
• Check the air conditioner to see if condensation is actually being produced.
• Check hose is not clogged or kinked.

LIMITED WARRANTY

Liberty Pumps Wholesale Products Limited Warranty

Liberty Pumps, Inc. warrants that Liberty Pumps wholesale products are free from all factory defects in material and workmanship for a period of three (3) years from the date of purchase (excluding batteries). The date of purchase shall be determined by a dated sales receipt noting the model and serial number of the pump. The dated sales receipt must accompany the returned pump if the date of return is more than three years from the date of manufacture noted on the pump nameplate.

The manufacturer’s sole obligation under this Warranty shall be limited to the repair or replacement of any parts found by the manufacturer to be defective, provided the part or assembly is returned freight prepaid to the manufacturer or its authorized service center, and provided that none of the following warranty-voiding characteristics are evident:

• The manufacturer shall not be liable under this Warranty if the product has not been properly installed, operated, or maintained per manufacturer instructions; if it has been disassembled, modified, abused, or tampered with; if the electrical cord has been cut, damaged, or spliced; if the pump discharge has been reduced in size; if the pump has been used in water temperatures above the advertised rating.

There is no other express warranty. All implied warranties, including those of merchantability and fitness for a particular purpose, are limited to three years from the date of purchase. This Warranty contains the exclusive remedy of the purchaser, and, where permitted, liability for consequential or incidental damages under any and all warranties are excluded.

Read this user guide carefully before attempting to install, operate, or service the LCU-MS Mini-Split Series pump. Know the pump application, limitations, and potential hazards. Protect yourself and others by observing all safety information. Failure to comply with these instructions could result in personal injury and/or property damage. Retain this user guide for future reference. Installation, connections, and service shall be done only by qualified personnel.

PRODUCT INFORMATION

Keep this manual handy for future reference
Retain dated sales receipt for warranty

Pump Model: ____________________________
Pump Serial #: __________________________
Install Date: ____________________________
Liberty Pumps Mini-Split Series is an automatic condensate removal system designed to remove water from a ductless mini-split air conditioner evaporative coil when gravity-feed drainage is not possible or practical.

### COMPONENT IDENTIFICATION

- **Pump Outlet Port**
- **Reservoir Outlet Port**
- **Power Supply Cable**
- **Reservoir Cover with Level Sensor**
- **Reservoir Inlet Port**
- **Float with Magnet**
- **Reservoir**
- **Ducts for LCU-M52**
  - **Duct Socket**
  - **Duct End**
  - **Elbow Duct**
  - **Straight Duct**
- **Vent Hose**
- **Anti-kink Spring**
- **Communication Cable**
- **Pump Inlet Port**
- **Overflow Alarm Cable**

### Ducts for LCU-M52
- **Ducts for LCU-M52**

### WATER LEVEL SENSOR

- **Reservoir Cover**
- **Cover Open Tab**
- **Level Tolerance (-2 mm)**
- **Vent**
- **Magnet** Always Facing UP

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>SPECIFICATION</th>
</tr>
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<tbody>
<tr>
<td>For Use With</td>
<td>Air Conditioner (Max 7 kW)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>Refer to Product Label</td>
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<tr>
<td>Electrical Output</td>
<td>30W</td>
</tr>
<tr>
<td>Safety Switch Contacts</td>
<td>Max 3A 115 VAC / 3A 240 VAC</td>
</tr>
<tr>
<td>Max Suction Head</td>
<td>2 m / 6.6 ft</td>
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<tr>
<td>Max Discharge Head</td>
<td>8 m / 26.2 ft</td>
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<tr>
<td>Max Flow Rate</td>
<td>10 l/hr / 2.64 gph</td>
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<tr>
<td>Reservoir Capacity</td>
<td>35 ml / 1.2 oz</td>
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### FLOW RATES

<table>
<thead>
<tr>
<th>Head</th>
<th>0 m / 0 ft</th>
<th>4 m / 13 ft</th>
<th>6 m / 20 ft</th>
<th>8 m / 26 ft</th>
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<tbody>
<tr>
<td>Liter/Hour</td>
<td>10.9</td>
<td>9.0</td>
<td>5.0</td>
<td>3.5</td>
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<tr>
<td>Gallon/Hour</td>
<td>2.64</td>
<td>2.38</td>
<td>1.59</td>
<td>0.92</td>
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</tbody>
</table>

### WARNINGS

- **Do not use to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do not use in flammable and/or explosive atmospheres.**
- **Do not use with fluid over 40°C (104°F).**
- **Do not handle or unplug pump with wet hands, when standing on a wet/damp surface, or in water.**
- **Pump shall be properly grounded, using its supplied grounding conductor. Do not bypass grounding wires or remove ground prong from attachment plug. Failure to properly ground the pump system can cause all metal portions of the pump and its surroundings to become energized.**
- **Connect pump to power supply as specified on pump nameplate.**
- **For cord replacement: power cord must be of the same length and type as originally installed on the Liberty Pumps product. Use of incorrect cord may lead to exceeding the electrical rating of the cord and could result in death, serious injury, or other significant failure.**
- **Do not modify the pump/pump system in any way.**
- **This product contains chemicals known to the State of California to cause cancer and birth defects, or other reproductive harm. www.p65warnings.ca.gov.**

### INSTALLATION

1. Carefully unpack the unit and check for damage. Make sure all parts are included. The units are thoroughly tested before packing to ensure safe delivery and operation. If there is any sign of damage due to shipment, return it to the place of purchase for repair or replacement.
2. Select proper mounting locations for the reservoir and the pump.
3. Connect the inlet hose(s) to the drain hose of the air conditioner. Connect the other end of the inlet hose(s) to the reservoir inlet port(s).
4. Connect the vent hose(s) to the vent hole(s) on the reservoir cover(s).
5. Mount the reservoir(s) at the established location using the double-sided tape(s).
6. Connect the reservoir outlet port(s) and the pump inlet port(s) with the connection hose(s).
7. Attach the double-sided tape(s) to the bottom of the pump. Mount the pump(s) at the established location. If needed, use a cable tie(s) to secure the pump(s).
8. Attach the double-sided tape between the pump and any hard surface to reduce vibration noise.
9. Connect the overflow alarm cable (COM and NC) into the cooling signal wire of the air conditioner indoor unit to stop operation of the air conditioning unit in the event the pump fails.
10. All wiring shall be done by qualified personnel who have assessed the set-up of the individual air conditioning unit.
11. Connect the discharge hose(s) to the pump outlet port(s) and extend the discharge hose to an appropriate drain.
12. Make sure all connection hoses are not clogged, kinked, or twisted. Use anti-kink spring on tubing as needed(s).
13. Make sure there are no clogged, kinked, or twisted. Use anti-kink spring on tubing as needed(s).
14. Make sure the power source voltage matches the pump's voltage requirement. Connect the power supply cable(s) to a constant source of power (not a fan or other device that runs intermittently).
15. Do NOT connect or link the air conditioner's power cable directly to the power supply cable of the pump.
16. When preceding steps are complete, verify the unit and connections by performing a TEST OPERATION (next page).