Water Pro Universal Series

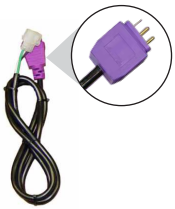
Air Blower Installation & Owner's Manual

Standard Models:
AS-610U, AS-620U, AS-810U, AS-820U
Switched Models:
AS-610US, AS-620US, AS-810US, AS-820US

HYDROQUIP™
THE SMART CHOICE™
www.hydroquip.com

AVAILABLE ACCESSORIES

Cord Adapters



Mini JJ 48”
30-1200-L48-K

Nema 48”
30-1057-36

XM/XE 120V 48”
30-1302-48-K

XM/XE 240V 48”
30-1302A-48-K

Tubing
64-0001B

Air Button
Chrome 36-0006A
White 36-0004A-K
Black 36-0005A

Check Valve
1/2# 1.5”
0821-15C

Check Valve
1/2# 1.5”
0821-20C

IMPORTANT:

Please provide these operating instructions to the end user. All printed material should be read thoroughly prior to using the product.

These instructions are provided for reference only. Individuals not familiar with portable spas and hydro-therapy baths should seek advice from professionals before using this product or attempting it’s installation.

Technical Data - Water Pro 600 & 800 Air Blower

Outlet:	1.5” or 2.0” (DO NOT GLUE)
Minimum Ventilation Area:	20 sq. inches
Maximum Operating Temp:	122F / 50C
Electrical Approvals:	UL / CUL / CE
Electrical Requirements:	SEE PRODUCT DATA LABEL
Thermal Protection:	Yes (all models)
Installation Environment:	Indoor Use Only

Installation Orientation Options

Failure to follow these instructions will cause premature motor failure.

INSTALLATION CONSIDERATIONS

There are many variables to consider when choosing the proper size air blower for your spa or hot tub. These include: water depth, the number and size of air holes, distance of blower from spa, number of 90 and 45 degree turns, and the size of the supply line. Together these variables create back pressure on the blower as measured in inches of water column (inches H2O). Compare your calculations with the chart below to determine the best size blower for your spa.

- Measure maximum height of water from ground to top of spa.
- For each 10 feet of 1.5" supply pipe, add 3/4" (inch) of water pressure.
- For each 10 feet of 2.0' supply pipe, add 1" (inch) of water pressure.
- For each 90 degree turn, add 1/2" (inch) of water pressure.

Example:

An 8 ft. portable spa with a water depth of 38 inches with 6 feet of 1.5" supply line to the air manifold with 2 - 90 degree turns.

Calculation of total water pressure is as follows:

1. Water height in spa = 38"
2. 6 feet of supply line = .45"
3. 2 - 90 degree turns = 1.0"

Total water height is 39.45" of water pressure (inches H2O).

This spa would require a 1.0 hp blower – Refer to the chart below.

BLOWER SIZE/MODEL	VOLTS	AMPS	INCHES OF WATER
WATER PRO 600 (1.0HP)	120V or 240V	4.8/2.25	UP TO 40"
WATER PRO 800 (1.5HP)	120V or 240V	7.0/3.6	UP TO 50"

BLOWER SIZING:

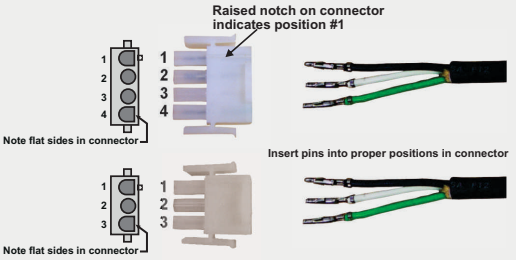
The number of air injectors or holes in the air channel determine the size of blower required. For example a 1.0hp blower should have a total hole area of approx. .85 square inches and a 1.5hp should have approx. 1.2 square inches. Use the table below to determine the correct blower size.

Hole Diameter (Sq. Inches)	Hole Area (Sq. Inches)
1/8"	0.0123
3/16"	0.0277
1/4"	0.0491

UNIVERSAL AMP CORD CONFIGURATION

INSTALLING PINS IN CONNECTOR

Before inserting pins carefully examine the previous cord if at all possible. When available match pin for pin and color for color. If the existing cord is not available refer to the system owners manual for receptacle & cord configuration.



WARNING: Pins can only be inserted and are not removable without a special tool. Please make 100% certain you are inserting the pins in the correct position.

COMMON PLUG CONFIGURATIONS

4 Pins: 1, 3 & 4

3 Pins: All

APPLICATION

The Hydro-Quip Water Pro Spa or Bath Blower has been engineered to provide years of trouble free use provided it is installed following the parameters provided within this installation manual. Failure to follow these instructions may result in premature failure and voids all manufacture warranties.

The limited warranty does not provide coverage when used in a commercial installation.

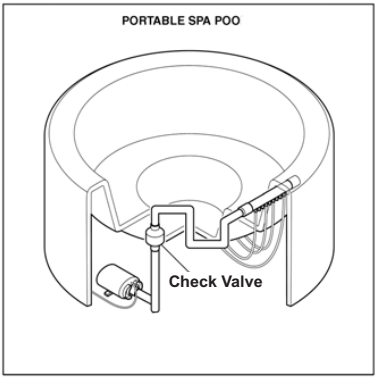
BLOWER INSTALLATION:

PORTABLE SPAS

New and Existing Installations:

Choose the correct blower based on the air injection system you intend to use or that is present in the tub you are retro-fitting.

Always use proper blower plumbing techniques including at minimum a “Hartford Loop”. A 1/4 lb. check valve may be used in addition to a Hartford Loop for added piece of mind.



A Hartford Loop or equivalent is required to prevent any water from entering the air blower.

OPERATION

Startup Check List

- ✓ Check that all air tubing is connected to the injectors and any associated manifolds
- ✓ Check for pinched air injector lines
- ✓ Check for leaks, always
- ✓ Check power cord is connected to control
- ✓ Make sure the blower circuit voltage matches the blower data label voltage.

Startup:

1. Fill the spa or bath with water. Check for leaks
2. Connect the blower to the power source, either a spa controller or other device.
3. Do not connect blower to tub plumbing
4. Activate the blower using the corresponding button on the control
5. Take an AMP reading with an AMP probe and make a note of this reading.
6. Turn off blower
7. Connect the blower to the plumbing with the hose clamp provided
8. Activate the blower using the corresponding button on the control
10. With blower running take a reading with an AMP Probe. The total AMP draw should not drop by more than ½ AMP

If the AMP draw drops by more than ½ AMP then the blower installed may be too large for the application.

Operation of the blower should be limited to 20 minute cycles. Failure to follow this instruction will shorten the motor life*

TROUBLESHOOTING

SYMPTOM	CAUSE	SOLUTION
Blower will not operate.	No Power at power point.	Check circuit breaker. A GFCI should be present. If GFCI trips repeatedly do not use blower until issue is corrected
	Moisture/Water present in housing, plumbing, and/or motor.	Allow unit to dry. Correct any plumbing/installation issues before attempting to operate the blower.
	Air tubing not connected. (Airswitch model only).	Check that air tubing is connected from the air button to the spa blower.
	Air tubing hose kinked	Check that the air tubing is not kinked. If kinks are visible remove them otherwise this will stop the pulse of air that operates the micro switch inside the spa blower.
	In-built thermal overload tripped.	Check ventilation requirements. Ensure air intake is free of debris. Call your nearest agent for a replacement.
	Damaged power cord.	Turn off power at switch; inspect full length of cord for abrasions, signs of vermin damage, etc. Cord is not field serviceable. Cord must be replaced by manufacturer or service agent.
	Worn motor brushes from normal wear & tear.	Full unit replacement required – Contact your Hydro-Quip customer service agent.
Blower starts on its own	Programmed purge cycle	Refer to spa control owners manual
Blower works but there is no, or insufficient, air coming into the spa.	Kinked or not attached air lines, main pipe from blower not attached to unit. HP of blower being used needs to be increased.	Assure that all lines from the air manifold, if present, are attached and not kinked. Make sure blower is connected to main air supply plumbing. A higher HP blower may be required
GFCI Tripping	Water or condensation in the blower	Correct water intrusion issue

For additional technical or warranty assistance, please contact your supplier.

MAINTENANCE

This unit contains no user serviceable parts internally.

Any maintenance required should be performed by qualified personnel only

Any damage to the power cord or supply wiring must be corrected before operation.

Always disconnect power before performing any service on the unit.

The Water Pro blower uses special filters at the air intakes to help keep debris from entering the blower. It is suggested that these filters be inspected occasionally and cleaned if dirty. The use of compressed air and or water may be used to clean these filters. (Make sure filters are dry before reinstalling.

Always reinstall debris filters after cleaning and prior to operating the blower.

Limited Warranty Information

To all original purchasers, **HYDROQUIP** unit is warranted to be free from defects in material and workmanship for a period of one year from the date of purchase.

HYDROQUIP will repair or replace the part, if in our opinion, the unit is defective.

This warranty excludes damage as a result of: water intrusion, normal wear, freezing, low/high voltage, chemical abuse, accident, negligence, alteration, improper installation, use or care.

To obtain warranty service, contact your supplier for assistance within the warranty period.

Purchaser is responsible for removal or reinstallation labor, freight charges, or any other such costs incurred in obtaining warranty service.

HYDROQUIP assumes no responsibility for incidental or consequential damages. Some states do not allow the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

YOUR SUPPLIER MAY PROVIDE A DIFFERENT WARRANTY, CONTACT YOUR SUPPLIER FOR DETAILS

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