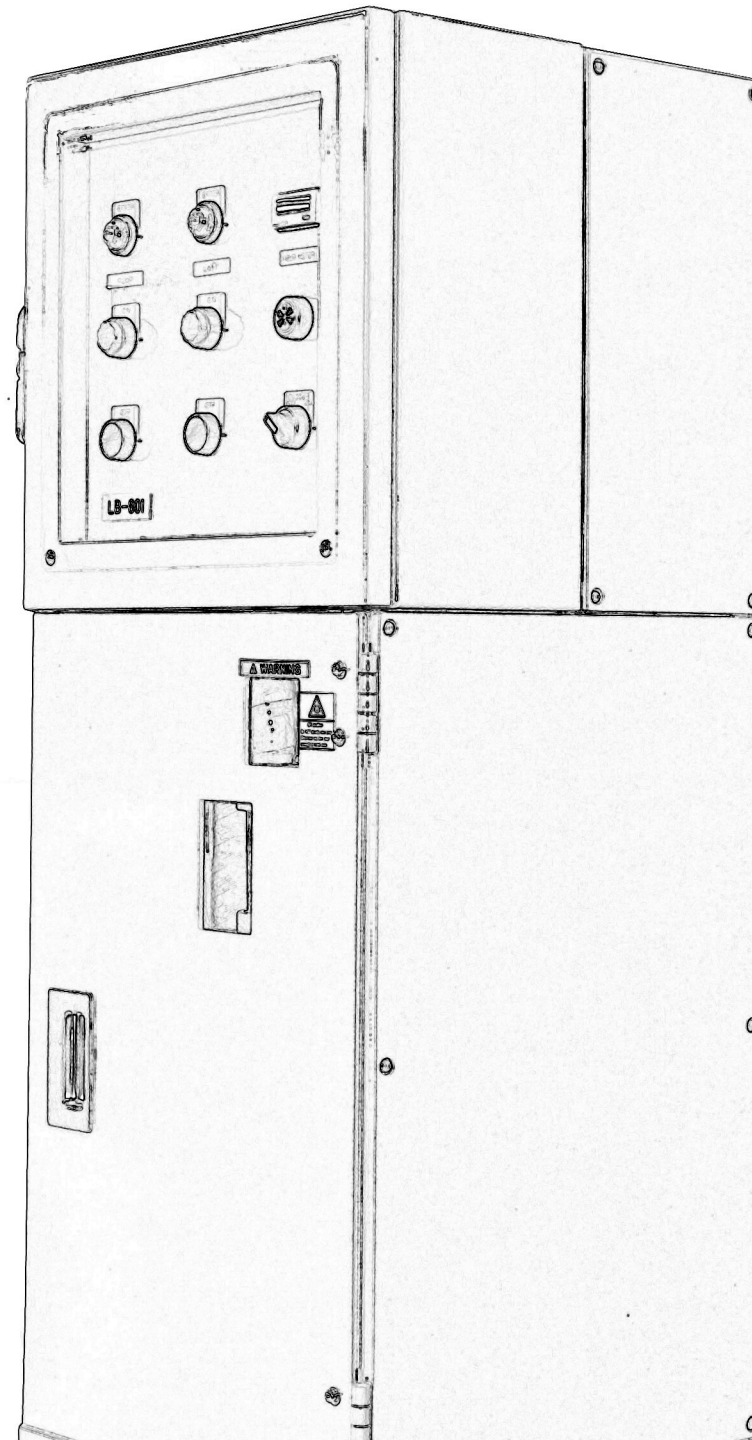


# LB-801

## Chemical-Free Water Dampening System

### OPERATION MANUAL



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## **1. Precautions**

1. This is an instruction manual for the safe and effective use of the Chemical Free Water Dampening System, model #LB-801. Be sure to read and understand this operation manual thoroughly before operating this device.
2. The LB-801 may malfunction, causing serious injury to the operator, if the device is used in a manner different from that described in this manual.
3. Keep this manual with the device for quick reference at any time.
4. If necessary, contact the manufacturer or dealer for a replacement copy of the manual.
5. Please provide this manual to the new owner if and when ownership of this device is transferred.
6. All warranties are voided if the LB-801 is tempered or altered at any time.

## 2. Safety Alert Symbols

This manual and device contain warning messages for safe operation indicated by Safety Alert Symbols.

The danger levels of the Safety Alert Symbols are described below. Carefully read and understand fully these messages.



### **DANGER**

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This warning message includes the preventive actions that are indispensable to avoid danger.



### **WARNING**

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. This warning message includes the preventive actions that are indispensable to avoid danger.



### **CAUTION**

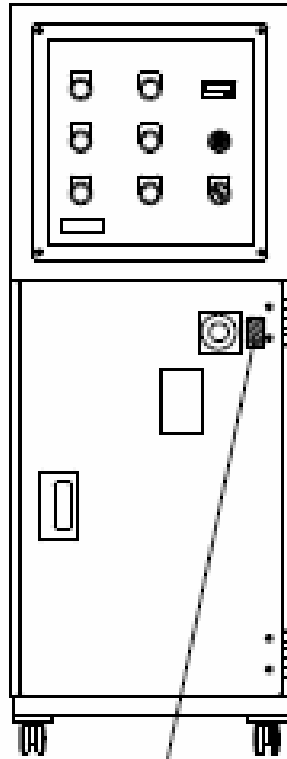
Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. This warning message includes the preventive actions that are indispensable to avoid danger.

The Safety Alert Symbol labels should be visible clearly.

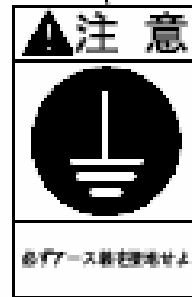
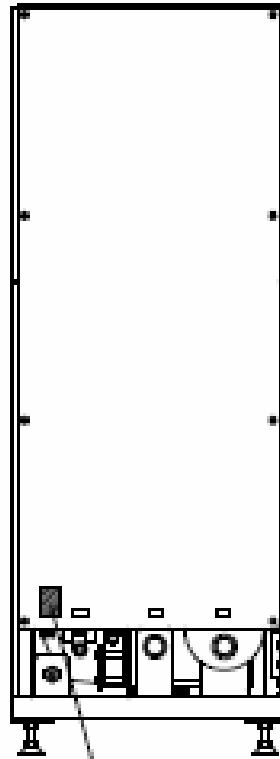
Please contact the manufacturer or dealer for replacement when the labels come off or become dirty.

### 3. Safety Symbols and Locations

FRONT VIEW



REAR VIEW





#### UV Caution

This label is located at the UV lamp window. Do not look directly at the UV lamp. Severe damage or loss of eyesight may result in staring at the UV lamp.

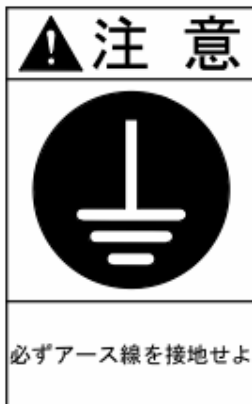
#### Location and details of the safety indication stickers



#### Glass Caution

This label is located at the top of the UV lamp case. Avoid sudden shock, jolt or drop to prevent damage to the device.

#### Location and details of the safety indication stickers



#### CAUTION

This label is located at the low rear of the device. Be sure the device is properly grounded to reduce the risk of electric shock.

## 4. Warnings

### 4-1. Installation Precautions.



#### CAUTION

- \* Do not place the device on a slope – Level ground only.
- \* Do not topple the device.
- \* Remove the device away from excessive heat.
- \* Remove the device away from excessive moisture.
- \* Do not place the device outside.
- \* Do not wet the device with water.
- \* Be sure the device is properly grounded.
- \* Maintain at least 0.4 meters open space around the device.

### 4-2. Transport Precautions.



#### CAUTION

- \* Do not move the device while it is running.
- \* Do not move the device without draining the water from the device.
- \* Do not move the device while replacing the parts.

#### 4-3. Operation Precautions.



#### CAUTION

- \* Do not operate the breaker or switch with a wet hand.
- \* Do not touch any moving parts or circulation parts.
- \* Do not remove the operation panel or the cover while the device is running.
- \* Condensation may occur outside the device. Do not wipe off the moisture while the device is running.
- \* Do not look directly at the UV light.

#### 4-4. Maintenance Precautions



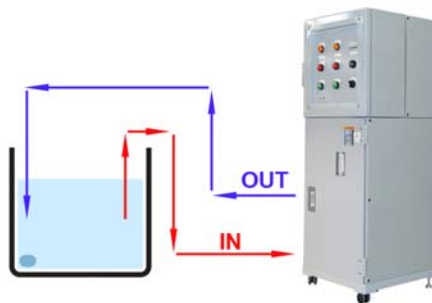
#### CAUTION

- \* Turn the device off prior to any maintenance work.
- \* Put on safety gloves to clean the inside of the tank to avoid cuts or any other injuries.
- \* Replace the water filter when the flowmeter indicates 20L/min. Under normal usage, it is necessary to replace the water filter once per month or two months.
- \* Under normal usage, assuming 8 hours per day, the photocatalytic cartridge should be replaced simultaneously with the UV lamp once a year.
- \* Turn off the device when there is a water leak or abnormal sound is noticed. Contact your reseller for servicing.
- \* Manufacturer holds no responsibility for damage of any kind if the device is modified or misused.

## 5. Installation

- 5-1. Place the device within 1.5 meters from the water supply and primary power source (115V single-phase).  
The electrical power rating is single-phase 100V, 5A.
- 5-2. Place the device on a level ground and within 1.5 meters of the water supply line.
- 5-3. Place the device at least 0.4 meters away from the wall and with at least 0.5 meters distance at the front of the device for adequate ventilation.  
Without proper spacing, the ability to cool the device is compromised.
- 5-4. Push the device gently to ensure the device does not move after installation.
- 5-5. After plumbing is finished, ensure all switches are off prior to connecting to an electrical outlet.
- 5-6. Placement of LB-801 inlet and outlet hoses:

The inlet and outlet hoses should be placed as far as possible in the tank. The outlet hose should be placed close to the exit pump to the printing press. The inlet hose should be placed near the return water from the printing press. Please see diagram below:

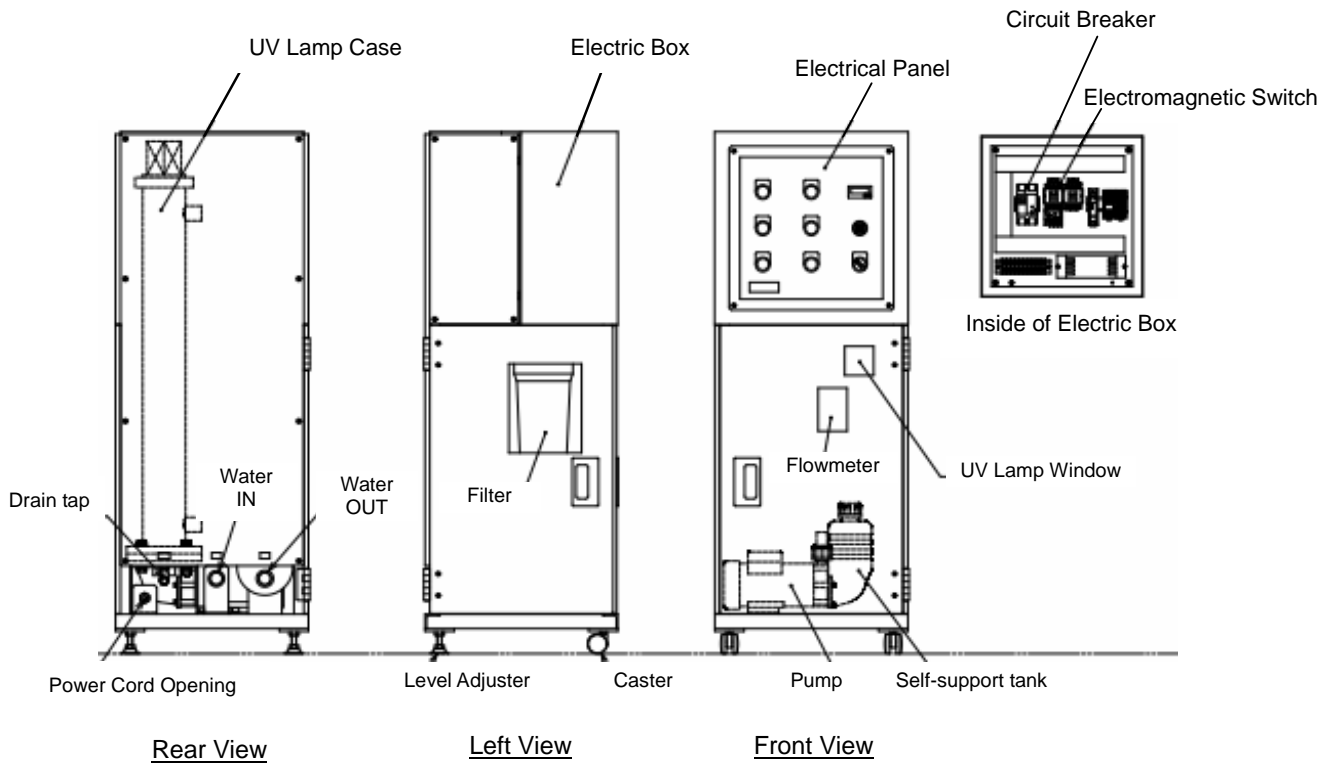


## **6. Relocation**

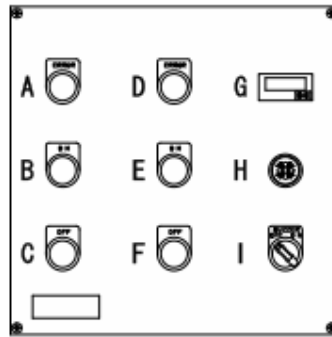
- 6-1. Turn off the device and disconnect the primary power source.
- 6-2. Drain the water in the device and disconnect all pipes from the dampening water tank.
- 6-3. Move the device gently.
- 6-4. Place the device according to the section [5. Installation.]
- 6-5. Please contact the manufacturer or reseller for more information if it is necessary to place the device more than 1.5 meters away from the water supply line or the primary power source.

# 7. Features

## 7-1. Outside Appearance



## 7-2. Control Panel



### A: Pump Error Lamp

This lamp turns ORANGE when there is an overload. The pump may have stopped working when this light is on. When this happens, turn off the device and investigate whether the pipes are loosed or clogged.

Press the reset button in the electrical box after the problem has been resolved.

If the lamp is still orange after solving the problems, please contact the reseller.

### B: Pump On Switch

This is the switch to turn on the pump.

When it turns on, indicated by the RED lamp, the pump works and water circulation starts.

### C: Pump Off Switch

With this switch the pump turns off.

### D: UV lamp Indicator

The indicator turns ORANGE when the UV lamp is broken.

E: UV Lamp On Switch

This is the switch to turn on the UV lamp. It is RED when working properly.

F: UV lamp Off Switch

This is the switch to turn off the UV lamp.

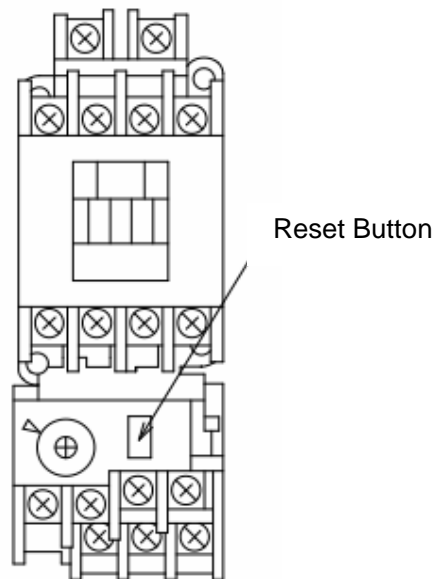
G: Hour Indicator

It shows how long the lamp is being used.

H: Buzzer

I: Buzzer switch

With the switch turned on, the buzzer sound alerts you the UV lamp is broken.



## 8. Operation

- 8-1. Check the water level in the circulation tank. Supply water as necessary.
- 8-2. Make sure that both of the Water-IN and Water-OUT tubes, running from the main unit, are properly connected to the right positions on the side of the circulation tank.
- 8-3. Turn the handles on the Filter Valves #1 and #2 to the parallel position to the water stream. (Valves are on both filter ends)
- 8-4. Open the prime water cap from the white tank and fill with water completely. [Note] Fill up the tank with water again if water does not circulate evenly when the pump is in operation,
- 8-5. Turn on the UV Lamp Power ON-OFF switch from the control panel. The red light indicates the UV lamp is on. The orange light indicates the UV lamp is off.  
(Do NOT look directly at the UV light at the front of the device. Severe damage or blindness may occur.)
- 8-6. The orange lamp lights up only when the lamp is burnt out. The buzzer will sound as a warning if the buzzer ON/Off switch is turned to On position.
- 8-7. Turn on the pump's switch (Red) on the front panel. The red lamp lights to indicate the pump works properly.
- 8-8. It is normal to hear the sound of flowing water near the unit. This is not a faulty condition.
- 8-9. Check to see that the circulating water is properly returning to the circulation tank.
- 8-10. There is a Phillips screw for air exhaust on the top of the UV lamp. Loosen the screw slightly and leave it loose until a small quantity of water oozes out and tighten it again.

- 8-11. Confirm that there is not water leakage from any part of the unit. When a leak is found, contact with the dealer after the shut-down operation.
- 8-12. A 30 minute preliminary run is usually needed to make the tank water temperature reach the operating range.
- 8-13. Prior to shutting down the operation, turn off the lamp power On/Off switch, the water pump switch and close the two valves (valve #1 and #2) on the unit, turning the handles at right angle with the water tubes.

## 9. LB-801 Inspection and Maintenance



### CAUTION

\* Turn off all power switches and disconnect the main power supply prior to any maintenance work.

9-1. Water from the main tank should be replaced with fresh tap water, well water or reverse osmosis water every month.

9-2. Photo catalyst filter and UV lamp require replacement every 12-months under normal usage.

Step 1. Power off all switches and disconnect power cord from wall outlet.

Step 2. Drain main tank water by opening drain bulb on the back side of the LB-801 main unit.



<Front>



<Left side>

Step 3. (Photo 1) Unscrew hex screw ventilator to the left to allow air in. Next, remove the UV lamp by loosening the UV lamp and the filter clamp.

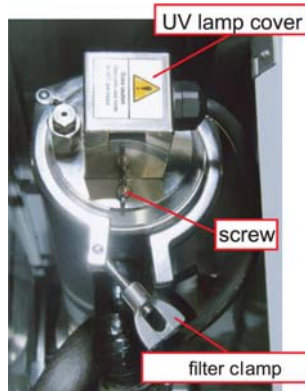


Photo 1

Step 4. (Photo 2) Loosen screws on both sides of the lamp cover and remove the lamp cover. Next, remove the UV lamp socket from the UV lamp terminal.



Photo 2

Step 5. (Photo 3) Remove the UV lamp socket from the UV lamp terminal and pull out the UV lamp gently.

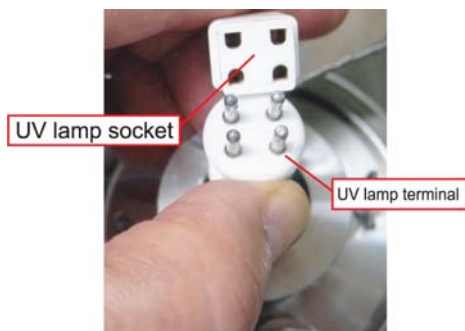


Photo 3

Step 6. (Photo 4) Unscrew to the left, the round shaped screw which holds the quartz tube.



Photo 4

Step 7. (Photo 5) Moisten the neck of the quartz tube using a syringe.

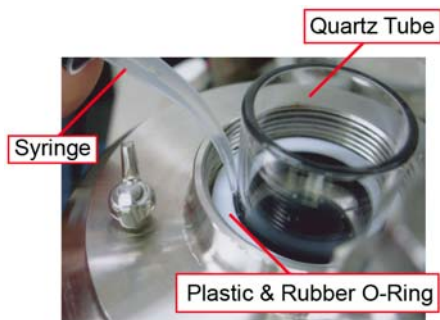


Photo 5

Step 8. (Photo 6) Using your thumb, hold the quartz tube tightly and pull out the photo catalyst cover gently.



Photo 6

Step 9. (Photo 7) **Attention!** Leave the quartz tube in place. Do not take it out.

Cap the quartz tube opening with the rubber cork to prevent dirty water from entering the quartz tube.

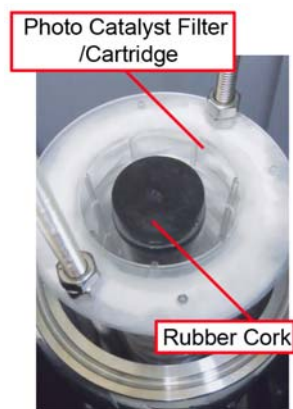


Photo 7

Step 10. (Photo 7) Remove all four photo catalyst filters carefully. Photo catalyst filters are held together in place by the two metal rods inserted through the openings in the plastic filter holders.

Step 11. **Attention!** Take out the rubber cork gently making sure it is not dropped.

Step 12. (Photo 8) Insert the new photo catalyst filters through the two metal rods.

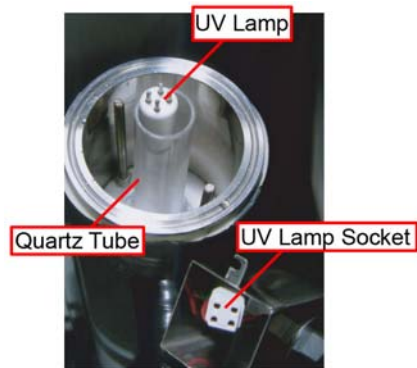


Photo 8

Step 13. (Photo 8) Insert the new UV lamp into quartz tube carefully.

Step 14. (Photo 6) Cover the photo catalyst cover carefully.

Step 15. (Photo 10) **Attention!** Attach photo catalyst filter clamp.



Photo 10

Step 16. (Photo 5 & 9) Make sure to attach O-Ring to quartz tube.  
Rubber O-Ring goes to the bottom and plastic O-Ring goes to the top.

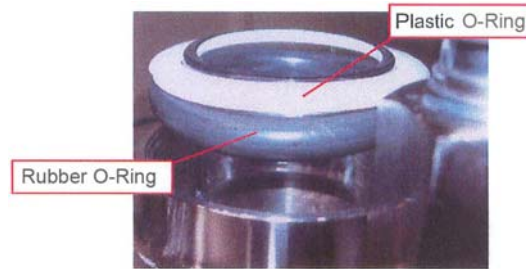


Photo 9

Step 17. (Photo 4) Turn quartz tube screw clockwise to tighten in place.

Step 18. (Photo 3) Connect the UV lamp socket to the UV lamp terminal.

Step 19. (Photo 2) Insert the UV lamp cover.

Step 20. (Photo 1) Turn the ventilator hex screw clockwise to tighten the assembly.

Step 21. Close drain bulb on the back side of the LB-801 main unit.

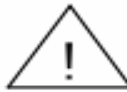
Step 22. Fill water to the main tank and the pump tank.

Step 23. Reconnect the power source and switch on the pump and lamp.  
Inspect the unit for water leak and check the lamp indicator to making sure it is working properly.

Note: Contact your reseller should you notice a problem after these maintenance procedures.

## **10. Water Filter Maintenance**

- Step 1. Close filter housing valve #1 and #2 (Valve makes right angle to water flow pipe.) \*See filter housing valve (“Caution 3”).
- Step 2. Place water pan under filter housing.
- Step 3. Remove filter housing by turning left.
- Step 4. Replace used filter.
- Step 5. Turn housing clockwise and close housing by pushing upward. Be sure to set filter in the middle of the housing unit.
- Step 6. Check for leaks by running the pump. If there are leaks, the housing seal is not capped properly.
- Step 7. You may need to replace the water filter if the water flow level gauge is below 20 liters per minute.
- Step 8. Ideal water flow gauge level is between 20 liters ~ 27 liters per minute. The mesh filter should be between 1 micron ~ 5 micron.



## CAUTION 1

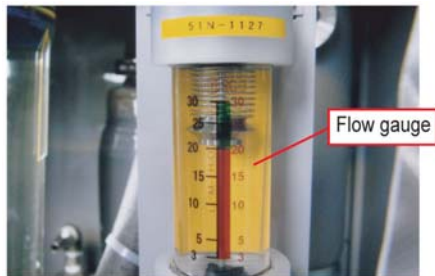


Caution 1

- Be sure to fill the water in the pump tank.
- Listen carefully to detect any water flow sound. Fill the water fully if sound is heard.
- Contact your LB-801 reseller if rattling noise is heard.



## CAUTION 2

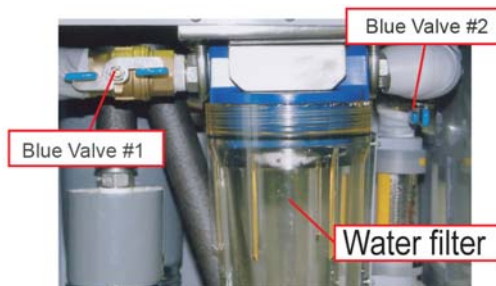


Caution 2

- Ideal water flow gauge level is 20 liter ~ 27 liter per minute.



## CAUTION 3

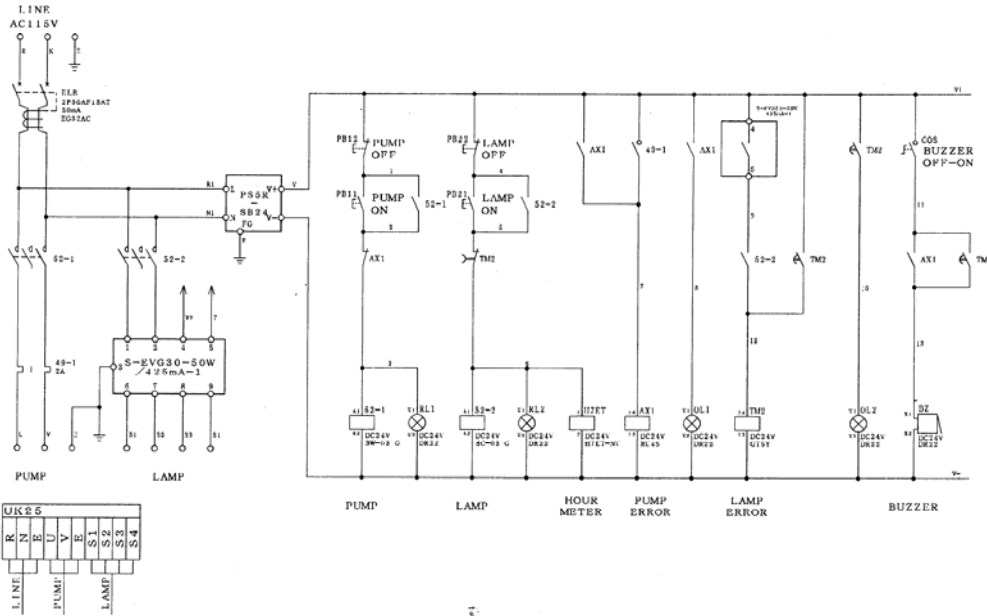


Caution 3

- Change the water filter if water flow is impeded.
- The mesh filter should be between 1 micron to 5 micron in size.

# Appendix

## 11. Power Control Panel Circuit Diagram





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