

APOGEE-1U 775 WATER-BLOCK INSTALLATION GUIDE

One or more Patents pending

This product is intended for expert users. Please consult with a qualified technician for installation. Improper installation may result in damage to your components. Swiftech™ assumes no liability whatsoever, expressed or implied, for the use of these products, nor their installation. The following instructions are subject to change without notice. Please visit our web site at www.swiftnets.com for updates.

Processor compatibility: Intel® Pentium® 4, Pentium® D, Celeron®, Celeron® D (socket LGA 775)

Packing List

COMPONENT ID	COMPONENT DESCRIPTION	QTY	USAGE
SHCS006C0006SS	6-32X3/8 SOCKET CAP SCREW	4.00	WATER-BLOCK ASSEMBLY
O-RING 3/32	B1000-133 O-RING 3/32 X 1 13/1	1.00	WATER-BLOCK ASSEMBLY
MCW60-H	MCW60 WATERBLOCK HOUSING	1.00	WATER-BLOCK ASSEMBLY
MCW60-775-BRKT	MCW60 775 HOLD-DOWN PLATE	1.00	WATER-BLOCK ASSEMBLY
APOGEE-BP	APOGEE BASE PLATE	1.00	WATER-BLOCK ASSEMBLY
B1000-2.5X50	BUNA-N 70D BLACK O-RING	2.00	FITTINGS
PM4S-6BN	1/4" - 1/8 NPSM TO 3/8" ID	2.00	FITTINGS
PM4S-8BN	1/4" - 1/8 NPSM TO 1/2 ID	2.00	FITTINGS
22HC04688	15/32" HOSE CLAMP	2.00	FITTINGS
22HC0672B	43/64" PREMIUM HOSE CLAMP	2.00	FITTINGS
6-32 HEX CAP	6-32 ACORN NUT	4.00	MOUNTING HARDWARE
LOCKWASHER6	LOCK WASHER #6	6.00	MOUNTING HARDWARE
FW140X250X0215FB BLK	BLACK FIBER WASHER .140X.250X.	10.00	MOUNTING HARDWARE
6-32 NUT	6-32 NUT	4.00	MOUNTING HARDWARE
6-32 X 1"	6-32 X 1 PHIL PAN M/S SZ	4.00	MOUNTING HARDWARE
ARCTIC CÉRAMIQUE	ARCTIC CÉRAMIQUE	1.00	THERMAL COMPOUND
7/64 HEX KEY	TOOL	1.00	MAINTENANCE

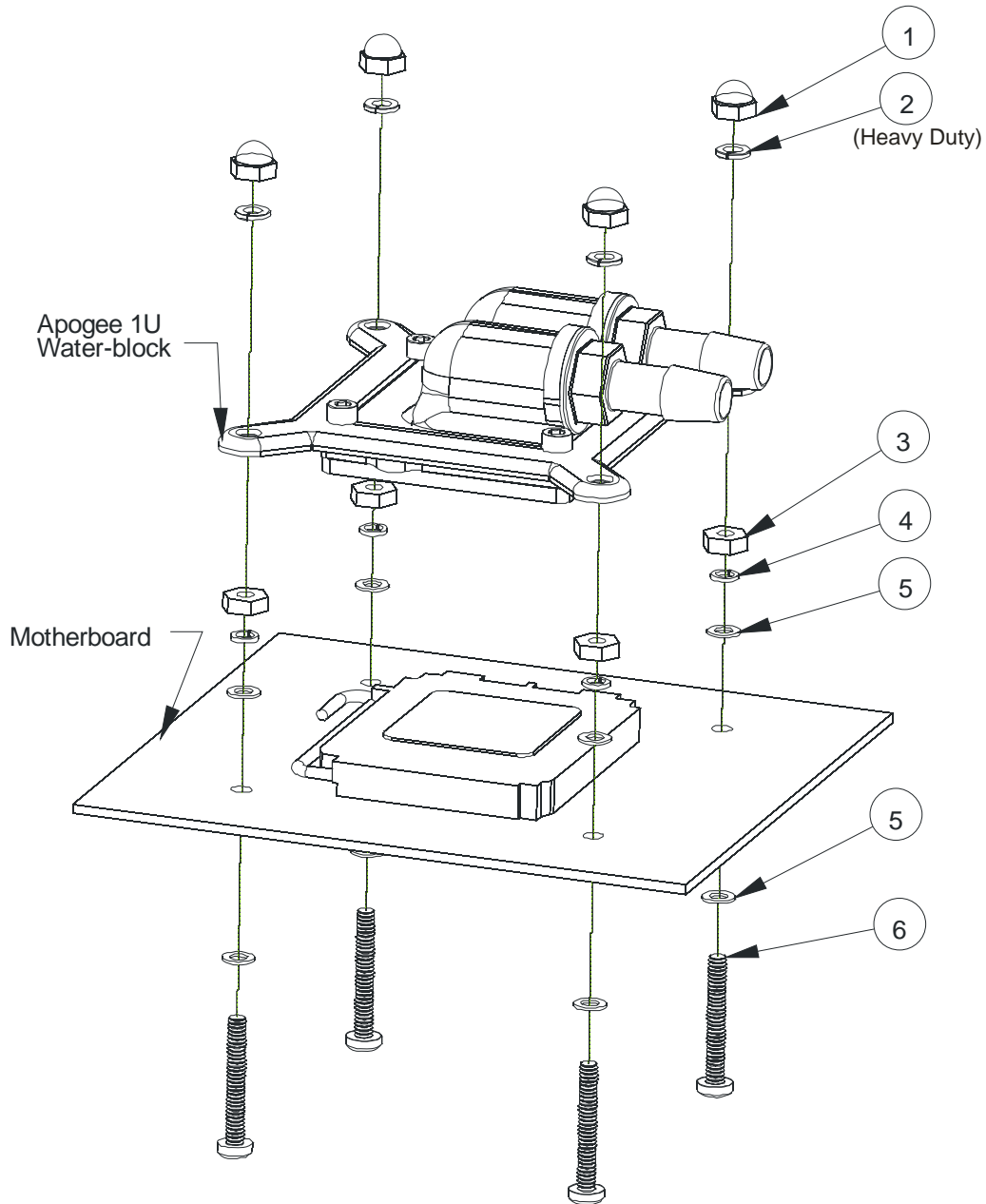
1. Preliminary steps & guidelines

- ❑ Two sets of hose barb fittings are supplied to accommodate high-performance circuits: 3/8" barbs, and 1/2" barb.
- ❑ The Apogee water-block may be installed in any direction
- ❑ The inlet and outlet are interchangeable with respect to flow direction.
- ❑ Install the fittings with their o-rings into the water-block before you install the water-block to the motherboard. **Tighten each fitting until the flange of the fitting mates with the ledge of the water-block o-ring groove, then lock the fitting by fastening another 1/4 to 1/2 turn.**
- ❑ Remove the existing heatsink from your motherboard.
- ❑ Apply the provided Arctic Céramique thermal compound to the CPU following the comprehensive installation instructions provided here: http://www.arcticsilver.com/ceramique_instructions.htm
- ❑ Install the Apogee water-block following the individual installation schematics for each type of CPU socket provided hereafter.
- ❑ Connect the tubing to the water-block hose-barbs. Use the provided hose-clamps to secure the tubing to the barbs.

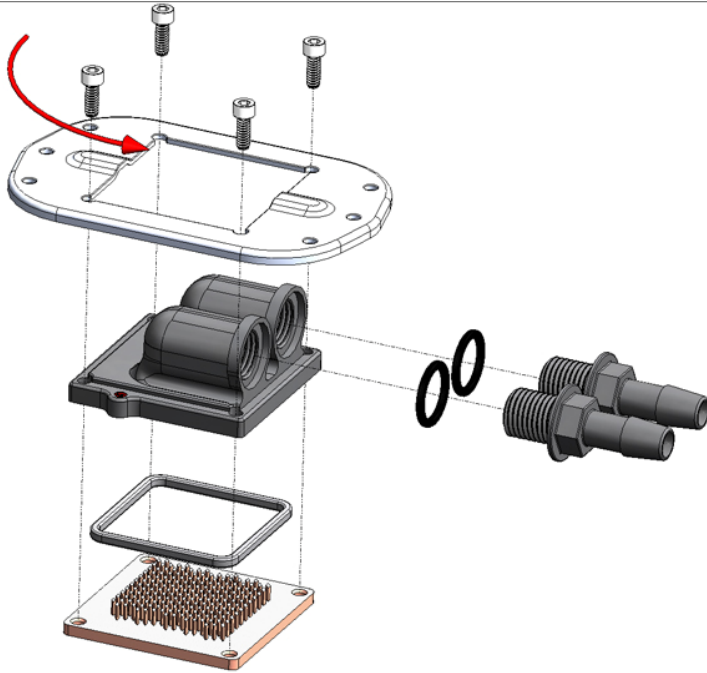
2. Installation

- Firmly fasten the 4 posts (6-32 x 1" Philips screw Item #5) to the motherboard with the provided hardware.
- Install the water-block assembly by fastening the provided Acorns nuts and washers in a cross pattern.
- Note of caution: do not mix Item 2 Heavy-duty lock-washer #6 x 0.040 and Item 4 lock-washer #6 x 0.030. The heavy-duty lock-washer must be used to fasten the water-block, whereas the regular lock-washer #6 x 0.030 is used with the motherboard posts.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	6-32-Acorn-nut	6-32 Acorn nut	4
2	washer-0148x0266x0040-91007A619	Heavy duty Lock Washer #6 x 0.040	4
3	6-32-nut	6-32 nut	4
4	LOCK-WASHER#6	#6 lock washer x 0.030"	4
5	FW140X250X0215FB BLK	black fiber washer	8
6	90272A153-6-32x1.00-philips	6-32 X 1" Philips Screw	4



3. Maintenance and Upgrades

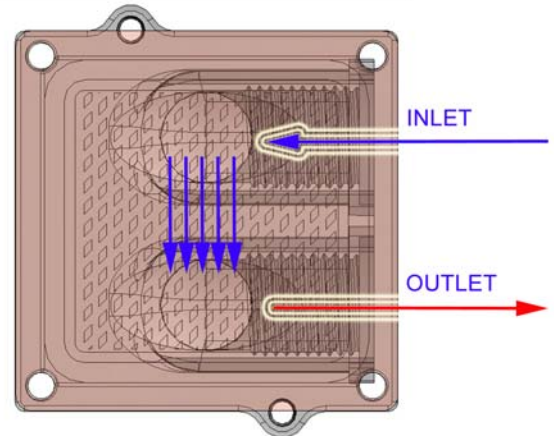


Exploded View

When upgrading the hold-down plate to the Xeon/Opteron version, the hold-down plate can be installed in any direction so as to change the orientation of the inlet and outlet as needed. Simply loosen and remove the 4 screws holding the assembly together, and replace the Hold-down plate. Firmly fasten the 4 socket screws in a cross pattern with the provided 7/64 Hex Key. Torque value is not to exceed 16 in/lbs.

A note of caution:

When disassembling the water-block, it is critical for proper flow operations to maintain the orientation of the housing in relation to the orientation of the pins as shown below.



You must maintain the pin orientation in relation to inlet/outlet orientation so that the fluid has a clear and direct path between the inlet and the outlet.

IMPORTANT DISCLOSURES

While all efforts have been made to provide the most comprehensive tutorial possible, Swiftech assumes no liability expressed or implied for any damage(s) occurring to your components as a result of using Swiftech cooling products, either due to mistake or omission on our part in the enclosed instructions, or due to failure or defect in the Swiftech cooling products.
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