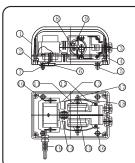


77 SERIES SILENT AIR PUMP

PREFACE

Thank you for purchasing HAILEA 77 series silent air pumps. The series of products adopt oil-less lubrication to produce pure compressed air. Low power consumption, energy saving, they can work continuously. All the four models are ideal for oxygenating all types of aquariums. Model ACO-7700/ 7701 with a single air outlet. ACO-7702/7703 with double air outlets. For optimum performance and safe use, please read this instruction manual carefully and keep it handy for future reference.

PARTS LIST



- (1) Top cover (2) Base
- 3 Rubber sheath of air outlet 4) Air chamber (5) Foot (6) Inlet cover
- 7) Sponge (8) Slice (9) Slice stopper (10) Motor
- ① Diaphragm ② Swing arm ③ Magnet Air chamber clip
- Rubber pad of air chamber
- 6 Swing arm shaft
- (17) Diaphragm bolt (18) Hex nut
- (19) Power cord (Cable)

77 SERIES SILENT AIR PUMP

FEATURES

- 1.Leading multilevel muffler & damping technologies for silent operation.
- 2. Driven by high quality AC motor. The advanced air compressing system is made up of special artificial rubber assembly to keep a larger air output.
- 3.0il-less lubricated design & the air filtration device to produce pure compressed air.
- 4.lt acquires best effect with lowest power consumption and has a long service life. 5. Compact, easy to move, quick heat dissipation and suitable for continuous operation.

When the electromagnetic coils are energized by AC power (AC110-120/220-240V), a magnetic force is generated. This magnetic force will then act to induce the swing arm which the permanent magnets are fixed on its end, and the electromagnets, causing magnetic actions of attraction and repulsion to move the swing arm in the fluctuating directions. The swing arm vibrates at the AC power supply frequency, and air is exhausted by a change in volume of the space enclosed by the casing and the diaphragm that is caused by diaphragm movements, and by the repeated cycles of air intake and compression attained by the operation of the intake and exhaust valves.

PIPE/DIVIDER AND AIR STONES CONNECTION

USAGE CAUTION: THE AIR PUMP MAY NOT BE USED ABOVE WATER OR IN WATER

- 1. Air pump location shall be dry, relatively free from dust and far away from aquarium.
- 2. Air pump shall be used horizontally on support above water line. 3. Air pump may not be used in place overhead of the aquarium or in water.



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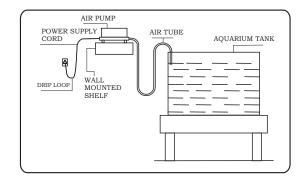
One or more air stones can be connected to the pump outlet with pipe & air divider. Choose the air pipe fittings that suit your installation equipments, ensure all pipes are secured with clips when installing the air pump. Using larger bore pipe and avoiding sharp bends will improve performance of this air pump when installing. Use new and sufficiently large air stones with enough discharge capacity. Place them no deeper than 2.5m in the pond. Bends in the air pipe, air stones, placed too deep, air stones are too small, old or dirty air stones will reduce capacity. Thus, while operating, never fully close off pump outlet. Ensure that the pump can discharge sufficient air all the time, otherwise the pump will heat up leading to damage. To prevent any water flowing back into the pump when powered off, it is advisable to install the pump above water level. If a non-return valve is used on the outlet pipe, the pump may go beneath the waterline. Please note that never place air pump in water.

To guarantee a long service life, it is necessary to install the pump under dry conditions free from moisture and dust. Dirt and moisture can seriously shorten the service life of this pump. Please note that the ambient temperature above +40 °C can cause the diaphragm too dry

INSTALLATION & CONNECTION



77 SERIES SILENT AIR PUMP



SAFETY INSTRUCTIONS

WARNING-To protect against injury, basic safety precautions should be observed including

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. DANGER-To avoid possible electric shock, special care should be taken since water is employed in the use of aquarium equipment. Follow these safety instructions carefully.



77 SERIES SILENT AIR PUMP

2. All aquarium appliances must be disconnected from the mains power supply before servicing an aquarium or conducting any activity that allows direct contact with the water.

WARNING: Disconnect the power from all aquarium appliances before putting hands into the aguarium.

- 3. To avoid the possibility of the appliance or socket getting wet, position the aquarium to a socket which prevents water dripping onto the socket or plug.
- 4. Never try to use this appliance for applications which are not described in the instructions or in a way which is not described in the instruction or under conditions which are not similar to those described in the instructions, otherwise severe hazards may occur!
- 5. Do not use or store the appliance outdoors and where it will be exposed to the weather or to temperature below freezing.
- 6. Keep the appliance out of reach for children! Do not allow children to play with the appliance.
- 7. Always unplug an appliance when not in use, before putting on or taking off parts, and before cleaning.
- 8. If not use the appliance for long time, unplug the appliance and store it after dry.
- 9. Never yank cord to pull plug from socket. Grasp the plug and pull to disconnect.
- 10. Never try to detach the air inlet cover.
- 11. Ensure the power source to be utilized matches the power requirements specified on the product nameplate. Use a standard AC outlet.

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- 12. If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.
- 13. To avoid danger and damage to the appliance, do not try to repair the appliance by yourself, let qualified technicians check and repair.
- 14. This appliance is intended for HOUSEHOLD USE ONLY. Aerator must be located inside of a house and only the air- hose may be located outside of a house.
- 15. Disable a defective appliance in an obvious way, so that it does not represent a hazard to others and dispose of the appliance according to the regulations from the local authorities.
- 16. Never carry air pump by the power supply cord.
- 17. A periodically maintenance (see MAINTENANCE) of the appliance is necessary.
- 18. The appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory, mental capabilities, lack of experience and knowledge, if they have been given supervision or instruction concerning of the appliance in a safe way and understand the hazards involved.

MAINTENANCE

WARNING: Unplug or switch off all appliances in the aquarium or pond before carrying out maintenance. Check every week that the air stone discharges enough air. Check the air pipe for kinks and replace fouled or crumbling air stone with new one. Any dust or foreign matters attached on the pump inlet may cause abnormal noises or result



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in a failure of the pump. We advice the filter sponge must be cleaned or replaced every three months. The following are filter sponge cleaning & replacement instructions:

- (1) Make sure to unplug the pump first before cleaning & replacement work.
- (2) Remove the inlet cover from the pump.
- (3) Remove the filter sponge from the air inlet. At the same time, remove any dust or foreign matters from the air inlet, the inlet cover and the mounting surface. If the sponge is heavily soiled, a piece of new sponge is needed or you can use a neutral detergent to wash the old sponge down. Remember to rinse it well with water completely and dry it in the sun before reinstalling. Detergent is bad for your fish.

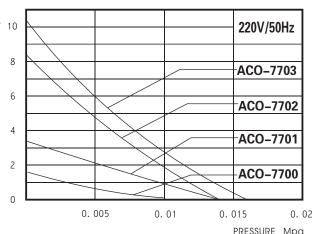
TECHNOLOGY DATA

Model	Voltage	Frequency	Power	Pressure	Output	Noise	Weight	Size
ACO-7700	110-120/220-240V	60/50Hz	1.8W	0.01Mpa	2L/min	<40dB	0.22kg	96x58x52mm
ACO-7701	110-120/220-240V	60/50Hz	3W	0.013Mpa	4L/min	<40dB	0.33kg	133x67x62mm
ACO-7702	110-120/220-240V	60/50Hz	4.5W	0.015Mpa	2x4L/min	<40dB	0.56kg	152x78x74mm
ACO-7703	110-120/220-240V	60/50Hz	5W	0.018Mpa	2x5L/min	<40dB	0.67kg	165x87x78mm



77 SERIES SILENT AIR PUMP

PERFORMANCE CURVE

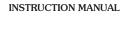


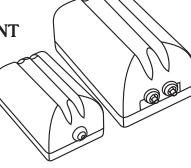
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77 SERIES SILENT **AIR PUMP**





ACO-7700/7701/7702/7703

Before operating this appliance, please read this instruction manual completely and keep it handy for future reference.





