L.I.P.V.A.C.S.

Pond Aeration Pump

Model Numbers

#SJ4864-1/2R & #SJ4864-1R
#SJ4864-1/2C & #SJ4864-1C

Assembly Instructions

Limited Warranty:

- 1 Year from date of purchase includes parts and labor for defects in products and workmanship.
- Will not include damage or failure from improper installation or abuse or lightning strikes.
- Customers are liable for costs of shipping defective part to EPR for warranty; EPR will replace or repair part and ship back to customer.
### Do

- Mount the pump box as close as possible to pond/lake
- Mount the pump box above the high water line of pond/lake.
- Drive in 2 pieces of rebar or wood stakes to the discharge/pam cannon mounted and tie to hold in position.
- Make sure that the white check valve is positioned with the arrow up.
- Put the air bleeder screw back in the pipe.
- Position filter/intake in the deeper section of pond, (as long as filter is in the bottom 25% of the pond this is good.
- Temporary Extension Cord - Must be heavy duty – at least 12-3 with ground and no more than 100ft. long.
- PAM Logs – tie on cap before feeding into Pam Cannon.
- When ready to fire up - prime the pump using wrench provided remove primer cap and fill with water – replace cap snug.  *[This procedure should only have to be done 1 time – but sometimes air gets trapped in the pipes so you may have to do it again]*

### Don’t

- Don’t glue anything until you have laid it out completely and are sure
- Don’t Use more than 2 pieces (20ft) of intake pipe (if possible)
- Temporary Extension Cord – Don’t use more than 100ft or a light cord as this will burn up.
- Don’t over tighten the Primer cap.
- Don’t add to the discharge piping, any more than is absolutely necessary as this causes back pressure reducing the volume of air delivered to the pond.

When your system is up and running, tie a short piece (8-10 inch’s) of fishing line with a small lead weight to a fishing float and throw it in the pond, you should be pleasantly surprised with the movement of water !!! you will not be white water rafting,,,, but.............
Things that you will need to buy to complete the installation of the typical unit.

2- 10ft pieces of 3 inch sewer pipe, there is a sample piece in box (unused).

1- Small can of PVC glue.

1 – Can of spray paint to camouflage visible piping if required. (flat black by rust-oleum seems to work best.)

Note: the glue and paint are not allowed to be shipped (inflammables).

The 10ft sections of pipe cost on average $80.00 to ship or $10.00 to buy at Lowes.

Tools you may/will need:

Hacksaw, Phillips screwdriver, large channel lock pliers – to tighten pipe fittings. 16 inch size.

Bucket – to fill primer cap, Electric outlet regular house 110 v to plug into

Cold beverage of choice – obviously

Comfortable chair – to sit and enjoy your pond and watch the float circle your pond, round and round…… round and round
Position the pump so the angles of the pump discharge and intake will clear the edge of the pad as they go into the water.

docking or concrete pad built parallel to waters surface. It should be as close to the edge of the water as possible and high enough to stay dry.
Parts List
1 - Filter Assembly Part A
1 - Filter Assembly Part B
3 - Filter Grates

Filter Intake Assembly

Residential Model

Construction / Dewatering Model

Step 1 - On a clean flat surface glue Part A onto Part B msking sure the holes are all facing the same direction. (Based on shipping requirements, this part may be completely assembled)

Step 2 - Insert green strainer grate firmly into each filter ass. Install 4 s/steel phillips head screws (provided)

Step 3 - (Residential Only) - Insert filter into filter body. Install 4 s/steel phillips head screws (provided)

Plastic mesh filters only where necessary in residential ponds with high concentrations of weeds.

Extend Intake Pipe

Parts List
Filter Intake Assembly
3"x10' DWV pipe (You rarely need more than 2 pcs - sample of pipe in box)
[Pipe available at Lowes approx $10.00 or costs approx. $80.00 to Ship.]
PVC Glue
Saw (to cut pipe)

Step 1 - Determine the length of pipe you need to place the intake filter head in position in the water.

Step 2 - On a clean flat surface, glue the pipe together using PVC glue. Make sure the pipe is dry and clean.

Step 3 - Glue the assembled intake with 3" sewer (DWV) to the 3" pipe fitting

check valve ass. must be mounted in up position
Float the completed intake system on the water surface and put into position. Then tilt the pipe so water flows in and pipe sinks. **NOTE:** It might be necessary to remove the Air bleeder screw so air can escape allowing the pipe to fill with water.

Use supplied flex PVC here. The pipe should rest on the bottom without tension on the pump fittings.

**Completed Example**

Rebar post or Equ.
The PAM Cannon should be tied to prevent movement.
L.I.P.V.A.C.S Water Flow Diagram

Water is taken off the bottom of the pond and drawn into the pump via the 4” intake pipe. The water on or near the bottom of ponds and lakes contains less dissolved oxygen and is cooler. Typically, sunlight does not reach these areas causing the water to degrade in quality, be less oxygenated and possibly thermally stratified.

The water is then pumped through the LIPVACS and air is mixed violently with the water, similar to shaking a can of soda, adding much needed oxygen. Water is discharged, past PAM if needed, horizontally back into the pond creating a horizontal and vertical flow.

Typical Pond installation

Northern Hemisphere set circulation clockwise