

CARE AND OPERATING INSTRUCTIONS FOR

**SAVE THESE
INSTRUCTIONS**

DANNER

MANUFACTURING, INC.

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:

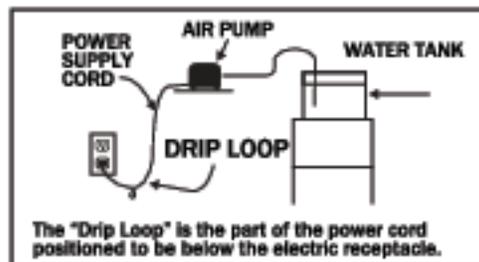
- Oxygenating Outdoor Ponds and Water Gardens
- De-Icing Outdoor Installations During Harsh Winters
- Oxygenating Indoor Water Features
- Aerating Single or Multiple Aquarium Tanks
- Aerating Single or Multiple Terrarium Tanks
- Oxygenating Hydroponic Nutrients

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

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.