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Please read and retain these instructions for future reference. Kindly read this manual carefully before making any effort to assemble, install, operate or maintain our pumps. Please protect yourself and others by observing all safety information. A failure to comply with instructions could result in personal injury and I or property damage!

# Lubi Submersible Condensate Removal Pumps

### **Description**

Lubi designed and manufactured condensate pump automatically removes water dripping off an air conditioner evaporative coil. This epoxy encapsulated submersible pump is designed for a variety of applications where reliable, automatic pump operation is required. This unit operates efficiently on an 115V, 60 Hz, single phase motor that includes 6 feet long, 3 prong power cord and a check valve. Additionally, the motor is protected from overheating and damage. If automatically shuts off with sudden rise in temperature and restarts after cooling down.

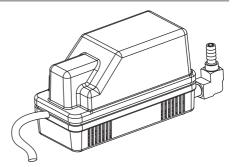


Figure 1

### **Specifications**

Discharge size	
Power supply	1 Phase
Volts	
Hz	60Hz
Cord size	SJTW 3C x 18 AWG, 6 feet - length
Temperature	LCP4 and LCP5 - 86°F
Tank capacity	
Wetted Materials of Construction	

Model	Motor Full Load Amps	RPM	Motor Cover	Shaft	Tank	Impeller
LCP4	1.0	3000	Rynite	Stainless Steel	NA	Polypropylene
LCP5	1.0	3000	Rynite	Stainless Steel	ABS	Polypropylene

### Performance (without check valve)

GPH of Water @ Total Feet of Head			Shut Off	Switch Setting			
Model	1′	3′	5′	10′	Head (Ft)	On	Off
LCP4	100	95	89	68	11	2.0"	1.0"
LCP5	100	95	89	68	11	2.0"	1.0"



# **Lubi Submersible Condensate Removal Pumps**

### **Dimensions**

### LCP4

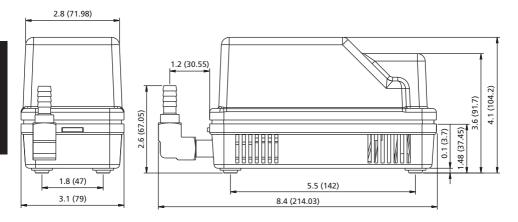


Figure 6

### LCP5

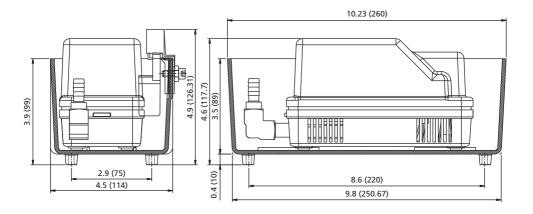


Figure 7

## **Models LCP4 and LCP5**

Model LCP4 is the pump only.

Model LCP5 is supplied with a sump pan, 20 ft. of tubing, & safety control switch.

### **Unpacking and Inspection**

Before installing the pump, inspect it carefully and make sure that there are no damaged parts. If damage has occurred, contact and file a claim immediately with the carrier that delivered the pump.

### **General Safety Information**

**A WARNING** 

To reduce the risk of electric shock, unplug the

unit before servicing. The pump is equipped with a grounding conductor and grounding-type attachment plug. Make sure it is connected only to a properly grounded grounding-type receptacle. If a 2-prong wall receptacle is present, it must be replaced with a properly grounded 3-prong receptacle installed in accordance with codes and ordinances that apply.

**NOTE:** This equipment is for use on 115 volt (single phase) only and is supplied with an approved 3-prong plug and grounding cord.

- Follow all required electrical and safety codes when wiring an electrically driven pump.
- Ensure the power source is compatible with the requirements of your equipment.
- A qualified electrician should do all wiring.
- Avoid kinking the power cord. If any cords are worn, repair or replace them immediately.
- Protect the power cord from sharp objects, chemicals, hot surfaces, and oil.

#### PERSONAL SAFETY CONCERNS

- Always wear safety glasses when working on pumps.
- Make work area and shop child safe—utilize master switches and locks, and remove all keys.

- Keep work area well-lighted.
- Keep others at a safe distance away while working.
- Keep work area clean and tidy, and put all unused tools and equipment away.
- Never touch or handle the pump, while plugged in, with wet hands or when standing in water or on a damp surface

#### Installation

A WARNING

Be sure the pump is always electrically grounded to an acceptable electrical ground such as a ground wire system, a grounded water pipe, or a properly grounded metallic raceway. Do not cut off the round grounding pin.

- 1. The 3/8" check valve should be attached to the 1/4" N.P.T. elbow. Make sure not to overtighten. The pump should be put in a sump tank or other appropriate container. Make sure that the drip pan is at least 3" deep. Run the discharge line (3/8" vinyl tubing) up to the minimum distance required. Make sure that the discharge line is not more than 10 ft. It is advisable to slant the horizontal run down slightly to gain the benefit of gravity. (Figure 4)
- Power should be switched off before making any connections. All wiring must comply with local and national codes.
- Line voltage: Connect power cord to line voltage as per motor specification. Power cord must be connected to an uninterrupted source of power.

  Connections

  Connections

  Connections

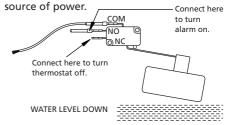
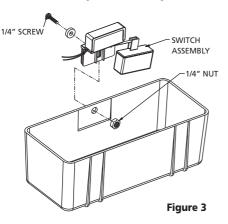


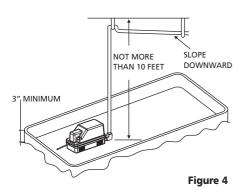
Figure 2

Lubi

# **Lubi Submersible Condensate Removal Pumps**

### **Installation (Continued)**





4. Safety switch: (Figure 3,5) Use a class 2 low voltage circuit to connect the safety switch. Thermostat circuit can be controlled by connecting COM and NO in series with low voltage thermostatic circuit to shut the AC/Thermostat circuit. Alternatively, the heating/cooling COM and NC switch contacts can be used to trigger a low voltage alarm circuit (connected in series) if the heating/cooling system cannot be troubled. The safety switch comes with leads connected to

the COM and NO switch terminals. Refer to Figure 2 to connect the "NC" circuit.

A WARNING

Never remove the screws that hold the diaphragm cover in place. Trying to remove parts in the switch could cause an electric shock.

A properly grounded receptacle must be installed to reduce the risk of electrical shock. Always disconnect pump from its power source before handling.

A small "Breather Tube" (Figure 8) is enclosed inside the power cord. Make sure that the breather tube is not blocked to ensure proper functionality of the pressure switch.

### **Pre-operation Testing of Pump**

- 1. Follow all the instruction in the Installation section.
- 2. Place the pump (LCP4 only) in a 3" drip pan.
- 3. Provide power to the pump.
- 4. Fill the drip pan with water until the pump starts to operate. The pump should start to operate as the water level reaches 2".

A DANGER

Do not pump materials (Flammable, caustic, etc.) unless the pump is specifically designed and designated to handle them.

### **Maintenance**

**AWARNING**Before attempting to repair or remove any component from this Lubi condensate pump, ensure that all power sources are disconnected

### Models LCP4 and LCP5

### **Maintenance (Continued)**

If the condensate pump fails to operate, please check the following:

- Before attempting to repair or remove any component from this Lubi condensate pump, ensure that all power sources are disconnected.
- Make sure that the pump is getting power supply. Check the circuit breaker or try another power outlet to be sure.
- 3. Make sure that the intake screen is free of any sand or dirt.
- Inlet and outlet piping should be checked.
   Clean as necessary. Be sure there are no foreign objects in the line that would inhibit flow.
- 5. Make sure that the impeller is not broken or jammed.

- 6. Minerals deposit around the impeller should be scraped off. First, gently remove the impeller from the shaft and remove the mineral deposits. Then apply a few drops of oil where impeller shaft enters the motor. Press the impeller on to the shaft and make sure there is 1/16" gap between Impeller and impeller back plate.
- 7. Tank should be cleaned with lukewarm water.
- Periodically, inlet and outlet piping should be checked. Clean as necessary. Be sure there are no foreign objects or kinks in the line that would inhibit flow.

A WARNING

The four screws that hold the diaphragm cover in place should never be removed. There are no repairable parts in the switch mechanism and removing or loosening the

diaphragm cover could cause an electrical

Figure 5

shock hazard.



# **Lubi Submersible Condensate Removal Pumps**

## **Troubleshooting Chart**

Symptom	Possible Cause(s)	Corrective Action		
Pump won't start	1. Bad fuse	If fuse is blown, replace with appropriations		
	2. Low voltage	<ol> <li>If the voltage is less than the minimum required, inspect the wiring size at the main switch on the property. If the size is OK, contact the local electric company or hydroelectric authority</li> </ol>		
	3. Defect inside motor	3. Replace the pump		
	4. Clogged impeller	4. If the impeller won't turn, locate the source of the clog and remove		
Pump cycles too often	1. Water back flowing from piping	1. Install or replace the check valve		
Pump won't	1. Faulty float switch	1. Replace the pump		
shut off	Restricted discharge (blockage in piping)	Remove the pump and clean it and the piping		
Pump starts but pumps little or no water	1. Low voltage	If the voltage is less than the minimum required, inspect the wiring size at the main switch on the property. If the size is OK, contact the local electric company or hydroelectric authority		
	2. Clogged impeller	Flush out the impeller or, if cannot be cleaned,     Replace the pump.		
	3. Worn impeller or defective parts	3. Replace the pump		
	Restricted discharge     (blockage in piping)	4. Remove the pump and clean the piping		

**▲ WARNING** 

Hazardous voltage; risk of electric shock, personal

injury, or death. Unplug the pump before attempting to clean or service the unit.

## For Repair Parts, call 570-585-2195

Monday thru Friday - 8:00 am to 4:30 pm E.S.T.

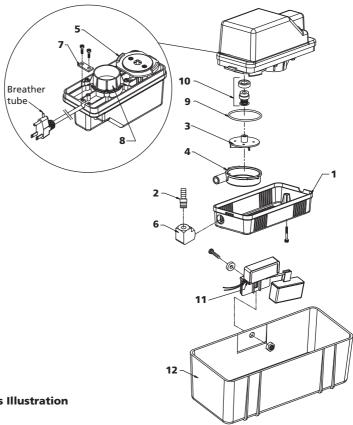


Figure 8 - Repair Parts Illustration
Repair Parts List

Ref.		Part Number	Part Number for Models:		
No.	Description	LCP4	LCP5	Quantity	
1	Bottom Cover	PP01014G	PP01014G	1	
2	Check Valve	PP01019G	PP01019G	1	
3	Impeller	PP01003G	PP01003G	1	
4	Volute	PP01002G	PP01002G	1	
5	Impeller Back Plate	PP01004G	PP01004G	1	
6	1/4" NPT Elbow	PP01020G	PP01020G	1	
7	Cable Lock Strip	PP02191G	PP02191G	1	
8	Diaphragm Cover	PP02192G	PP02192G	1	
9	O-Ring	PP02193G	PP02193G	1	
10	Mechanical Seal	PP01029G	PP01029G	1	
11	Micro Switch 10A / 125-250 VAC	-	PP10017G	1	
12	Tank	-	PP01007G	1	

## Lubi Submersible Condensate Removal Pumps

#### LIMITED WARRANTY

LUBI WARRANTS TO THE ORIGINAL CONSUMER PURCHASER ("PURCHASER") OF ITS PRODUCTS THAT THEY ARE FREE FROM DEFECTS IN MATERIAL & WORKMANSHIP.

IF WITHIN TWO (2) YEARS FROM THE DATE OF ORIGINAL CONSUMER PURCHASE ANY SUBMERSIBLE CONDENSATE REMOVAL PUMPS, SHALL PROVE TO BE DEFECTIVE, IT SHALL BE REPAIRED OR REPLACED AT LUBI'S OPTION, SUBJECT TO TERMS & CONDITION SET FORTH BELOW.

GENERAL TERMS & CONDITIONS: PURCHASER MUST PAY ALL LABOR AND SHIPPING CHARGES NECESSARY TO REPLACE PRODUCT COVERED BY THE WARRANTY. THE WARRANTY SHALL NOT APPLY TO ACTS OF GOD, NOR SHALL IT APPLY TO PRODUCTS, WHICH IN SOLE JUDGEMENT OF LUBI, HAVE BEEN SUBJECTED TO NEGLIGENCE, ABUSE, ACCIDENT, MISAPPLICATION, TAMPERING, ALTERATION; NOR DUE TO DEFECTS OR MALFUNCTIONS, RESULTING FROM THE FAILURE TO INSTALL, OPERATE, OR MAINTAIN THE UNIT IN ACCORDANCE WITH PRINTED INSTRUCTION PROVIDED; NOR TO UNITS WHICH IS MOVED FROM ITS ORIGINAL INSTALLATION LOCATION; NOR IF THE UNIT IS USED FOR THE PURPOSES OTHER THAN FOR WHAT IT WAS DESIGNED AND MANUFACTURED; NOR TO UNITS WHICH ARE NOT INSTALLED IN ACCORDANCE WITH APPLICABLE LOCAL CODES, ORDINANCES, AND ORIGINAL TRADE PRACTICES.

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