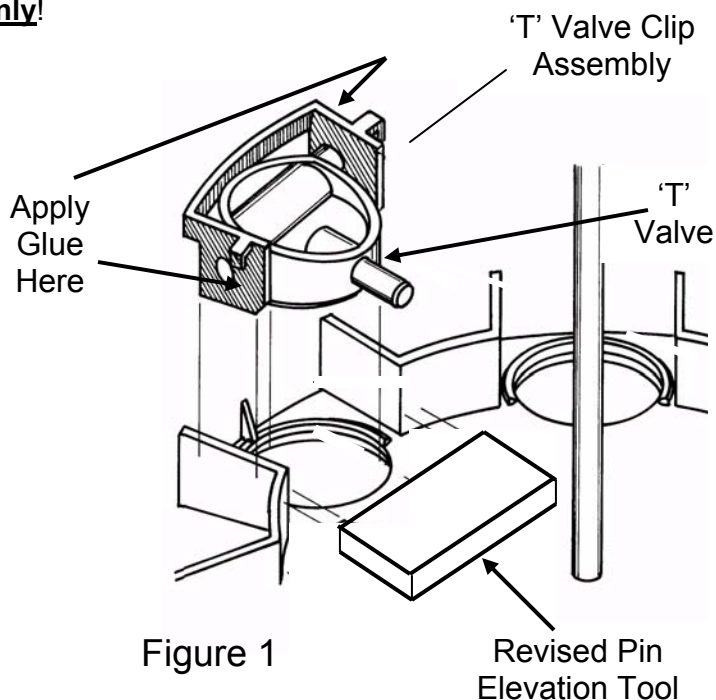


Tsunami™ Standard 'T' Valve Retrofit Installation Instructions

Parts included in the 'T' Valve Retrofit Kit (T Kit): 5 or 6 'T' Valve Clip Assemblies; Clip Elevation Tool; Devcon Plastic Welder; Assembled Gear Train; 2 Anti-Friction Washers; O-Ring, 2 Impeller Shims; Impeller.

1. **Read complete instructions carefully prior to installing parts!**
2. Disassemble the existing water valve and remove **all** the internal parts.
3. Acid wash the water valve base to remove any and all foreign material from the surfaces that are to be glued.
4. Check the 'T' Valve Clip Assembly to assure that the swivel pin does not extend beyond either side of the clip. Adjust the pin if necessary. It is important that the swivel pin is flush with both sides of the clip (see **Figure 4**).
5. Before applying glue, slide the clip assembly into the water valve port to assure a proper fit. Open and close the 'T' valve to make sure there are no obstructions to a smooth operation. Make sure that glue surfaces are reasonably dry.
6. If item 5 above is OK, apply the plastic welder (supplied) to both sides of the clip surfaces (see **Figure 1**), then slip the clip assembly into the water valve base. **Note:** Do **not** substitute any other glue for this application. Use the supplied glue **only**!
7. Immediately, prior to the glue setting, center the "T" Valve into the water valve port opening. Place the Pin Elevation Tool (supplied) in front of the port and under the 'T' valve elevation pin, either raising or lowering the pin until contact is made with the tool. Be sure that the "T" Valve remains seated in the water valve port opening (see **Figures 2 and 3**). Carefully remove the Pin Elevation Tool. **Note: Correct seating of the 'T' Valve is the essential part of proper water valve operation. Do not be concerned with the location of the top guides of the clip.**
8. Perform steps 1 through 7 on the remaining ports
9. Complete the water valve installation by either:
 - a. Separating the cam from the gear plate, and replacing the gear plate onto the cam, while adding the two impeller shims, then the impeller, **OR**,
 - b. Carefully place the cam under the 'T' Valve elevator pins with your fingers through the holes provided in the gear plate, while adding the two impeller shims, then the impeller.



10. Wait at least 10 minutes before reinstalling the water valve top. (It would be ideal if the glued surfaces could air dry for at least 30 minutes. Devcon Plastic Welder is a very fast curing epoxy that will not contaminate when used in damp areas. However, the longer time it has to cure the better.) Turn the system on for one complete rotation of the valve to check for proper function. Turn the system off.
11. Advise the customer that the system will be off for one day to allow the glued surfaces to properly cure. **Note:** You may filter the pool water by diverting the flow to surface returns if they are available. However, no water should flow through the water valve for at least 24 hours.
12. After the 24 hour curing period, the system may be operated normally.

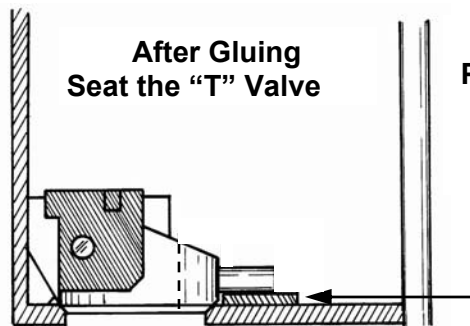


Figure 2

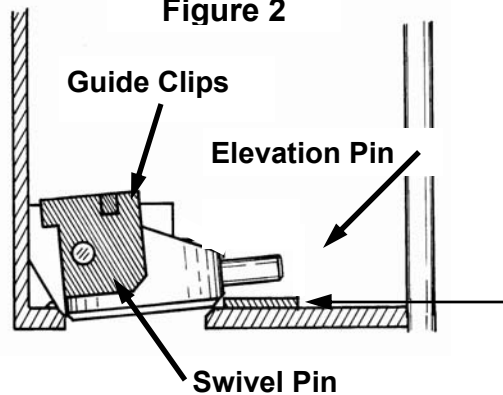


Figure 3

Make Sure the Swivel Pins Are Flush on Both Sides of the 'T' Valve Clip Assembly

Yes
"T" Valve is properly seated and Elevation Pin is touching Pin Elevation Tool

No
"T" Valve is not properly seated in water valve port opening!



Figure 4

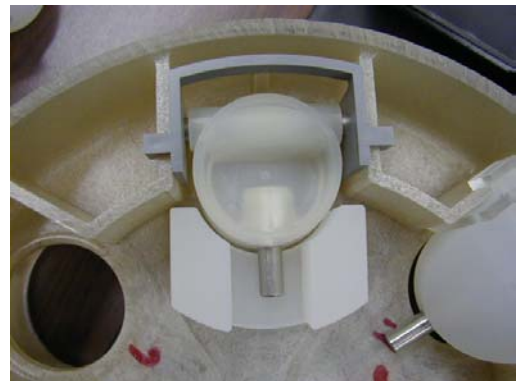


Figure 5

13. Figures 4 and 5 are photographs of the 'T' Valve Clip Assembly and the Clip Elevation Tool (**Note:** The clip elevation tool is different from the one in the photos) illustrating their correct positions when gluing the 'T' Valve Clip Assembly into the valve base.

Water Valve Speed Control For 5 Port and 6 Port Standard water Valve

The A&A Water Valve is equipped with an internal speed control that will easily adjust the speed of the valve with finger tip pressure (See Figures 12-3 and 12-4). While each Water Valve has been pre-set at the factory to achieve a speed that will be best for most pools, the valve may now be adjusted for any specific application. If you desire to slow the valve down, gradually open the speed control gate. If you desire to increase the speed of the valve, simply close the speed control gate allowing more water to pass through the diverter and past the impeller. A duration of 45-65 seconds per port normally attains the best cleaning efficiency. (See Figures 10-1 and 10-2)

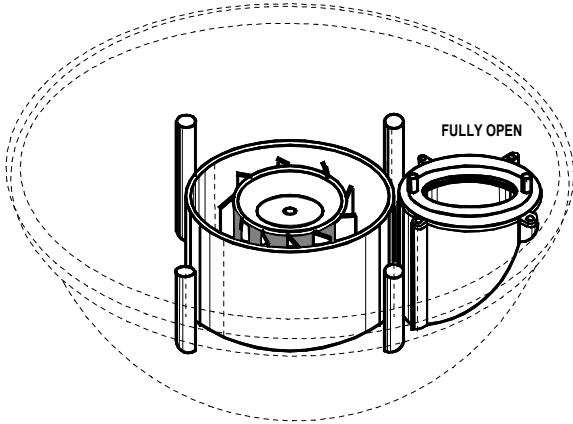


Figure 10-1

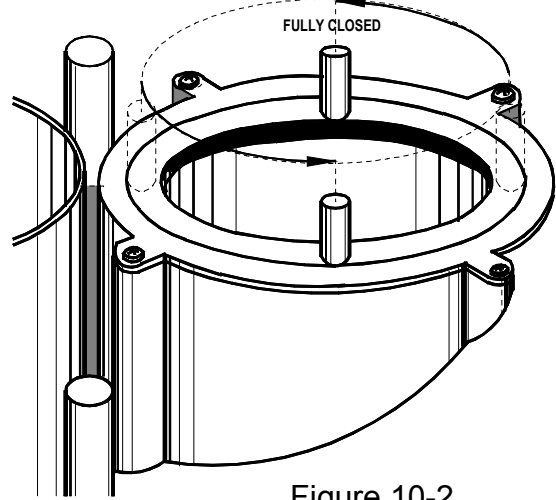


Figure 10-2

QuikStop (Pause Control)

The A&A Water Valve is also equipped with a QuikStop pause control that allows the valve to be stopped on any desired port. This will allow filtering of water without the inconvenience of cleaning heads popping up throughout the pool floor. To stop the Water Valve on any zone, merely turn the QuikStop knob 180° so that the tear drop shaped knob is pointing down. (See Figures 10-3 and 10-4)

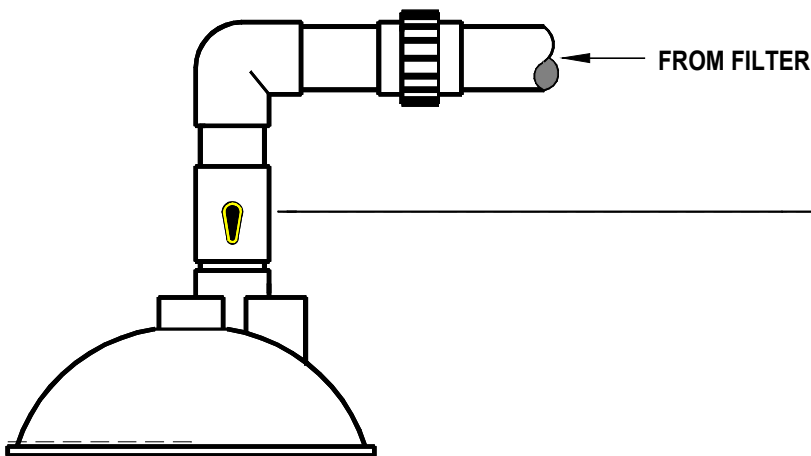
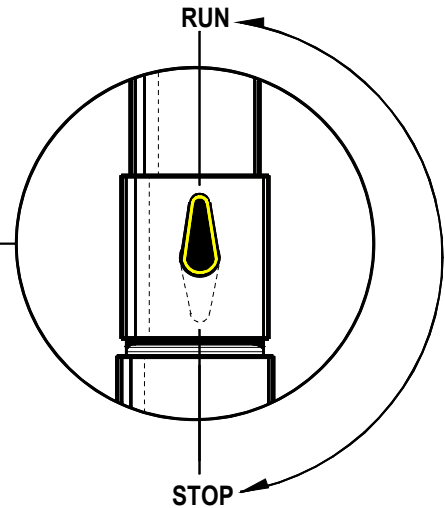


Figure 10-3



To stop the water valve on any zone, merely turn the QUIKSTOP knob 180 degrees.

Figure 10-4