

Super Charger II & Turbo Charger Residential Blowers Owners Manual

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

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WARNING

Before installing this product, read and follow all warning notices and instructions accompanying this filter. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage. Call (800) 831-7133 for additional free copies of these instructions.

Important Notice



Attention Installer.

This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner/operator of this equipment.

Pentair Pool Products

1620 Hawkins Ave., Sanford, NC 27330 • (919) 774-4151
10951 West Los Angeles Ave., Moorpark, CA 93021 • (805) 523-2400

 **Pentair**
Pool Products™

Because reliability matters most

⚠ WARNING



The electrical supply for this product must include a suitable rated switch or circuit breaker to open all ungrounded supply conductors to comply with Section 422-20 of the National Electrical Code, ANSI/NFPA 70-1987. The disconnecting means must be readily accessible to the tub occupant but installed at least 5 ft. (1.5m) from tub water.

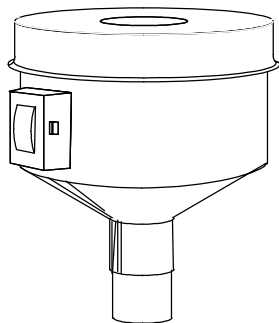
⚠ WARNING



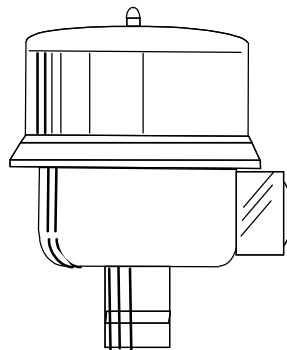
Install at least 5 ft. (1.5m) from tub water using nonmetallic plumbing. Install blower no less than 1 foot (305mm) above the maximum water level to prevent water from contacting electrical equipment. Install in accordance with the installation instruction. Failure to do so may result in an electrical hazard which can result in serious injury or property damage.

⚠ WARNING

To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.



Super Charger II Blower

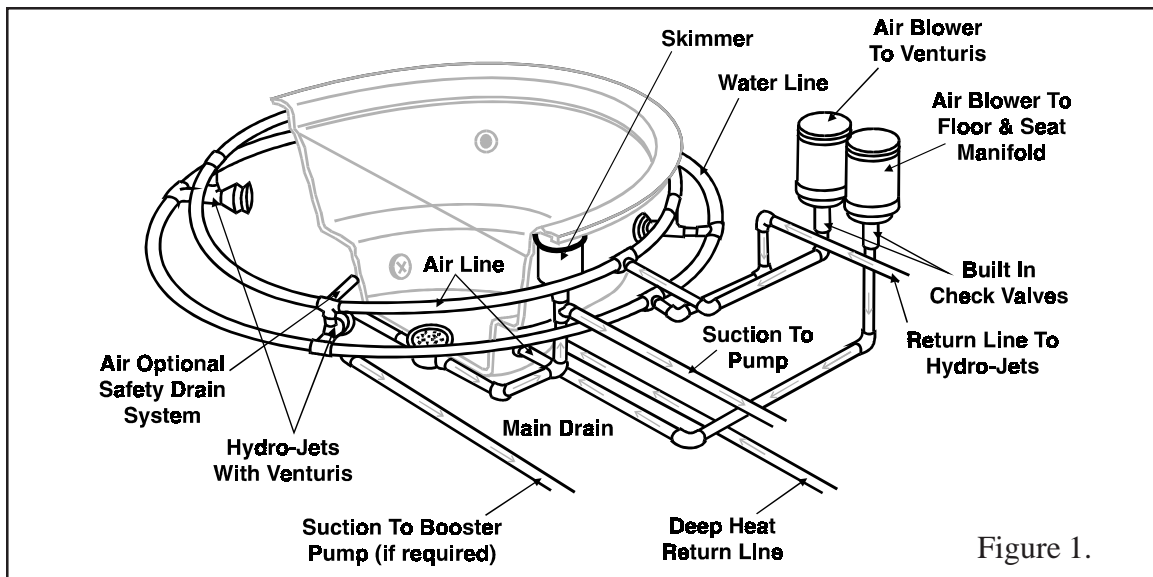


Turbo Charger Blower

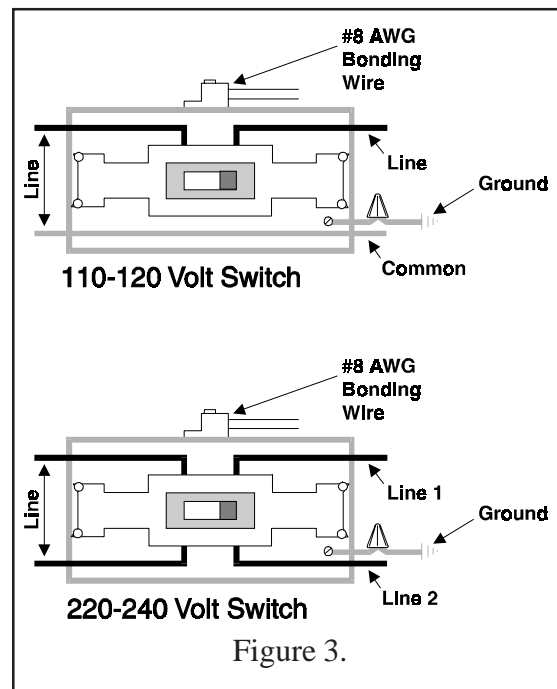
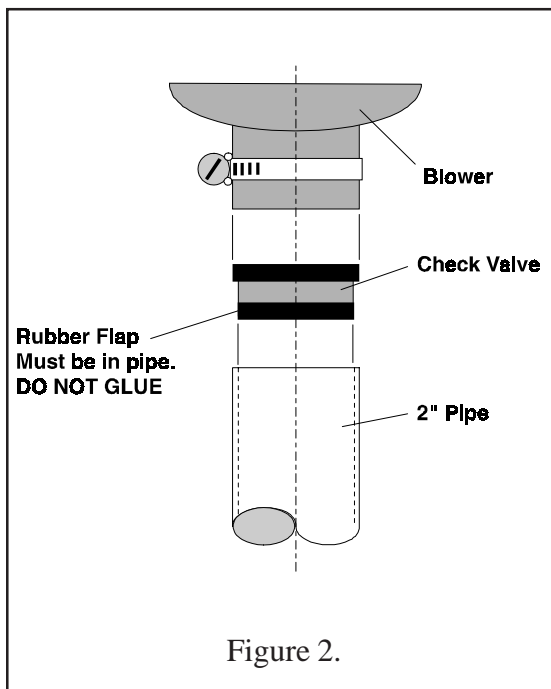
I. RESIDENTIAL BLOWER INSTALLATION

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

1. The blower must be installed in a vertical position, fitting end down. The fitting on the bottom of the blower is made to accept a 2 in. schedule 40 PVC pipe inside. No pipe size less than 2 in. should be used as running pipe on air blowers. Installation of blowers using pipe less than 2 in. in diameter will cause the unit to overheat and will void the warranty, see Figure 1.
2. Blower must be installed no less than 5 ft. from the spa or tub and at least 12 in. above water line, with non-metallic plumbing.
3. The check valve supplied with this blower must be pressed into the pipe before positioning blower, see Figure 2, pg. 4.
4. Wiring instructions to follow, see Figure 3, pg. 4.
 - a. Blower should be wired with No. 14 AWG or larger wire.



- b. Connect blower circuit to a 15 amp circuit breaker. All electrical wiring must be done in accordance with the National Electrical Code and local electrical codes and regulations.
- c. 120 Volt Connection: Remove weatherproof switch cover and connect electric wiring. Connect only black wires to switch. White wires will splice together in box, see Figure 3.
- d. 240 Volt Connection: Same as above except all black wires will connect to switch, see Figure 3.
- e. Connect the green wire to ground, see Figure 3.
- f. A wire connector is provided on this unit to connect a minimum No. 8 AWG solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduit within 5 ft. of the unit.



II. RESIDENTIAL BLOWER SIZING

The following tables provide sizing data to select the correct blower for an installation. To calculate the correct size blower, follow the instructions after these tables.

Supercharger II

Part No.	H.P.	Voltage	Amps	(Air Ring Only)	(Jets Only)
				Max. Safe Pressure in Inches of Water Depth	Rec. Number of Jets*
411200	1	120 Volts	6.0 Amp	40 in.	5-10
411300	1	240 Volts	3.9 Amp	35 in.	4-9
411400	1.5	120 Volts	9.0 Amp	60 in.	12-17
411500	1.5	240 Volts	5.0 Amp	55 in.	12-17
411700	2	120 Volts	9.4 Amp	60 in.	12-17
411900	2	240 Volts	5.8 Amp	55 in.	12-17

Turbo Charger

Part No.	H.P.	Voltage	Amps	(Air Ring Only)	(Jets Only)
				Max. Safe Pressure in Inches of Water Depth	Rec. Number of Jets*
414100	1	120 Volts	6.6 Amp	40 in.	5-10
414200	1	240 Volts	3.9 Amp	35 in.	4-9
414300	1.5	120 Volts	9.0 Amp	50 in.	9-15
414400	1.5	240 Volts	5.0 Amp	45 in.	8-13
414500	2	120 Volts	9.3 Amp	60 in.	12-17
414600	2	240 Volts	5.8 Amp	55 in.	12-17

* The number of jets are calculated based upon a maximum distance of 25 ft. from blower to spa.

A. Blower Sizing Instructions

1. The number of jets are calculated based upon a maximum distance of 25 ft. from blower to spa. See steps 2 through 6 below for sizing blowers on spas with air holes in lieu of jets. For spas with air holes and jets, separate blowers are recommended.
2. Allowance has been made in the calculations for a check valve in the air line or built into the blower, whichever applies.
3. For air holes instead of jets add 1 in. for each 10 ft. of 2 in. PVC pipe from the blower to the spa.
4. Add .5 in. for each 90° elbow in the 2 in. PVC pipe from the blower to the spa.
5. Add 5 in. for holes in seat and floor PLUS the actual water depth, which is measured from the air hole to the water line. This is not TOTAL SPA DEPTH.

EXAMPLE:	15 ft. air line run	=	1.5 in.	
	3 elbows	=	1.5 in.	
	5 in. + 36 in. water depth	=	<u>41.9 in.</u>	
			44.9 in.	= 1.5 hp

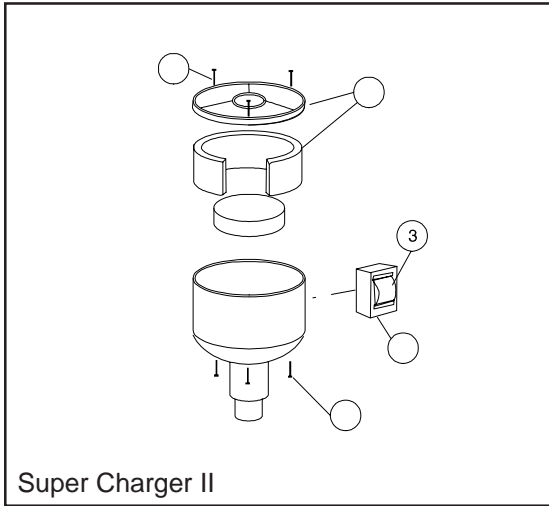
6. The number of holes in seat or floor or both should equal 1.6 sq. in. of free air space. To determine free air space, use the table provided. Add number of holes and multiply by its square area.

1/8 in. hole - .0123 sq. in.
 3/16 in. hole - .0276 sq. in.
 5/32 in. hole - .0192 sq. in.
 1/4 in. hole - .0491 sq. in.

EXAMPLE:	60 each 1/8 in. seat holes - 60 x .0123	=	.7380	
	30 each 3/16 in. floor holes - 30 x .0276	=	<u>.8280</u>	
	Free air space (1.6)	=	1.5660	

7. Two 45° fittings in place of one 90° elbow is recommended wherever it is possible.
8. For any air line run over 15 ft. from blower to spa, a 12 in. loop must be installed above the water level at the spa to restrict the water from backing all the way to the blower, and to avoid unnecessary back pressure when the blower is turned on.

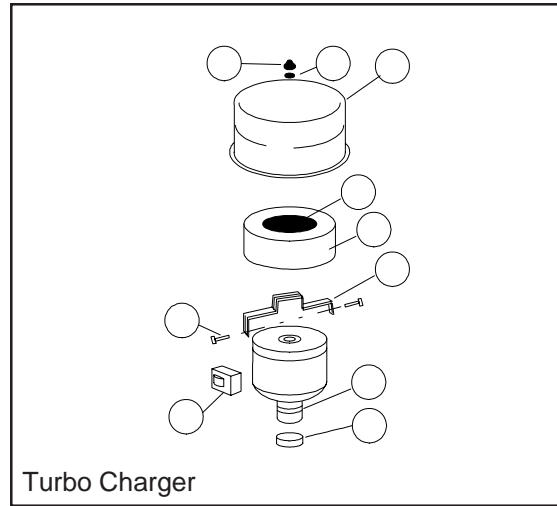
SECTION III. TECHNICAL DATA



Super Charger II

Replacement Parts

Item No.	Part No.	Description
1	40002700	Screw, 10 x 2½ in. phillips, 3 req.
2	41110100	Lid with foam
3	41111800	Switch, 120 volt, on/off, UL
3	41112800	Switch, 240 volt, on/off, UL
3	41113300	Switch, 120 volt, CSA
4	41111500	Cover, junction box, UL/CSA
5	40002800	Screw, 10 x 1-3/4 in. phillips, flat head, 3 req.



Turbo Charger

Replacement Parts

Item No.	Part No.	Description
1	41473500	Acorn nut 8-32
2	98213800	Lock washer #8
3	41413000	Blower lid assembly
4	41475200	Foam support
5	41473200	Foam ring
6	41412005	Bracket - 1 stage
6	41412006	Bracket - 2 stage
7	98205100	Screw, 5/8 in. hex washer
8	41473700	Switch, box cover switch
9	40000100	Clamp, 2 in. hose
10	41411900	Check valve

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