

IT'S TIME TO PLAY!



Owner's Guide

A&A

BUILT-IN POOL CLEANING
AND CIRCULATION
SYSTEMS

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Welcome!

Congratulations on the purchase of your new swimming pool! And thank you for choosing to include the **A&A Built-in Cleaning and Circulation System**, the finest automatic swimming pool cleaning and circulation system in the world. It is our pleasure to welcome you to the rapidly growing worldwide family of satisfied A&A Cleaning and Circulation System owners. We appreciate the opportunity to serve you and your family.

The Basics of How an A&A Built-in System Works.

The patented A&A Water Valve **(a)** (see figure 1, page 3), directs water to a set or zone of two or more patented A&A Pop-up Cleaning Heads **(b)** that are pre-programmed and pop-up to send a powerful stream of filtered, treated water across the floor, steps, benches and walls of your pool and spa. The activated cleaning heads sweep dirt and debris into suspension to be removed through the main drain **(c)** and/or skimmer **(d)** to the filter **(e)**, where the water is thoroughly cleaned before returning to the pool. The Water Valve then automatically directs this chemically treated, filtered water to the next zone of cleaning heads. The previously activated cleaning heads will return flush with the pool floor while rotating to the next programmed position. The activation of the pop-up cleaning heads will continue as long as the pool filtration system is operating.

A&A Heavy Debris Removal Systems offer all the benefits of the standard A&A System plus the added benefits of more effectively removing heavy, non-suspendible debris, while offering impressive water circulation with the patented Quik Leaf-Vac® **(f)** and QuikSkim® venturi-powered skimmer.

A&A System Pool Schematic

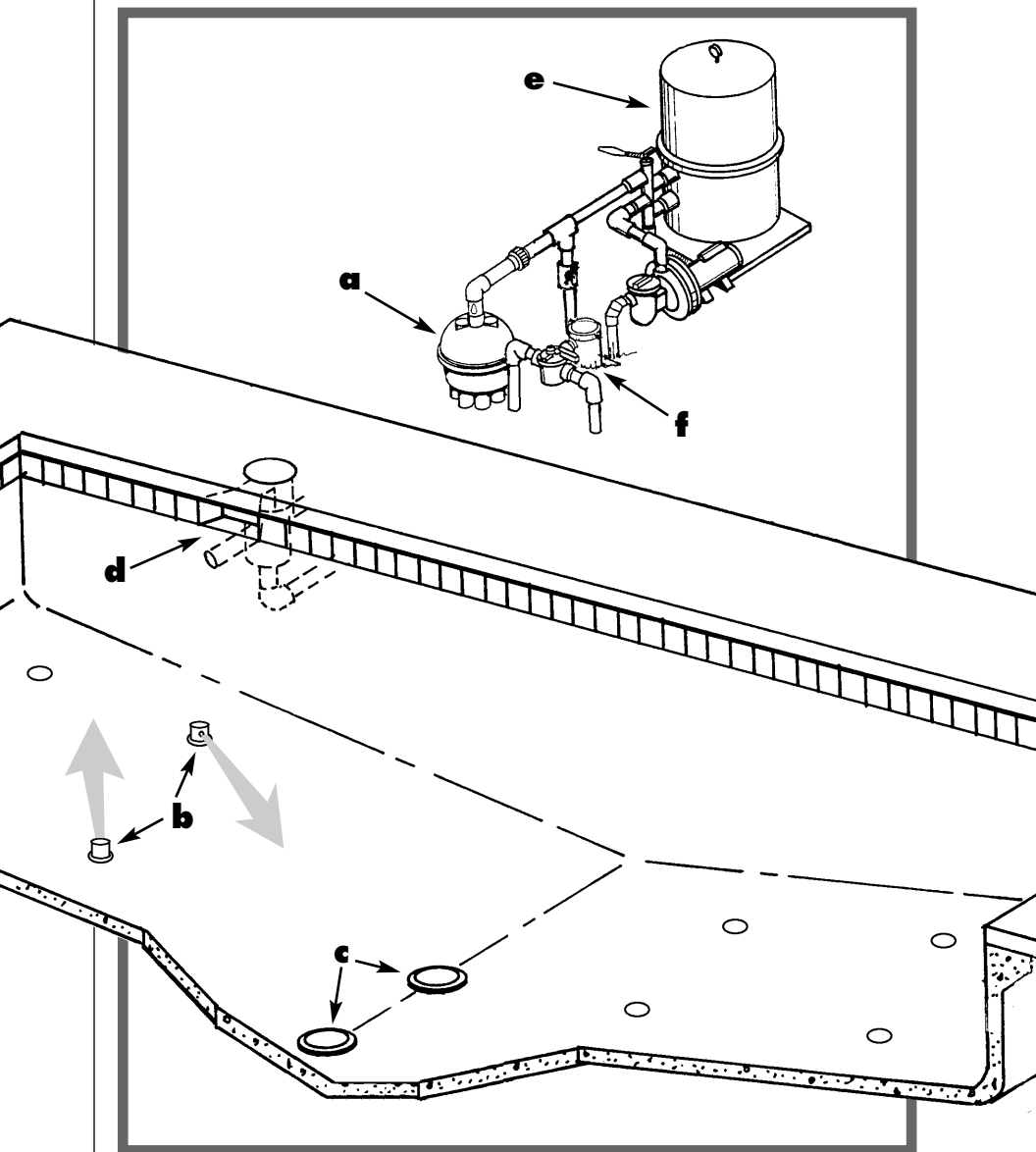


FIGURE 1

Operating Instructions

The operating instructions for your new A&A Built-in System are very simple... ***there are none!***

That's right, the A&A Built-in System is so advanced, yet so simple, that it requires no operating procedures or even routine maintenance to keep it operating at peak efficiency. Simply clean the pool filter, skimmer and pump baskets as you normally would. That is all there is to it. The A&A Built-in System operates automatically.

Operating Time

The operating time of your A&A Built-in System will be exactly the same as the run time for your pool's filtration system. Operating time is based upon the atmospheric conditions in your area that deliver sun, wind, rain, dust, etc. Operating time should be no longer than required to keep your pool clear, clean and sanitized. Summer months, or periods of heavy use, will require additional operating time.

For the first week, run the filter system for a minimum of twenty-four (24) hours per day. Backwash the filter often, empty the skimmer and pump baskets and reset the time clock for twelve (12) hours per day minimum run time. After three days, reduce the run time by one hour. Continue this procedure every third day until it is obvious that more run time is needed, then add one hour. In any event, the recommended run time, to assure proper filtration, should be no less than 6 hours per day.

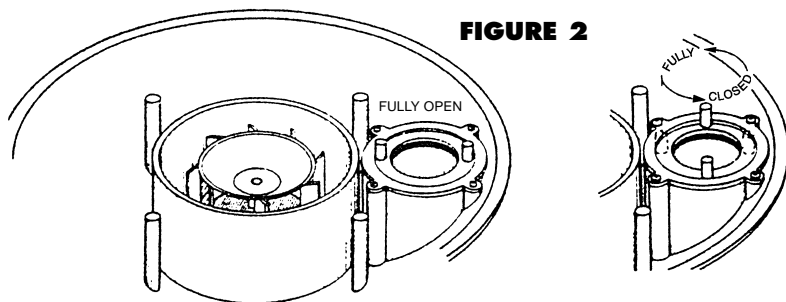
In the event of a storm or other adverse conditions, it may be advisable to vacuum your pool immediately to remove any debris. This may also be the case if you were planning to use the pool

within the next 24 hours. Otherwise, operate the filter system for as long as necessary to clear the pool, then return to the normal operating time.

"Standard" 5 & 6 Port Water Actuator Valve

ADJUSTING THE SPEED CONTROL

The "Standard" A&A Water Actuator Valve is depicted in figure 3, on page 6.



The speed adjustment will be pre-set by your pool builder. In most cases it is not necessary or advisable to make an adjustment. Optimum time for each zone to operate is between 40-75 seconds. Should you desire to increase or decrease the length of time your A&A System operates on each zone, your water valve is equipped with an internal control. To reduce the speed, gradually open the speed control gate. To increase the speed, simply close the speed control gate (see Figure 2). That is all there is to it.

QUIKSTOP™ PAUSE CONTROL

A&A water valves are equipped with a QuikStop pause control that will allow the system to be stopped on any cleaning zone. When activated, by rotating the control knob 180 degrees to the full down position, the pop-up cleaning heads in that zone will

remain in the up position. For example, it may be desirable to stop the system with the deep end zone running so that the pool water can continue to be filtered while allowing swimming activities to continue. Or pausing the heads in a spa will allow a continual water flow over the spa dam wall. (see Figure 3)

To resume normal operation, simply rotate the control knob 180° to the full up position.

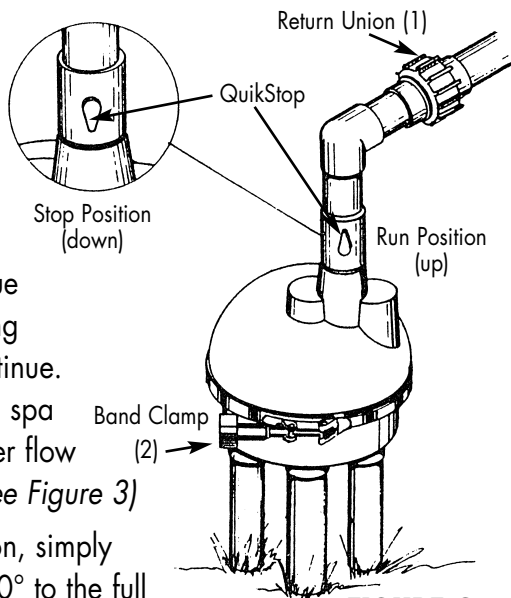


FIGURE 3

REMOVING STANDARD WATER ACTUATOR VALVE TOP

No Tools Needed!

(see figure 3)

1. **Turn the pump motor off.**
2. Unscrew and disengage the Return Union (1) located above the water actuator valve.
3. Loosen the thumbscrew knob and remove the band clamp (2) from the water actuator valve.
4. Lift the upper housing from the water actuator valve and set aside on a clean surface.
5. With your thumb and forefinger, lightly grasp and move each of the gears in succession. If there is excessive wobble, the gears must be replaced.

REPLACING STANDARD WATER ACTUATOR VALVE TOP

(see figure 3)

1. Before replacing the top, straighten and clean the o-ring with clean water.

2. Line up the center shaft with the hole in the top of the upper housing. Place the upper housing over the lower housing and push gently down into position.
3. Turn the upper housing to realign the two parts of the return union, making sure the union o-ring is in place. Start the threads of the union but do not tighten completely.
4. Install the band clamp and tighten the knob only slightly. With a rubber mallet, carefully alternate tapping around the perimeter of the band clamp while re-tightening the knob. **Tighten by hand only – no tools!!**
5. Hand tighten the union – **no tools, DO NOT OVER-TIGHTEN!!**

“Low Profile” 6-Port Water Actuator Valve

ADJUSTING THE SPEED CONTROL

The rotation speed is determined by the position of the clear top when it is placed on the water valve. For maximum cleaning efficiency, it is recommended that the cycle time for each zone be adjusted to run approximately 40-75 seconds. The volume of water allowed to enter the impeller chamber of the water valve controls the speed.

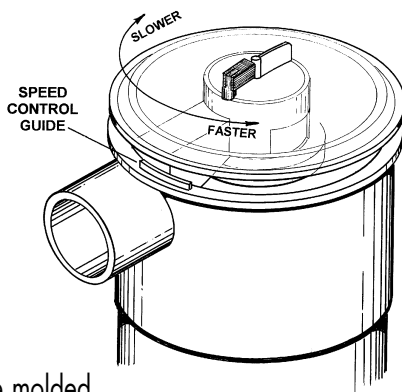


FIGURE 4

1. Turn the pump off.
2. **Note:** There is a speed control guide molded into the top lip of the valve housing and a groove molded into the clear lid that accepts the speed control guide.
3. Place the lid on the valve housing so the molded groove in the lid is over the speed control guide.
4. Cycle time is increased by rotating the lid counter-clockwise and decreased by rotating it clockwise (see figure 4).

- Once the desired speed is achieved, remove the band clamp and, with a marking pen, place a mark on the edge of the lid and valve housing as registration marks. This will allow the replacement of the lid to the same position if the water valve cover is removed.

USING THE QUIKSTOP PAUSE CONTROL

It may be desirable to stop the system with the deep-end zone running so that the pool water can continue to be filtered while allowing swimming activities to continue. To use the QuikStop pause control, raise the black lever on the valve lid to the full vertical position so that it locks in place. To re-start the valve, return the lever to its original horizontal position (see figure 5).

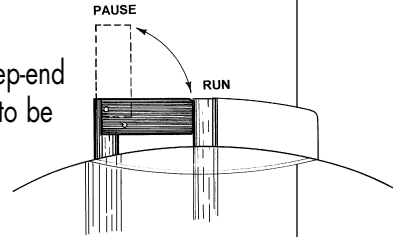


FIGURE 5

REMOVING "LOW PROFILE" WATER ACTUATOR VALVE LID

It's Easy... Really! No Tools Needed!

The "Low Profile" water actuator valve may be completely disassembled without the use of tools. (see figure 6)

- Turn the pump off.**
- Loosen the thumbscrew knob and remove the band clamp (2) from the actuator valve.
- Lift the clear lid from the actuator valve and set aside on a clean surface.

REPLACING "LOW PROFILE" WATER ACTUATOR VALVE LID

(see figure 6)

- Before replacing the lid, straighten and clean the o-ring with clean water.
- Line up the center shaft with the hole in the top of the lid and the speed control guide with the groove in the clear lid. Place the clear lid over the lower housing and push gently down into position.
- Install the band clamp and tighten the knob only slightly. With a rubber mallet, carefully alternate tapping around the perimeter of the band clamp while re-tightening the knob. **Tighten by hand only – no tools!!**

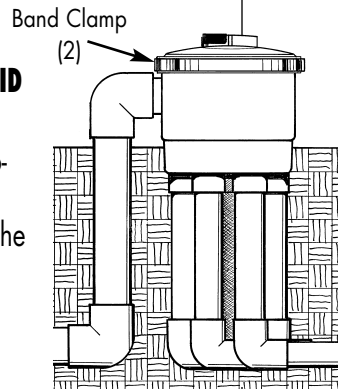


FIGURE 6

P A R T

A&A Heavy Debris Removal System

In addition to the standard A&A System, the **A&A Heavy Debris Removal System** includes the patented **Quik LeafVac®** main drain system and the **QuikSkim®** venturi-powered skimmer. The Quik LeafVac® consists of safety-engineered, dual anti-vortex main drains and a leaf canister conveniently located at the equipment. Soaked leaves, sand, insects and other small debris that enter the main drain are deposited in a bag in the Quik LeafVac® canister. The captured debris in the bag should be emptied periodically.

The QuikSkim® venturi skimmer allows the option of skimming your pool surface with venturi power and/or pump suction. To adjust QuikSkim®, simply open or close the suction valve at the pool pump and/or the return venturi line at the equipment. We recommend that for most instances, 90% venturi and 10% suction or full venturi power be utilized.

P A R T

General Pool Maintenance

A&A CLEANING & CIRCULATION SYSTEM

Good news! Your A&A System itself requires absolutely **no** periodic maintenance.

POOL FILTER, PUMP AND SKIMMER BASKETS

It is always important to clean the skimmer and pump baskets as well as backwashing the pool filter regularly. This will allow your

pool to operate efficiently. The A&A System will do the rest.

If you have a Diatomaceous Earth (DE) filter, the recommended method to add or replace DE is through a conventional skimmer.

IMPORTANT: If you have a QuikSkim® venturi-powered skimmer, remove the skimmer basket and close the valve sending return water through the venturi. Fully open the valve on the suction line from the skimmer, then add DE. After the DE has been removed from the skimmer, return the valves to their normal positions and replace the skimmer basket.

CLEANING THE LEAFVAC® DEBRIS BAG

Depending on the conditions in your area, the LeafVac® debris bag should be checked and cleaned on a routine basis. To clean the debris bag, **first** turn the pump off. Remove the lid from the LeafVac® canister by turning the lid 1/8th of a turn in a counter-clockwise direction. Lift the lid from the canister and remove the blue debris bag (and the silt bag, if present). After emptying the bag, it is good practice to use a water hose to remove any "clinging" material. Return the bag to the canister and replace the lid, turning it 1/8th turn clockwise (***Warning: Do not overtighten!***) to lock the lid in place (see Figure 7). ***To avoid damage, if an optional silt bag is used, it must be placed inside of the blue debris bag.***

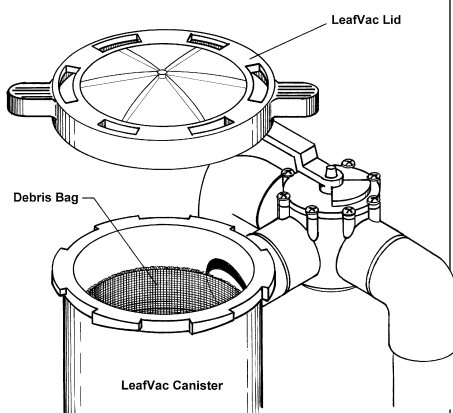


FIGURE 7

Troubleshooting

In the unlikely event that your A&A System does not appear to be operating at peak efficiency, please refer to this Troubleshooting Guide to determine possible solutions.

A. MANDATORY FIRST STEP

1. Clean the pool filter, skimmer, debris and pump baskets.
2. Make sure all auxiliary valves are closed, i.e.: therapy heads, aerator, surface returns, spillways, etc. All water should be directed to the A&A Water Actuator Valve.
3. If your pool is equipped with a heater, make sure the heater by-pass valve is adjusted properly and is not completely closed.
4. Observe operation of the system.

B. CLEANING HEADS POP UP BUT DO NOT CLEAN

1. Remove the pop-up cleaning head from the pool (see figure 8).
2. Activate QuikStop. Allow the pump to run two or three minutes.
3. Inspect the pop-up cleaning head and remove any particles of debris that may be lodged in the nozzle.
4. Return the pop-up cleaning head and resume the filter operation.
5. Repeat for each cleaning head, if necessary.

C. POP-UP CLEANING HEAD WILL NOT GO DOWN

1. With the system running on the affected zone, depress the head several times.

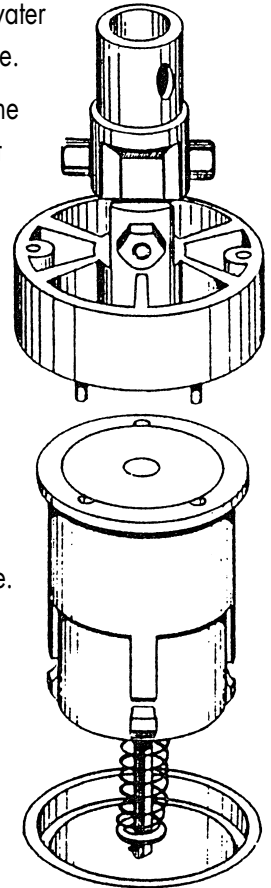


FIGURE 8

D. ONE ZONE OF POP-UP CLEANING HEADS STAY UP

1. Turn the system off and on to see if the valve operates, or stops on the same zone of heads (observe the filter pressure gauge during this procedure).
2. If the valve stops at the same zone of heads and the pressure rises on that bank, there may be a restriction in one or more heads on this zone (*refer to Section B page 11*).
3. If the valve stops on a different zone of pop-up cleaning heads, remove actuator valve top and check its operation.

P A R T

How to Order Replacement Parts

WARRANTY PARTS

To replace parts under warranty, package and ship them, **along with your warranty number, complete name, address and phone numbers**, freight pre-paid to:

A&A Warranty Department

1839 West Culver Street, Phoenix, Arizona 85007

Parts deemed to be under warranty will be replaced and returned by regular ground service, freight pre-paid. If overnight air shipment is requested, the parts will be shipped airfreight C.O.D. at the consumer's cost.

OUT-OF-WARRANTY PARTS

To replace "out-of-warranty" parts, simply order an A&A Water Actuator Valve Repair Kit-B if your water valve has 5 ports and 5 balls, a Kit-C if 6 ports and 6 balls, a Kit-D if you have the "Low-Profile" Water Actuator Valve, or Kit-T if you have a 2" Water Valve and 6 balls. The parts can be ordered by calling us on our toll free line, 1-800-851-8492 or at our website:

www.aamfg.com.

Out-of-warranty parts need not be returned.

PART

Part Descriptions

WATER ACTUATOR VALVE

Tsunami (5-Port Standard Water Actuator Valve Replacement Parts Kit) **#540285**

Includes: Impeller, One shim, One Complete Gear Plate, One 5-Port Cam, Two Anti-friction Washers, One Center Shaft and One O-ring.

Tsunami (6-Port Standard Water Actuator Valve Replacement Parts Kit) **#540269**

Includes: Impeller, One shim, One Complete Gear Plate, One 6-Port Cam, Two Anti-friction Washers, One Center Shaft and One O-ring.

Tsunami (6-Port "Low Profile" Water Actuator Valve Replacement Parts Kit) **#540277**

Includes: Impeller, Two shims, One Complete Gear Plate, One 6-Port Cam, Two Anti-friction Washers, One Center Shaft and One O-ring.

A&A Replacement Cleaning Head *(specify color by number)*

High Flow (Type II)

Low Flow (Type II)

White521607
 Tan521594
 Gray521586
 Black521578
 Blue521691
 Gold538855

White521949
 Tan521931
 Gray521922
 Black521914
 Blue522028
 Gold538880

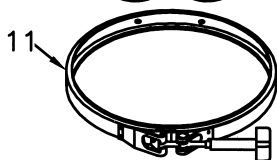
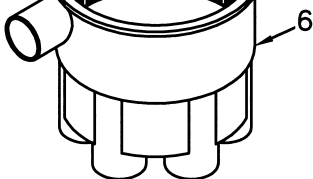
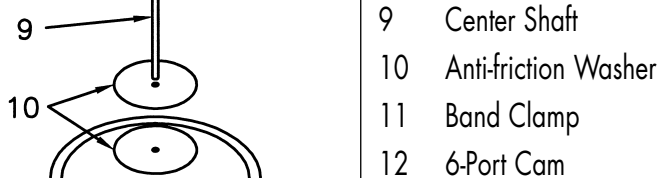
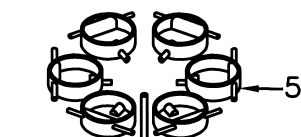
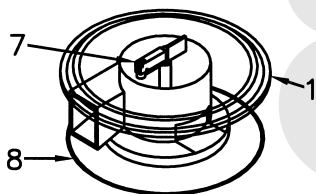
A&A HEAVY DEBRIS REMOVAL SYSTEM PARTS

Quik LeafVac® Mesh Bag (blue)#523944

Quik LeafVac® Silt Sock (white)#528788

QuikSkin® Venturi Skimmer Basket Silt Sock#518432

Order Desk: call Customer Satisfaction Department at 1-800-851-8492 or email to orders@aamfg.com.



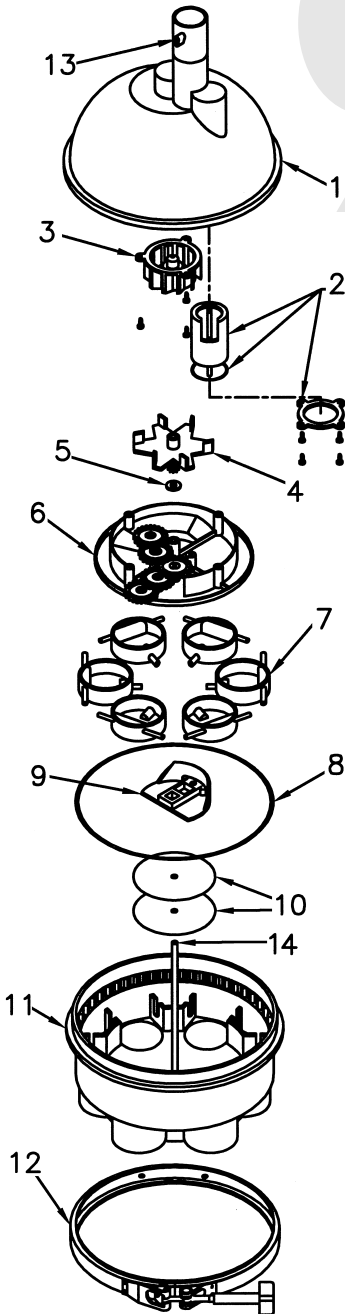
A&A "Low Profile" Water Actuator Valve Assembly

| Item | Description |
|------|----------------------|
| 1 | Clear Lid |
| 2 | Impeller |
| 3 | Shims (2) |
| 4 | Gear Plate |
| 5 | "T" Valves |
| 6 | Lower Housing |
| 7 | QuikStop® |
| 8 | "T" Valve O-ring |
| 9 | Center Shaft |
| 10 | Anti-friction Washer |
| 11 | Band Clamp |
| 12 | 6-Port Cam |

Parts available in Kit Form only (See Parts List)

P A R T

5 & 6 Port Standard Water Actuator Valve Assembly



| Item | Description |
|------|-----------------------------|
| 1 | Upper Housing |
| 2 | Speed Control with 4 Screws |
| 3 | Diverter with 3 Screws |
| 4 | Impeller |
| 5 | Shim |
| 6 | Gear Plate |
| 7 | "T" Valves |
| 8 | "T" Valve O-Ring |
| 9 | Cam |
| 10 | Anti-friction Washers |
| 11 | Lower Housing |
| 12 | Band Clamp |
| 13 | QuikStop® |
| 14 | Center Shaft |

**Parts available in Kit Form only
(See Parts List)**

PART 10

Warranty Card

The warranty card (inserted in this owner's guide) must be completed and returned to A&A Manufacturing within 30 days of pool start-up in order to activate the warranty. Failure to mail the completed card could void your warranty.

A&A Manufacturing Built-in Cleaning and Circulation System Warranty Return Card

This warranty return card must be filled out by the original purchaser of the A&A System or A&A Heavy Debris Removal System and sent to A&A Manufacturing within thirty (30) days of pool start-up. Failure to complete and return may nullify your warranty.

Purchaser's Name _____ Date of Start-up _____

Address _____

City _____ State _____ ZIP _____

Phone (Day) _____ Phone (Evening) _____

Installing Pool Builder: _____

Please take the time to help us by completing the following brief, optional questions. Thank You!

1. Please list reasons for your decision to purchase an A&A System in order of importance, from 1 (most) to 5 (least) important:

- Cleaning
- Energy Savings
- Safety – No Pressure Buildup
- No Periodic Maintenance
- Even Heating (from bottom)
- Plain Language Lifetime Warranties
- Water Circulation (healthy water)
- Built-In Aesthetics (no hoses)
- Individual Computer Design
- Heavy Debris Removal
- Other _____

3. This is my 1st 2nd 3rd+ swimming pool.

4. Did you purchase an inground spa with your pool? Yes No

5. Pool construction type: Concrete Vinyl Fiberglass

6. Would you recommend an A&A System to a friend? Yes No

7. Would you recommend your pool builder to a friend? Yes No

Comments: _____

2. How did you learn about A&A?:

- Referral (word of mouth)
- Pool Salesperson
- Friend/Family's Pools
- Newspaper Ad
- Mail Advertisement
- A&A Website
- Other _____

Demographic Information

1. Age grouping for head of household:

- 18-24 25-34 35-44
- 45-54 55+

2. Number in immediate family:

- 1 2 3 4 5+

3. Approximate family income:

- \$30,000-\$40,000
- \$40,000-\$50,000
- \$50,000-\$75,000 \$75,000+

Place
First Class
Stamp
Here

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Phoenix, Arizona 85020



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U.S. Patent Numbers: 4322860 / 4466142 / 3405733 / 4523606 / 4570663 / 4501659 / 5750022 / 6022481 / 6189556
and other patents pending