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› Aquastrong Smart 45 Automatic Water Pressure Booster Pump User Manual

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Aquastrong Smart 45 Automatic Water Pressure Booster Pump User Manual

Model: Smart 45

INTRODUCTION

The Aquastrong Smart 45 Automatic Water Pressure Booster Pump is an integrated and intelligent solution designed to enhance water pressure in various domestic and light commercial applications. This manual provides essential information for the proper setup, operation, and maintenance of your Smart 45 pump, ensuring optimal performance and longevity.



Figure 1: Aquastrong Smart 45 Automatic Water Pressure Booster Pump.

KEY FEATURES

- **Adjustable Pressure & Speed:** The Smart 45 automatically monitors and adjusts performance based on water demand, ensuring consistent pressure. It offers a maximum flow rate of 1500 GPH and a maximum head of 150 ft. The pressure setting range is 1.5-5.5 bar (22-80 PSI), with a factory preset of 3 bar (44 PSI).
- **Robust All-in-One Design:** Constructed with a durable stainless steel impeller, this pump can withstand hot water temperatures up to 175°F and effectively prevents leaks. It features a maintenance-free pressure tank, stainless steel connectors, and an outlet equipped with a check valve. The precision aluminum motor housing is made from rustproof, eco-friendly materials.
- **High Efficiency & Low Noise:** Utilizing an air-cooled permanent magnet motor and inverter technology, the Smart 45 operates quietly at approximately 55 dB(A) during typical use. It provides over 50% energy savings compared to standard pumps. The pump is designed for continuous operation (24/7) and works efficiently in water temperatures ranging from 32°F-175°F, reaching a maximum speed of 5200 RPM with a rated power of 550W (max. 750W).

- **Intelligent Protection Features:** This self-priming pump is designed for easy and safe installation and operation. Its control panel includes fault indicators and protections against power supply failure, pump block, pipeline leakage, dry-running, overheating, and pressure-sensor failure. An automatic thermal switch protects the motor from blockages or overloads.
- **Wide Applications:** The Smart 45 is suitable for various domestic and light commercial water supply needs, including enhancing pressure for city mains, roof tanks, water tanks, shallow wells (up to 26 ft), garden irrigation, and clean water transfer.



Figure 2: The Smart 45 can boost pressure up to 80 PSI, with an adjustable range of 1.5-5.5 bar (22-80 PSI).



Figure 3: Operating quietly at only 55 dB(A), similar to a dishwasher.

SETUP

Before installation, ensure all components are present and undamaged. The Smart 45 pump can be installed either indoors or outdoors, but it must be protected from freezing temperatures.

Installation Steps:

1. **Step 1: Connect the Pipes.** The inlet and outlet connections are 1" NPT and can be adjusted $\pm 5^\circ$ for easier alignment during installation. Ensure all connections are secure and watertight.

GET STARTED IN 3 STEPS

STEP 1: CONNECT THE PIPES

Inlet and outlet can be adjusted $\pm 5^\circ$ for easier installation.



Figure 4: Adjustable inlet and outlet ports for flexible plumbing.

- Step 2: Fill with Water (Priming).** Before the first use, add at least 0.32 gallons (1.2 liters) of clean water into the priming plug located on top of the pump. This ensures the pump is properly primed and prevents dry-running damage.

STEP 2: FILL WITH WATER

Add at least **0.32 gal** of water before first use.



Figure 5: Priming the pump by adding water through the top plug.

- Step 3: Set the Pressure.** Plug the pump into a standard 115V household outlet. Use the control panel to set your desired water pressure. The default pressure is 3.0 bar (44 PSI), and the adjustable range is 1.5-5.5 bar (22-80 PSI).

STEP 3: SET THE PRESSURE

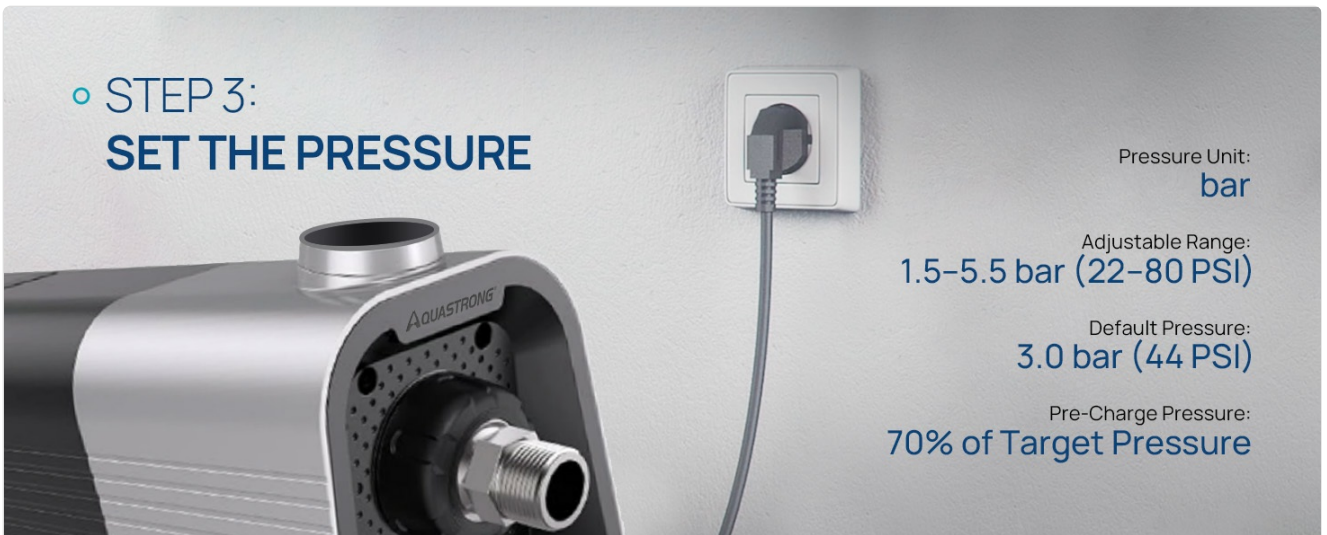


Figure 6: The control panel allows for easy pressure adjustment.

For detailed plumbing diagrams and specific installation scenarios (e.g., city mains, water tanks, shallow wells), refer to the comprehensive diagrams provided in the original packaging.

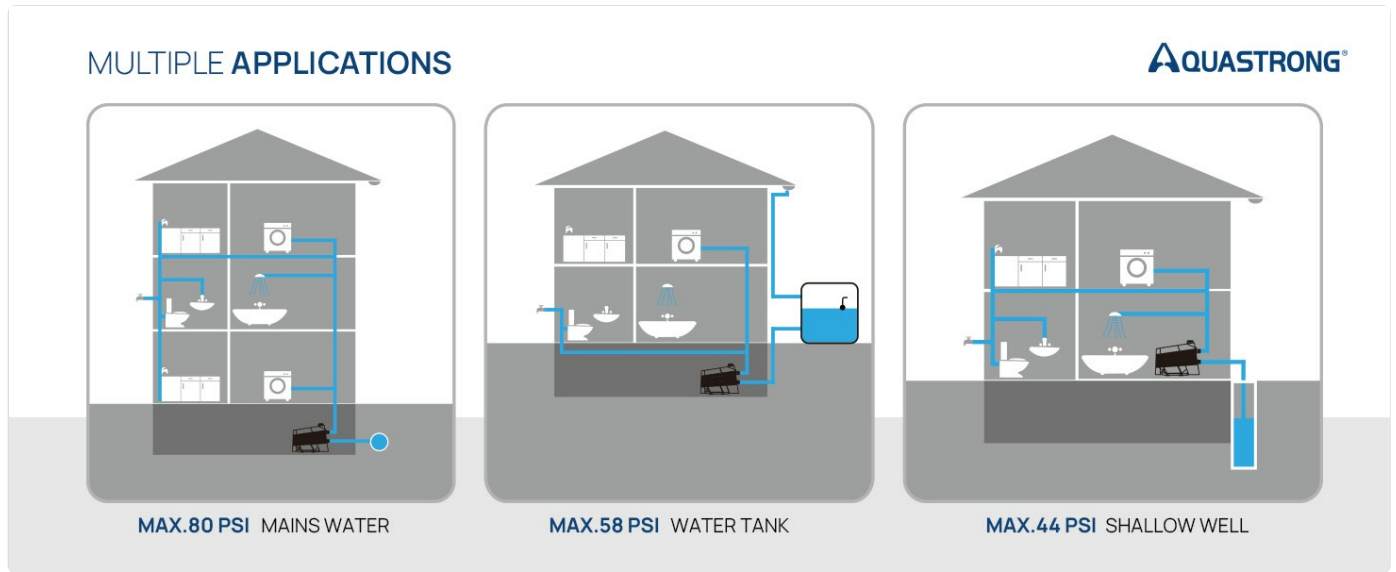


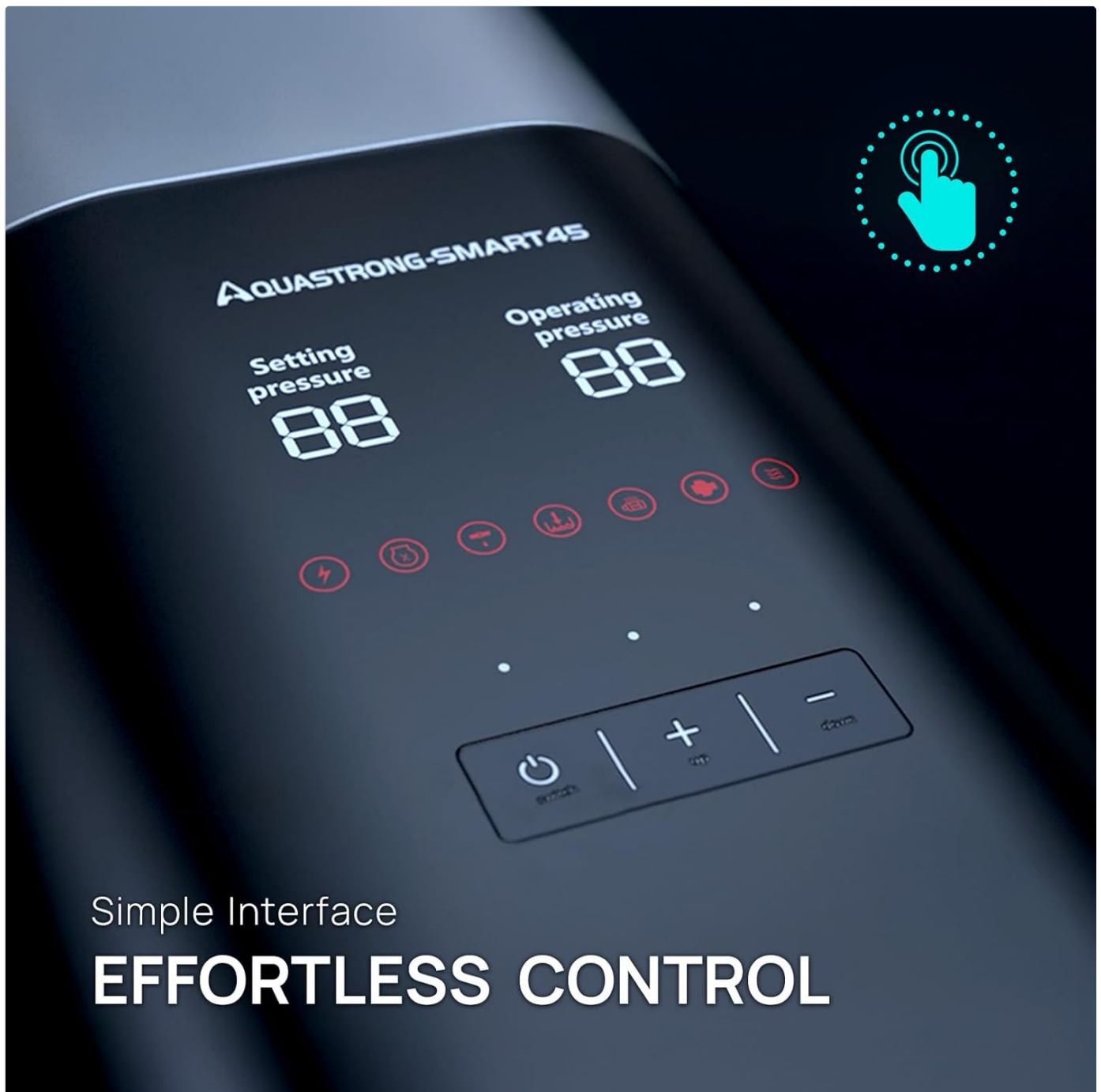
Figure 7: The pump supports various applications including city mains, water tanks, and shallow wells.

OPERATING INSTRUCTIONS

The Aquastrong Smart 45 is designed for automatic operation. Once installed and primed, it will automatically activate when water demand is detected and maintain a constant pressure.

Control Panel:

The pump features a simple interface with a power button and plus/minus controls for pressure adjustment. The digital display shows both the set pressure and the current operating pressure.



Simple Interface

EFFORTLESS CONTROL

Figure 8: Simple interface for effortless control and monitoring.

Automatic Operation:

- The pump will automatically adjust its speed to maintain the set pressure, even when multiple faucets are in use.
- It is designed for continuous use and can run 24/7 without concern for duty cycles.

MAINTENANCE

The Aquastrong Smart 45 pump is designed to be largely maintenance-free due to its robust construction and integrated pressure tank. However, regular checks are recommended to ensure optimal performance and longevity.

- **Regular Inspection:** Periodically inspect the pump and all connections for any signs of leaks, corrosion, or damage.
- **Cleanliness:** Keep the pump's exterior clean and free from debris to ensure proper ventilation and cooling.
- **Frost Protection:** If installed outdoors in areas prone to freezing temperatures, ensure adequate insulation or consider draining the pump during winter months to prevent damage.

- **Water Quality:** Ensure the water being pumped is clean. While the pump is robust, excessive sediment or debris can impact performance over time.

TROUBLESHOOTING

The Smart 45 features intelligent protection systems that indicate potential issues. Refer to the control panel for fault indicators.

Common Issues and Solutions:

Problem	Possible Cause	Solution
Pump not running / No power	Power supply failure, loose connection	Check power outlet and cable connection. Ensure power supply is stable.
Low or inconsistent pressure	Pipeline leakage, insufficient water supply, incorrect pressure setting	Check for leaks in the plumbing system. Ensure adequate water source. Adjust pressure setting on the control panel.
Pump running dry	No water in the inlet, dry-running protection activated	Ensure water supply is available. Re-prime the pump by adding water through the priming plug.
Overheating / Pump blocked	Overheating protection activated, pump impeller blocked	Allow pump to cool down. Check for and clear any blockages in the impeller or pipes.
Pressure sensor failure	Faulty pressure sensor	Contact customer support for assistance.



Figure 9: The pump's intelligent protection features help prevent damage.

SPECIFICATIONS

Feature	Specification
Brand	AQUASTRONG
Model Number	Smart 45

Feature	Specification
Voltage	115 Volts
Frequency	60Hz
Rated Power	550W (Max. 750W) / 3/4 HP
Max. RPM	5200 r/min
Max. Flow Rate	1500 GPH
Max. Head	150 ft
Max. Suction Head	26 ft
Pressure Setting Range	1.5-5.5 bar (22-80 PSI)
Noise Level	55 dB(A) (typical use)
Liquid Temperature Range	32°F-175°F (0°C-79.4°C)
Ambient Temperature Range	39°F-130°F (3.9°C-54.4°C)
Inlet & Outlet Diameter	1" NPT
Ingress Protection	IPX5
Product Dimensions (L x W x H)	17.2" x 7.95" x 13.07"
Item Weight	36.7 pounds



Figure 10: Detailed technical specifications of the Smart 45 pump.

WARRANTY AND SUPPORT

Aquastrong provides professional advice on installation and maintenance to keep your water system stable and worry-free. For specific warranty information or technical support, please refer to the documentation included with your product or visit the official AQUASTRONG website.

For further assistance, you may contact AQUASTRONG customer service through their official channels.



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