

# CONDENSATE REMOVAL PUMP PH-2L

### INTRODUCTION

Your Pump House Condensate Pump is designed as an automatic condensate removal pump for pumping away room temperature condensate water dripping from air conditioner/refrigeration evaporative coils. The pump is controlled by a float/switch mechanism which turns the pump on to discharge the water when approximately 55mm depth of water collects in a tank. The pump automatically switches off when the tank drains to approximately 30mm deep.

The Pump House Condensate Pump you have purchased is a high quality product that has been engineered to give you long and reliable service.

This pump is carefully packaged, inspected and tested to ensure safe operation and delivery. When you receive the pump, examine it carefully to determine there are no broken or damaged parts that may have occurred during shipment. If damage has occurred, please contact your supplier. They will assist you in replacement or repair, if required.

READ INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE OR SERVICE THE PH-2L 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 INSTRUCTIONS FOR FUTURE REFERENCE. INSTALLATION AND CONNECTIONS ARE TO BE MADE BY A QUALIFIED PERSON.

#### SAFETY GUIDELINES



DO NOT USE TO PUMP FLAMMABLE OR EXPLOSIVE FLUIDS SUCH AS PETROL, FUEL OIL, KEROSENE, ETC. DO NOT USE IN EXPLOSIVE ATMOSPHERES. PUMP SHOULD BE USED WITH LIQUIDS COMPATIBLE WITH PUMP COMPONENT MATERIALS.

DO NOT HANDLE PUMP WITH WET HANDS OR WHEN STANDING ON WET OR DAMP SURFACE, OR IN WATER. THIS PUMP IS SUPPLIED WITH AN EARTHING CONDUCTOR AND/OR EARTHING TYPE ATTACHMENT PLUG. TO REDUCE THE RISK OF ELECTRICAL SHOCK, BE CERTAIN THAT IT IS CONNECTED TO A PERMANENT EARTH.

FOR INSTALLATIONS WHERE PROPERTY DAMAGE AND/OR PERSONAL INJURY MIGHT RESULT FROM AN INOPERATIVE OR LEAKING PUMP DUE TO POWER CUTS, DISCHARGE LINE BLOCKAGE, OR ANY OTHER REASON, A BACKUP SYSTEM(S) AND/OR ALARM SHOULD BE USED.

SUPPORT THE PUMP AND PIPING WHEN ASSEMBLING AND WHEN INSTALLED. FAILURE TO DO SO MAY CAUSE PIPING TO BREAK, PUMP TO FAIL, MOTOR BEARING FAILURES, ETC.

## INSTALLATION

 Carefully unpack the pump. Remove the cardboard packing from the motor cover air slots. Carefully slide the packing away from the pump. This packing is used to prevent switch movement during shipment (Fig. 1).

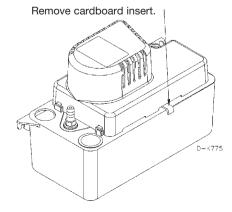


Figure 1.

 Mounting the pump: The tank has two slots provided to mount the unit on a vertical surface such as an adjacent wall. The slots are located on the ends of the tank (Fig. 2). Pump must be level and the inlet must be below the coil drain. Conduit fittings are not compatible with the plastic pump housing.

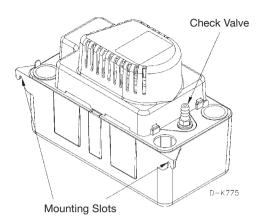


Figure 2.

- 3. The pump should not be installed in a manner that will subject it to splashing or spraying.
- 4. This pump is not intended for use inside air plenums.

### **ELECTRICAL CONNECTIONS**



- Shut off electrical power at fuse box before making any connections. All wiring must comply with local codes.
- 2. Line voltage: Connect pump to voltage specified on label located on pump. Wiring is as follows:

Live (Line) - Brown Neutral - Blue Earth - Yellow/Green

3. If fused plug is used, a 1.0 amp fuse is recommended.

## WATER DRAIN CONNECTIONS

#### Inlet Water Connections

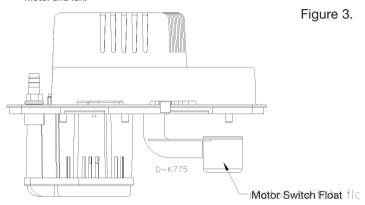
- Position pump beneath a/c or refrigeration condensate drain so that condensate water flows into pump inlet freely (use any of the three openings provided).
- The pump will accept up to three drain lines, although care should be used to make certain that total inflow does not exceed outflow of pump. If more water drains into the pump than the rated output of the pump, tank may overflow.
- Keep plugs in unused pump inlet openings to prevent debris from falling into the pump tank.

## Outlet Water Connections

- Connect 3/8" I.D. tubing to the discharge adapter (item 5, figure 4). For best results, secure tubing with clamps (not provided) but do not pinch collapse or otherwise restrict the tubing.
- 2. Tubing should rise vertically but not exceed the maximum shut off head (pumping height) of 4.8 metres above the pump.
- 3. At highest point angle tubing horizontally and create a downward slope to drainage point. Do not sharply bend or twist the tubing in a way that might result in collapse or restriction of the tubing. Creating a downward slope will allow water to drain by gravity and keep tubing empty of water.
- If it is not possible to create a downward slope, try to create an inverted "U" trap directly above the pump at the highest point.

## **COMMISSIONING & MAINTENANCE**

- 1. Before servicing the pump, disconnect the electric power at the fuse box.
- 2. Upon commissioning, check for debris in the drain pan. Remove any material that might block the drain line or drain into the pump tank.
- 3. It is recommended that the pump be checked every six months for proper operation. Most important is to check for debris blocking the pump discharge adapter/check valve. Check for proper free movement of pump float (Figure 3) and switch and check for free, unrestricted movement of motor and fan.



- Clean the holding tank and float with warm water and mild soap. Rinse completely when finished.
- Check the inlet and outlet piping. Clean as necessary. Be sure there are no kinks in the outlet line that would inhibit or restrict flow.

## **TESTING**

- 1. Turn on power.
- 2. Remove motor/tank cover assembly and hold level.
- Test motor switch by raising motor switch float with finger(Figure 3). Motor should turn on just before float contacts underneath side of cover.
- 4. Replace motor/tank cover assembly on tank.

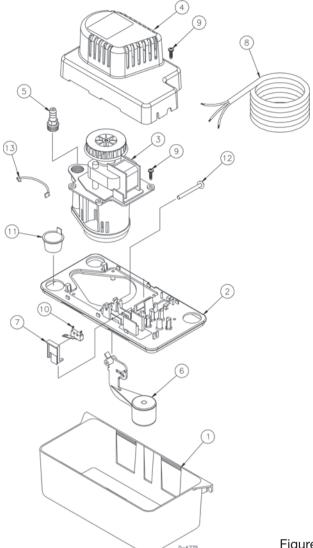


Figure 4.

| ITEM | P/N      | Description                         | QTY |
|------|----------|-------------------------------------|-----|
| 1    | 14940690 | Tank                                | 1   |
| 2    | 154411   | Tank, Cover                         | 1   |
| 3    | 154493   | Motor,Plate,Volute , Assy           | 1   |
| 4    | 14940097 | Cover, Motor                        | 1   |
| 5    | 154715   | Check Valve                         | 1   |
| 6    | 154452   | Float Arm                           | 1   |
| 7    | 154471   | Switch Holder                       | 1   |
| 8    | 951089   | Wiring Harness Assy, 230V, 6FT.     | 1   |
| 9    | 902414   | Tapping Screw                       | 5   |
| 10   | 950337   | Switch                              | 1   |
| 11   | 929602   | Drain Hole Plug                     | 2   |
| 12   | 154455   | Float Pivot Pin                     | 1   |
| 13   | 951941   | Lead Wire Assy                      | 1   |
| 14   | 154037   | 1/4" ID Tubing Adaptor (Not Show n) | 1   |