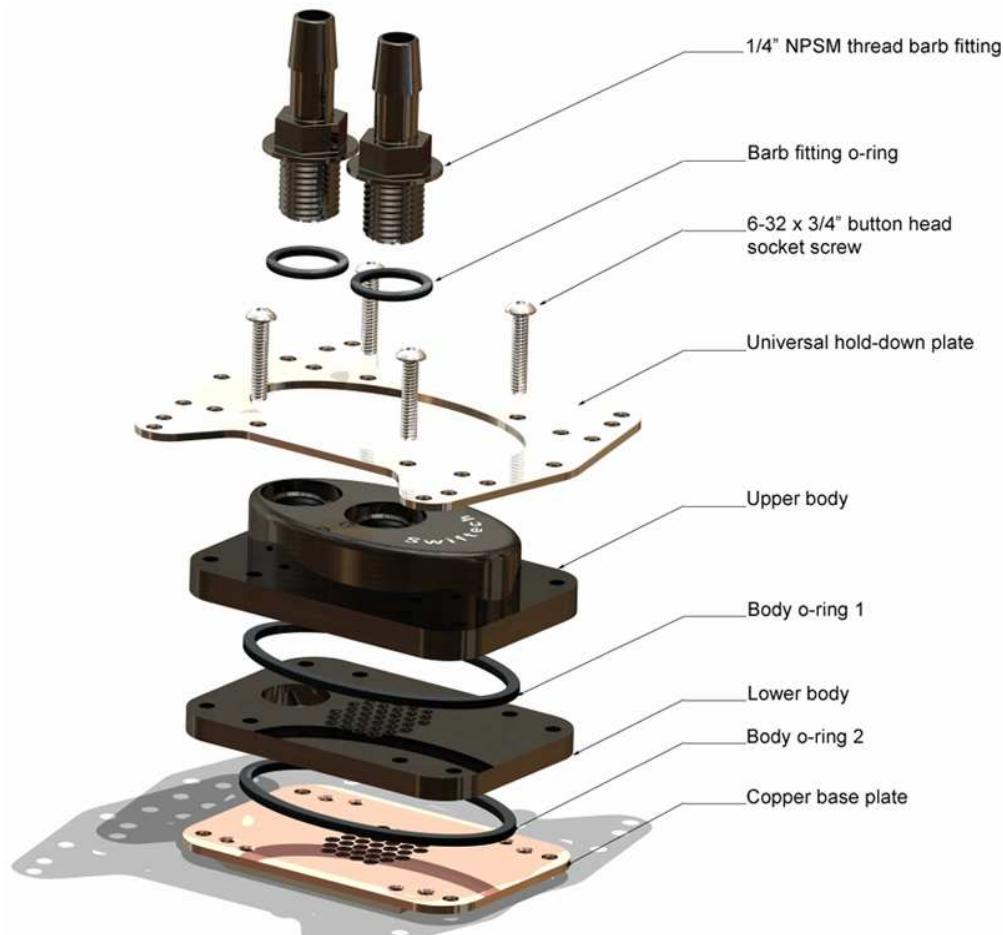


## STORM WATER-BLOCK INSTALLATION GUIDE

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.swiftech.com](http://www.swiftech.com) for updates.



**Figure 1 – Exploded View**

Swiftech's Storm water-block ships with all the necessary hardware to install with the following processors: Intel® Pentium® 4 Socket 478, and socket LGA 775, Xeon™ (socket 603/604), AMD® socket 462, 754, 939, and 940. Removal of the motherboard is necessary to install the mounting posts in all cases, except for AMD® socket 754, 939 and 940.

Two sets of barb fittings are supplied to accommodate high-performance circuits: 3/8" barbs, and 1/2" barb. 1/4" (internal tubing diameter) cooling loops are not recommended due to the restrictive nature (flow wise) of such types of circuits.

### 1. Installation overview

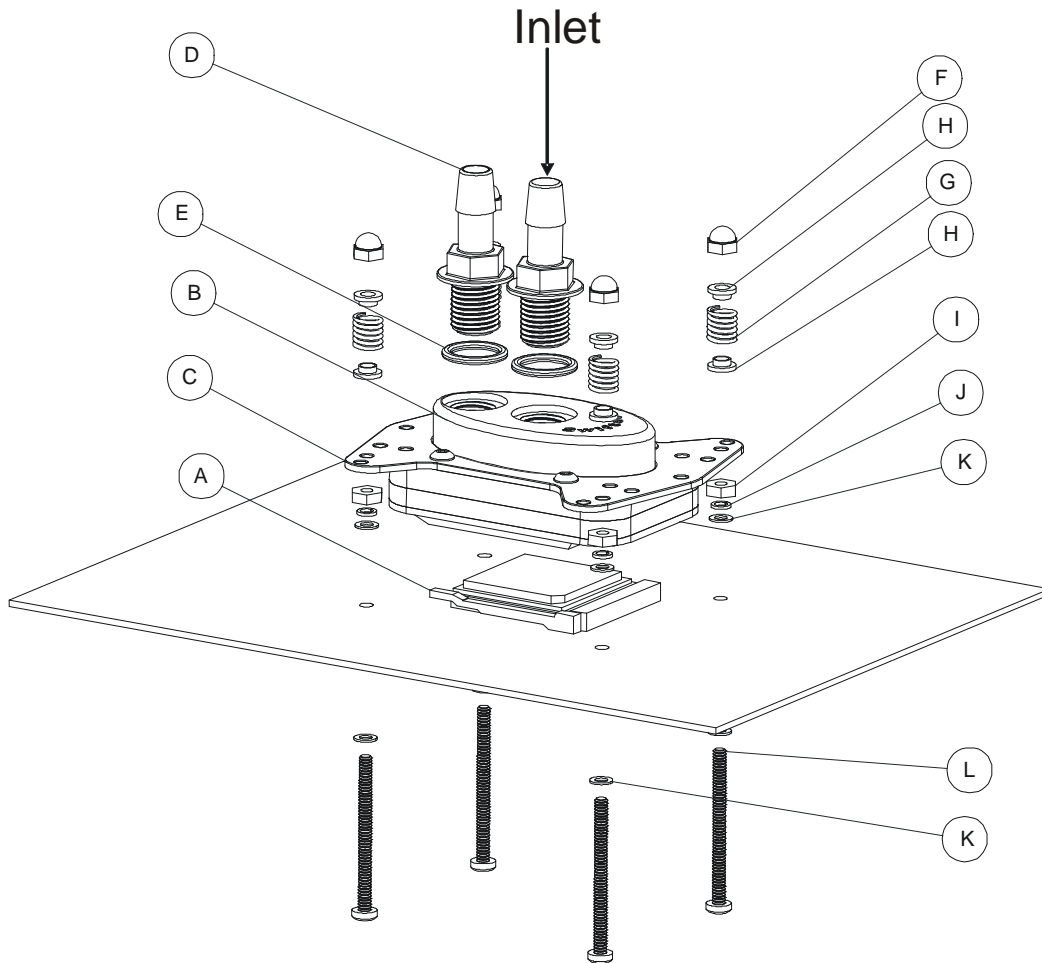
- ❑ Install the fittings with their o-rings into the water-block. Tighten each fitting until the flange of the fitting mates with the ledge of the water-block o-ring groove, then lock it by adding 1/4 to 1/2 turn.
- ❑ Remove the existing heatsink from your motherboard.
- ❑ Apply the provided Arctic Céramique thermal compound to the CPU following the comprehensive installation instructions provided here: [http://www.arcticsilver.com/ceramique\\_instructions.htm](http://www.arcticsilver.com/ceramique_instructions.htm)
- ❑ Install the Storm water-block following the individual instructions provided for each type of CPU socket provided hereafter.
- ❑ Connect the tubing to the water-block hose-barbs. The INLET (fluid entering the block) MUST always be connected to the center barb. Use appropriate hose-clamps to secure the tubing to the barbs. Worm-drive type (#4) are recommended for 3/8" tubing. Wire ties are sufficient with 1/2" thick-wall tubing.

### 2. Individual installation schematics

Preamble: The provided mounting hardware is common to Intel® Pentium® 4 socket 478, socket LGA775, and AMD® socket 462. AMD® socket 754, 939, 940 mounting hardware is different and identified separately as such.

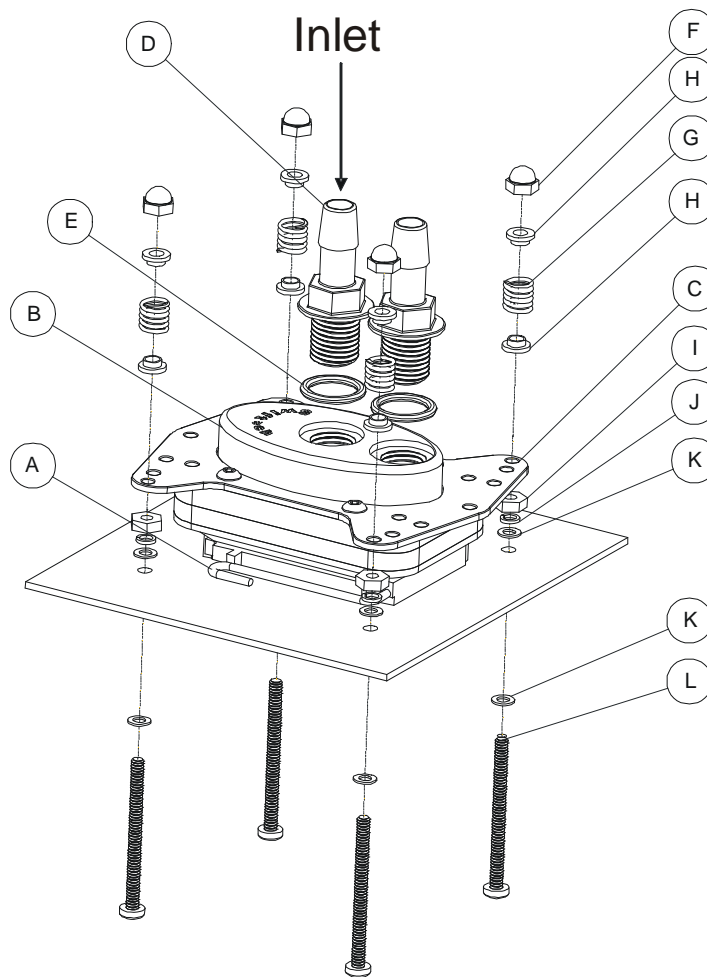
# Intel® Pentium® 4 Socket 478

ITEM #	QTY.	PART NO.	DESCRIPTION
A	1	S478	Intel Pentium 4 socket 478 motherboard and processor
B	1	storm-assy2	
C	1	STORM-HOLD-DOWN-R1	Storm Universal hold-down plate
D	2	1-4-straightx3-8-barb	1/4" NPSM Barb fitting
E	2	O-RING-9557K473	1-4" NPSM barb fitting O-Ring
F	4	6-32-Acorn-nut	
G	4	SPRING6	70927compressed-to-0337
H	8	12SWS0444	NYLON SHOULDER WASHER
I	4	6-32-nut	6-32 nut
J	4	LOCK-WASHER#6	
K	8	FW140X250X0215FB BLK	black fiber washer
L	4	6-32X1.750	6-32 x 1 3/4" philips screw



## Intel® Pentium® 4 Socket LGA 775

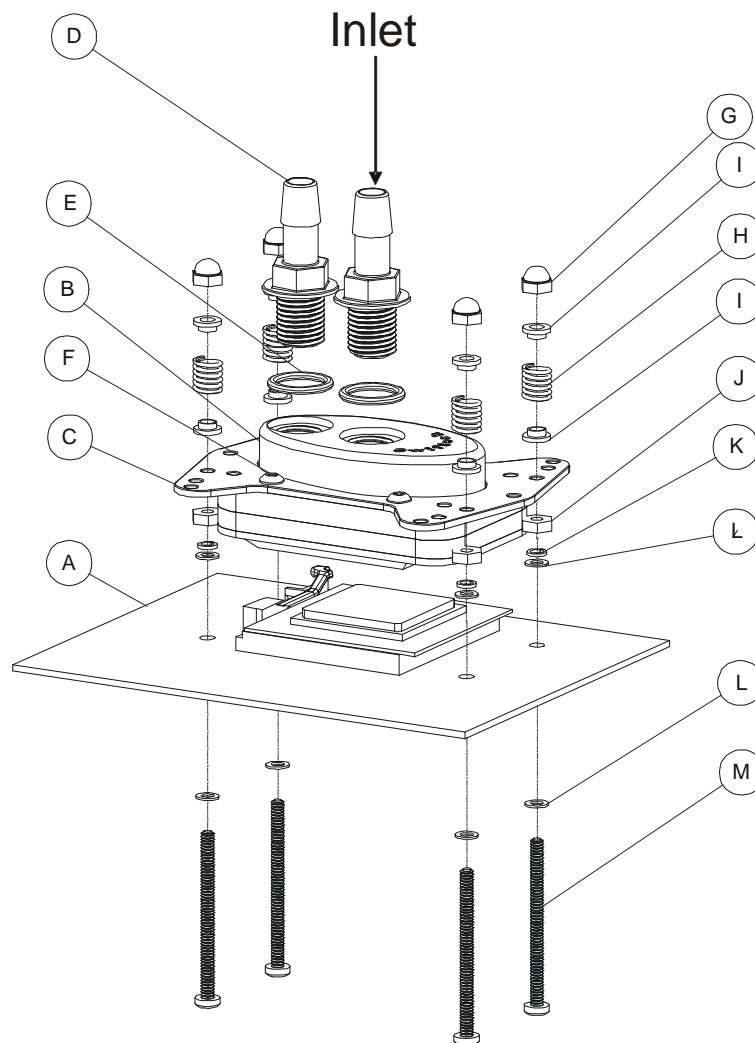
ITEM #	QTY.	PART NO.	DESCRIPTION
A	1	LPGA 775	Prescott Socket T Representation
B	1	storm-assy2	
C	1	STORM-HOLD-DOWN-R	Storm Universal hold-down plate
D	2	1-4-straightx3-8-barb	1/4" NPSM Barb fitting - 3/8" & 1/2" supplied
E	2	O-RING-9557K473	1-4" NPSM barb fitting O-Ring
F	4	6-32-Acorn-nut	
G	4	SPRING6	70927compressed-to-0337
H	8	12SWS0444	NYLON SHOULDER WASHER
I	4	6-32-nut	6-32 nut
J	4	LOCK-WASHER#6	
K	8	FW140X250X0215FB BL	black fiber washer
L	4	6-32X1.750	6-32 x 1 3/4" philips screw



# Intel® Xeon™ Socket 603/604

- ❑ Use all parts from “common parts pack” except Philips screws: replace with the enclosed 6-32 1 7/8” long screws, instead of the 1 3/4” long supplied in the common parts pack.
- ❑ The following parts are only compatible with Xeon processors operating at 533Mhz and below, and are not compatible with Intel Xeon “Nocona” class processors (800Mhz Front Side Bus) which require a different retention mechanism available in option.

ITEM #	QTY.	PART NO.	DESCRIPTION
A	1	Socket-603-604-dual	
B	1	storm-assy2	
C	1	STORM-HOLD-DOWN-R	Storm Universal hold-down plate
D	2	1-4-straightx3-8-barb	1/4" NPSM Barb fitting
E	2	O-RING-9557K473	1-4" NPSM barb fitting O-Ring
F	4	92949A151	6-32 x 3/4" button socket head screw
G	4	6-32-Acorn-nut	
H	4	SPRING6	70927compressed-to-0337
I	8	12SWS0444	NYLON SHOULDER WASHER
J	4	6-32-nut	6-32 nut
K	4	LOCK-WASHER#6	
L	8	FW140X250X0215FB BLK	black fiber washer
M	4	6-32x1.7-8-philips	

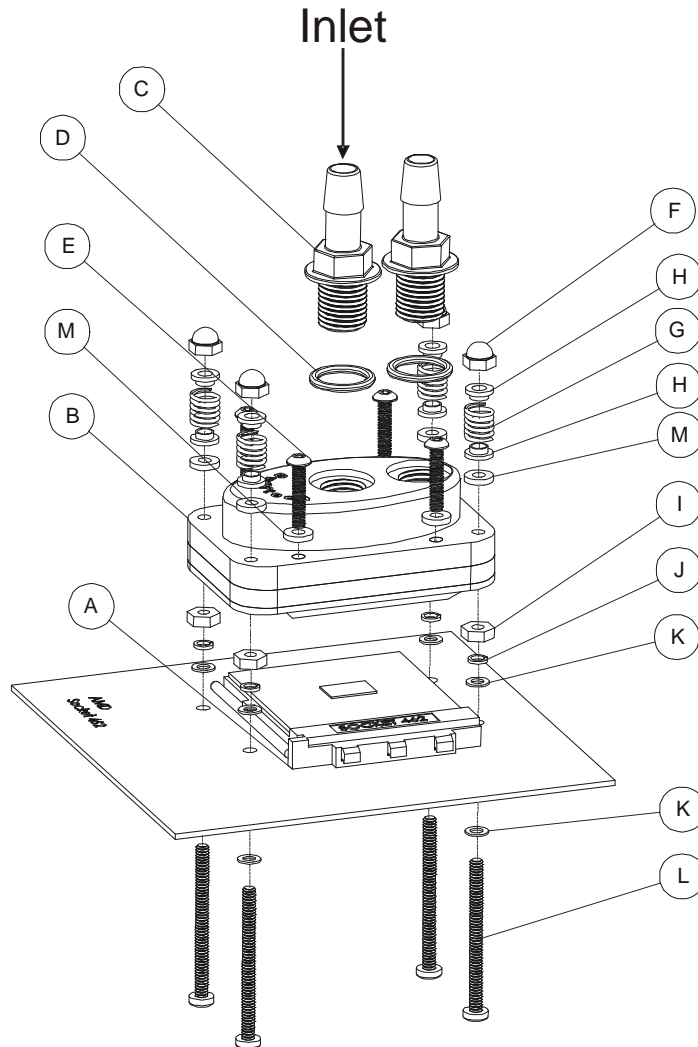


# AMD® socket 462 – Athlon®, Duron®, MP, XP

**Preamble:**

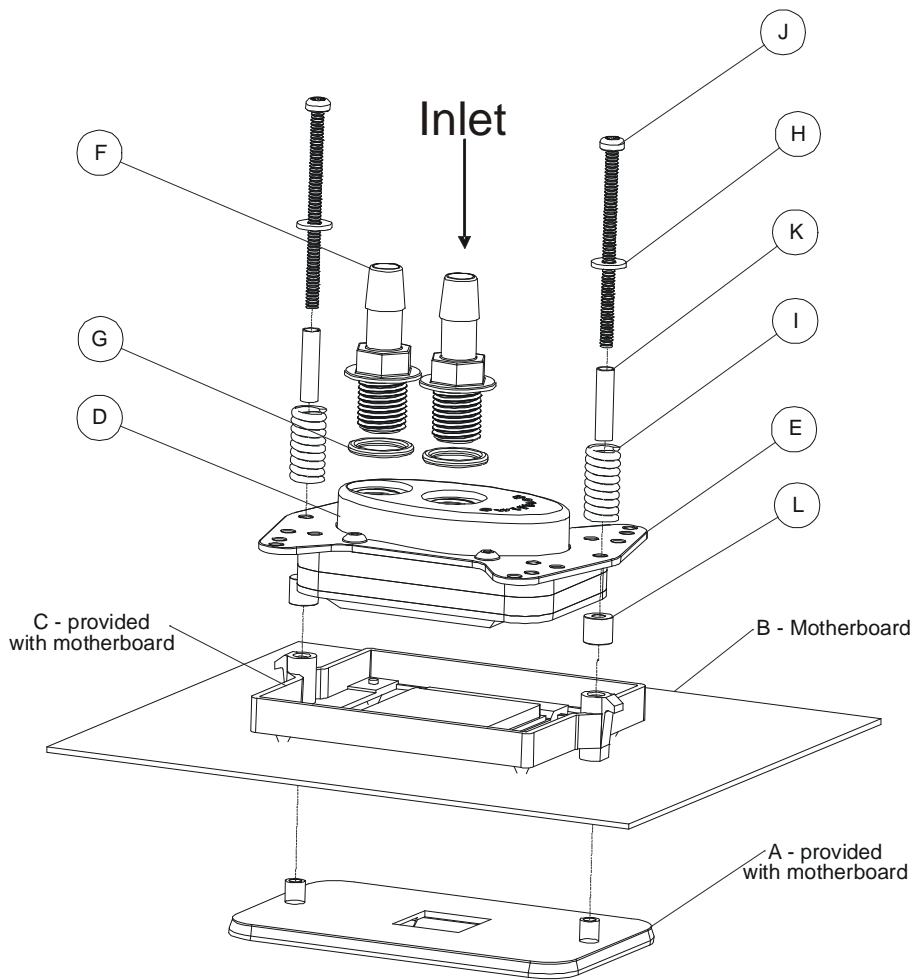
It is necessary to remove the pre-installed hold-down plate prior to installation. Simply unscrew the 4 button head screws holding the assembly together using the provided 5/64 Allen wrench, remove the hold-down plate, and re-install the screws with the provided nylon washers instead as shown below.

ITEM #	QTY.	PART NO.	DESCRIPTION
A	1	socket462	
B	1	storm-assy2	
C	2	1-4-straightx3-8-barb	1/4" NPSM Barb fitting
D	2	O-RING-9557K473	1-4" NPSM barb fitting O-Ring
E	4	92949A151	6-32 x 3/4" button socket head screw
M	8	16FW006062	.31x.14x.06 nylon washer
F	4	6-32-Acorn-nut	
G	4	SPRING6	70927compressed-to-0337
H	8	12SWS0444	NYLON SHOULDER WASHER
I	4	6-32-nut	6-32 nut
J	4	LOCK-WASHER#6	
K	8	FW140X250X0215FB BLK	black fiber washer
L	4	6-32X1.750	6-32 x 1 3-4" philips screw



## AMD® 64, Opteron® - Socket 754, 939, 940

ITEM #	QTY.	PART NO.	DESCRIPTION
A	1	counter-plate	Back plate AJ00264
B	1	motherboard	
C	1	retention-frame	Retention frame AJ00172
D	1	storm-assy2	
E	1	STORM-HOLD-DOWN-R1	Storm Universal hold-down plate
F	2	1-4-straightx3-8-barb	1/4" NPSM Barb fitting
G	2	O-RING-9557K473	1-4" NPSM barb fitting O-Ring
H	2	93286A041-WASHER	zinc plated washer
I	2	885	spring
J	2	6-32x2.25-philips	6-32 x 2 1/4" philips screw
K	2	spacer-205x140x773	tension limiter
L	2	13RS031214	Nylon spacer 0.312X0.14X0.281



3. Precautions for use

- The cooling circuit must be extremely clean. We recommend flushing the circuit prior to installing the Storm water-block.
- Coolant: use of distilled water is mandatory. Swiftech's HydrX coolant is recommended as an antifungal, and corrosion inhibitor.
- Do not use colouring die or fluorescent additives. These contain particulate fillers and will obstruct the Storm water-block baseplate resulting in degraded performance.
- A system flow rate comprised between 0.75 and 1.5 GPM is recommended to yield the best performance from the Storm water-block.

4. Periodic maintenance

- If temperature degradation is observed over time, the Storm water-block should be disassembled for inspection and cleaning.

**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 above instructions, or due to failure or defect in the Swiftech cooling products. **WARRANTY** Our products are guaranteed for 12 months from the date of delivery to the final user against defects in materials or workmanship. During this period, they will be repaired or have parts replaced provided that: (I) the product is returned to the agent from which it was purchased; (II) the product has been purchased by the end user and not used for hire purposes; (III) the product has not been **misused**, handled carelessly, or other than in accordance with any instructions provided with respect to its use. This guarantee does not confer rights other than those expressly set out above and does not cover any claims for consequential loss or damage. This guarantee is offered as an extra benefit and does not affect your statutory rights as a consumer.