

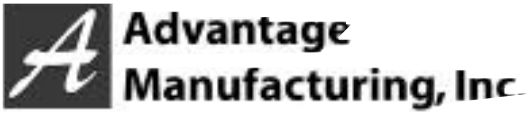
PUMPS

Users Manual

- Above Ground
- MasterFlow
- SuperFlow
- Booster/Pool Cleaner Replacement



A Advantage
Manufacturing, Inc.



Pool and Spa Pumps Manual

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SAFETY INSTRUCTIONS



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

1. READ AND FOLLOW ALL INSTRUCTIONS.
2. WARNING – To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.
3. CAUTION – This pump is for use with permanently installed pools and may also be used with hot tubs and spas if so marked. Do not use with storable pools. A permanently installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage.
4. Do not install within an outer enclosure or beneath the skirt of a hot tub or spa unless so marked.
5. SAVE THESE INSTRUCTIONS.

INSTALLATION & OPERATING INSTRUCTIONS

GENERAL

Your Advantage Manufacturing pump has been quality built and engineered to give maximum efficiency under normal water pumping conditions. Consult the manufacturer for any other applications.

LOCATION OF PUMPS

For best pump performance, locate the system as close to the water source as possible. Provide adequate access around the pump for inspection and maintenance.

MODELS LESS TRAP

This model was designed for below water level (flooded suction) application. Make sure the pump is installed at a level that will allow the pump casing (volute) to completely fill with water.

Two quick disconnect compressions fittings are included with your pump for ease of installation and maintenance. Make sure the fittings are correctly aligned with pump connections to allow the O-ring to make the proper seal. Hand tighten only. Do not use a wrench to tighten fittings.

MODELS WITH TRAP

Avoid excessive tightening of pipe or fittings in threaded suction port in trap. For threaded connection, use Quick-Seal Teflon Thread Sealing Compound, Plasto-Joint Stick or any other sealants formulated specifically for plastics.

STARTING & PRIMING PUMP

Do not run unit dry. Always be certain that the pump casing and/or trap is filled with water before starting the unit. Allow a reasonable amount of time for priming. If pump will not start, or will not prime, see trouble shooting below.

MAINTENANCE

The trap basket should be inspected frequently and kept clean. To avoid damage to the basket, do not strike when cleaning. Inspect trap cover O-ring regularly and replace as necessary.

Keep motor clean. Insure that louvered openings are free from debris and obstructions. Over a period of time, the shaft seals may become damaged or worn and must be replaced.

WINTERIZATION

To prevent damage during freezing conditions, turn off all electrical power. Drain thoroughly and clean out any debris. Protect pump and motor from elements by covering or, if possible, store in a dry, well-ventilated room.

WARNING – All electrical wiring of the motor installation must be done by a qualified electrician in accordance with applicable electrical codes. Before working on any motor be certain that the source of electrical power is off at the main junction box.

BONDING WIRE – Upon installation of the pump, the motor must be bonded with a No. 8 AWG (8.4 mm²) solid copper conductor per National Electric Code. The connection should be from the accessible wire connector on the motor to all metal parts of the swimming pool, spa, or hot tub structure and to all electrical equipment, metal conduit and metal piping within 5 feet (1.5m) of the inside walls of a swimming pool spa or hot tub, when the motor is installed within 5 feet of the inside walls of the swimming pool, spa, or hot tub.

NOTE: for electrical connections, see wiring diagram on motor rating plate.

MOTOR WILL NOT START

- 1.) Check Circuit Breakers
- 2.) Check for incorrect or loose wire connections.
- 3.) Make sure the correct power supply is being used.
- 4.) Any on/off switch or pneumatic switch should be in the "on" mode.

MOTOR OVERHEATING AND CYCLING ON AND OFF:

- 1.) Check for incorrect or loose wire connections.
- 2.) Check for low voltage supply (frequently caused by undersized wire).
- 3.) Make sure the motor gets a fresh air supply and the vents are kept unclogged.

MOTOR MAKES HUMMING NOISE BUT WILL NOT START:

- 1.) Make sure motor shaft turns free.
- 2.) Check for jammed impeller or an obstruction in (volute) casing.
- 3.) Check for low voltage and undersized wire.

PUMP WILL NOT PRIME:

- 1.) Make sure pump is installed at the proper level and the plumbing lines have been correctly installed to allow the water to enter pump freely.
- 2.) Open air control valves to release any possible air lock.
- 3.) Make sure all suction and discharge lines are clear and unobstructed and all valves are opened.
- 4.) Check for air leaks in the suction line.

LOW WATER FLOW

- 1.) Check filter pressure gauge, filter may need cleaning.
- 2.) Check for clogged plumbing lines.
- 3.) Check for worn or damaged impeller.
- 4.) Check for low voltage.

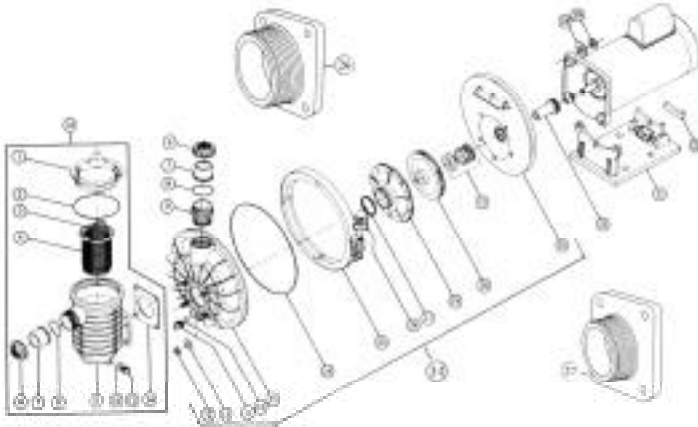
WATER LEAKS

- 1.) Check contamination or damage to shaft rotary seal. Replace if necessary.
- 2.) Check compression fitting (union connectors), make sure they are properly aligned and secured. Hand tighten only. Do not use tools.
- 3.) Make sure the O-ring is properly sealed and not damaged.

NOISES

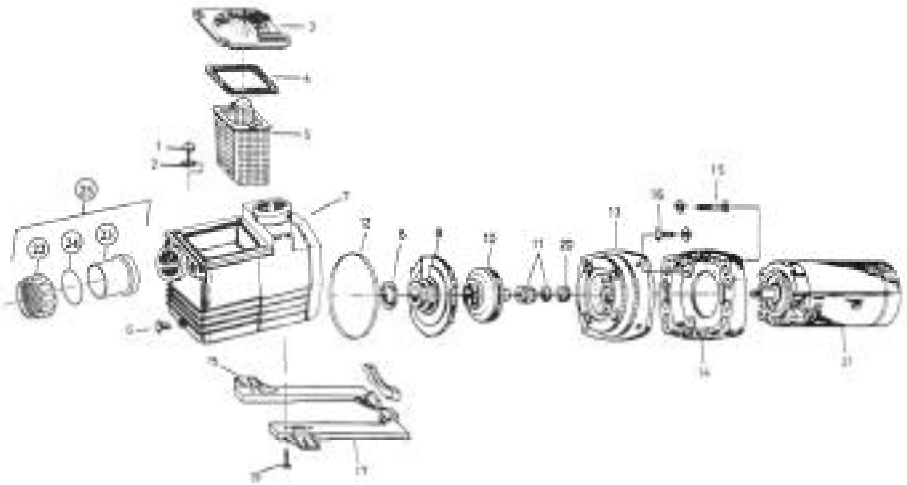
- 1.) Check plumbing vibration – make sure lines are adequately supported.
- 2.) Check for cavitation, due to obstruction in or undersized suction line.

ASSEMBLY DIAGRAM MASTERFLOW PUMP



1	320101	LID – PUMP POT	20A	320114	.5HP IMPELLER BLUE
2	320102	O’RING – LID	20B	320115	.75HP IMPELLER RED
3	320103	HANDLE –BASKET	20C	320116	1HP IMPELLER GRAY
4	320104	STRAINER BASKET	20D	320117	1.5HP IMPELLER GREEN
5	320105	HOUSING – POT	20E	320118	2HP IMPELLER BLACK
6	700102A	UNION NUT	21	320119	MECHANICAL SEAL
7	700101	UNION BODY	22	320120	SEAL PLATE
8	700103	UNION O’RING	23	320121	S/S BAND CLAMP
9	UF5040	1.5" MIPXUNION THREAD	24	320152	KNOB, BAND CLAMP
10	201002	O’RING – BLEED PLUG	25	320124	SHAFT ADAPTER (FOR 50 CYCLE ONLY)
11	201003	.5" BLEED PLUG	26	320125	SQUARE FLANGE ADAPT.2"
12	320106	5/16"S/S HEX NUT	27	320125A	SQUARE FLANGE ADAPT1.5"
13	320107	5/16" S/S INTERNAL WASHER	28	320126	3/8" INTERNAL STAR WASHER
14	320108	SQUARE FLANGE GASKET	29	320127	3/8" HEX NUT
15	320109	VOLUTE HOUSING	30	-----	PART DELETED
16	320110	O’RING – VOLUTE HOUSING	31	310113	BASE STAND – MOTOR
17	320128	ADJ.RING,FLOATING			
18	-----	PART DELETED			
19	320113	DIFFUSER			
32	310114	MOTOR ISOLATOR			
33	321120	POOL MASTER POT ASSY.			

ASSEMBLY DIAGRAM SUPERFLOW PUMP

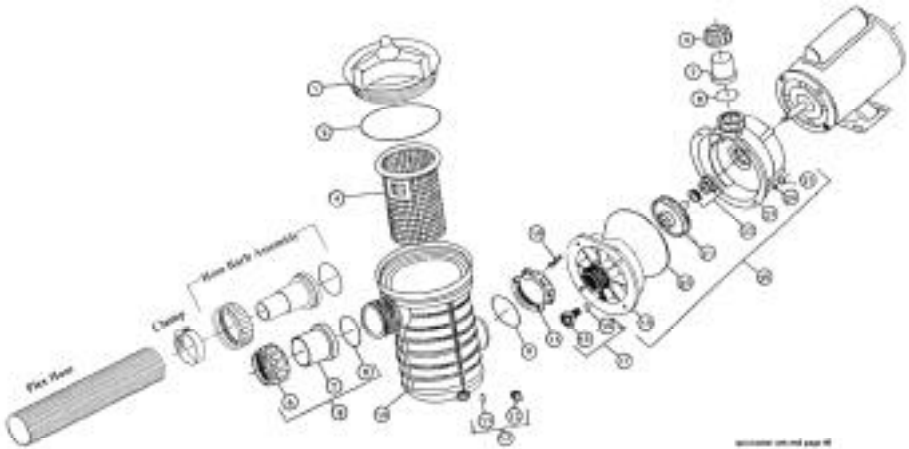


1	AT-1600-P	HAND KNOB	17	AT-1600-G	MOUNTING FOOT (LEFT)
2	SS-1600-N	SWIVEL	18	AT-1600-J	MOUNTING FOOT (RIGHT)
3	AT-1600-DC	STRAINER COVER	19	SS-1600-Z-5	MOUNTING FOOT CAP SCREW
4	AT-1600-S	STRAINER COVER GASKET	20	SS-125-F	SLINGER
5	SS-1600-M	BASKET	21	AT-6142	MOTOR – 1/2 HP
6	SS-1600-V	DRAIN PLUS	21	AT-6142D	MOTOR (DUAL SPEED) – 1/2 HP
7	AT-1600-AA	PUMP HOUSING/STRAINER	21	AT-6142	MOTOR – 3/4 HP
8	SS-1600-R	DIFFUSER GASKET	21	AT-6142D	MOTOR (DUAL SPEED) – 3/4 HP
9	SS-1600-B	DIFFUSER	21	AT-6182	MOTOR – 1 HP
10	SS-6142-I	IMPELLER (SS-1400)	21	AT-6182D	MOTOR (DUAL SPEED) – 1 HP
10	SS-6162-I	IMPELLER (SS-1600)	21	AT-6222	MOTOR – 1 1/2 HP
10	SS-6182-I	IMPELLER (SS-1800)	21	AT-6222D	MOTOR (DUAL SPEED) – 1 1/2 HP
10	SS-6222-I	IMPELLER (SS-2200)	21	AT-6262	MOTOR 2 HP
10	SS-6262-I	IMPELLER (SS-2600)			
11	SS-1600-Z-2	SEAL ASSEMBLY	22	n/a	1.5"/2" UNION NUT
12	SS-1600-T	HOUSING GASKET	23	n/a	1.5"/2" FEMALE SLIP TAIL PIECE
13	AT-2600-E	SEAL PLATE	24	n/a	1.5"/ 2" O RING
14	AT-1600-F	MOTOR MOUNTING PLATE	25	n/a	BARB ASSEMBLY
15	SS-1600-Z-4	HOUSING CAP SCREW			
16	SS-125-Z-4	MOTOR CAP SCREW			

MOTOR PARTS

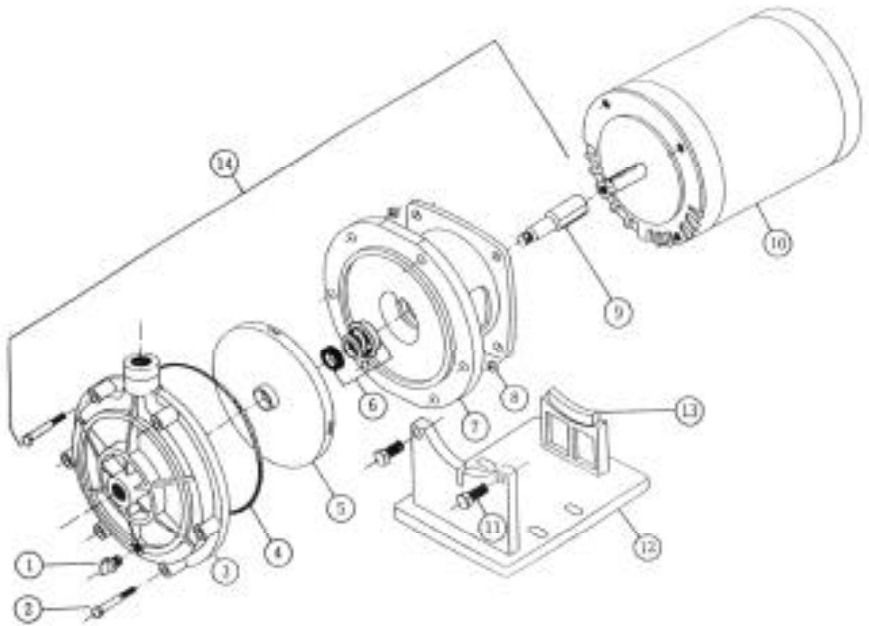
AT-2000	POINTS
AT-2050	CAPACITOR
SS-2100	CENTRIFUGAL SWITCH

ASSEMBLY DIAGRAM ABOVE GROUND PUMP



1	320101	LID, PUMP POT, CLEAR	17	203006	.25" BLEED PLUG w/O RING
2	320102	O RING, PUMP POT LID	18	300001	SCREW
3	N/A		19	300003	FACE PLATE 48 FRAME
4	320138	STRAINER BASKET	20	300004	O RING FACE PLATE
5	N/A		21	300005	IMP. BLUE .5 HP FULL RT.
6	700102	1.5" UNION NUT	21A	300006	IMP. RED .75 HP FULL RT.
7	700101	1.5" FEMALE SLIP TAILPIECE	21B	300007	IMP. GREY 1 HP FULL RT.
8	700103	1.5" UNION O RING	21C	300008	IMP. GREEN 1.5 HP FULL RT.
9	UF5010A	1.5" FEMALE SLIP w/NUT & O RING	22	300009	MECH SEAL
10	300121	HOUSING, PUMP POT 1.5"	23	300010	VOLUTE 48 FRAME
11	201002	0.5" O RING	24	300011	#10 LOCK WASHER
12	201003	0.5" BLEED PLUG	25	300012	NUT, #10-32 BRASS
13	300002	0.5" BLEED PLUG & O RING	26	N/A	WET END ASSY.
14	700310C	2" SPLIT NUT w/SCREWS	27		ALT. HOSE BARBASSY.
15	203004	.25" BLEED PLUG			
16	201010	.25" O RING			

ASSEMBLY DIAGRAM POOL CLEANER/BOOSTER PUMP



1	310101	DRAIN PLUG
2	310102	BOLT
3	310103	VOLUTE
4	310104	O RING
5	310105	IMPELLER 60 CYCLE .75 HP
6	310108	SEAL ASSEMBLY
7	310109	SEAL PLATE
8	310110	NUT
9	310111	SHAFT ADAPTER Incl Screws
10	353103	MOTOR,.75 HP 115/230V 60 HZ
11	310112	BOTTOM OF COVER BOLTS
12	310113	MOTOR BRACKET
13	310114	MOTOR INSULATOR
14	310115	.75 HP WET END, 60 CYCLE

2 YEAR LIMITED WARRANTY

PUMPS, FILTERS AND MOTORS FOR SWIMMING POOLS, SPAS AND HOT TUBS

From engineering through production and inspection, Advantage Pumps and Motors are manufactured with exacting care and close attention to detail. This control of quality coupled with the superior features incorporated in the design insure long life and trouble-free performance.

WARRANTY COVERAGE

All Advantage pumps and motors for swimming pools, spas and hot tubs are warranted to be free from defects in materials and/or workmanship for a period of two years from the date of sale to the ultimate user.

EXCLUSIONS FROM THIS WARRANTY

This warranty does not cover:

1. Problems from improper installation.
2. Problems resulting from abuse, misuse, negligence or accident by any party other than Advantage, such as, but not limited to, damage to swimming pool fixtures caused by operation without benefit of total submersion, damage to parts caused by installers, damage to pump parts caused by "dry" operation (loss of prime or obstruction on plumbing lines), etc.
3. Problems resulting in whole or part from alteration or modification of these products by any party.

WARRANTY OBLIGATIONS OF ADVANTAGE

Should a defect in workmanship and/or material in any item covered by this warranty become evident during the term of the warranty Advantage will, at its option, repair or replace such item at its own cost and expenses. Advantage is not, however, responsible under this warranty for any cost of shipping or transportation of the equipment of parts thereof to or from the service department. Also, Advantage is not liable for any loss of time, inconvenience, incidental expenses such as telephone calls, labor, or material charges incurred in connection with the removal or replacement of the equipment, or any other incidental or consequential damages.

WARRANTY PROTECTS ORIGINAL RETAIL PURCHASER

This warranty extends to the consumer who made the original retail purchase only and is not enforceable by any other party.