

PONDMASTER® & Supreme®

By Danner Manufacturing, Inc.

**SAVE THESE
INSTRUCTIONS**

DIAPHRAGM REPAIR KIT #	FOR PUMP MODEL	SUPREME ITEM #	PONDMASTER ITEM #
14525	AP- 20	04220	04520
14545	AP- 40	04240	04540
14555	AP- 60	04260	04560
14565	AP- 100	04280	04580

Replacement Diaphragm kits for PONDMASTER and Supreme Air Pumps

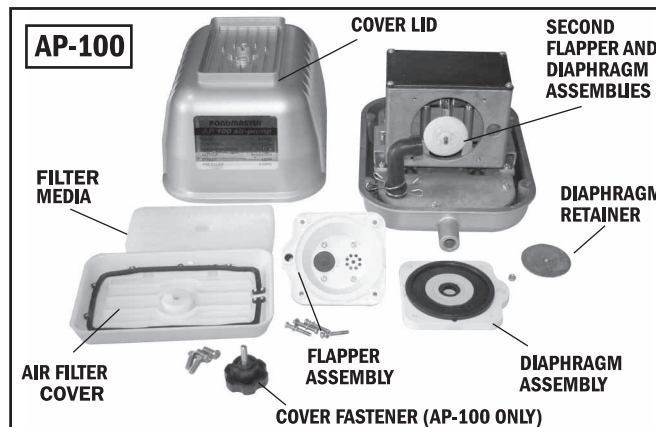
INSTALLATION INSTRUCTIONS

This kit includes diaphragms, flapper valves, plastic slip washers and bottom pressure chamber gasket; some models also include rubber plug sets to seal the Flapper Valve housings.

- Work in clear work space to avoid losing parts.
- Organize screws as they are removed to avoid mix-ups.
- There are two diaphragm assemblies on opposite sides of the motor; work on one side at a time.

1. Disconnect the pump from the AC receptacle and from any hoses.
2. Remove the cover lid by removing screws on bottom.
3. Unscrew the diaphragm / flapper combination assembly from either end of the pump and separate the two parts. Parts may vary from those pictured here. *Note that for the AP-20 kit there are two different sets of diaphragm parts to accommodate two different models. Use the set that matches your model and discard the other.* Pry out the rubber diaphragm and clean the diaphragm housing with soap and water before re-assembly.
4. Open the Flapper Valve Housing, remove the flapper valves and replace with the new ones. Be sure to maintain the same front and back side orientation of the flapper valves.
5. Remove the round diaphragm completely and replace with the new Diaphragm and slip washers supplied.
6. Replace the diaphragm / flapper assembly and refasten.
7. Replace the cover lid.

There are no parts that need lubrication. The integrated air filter



PLEASE SEE OTHER SIDE OF THIS PAGE FOR ADDITIONAL REFERENCE TO AID IN CORRECT INSTALLATION OF THE REPLACEMENT PARTS.

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 into electric receptacle if plug is wet.
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.

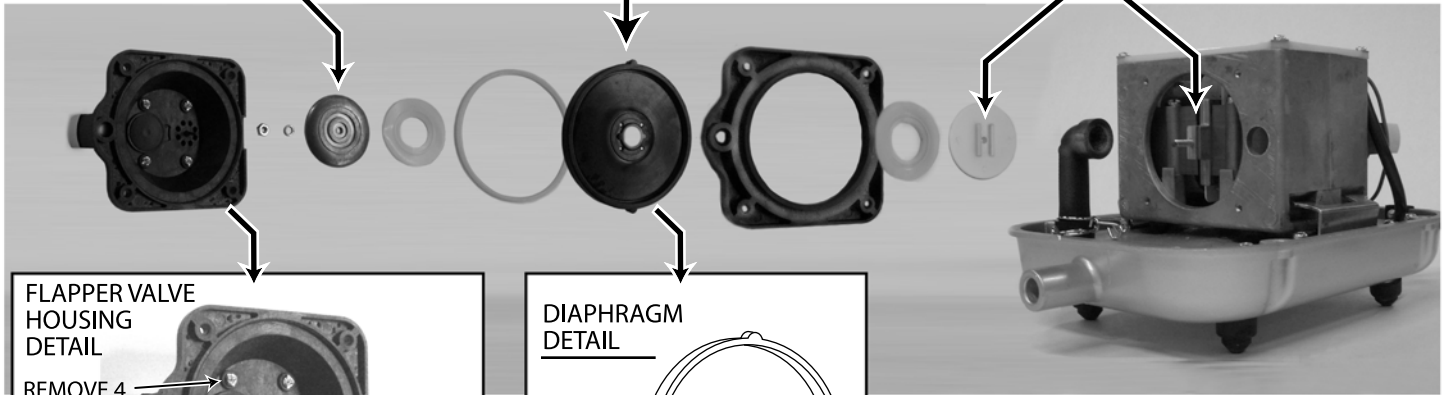
AP-100 REFERENCE

Flapper valves and Diaphragms

Note that rounded side of metal diaphragm retainer must face the Diaphragm.

Note position of Diaphragm. See that side with raised ring with "Ears" on center opening faces plastic diaphragm retainer.

Slot on plastic valve retainer must be vertical to match magnet armature.



FLAPPER VALVE HOUSING DETAIL

REMOVE 4 SCREWS TO OPEN

REPLACE THE FLAPPER VALVES BY INSERTING TABS AND PULLING THROUGH

FLAPPER VALVE TAB IN PLACE

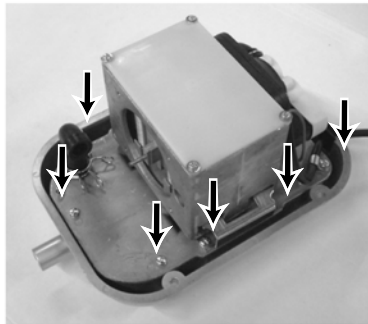
DIAPHRAGM DETAIL

RAISED RING WITH "EARS"

Bottom Air Chamber Gasket

REMOVE TEN SCREWS IN MOTOR PLATFORM TO ACCESS AND CHANGE BOTTOM AIR CHAMBER GASKET.

NOTE: NOT ALL TEN SCREWS SHOWN HERE.
NOTE: MOTOR PLATFORM IS SHOWN HERE WITH ONE OF THE DIAPHRAGM HOUSINGS REMOVED TO BETTER SHOW SCREW LOCATIONS.



BOTTOM AIR CHAMBER GASKET SHOWN IN PLACE IN PUMP BASE TRACK

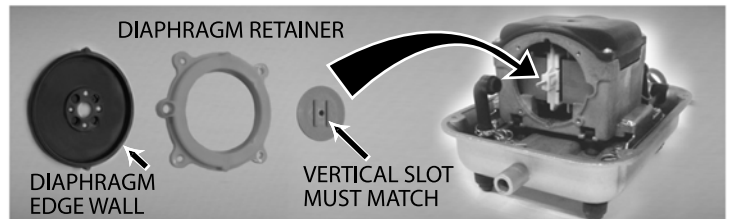


AP-20, 40 and 60 REFERENCE

These pumps are similar in construction to the AP-100 -- in a smaller scale. Parts differ in construction details. The Flapper Valve Housings are sealed with round and oval rubber plugs. Exchange the old plugs with the new plugs; they may be a different color than those removed.

ADDITIONAL NOTES:
Diaphragm Edge Wall must be inserted into the Diaphragm Retainer with the proper side facing into the groove in the Retainer. The deeper side of the Diaphragm will always face into the Retainer Groove.

If your pump motor includes any metal spacer plates take care to reinstall them exactly as they were before disassembly.



Check that the slot on the plastic Diaphragm retainer is vertical to match the magnet armature.