Knifel 880GPH-AT

Knifel 880GPH-AT Submersible Pump Instruction Manual

1. Introduction

The Knifel 880GPH-AT Submersible Pump is designed for efficient water circulation in various applications such as fountains, hydroponics systems, ponds, and aquariums. This pump features an automatic shut-off mechanism to prevent dry running and enhance safety, a maximum lift height of 10 feet, and a flow rate of 880 gallons per hour (3000 L/H).

Figure 1: Overview of the Knifel 880GPH-AT Submersible Pump.

2. Safety Instructions

Please read and understand all safety instructions before operating the pump. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always disconnect the pump from the power supply before handling, installing, or performing any maintenance.
- Ensure the power source voltage matches the pump's requirements (110 Volts).
- Do not operate the pump dry. Ensure it is fully submerged in water during operation to prevent overheating and damage.
- Use a Ground Fault Circuit Interrupter (GFCI) for all electrical connections to prevent electric shock.
- Keep children and pets away from the pump and water feature during operation.
- Do not lift the pump by its power cord.
- The pump is designed for water circulation only. Do not use it for flammable liquids or other hazardous materials.
- The automatic shut-off feature is a safety measure to prevent dry running. Do not rely solely on this feature;

always monitor water levels.

3. Package Contents

Verify that all items are present in the package:

- 1 x Knifel 880GPH-AT Submersible Pump
- 3 x Nozzles (various sizes)
- 1 x Filter Sponge (pre-installed or separate)

4. Specifications

Key technical specifications for the Knifel 880GPH-AT Submersible Pump:

Feature	Specification
Brand	Knifel
Model Number	AT-880 (880GPH-AT)
Maximum Flow Rate	880 GPH (3500 Liters Per Hour)
Maximum Lifting Height	10 Feet
Voltage	110 Volts
Power Source	Corded Electric
Material	Plastic
Product Dimensions (L x W x H)	6"L x 4.1"W x 5.7"H
Item Weight	2.1 Pounds
Waterproof Rating	IPX8

Figure 2: Pump dimensions and included nozzle sizes (1/2", 2/3", 3/4").

5. Setup

Installation Steps

1. **Choose a Nozzle:** Select the appropriate nozzle size (1/2", 2/3", or 3/4") for your application and attach it securely to the pump's outlet.
2. **Position the Pump:** Place the pump in the desired location within your fountain, pond, aquarium, or hydroponics system. The four powerful suction cups on the bottom of the pump allow for secure placement on horizontal or vertical glass surfaces.
3. **Submerge the Pump:** Ensure the pump is fully submerged in water. The pump must not operate dry.
4. **Connect to Power:** Plug the pump into a 110V power outlet equipped with a Ground Fault Circuit Interrupter (GFCI).

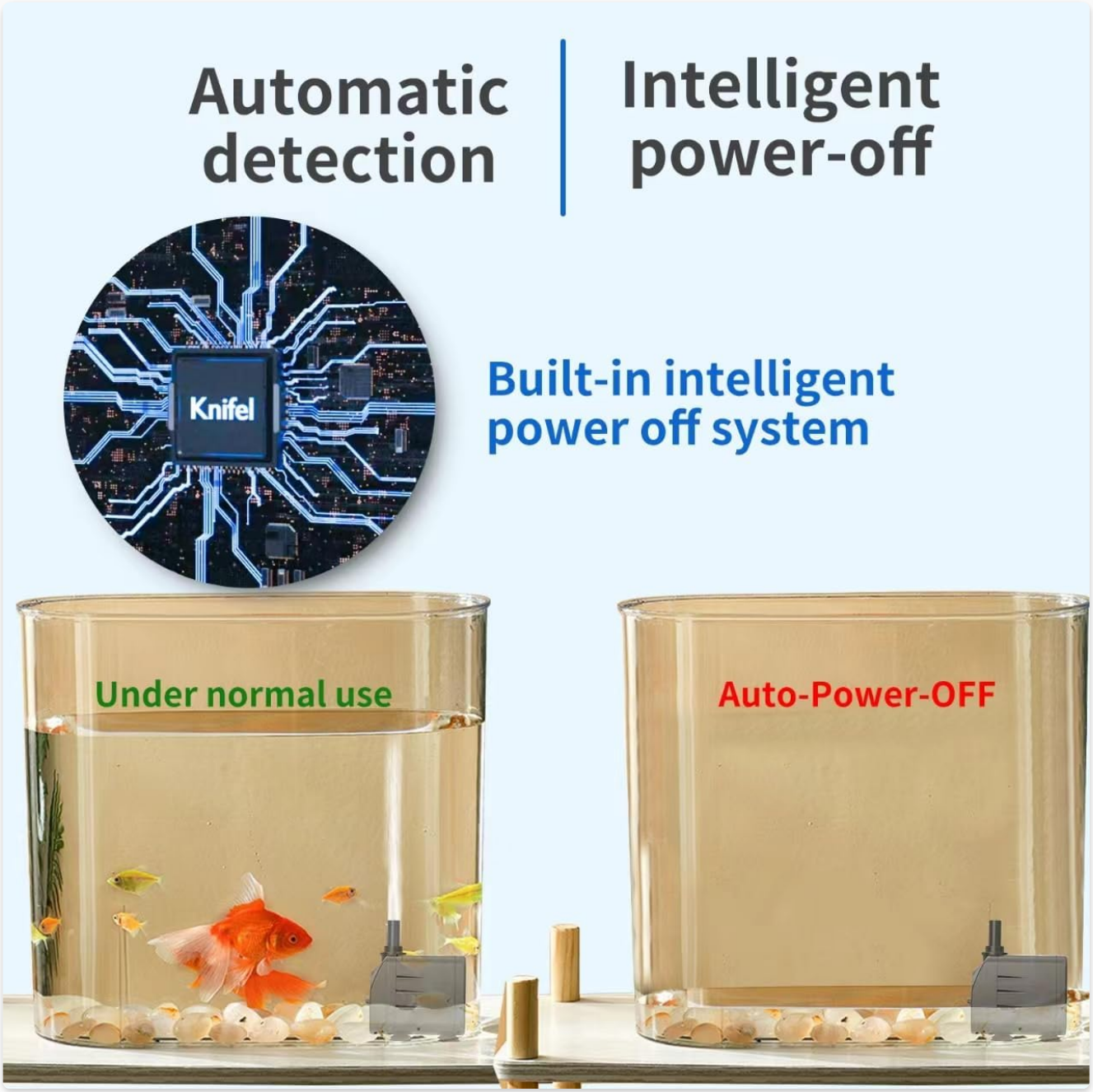

Figure 3: Knifel pump with various nozzle attachments for different flow requirements.

Your browser does not support the video tag.

Video 1: Demonstration of the Knifel Fountain Pump in operation, showcasing its water flow and ease of use.

6. Operating Instructions

Once the pump is installed and submerged, connect it to the power supply. The pump will begin circulating water immediately.

Automatic Shut-Off Feature

The Knifel 880GPH-AT pump is equipped with an intelligent auto-shut-off system. If the water level in your fountain, pond, or aquarium drops too low due to evaporation or splashing, the pump will automatically power off to prevent dry running and potential damage. Once sufficient water is added, the pump will automatically restart operation.

Figure 4: Illustration of the pump's automatic detection and intelligent power-off system.

Your browser does not support the video tag.

Video 2: Detailed demonstration of the Knifel fountain pump's auto-shut-off feature in action.

7. Maintenance

Regular maintenance ensures optimal performance and extends the lifespan of your pump.

Cleaning

- **Disconnect Power:** Always unplug the pump from the power source before cleaning.
- **Disassemble:** The pump is designed for easy disassembly without tools. Gently pull apart the pump housing to access the impeller and filter sponge.
- **Clean Filter Sponge:** Remove the filter sponge and rinse it thoroughly under clean water to remove any debris, algae, or sediment.
- **Clean Impeller:** Inspect the impeller for any blockages. Use a small brush or cotton swab to clean the impeller and its housing.
- **Reassemble:** Once clean, reassemble the pump, ensuring all parts fit correctly.

Regular Inspection

- Periodically check the power cord for any signs of damage or fraying.
- Ensure the pump is securely positioned and not vibrating excessively.
- Monitor water flow to detect any decrease, which may indicate a need for cleaning.

Figure 5: View of the internal sponge filter, which helps prevent blockages and maintains water quality.

8. Troubleshooting

Refer to the table below for common issues and their solutions.

Problem	Possible Cause	Solution
Pump does not start or run.	No power supply. Low water level (auto-shut-off activated). Impeller jammed.	Check power connection and GFCI. Add water to the system; pump will restart automatically. Disconnect power, clean impeller and housing.
Low water flow.	Clogged filter sponge or impeller. Kinked or obstructed tubing. Insufficient water level.	Disconnect power, clean filter and impeller. Check and clear any obstructions in the tubing. Ensure pump is fully submerged.

Problem	Possible Cause	Solution
Pump is noisy.	Impeller obstructed or worn. Pump not securely placed. Running dry.	Disconnect power, clean or replace impeller if worn. Ensure suction cups are firmly attached to a clean surface. Ensure pump is fully submerged.

9. Applications

The Knifel 880GPH-AT Submersible Pump is versatile and suitable for a variety of water circulation needs:

- **Fountains:** Ideal for creating decorative water features.
- **Hydroponics:** Ensures consistent nutrient solution circulation for plant growth.
- **Ponds:** Helps maintain water clarity and aeration in small to medium ponds.
- **Aquariums:** Provides essential water movement and filtration for aquatic environments.
- **Rockeries:** Suitable for small waterfalls and streams in rock gardens.

Figure 6: Various applications for the Knifel submersible pump, including fountains, hydroponics, ponds, aquariums, and rockeries.