

# CARE AND OPERATING INSTRUCTIONS FOR

**SAVE THESE INSTRUCTIONS**



## AIR PUMPS

**Models AP-20, AP-40, AP-60 AND AP-100**

MODEL	SUPREME ITEM #	PONDMASTER ITEM #	SUPREME HYDROPONICS ITEM #
AP-20	04220	04520	40522
AP-40	04240	04540	40524
AP-60	04260	04560	40526
AP-100	04280	04580	40528

### DEEP WATER AIR PUMPS

The AP-Series air pumps have been designed to satisfy the requirements of a multitude of water related applications. These beautifully designed, environmentally friendly pumps can be used for:

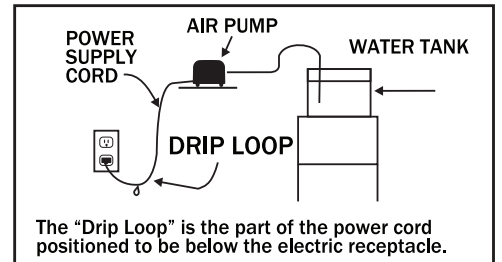
- Oxygenating Outdoor Ponds and Water Gardens
- De-Icing Outdoor Installations During Harsh Winters
- Oxygenating Indoor Water Features
- Aerating Single or Multiple Aquarium Tanks
- Aerating Single or Multiple Terrarium Tanks
- Oxygenating Hydroponic Nutrients

All AP-Series air pumps operate on standard 110V electric and come with 6' power cords. They have been designed to operate efficiently with a motor that is non-oil lubricated. For outdoor applications, it is recommended that the water-resistant ABS plastic unit be enclosed with allowance for air circulation to protect it from the elements.

#### INSTALLATION INSTRUCTIONS - INDOOR USE:

**CAUTION:** Always mount pump above water level to avoid back siphoning should power fail. Always create a "Drip Loop" to prevent water from traveling along line cord and into electrical receptacle.

1. Connect one end of the short length of included hose to the outlet on the pump and fasten with the included hose clamp.
2. Connect the supplied barbed diffuser to the other end of the hose and fasten with the included hose clamp.
3. Run a length of airline hose from each of the outlet barbs on the diffuser to airstones in the aquarium(s).
4. If the air flow is too great, purchase and install an adjustable flow valve for each affected airline. Allow excess air to bleed off by attaching an adjustable flow valve to an unused outlet on the diffuser. Do not totally restrict the flow with the valve.



AP-40 with an added hose section and included air diffuser



AP-40 with included air diffuser and short hose section



AP-100 Shown with added hose and included diffuser

PUMP MODEL	HOSE I.D.
AP-20	1/2"
AP-40	5/8"
AP-60	3/4"
AP-100	3/4"

#### INSTALLATION INSTRUCTIONS - POND APPLICATIONS:

**CAUTION: PONDS CAN BE DANGEROUS TO SMALL CHILDREN. NEVER LEAVE CHILDREN UNSUPERVISED NEAR A POND!**

1. Connect one end of a length of hose to the outlet on the pump. Hose length is the distance from a permanent location of the pump to the water's edge plus the depth of the water. NOTE: A short section of hose and two clamps are included in this package. These parts are for aquarium installations and can be disregarded for pond use.)
2. Connect the supplied barbed diffuser to the other end of the hose.
3. The diffuser needs to be weighted since it is very buoyant when filled with air. Attach the diffuser and about 4" of hose to a heavy object, such as a brick or rock, with a cable tie. (Do not use a weight that will rust or leach toxic substances.)
4. Locate pump in a protected area. It should be covered to protect it from the elements including rain and direct summer sun. Be sure to allow for ventilation. Locate pump so it can not fall into the water.

NOTE: In winter, damp air can condense onto the inside wall and freeze the hose. This can eventually block the hose completely, therefore it is important to check frequently during periods of freezing temperatures.

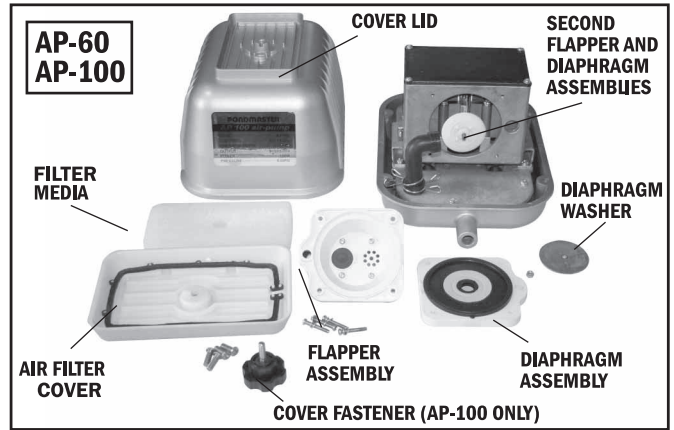
## SERVICE AND MAINTENANCE

There are no parts that need lubrication. The integrated air filter requires periodic cleaning. See photo for proper procedure. To clean the filter media, remove the air filter cover. Extract the filter media from the pump and rinse thoroughly with cold water.

Replace media into the empty filter cavity, replace the air filter cover and refasten. When the airflow slows down, it is time to replace the diaphragms and flapper valves. A complete replacement kit is available (see parts list, below). There are two of each (diaphragms, flapper valves), one at either end of the pump.

1. Disconnect the pump from the AC receptacle.
2. Remove the cover lid.
3. Unscrew the diaphragm / flapper combination assembly from either end of the pump and separate the two parts.
4. Remove the flapper valves and replace with the supplied parts. Be sure to maintain the same orientation of the flapper valves.
5. Remove the black, round doughnut-like diaphragm and replace with the supplied parts.
6. Replace the diaphragm / flapper assembly and refasten.
7. Replace the cover lid.

**Note:** Individual replacement kits contain parts and instructions that may vary from those shown here.



## CAUTIONS

**WARNING: FOR YOUR PROTECTION, ALWAYS UNPLUG THE UNIT FROM ITS POWER SOURCE BEFORE INSTALLING OR SERVICING. SHOULD THE UNIT APPEAR TO BE NOT WORKING, DO NOT ATTEMPT TO REACH, REMOVE, OR DISASSEMBLE BEFORE DISCONNECTING FROM THE POWER SOURCE.**

1. This pump is solely intended to pump air. Do not use for oil, solvents, or any petroleum products (gasoline, diesel, etc.).
2. ALWAYS use a properly grounded AC outlet. Do not immerse the pump's plug in water or attempt to plug in a wet plug.
3. Provide a "drip loop" for the line cord. This is a loop in the cord below the level of the receptacle or plug that prevents water from traveling along the cord in the direction of the receptacle.
4. Be sure that a ground fault circuit interrupter (GFCI) is installed in the branch circuit supplying the aquarium, fountain, or pond equipment.
5. NEVER remove the ground pin from the plug.

## LIMITED ONE-YEAR WARRANTY

E.G. Danner Manufacturing, Inc. will repair or replace any air pump found to be defective within one year of original purchase by original owner from an accredited dealer. Air filter, flapper valves, and diaphragms are wearable items and are not covered by this warranty. Cutting or altering the cord voids any warranty consideration. For warranty repair, return only the part that is defective to our factory. Please include a dated proof of purchase and \$10.00 for postage and handling. Damages or injuries resulting from negligence or misuse of the product are not covered by this warranty. This warranty gives you specific legal rights. You may have other rights which may vary from state to state. To validate this warranty keep your proof of purchase (Copy of sales receipt from an accredited dealer).

Model	For Ponds up to:	Maximum Water Depth	Air Flow Inches <sup>3</sup> /Min	Power	Hose Size Usage
AP-20	2500 Gallons	7 Feet	1700	20 Watts	1/2" ID
AP-40	5000 Gallons	10 Feet	2900	40 Watts	5/8" ID
AP-60	7000 Gallons	9.6 Feet	5500	50 Watts	3/4" ID
AP-100	10,000 Gallons	11.5 Feet	9150	100 Watts	3/4" ID

## SPARE PARTS FOR SERIES AP PUMPS

Model	AIR DIFFUSER	DIAPHRAGM KIT	TUBING
AP-20	Item #14505	Item #14525	1/2" x 10' Item #12012
AP-40	Item #14515	Item #14545	5/8" x 20' Item #12158
AP-60	Item #14550	Item #14555	3/4" x 50' Item #12035
AP-100	Item #14560	Item #14565	3/4" x 50' Item #12035

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