

OWNER'S MANUAL



Limited Warranty

**MakoShark 2
KingShark
KingShark 2
KingShark 2 w/Remote
TigerShark 2
Tiger Shark 2 Plus**

Your Hayward Pool Cleaner has been manufactured, tested and inspected in accordance with carefully specified engineering requirements. It is warranted to be free from defects in materials and workmanship for a period of one year. Coverage is provided to the original owner only and is not transferrable. This limited warranty includes both parts and labor for the cleaners listed above. This warranty gives you specific legal rights. You may also have other rights, which vary from state to state

EXCEPTIONS AND EXCLUSIONS FROM WARRANTY

Damage, malfunctions or other failures of the cleaner arising from improper electrical supply levels are excluded from this warranty. Malfunctions, failure or damage of the cleaner caused by improper, unreasonable, or negligent use or abuse by the consumer, are excluded from this warranty.

Any repair that is made on your cleaner during the warranty period by anyone other than an Authorized Hayward Warranty Service Center (designated to perform such work) will void this warranty and other warranty rights you may have.

Filter cartridges and debris bags are not covered by this warranty

INSTRUCTIONS TO OBTAIN WARRANTY REPAIR

To obtain repair of your Hayward cleaner under this warranty, the following procedure must be followed:

- Locate and deliver the cleaner to the nearest Hayward Factory Authorized Warranty Service Center. Your Authorized Hayward Warranty Service Center can be located by visiting www.haywardnet.com. You may also call 908-355-7955 to locate your nearest authorized service center. Cost of transportation, if required, is at the sole expense of the owner. Proof of purchase is required.

TERMS

If a warranty claim is made and the product delivered to an Authorized Hayward Warranty Service Center within the warranty period, your Hayward cleaner will be repaired at no charge (parts & labor) to you. Listed warranty exclusions apply.

No dealer, distributor, or other similar person has any authority to make any warranties or representations concerning Hayward Pool Cleaner products or to extend this warranty beyond the express items contained herein. Accordingly, Hayward Pool Products assumes no responsibility for any such warranties or representations beyond the express items contained in this limited warranty.

WARRANTY REGISTRATION CARD

You can register your unit on-line by visiting www.Haywardnet.com or by filling out the registration card and returning it to:

Hayward Industries
Attn Warranty Department
620 Division Street
Elizabeth, NJ 07207

CONTENTS

Safety Precautions	2
General Information.....	3
Motor Information	4
Trouble Shooting	5
Specifications	7
Machine Assembly/Parts	8
Filter Assembly/Parts.....	10
Accessories	11
Preventive Maintenance.....	13
Parts Ordering Instructions.....	14

KingShark2

SAFETY PRECAUTIONS

The KingShark2 automatic swimming pool vacuum cleaner has been manufactured with the highest degree of care and concern for safety. We suggest the following safety precautions become part of your pool safety regulations:

1. ALWAYS PUT THE MACHINE INTO THE WATER BEFORE CONNECTING IT TO THE ELECTRICAL OUTLET.
2. IT IS IMPORTANT FOR SWIMMERS' SAFETY TO REMOVE THE UNIT IMMEDIATELY FOLLOWING USE. THIS WILL ALSO IMPROVE THE OPERATING LIFE OF YOUR KINGSHARK2.
3. BE CERTAIN THE MACHINE IS ONLY PLUGGED INTO A GROUNDED ELECTRICAL OUTLET EQUIPPED WITH A GROUND FAULT CIRCUIT INTERRUPTER.
4. DO NOT HANDLE MACHINE WHILE IT IS PLUGGED INTO THE ELECTRICAL OUTLET.
5. DO NOT USE AN EXTENSION CORD. THIS COULD CREATE A SAFETY HAZARD AND/OR DAMAGE YOUR UNIT.
6. ALWAYS STAY OUT OF THE POOL WHILE CLEANER IS IN OPERATION.
7. NEVER ALLOW PLUG TO ENTER THE POOL.
8. DO NOT OPERATE THE MACHINE OUT OF WATER. THIS WILL DAMAGE THE MOTOR SEAL AND VOID THE WARRANTY.
9. DO NOT DRAG THE MACHINE OUT OF THE POOL AGAINST THE SIDE WALL. THIS COULD DAMAGE UNIT AND/OR YOUR POOL WALL.
10. SOME POOLS HAVE A CORNER OR A CORNER STEP CONFIGURATION THAT MAY CAUSE THE UNIT TO "HANG-UP;" THEREFORE, DO NOT LEAVE THE UNIT COMPLETELY UNATTENDED FOR MORE THAN 1/2 HOUR. OCCASIONAL OBSERVATION AND ATTENDANCE CAN ALSO REDUCE ANY TENDENCY FOR THE CORD TO TWIST.

While the KingShark2 has been made to operate as safely as possible, we suggest you exercise reasonable care in the handling of the vacuum and inspect the electrical cord frequently for damage or wear, as with any other electrical appliance. After use, remove the unit and rinse with fresh water and remove any twists that may be present in the cord.

KingShark2

GENERAL INFORMATION

You have purchased the finest piece of equipment in the pool cleaner industry. If you treat it as such, your KingShark2 automatic swimming pool vacuum cleaner will give you years of satisfactory service. As a suggestion, the unit should be stored in the original shipping container for safekeeping during the off season.

ADJUSTMENT

THERE IS ONE ADJUSTMENT THAT MAY BE NECESSARY FOR USE IN YOUR POOL. PLEASE TAKE THE FEW MINUTES NECESSARY TO UNDERSTAND THIS SIMPLE PROCEDURE:

1. The height of the sensor bar #3210 (Page 9, Key 2) is pre-set at the factory for average pools. It may be necessary to readjust the height of the sensor bar for the machine to operate satisfactorily in your pool.
2. In "Free Form" or "Bowl Shaped" pools, the sensor bar may have to be raised to a higher setting to allow the machine to climb out of the deep end and clean up the radius or slope as far as possible without the machine turning over.
3. Adjustment of the sensor bar #3210 (Page 9, Key 2) is made by loosening adjusting arm bolts #2121 B (Page 9, Key D) located just ahead of the intake. With the machine sitting on a level surface, loosen both adjusting arm bolts, and move sensor bar to desired position. Make certain the sensor bar is parallel to the level surface and retighten the adjusting arm.
4. It may be necessary to reset the sensor bar several times to find the best position for operation in your pool. Sensor bar should glide freely. This can be checked by pushing back on the sensor bar which will activate the reversing arms.

OPERATING INSTRUCTIONS

1. Select nearest grounded outlet supply of 110/115/220/240 voltage.
CAUTION: avoid overloaded circuits as low or high voltage can damage your motor. A connected ground is most important. Plug into outlet. Observe machine as it travels over bottom of pool.
2. Allow machine to travel around the pool until it is clean. Average 75' x 150' pool will required approximately 4 hours. If the pool has a heavy accumulation of debris, it may be necessary to clean the filter several times during the vacuuming period.
3. Upon completion of vacuuming the pool, allow the unit to travel to the shallow end of the pool. Before it reaches the pool wall, turn power off, raise the unit by the white nylon rope #1312, then remove the unit from the water by use of the handle. Allow excess water from the filter to drain into the pool with the KingShark2 resting on the edge or coping. Do not leave machine in water after disconnecting.

KingShark2

REMOVE THE UNIT IMMEDIATELY AFTER USE.

ALLOWING UNIT TO COOL IN WATER AFTER
RUNNING CAN CAUSE MOTOR SEAL DAMAGE.

4. To clean the cartridge filters #7807 (Page 10, Key 7) remove the filter housing assembly #3400 (Page 10, Key 13) by removing the filter knob and releasing the filter box.
5. Cleaning the filters after each use is an important part of maintaining your King-Shark2. Clean filters will allow the machine to function most efficiently.
6. Disassemble the filter housing assembly #3400 (Page 10, Key 13) by removing the four (4) filter knobs #3405 (Page 10, Key 3) The filter backplate #3416 (Page 10, Key 10) and filter cartridges #7807 can then be removed.
7. Clean cartridges with a water hose using a pressure nozzle.
8. Use the KingShark2 on a regular basis to keep your pool clean.

MOTOR INFORMATION

The Motor in your KingShark2 has automatic overload protection. The overload switch will protect the motor against burning out when an obstruction stops the machine. When an obstruction stops the machine, UNPLUG THE CORD FROM THE OUTLET and remove the unit from the pool. Turn the machine over and with the aid of a long screw driver or needle-nose pliers, rotate the impeller and dislodge any foreign object. All large objects should be removed from the pool before the KingShark2 is put into operation.

KingShark2

TROUBLE SHOOTING

Where to set Sensor Bar (Make adjustments in 1/4" Increments)

Machine fails to come out of deep end:

Raise sensor bar to allow the machine to climb the incline to shallow end.

Machine turns in circles and twists cord:

1. Sensor bar too high, hitting hood, or is not level.
2. Thread on reversing arm #2203 (Page 9, Key 16) is worn or stripped, not allowing reversing mechanism to disengage.
3. Drive wheel broken.
4. Drive belt broken.
5. Is the unit being run in the pool for too great a length of time? Four hours in operation in the larger pools should be sufficient with not more than a few twists in the cord, which should be straightened out after each vacuuming.

Machine does not pick up:

1. Filter may be clogged and not permitting the flow of water through the filter cartridges, (clean filter cartridges).
2. Large object lodged in the intake or in the impeller housing (remove object).

Machine does not move:

1. Not connected to live outlet, (check electrical source).
2. Object lodged in impeller, (remove object).
3. A short in the motor, (check the ground fault interrupter for tripping).

KingShark2

TROUBLE SHOOTING

4. Unit runs for short distance but stops. Check for overloaded circuit or possible faulty motor. *Contact service center*
(DO NOT USE EXTENSION CORDS.)
5. Motor runs but unit becomes motionless (gear box worm is worn or the drive pin is sheared).

Machine tips over backwards before sensing wall:

1. Improper sensor bar adjustment, (too high).
2. Cord too short for pool length. *Contact service center.*
3. You may need optional float Part No. 7 (Page 13) call factory or local dealer/service center.

Machine tips over before tripping or sensing wall:

1. Lower sensor bar to ensure it will engage and reverse unit.

KEEP SENSOR BAR LEVEL AT ALL TIMES!



KingShark2

SPECIFICATIONS

MOTOR:

Type	Submersible	<u>EXPORT ONLY</u>
Voltage	110/115 Volts	230/240 Volts
Frequency	60 Cycle	60/50 Cycle
Speed	1725 RPM	1425 RPM
Bearing	Ball Bearings	
Housing	Aluminum Anodized	
Motor Seals	Double Lip Wave	
Overload Protection	Thermal Overload	
Electrical Cord	#16 Wire Encased in Flotation Jacket; 150' in length	

DRIVE:

Rear Wheel Drive	Planetary Gear System
Front Wheel Driven by	Continuous Belt

FILTER:

Type	Self Contained
Filter Media	Corrugated Resin Impregnated Element
Porosity	50 Microns
Filter Area	40 Square Feet
Housing	Molded Plastic
Gallons Circulated	70-75 Per Minute/4200-4500 Per Hour

SHAFT and AXLE:

All parts such as axle, shafts, pins, fasteners, rods, etc., are corrosion resistant.

(KingShark2) SPECIFICATIONS WITHOUT SWIVEL

UNIT DIMENSIONS		UNIT WEIGHT	UNIT CORD LENGTH
Height	15 in. (38.1 cm)	86.5 lbs. (39.2 Kg)	150 ft. (45.7m)
Width	24 in. (60.0 cm)		
Length	29 in. (73.6 cm)		

(KingShark2) SPECIFICATIONS WITH SWIVEL

UNIT DIMENSIONS		UNIT WEIGHT	UNIT CORD LENGTH
Height	19.5 in. (49.5cm)	89.0 (40.5 Kg)	150 ft. (45.7m)
Width	24 in. (60.0 cm)		
Length	29 in. (73.6 cm)		

(KingShark2) W/BOX SPECIFICATIONS

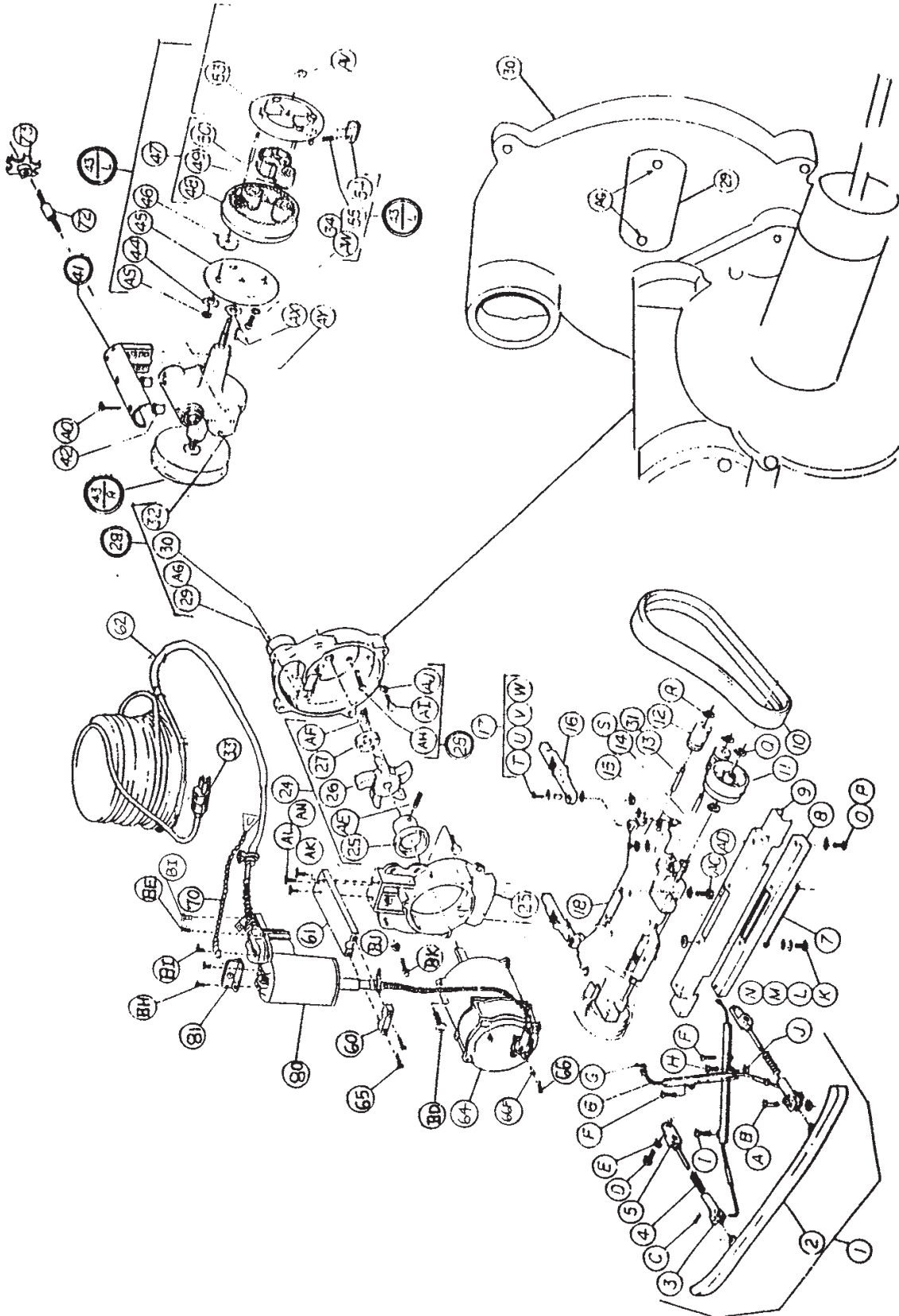
UNIT BOX DIMENSIONS		UNIT BOX WEIGHT	UNIT BOX VOLUME
Height	19.5 in. (49.5 cm)	105 lbs. (47.6 Kg)	9.38 ft ³ (.3m ³)
W/Swivel	23.5 in. (59.7 cm)		
Width	26.0 in. (66.0 cm)	109 lbs. (49.4 Kg)	11.31 ft ³ (.36m ³)
Length	32.0 in. (81.3 cm)	w/optional Swivel	w/optional Swivel

CADDY CART W/BOX SPECIFICATIONS

CART BOX DIMENSIONS		CADDY CART WEIGHT	CART BOX VOLUME
Height	12.5 in. (31.8 cm)	16.5 lbs. (7.5 Kg)	6.92 ft ³ (0.2m ³)
Width	22.5 in. (57.2 cm)	WITH BOX	
Length	42.5 in. (107.0 cm)	29.0 lbs. (13.2 kg)	

KingShark2

WITH SWIVEL

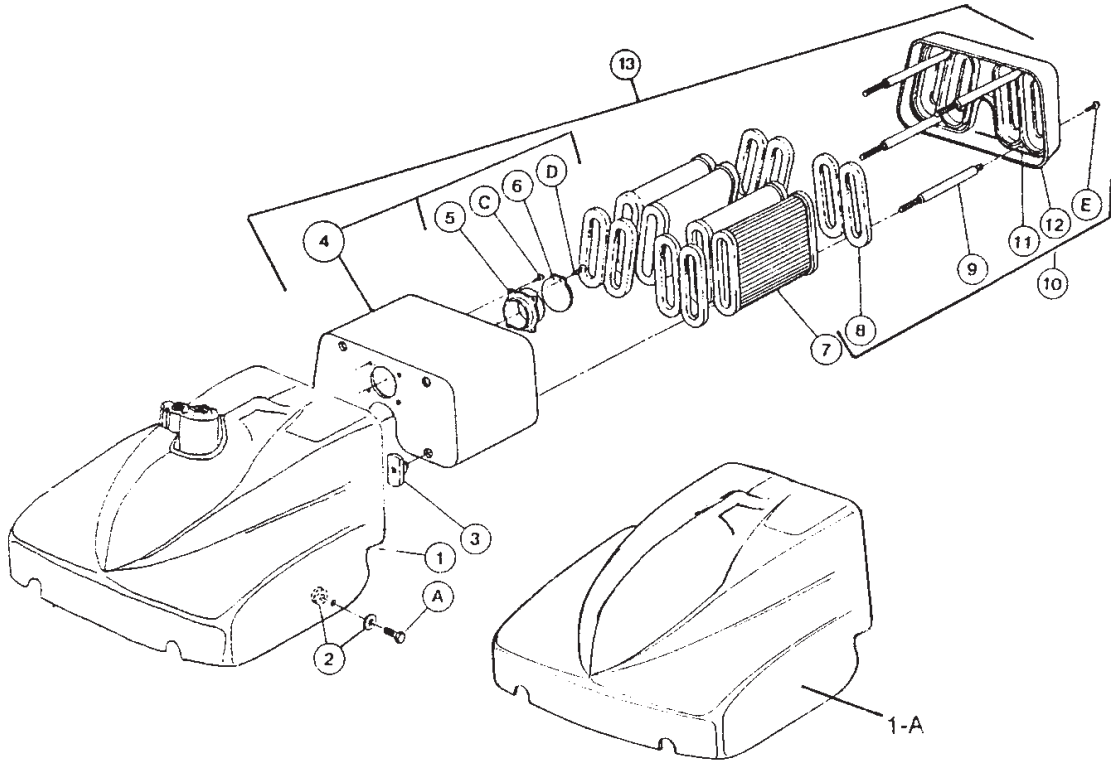


KEY	PART NO.	PART DESCRIPTION	REQ	L/H	R/H	KEY	PART NO.	PART DESCRIPTION	REQ	L/H	R/H	KEY	PART NO.	PART DESCRIPTION	REQ	L/H	R/H
1	3211	BAR - SENSOR ASSEMBLY	1			V	1714A	SLEEVE - GUIDE PIN SS	2	1	1	47	2602	PLANETARY GEAR - ASSEMBLY	2	1	1
2	3210	BAR - SENSOR	1			W	1610B	NUT LOCK HEX 10-32 SS	2	1	1	48	2602B	GEAR - RING (REF. ONLY)	2	1	1
3	3208	SLIDE - SENSOR BAR	2	1	1	18	2200C-81R	PLATE - BASE	1			49	2603	GEAR - PLANETARY (REF. ONLY)	8	4	4
A	4208	SCREW RD HD 1/4-20X1 1/4" SS	2	1	1	23	3207	HOUSING BELL	1			50	2604	GEAR - SUN (REF. ONLY)	2	1	1
B	3209	NUT HEX 1/4-20 SS	2	1	1	AC	2200C	BOLT HEX HD 5/16-18X1" SS	2	1	1	53	2601	PLANET - OUTSIDE W/PINS L&R	2	1	1
C	1703D	HAIR PIN COTTER 1/16X1/2" SS	2	1	1	AD	2121E	WASHER FLAT 5/16" SS	2	1	1	AV	1814D	RING SNAP 1/2"	2	1	1
4	2207L	SPRING - SENSOR BAR SLIDE SS	2	1	1	24	2101A	IMPELLER - ASSEMBLY	1			54	2606	LOCK - WHEEL	2	1	1
5	2206	ARM - SENSOR BAR ADJUSTING	2	1	1	25	2102	COLLAR - IMPELLER DRIVE	1			55	1607	SPRING - WHEEL LOCK SS	4	2	2
D	2121B	BOLT HEX HD 1/4"-20X3/4" SS	2	1	1	AE	2121F	SCREW SET 1/4-20X5/8" SS	1			AW	2606A	SCREW RD HD 10-32X1" SS	4	2	2
E	2220B	WASHER FLAT 1/4" SS	2	1	1	26	2103	IMPELLER - 5 BLADE	1			AX	1814C	WASHER FLAT 7/16" SS	2	1	1
6	2212-81	CABLE - ASSEMBLY	2	1	1	27	2103A	RING - PLASTIC	1			AY	2108	KEY 1/8" SS - DRIVE WHEEL	2	1	1
F	2212A	SCREW PAN HD 10-32X1 1/4" SS	1			AF	2102B	SCREW RD HD 10-32X1 1/4" SS	4			60	8185	SWIVEL BRACKET CLAMP	1		
G	1703D	HAIR PIN COTTER 1/6X1/2" SS	2	1	1	28	3105P	GEAR BOX ASSEMBLY	1			61	8180	SWIVEL MOUNTING BRACKET	1		
H	2102B	SCREW RD HD 10-32X1 1/4" SS	1	1	1	29	3124P	PLATE - INSPECTION	2	1	1	64	4011	MOTOR - 3/4 HP 110 V/60HZ NS/PI	1		
I	2606A	SCREW RD HD 10-32X1" SS	1			AG	3126	BOLT HEX HD 1/4-20X3/8" SS	1			BD	4208	SCREW RD HD 1/4-20X1 1/4" SS	3		
J	4173	SPACER - CABLE	3	2	1	30	3121	HOUSING - PUMP	1			65	1808	1/4-20X1 1/4" HEX HD BOLT	2	1	1
7	2226A	BAFFLE - WIRE SS	1			31	351A	NUT HEX 1/4-20 SS	4	2	2	66	1809	8-32X3/4" SCREW SS	4	2	2
K	2126A	SCREW PAN HD 10-32X3/4" SS	2	1	1	32	Ref. only	SEE ITEM #28	1			66F	18028	WASHER #8	4	2	2
L	1703B	WASHER STAR #10 SS	2	1	1	33	5919	PLUG - ELECTRICAL	1			BE	2606A	BOLT HEX HD 1/4-20X5/8" SS	2	1	1
M	2204C	WASHER FLAT #10 SS	2	1	1	34	1703B	WASHER STAR #10 SS	4	2	2	BF	2302A	BOLT HEX HD 1/4-20X1 1/4" SS	4	2	2
N	1605	WASHER - WHEEL PLASTIC	2	1	1	35	2318	WASHER INTN LOC 1/4"	2			70	2314	ROPE 5'	2	1	1
8	2225	STABILIZER - INTAKE	1			AH	2121C	SCREW INTN LOC 1/4"	1			72	3431	STUD FILTER RETAINER	1		
O	1715	SCREW RD HD 10-32X1/2" SS	2	1	1	AI	2121B	BOLT HEX HD 1/4-20X3/4" SS	3			73	7809	KNOB - FILTER	1		
P	2204C	WASHER FLAT #10 SS	2	1	1	AJ	2220B	WASHER FLAT 1/4" SS	3			80	8002	AQUA KING SWIVEL	1		
9	2226	INTAKE NEW STYLE	1			AK	1808	1/4-20X1 1/4" HEX HD BOLT	3			81	3304	ROPE - BRACKET N/S	1		
10	2303V	BELT - DRIVE	2	1	1	AL	2220B	1/4" FLAT WASHER	3			BH	2302A	1/4-20X1 5/8" SCREWS SS	2	1	1
11	2202V	WHEEL - FRONT	2	1	1	AN	3209	1/4-20 NUT	2	1	1	BI	2810	SELF TAPPING	2	1	1
Q	1814D	RING SNAP 1/2"	2	1	1	41	3432	SADDLE ASSY N/S	1			BJ	2121E	WASHER FLAT 5/16" SS	5		
12	2310-01	ROLLER - BOTTOM BELT GUIDE	4	2	2	AQ	3424	SCREW FLAT HD SLOT 10-32X1 1/4" SS	2			BK	2121D	BOLT HEX HD 5/16-18X3/4" SS	5		
13	2311S	AXLE - GUIDE ROLLER	4	2	2	42	3423	SPACER - SADDLE	2								
R	1702A	RING SNAP 3/8" SS	4	2	2	43L	2608L	WHEEL - DRIVE ASSEMBLY LEFT	1	1	1						
15	2317A	BUSHING - BRONZE	4	2	2	44	1114A	WHEEL - DRIVE ASSEMBLY RIGHT	1								
16	2203	ARM - REVERSING L&R	2	1	1	43R	2608R	BUTTON - WHEEL	8	4	4						
17	1714	GUIDE PIN - ASSEMBLY	2	1	1	AS	1608	CLIP "E" 1/4" SS	8	4	4						
T	1714C	BOLT HEX HD 10-32X1 1/2" SS	2	1	1	45	2600	PLATE - WHEEL INSIDE	2	1	1						
U	2204C	WASHER FLAT #10 SS	4	2	2	46	2605	WASHER WHEEL - PLASTIC	8	4	4						

WITH SWIVEL

KingShark2

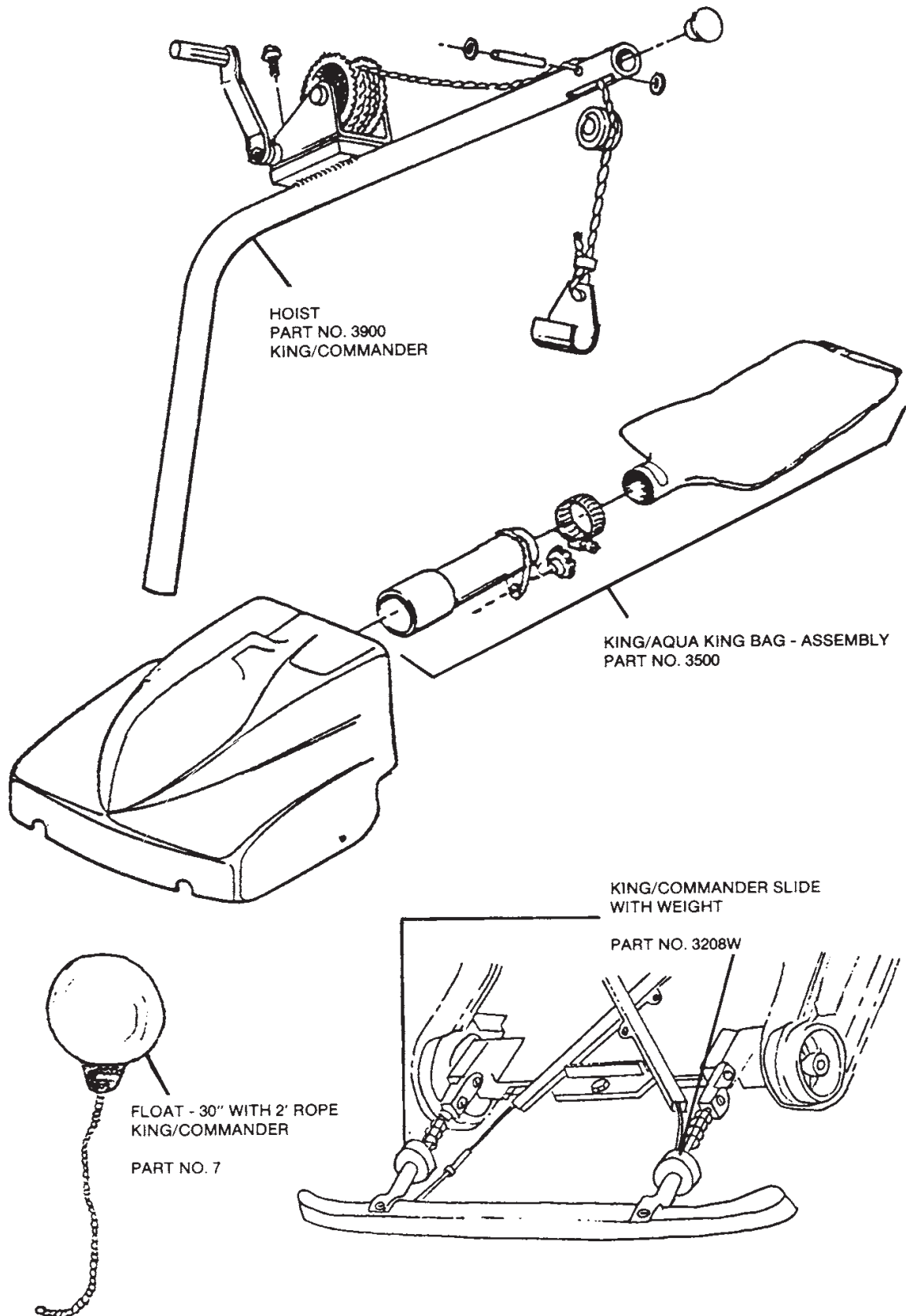
HOOD & FILTER ASSEMBLY



KEY	PART NO.	PART DESCRIPTION	REQ	L/H	R/H
1-A	3310G	HOOD - GREY PLASTIC	1		
1	3310GS	SWIVEL HOOD - GREY PLASTIC	1		
2	3309	SPACER - HOOD MOUNTING	4	2	2
A	212B	BOLT HEX HD 1/4-20X3/4" SS	2	1	1
3	3405	KNOB - FILTER	4	2	2
4	3409	KNOB - FILTER ASSEMBLY	1		
5	3401	INTAKE - FILTER HOUSING	1		
C	3402	SCREW PHIL HD #4X3/8" SS	4	2	2
6	3403	BAFFLE - FILTER HOUSING	1		
D	3402	SCREW PHIL HD #4X3/8" SS	2	1	1
7	7807	FILTER - CARTRIDGE	4	2	2
8	7813	GASKET FOAM 1/4" OVAL	8	4	4
9	7808PC	TIE ROD - FILTER	4	2	2
10	3416	PLATE - BACK ASSEMBLY	1		
11	3411	PLATE - REINFORCING BACK (REFERENCE ONLY)	1		
12	3410	PLATE - BACK (REF. ONLY)	1		
E	3402	SCREW PHIL HD #4X3/8" SS	4	2	2
13	3400	FILTER ASSEMBLY - COMPLETE	1		

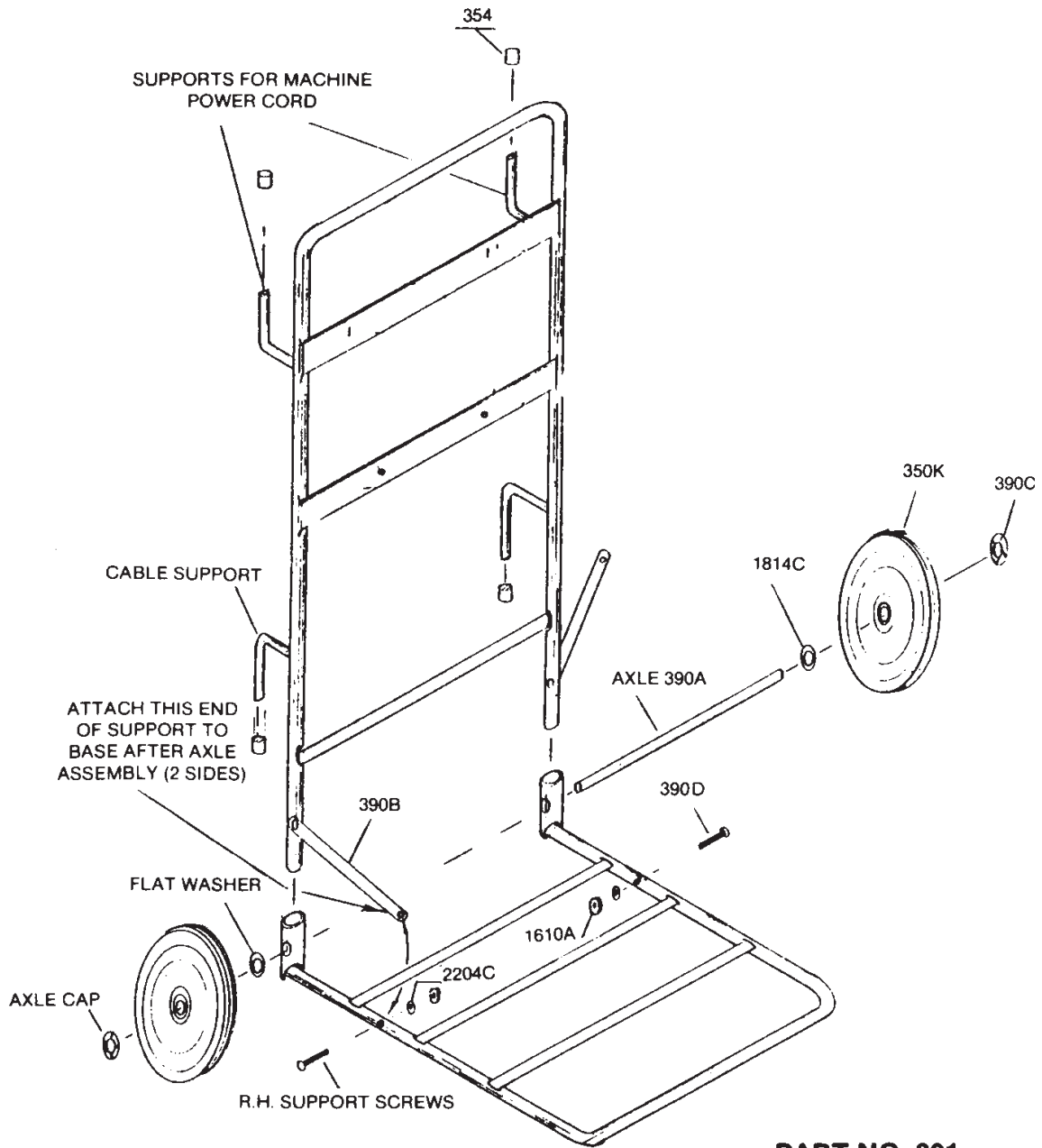
KingShark2

ACCESSORIES



KingShark2

ACCESSORIES CADDY CART



PART NO. 391

KingShark2

KingShark2 PREVENTATIVE MAINTENANCE

Congratulations on the purchase of the KingShark2. The KingShark2 is built and designed to give you years of service.

In order to maximize efficiency and receive long term service, we suggest the following:

2. Thoroughly rinse entire unit after use.

Clean filters thoroughly after each use - a clogged filter will decrease efficiency dramatically.

3. Remove any twists in the cord after each use. Twisting should be minimal if the unit is functioning properly.

4. Avoid allowing the unit to “cool down” in the water. For example, if used on a timer, it is better to set for 3:00 a.m. to 8:00 a.m. (then remove) than it is to set for 12:00 a.m. to 5:00 a.m. (and remove it at 8:00 a.m.).

5. Inspect belts and filter frequently. Replace when necessary.

6. Always keep your Sensor Bar level; (a non-level Sensor Bar can cause the cord to twist).

Protect Your Investment!

Following these quick and easy steps will extend the life and efficiency of your KingShark2.

KingShark2

PARTS ORDERING INSTRUCTIONS

Should you desire to order repair parts, follow this simple procedure:

1. Ascertain each of the parts you will need and identify them by part number. Use this book as a guide; be sure to note that in some cases, due to continual product improvement, parts may vary depending on the time of manufacture.
2. Contact your local Factory Authorized Service Center with the list of parts you will need. Be sure to advise the Service Center of the KingShark2 serial number and the date of purchase. If you need the location of your nearest Service Center, go to the Haywardnet.com or call Hayward, 908-351-5400
3. All parts will be shipped immediately via best way on a collect freight basis, from the Service Center.
4. All shipments will be C.O.D. unless prior arrangements have been made with the service center
5. All parts under limited warranty are confined to the specific limitations as stated.

MakoShark 2

TigerShark

FOR RESIDENTIAL POOLS

The MakoShark 2 and TigerShark are portable automatic vacuum cleaners. THERE IS NO INSTALLATION! Several hours each week will enable the MakoShark 2 and TigerShark to keep your pool spotless. NO WHIPS, NO PIPES OR EXTRA PLUMBING. Remember, when you really clean your home, you don't just sweep or dust, you vacuum. There is no better way to clean your home pool than with... the MakoShark 2 or TigerShark.

Place
Stamp
Here

Mail today to

**HAYWARD POOL PRODUCTS
Attn: Warranty Department
620 Division Street
Elizabeth , NJ 07207**

FOLD and MAIL

Serial # _____ KingShark2
(Located on the Unit and Shipping Carton)

Registration of Guarantee

Name _____

Address _____

City _____ State _____ Zip _____

Date Purchased _____ Telephone _____

Price Paid _____

How many pools do you have?: _____

How many Aqua Vac units do you have?: _____

Purchased from: _____

City _____ State _____ Zip _____

The size of my pool is _____