

1 Koolance CPU-400 Installation Guide v 1.0

CAUTION: Be sure to attach a Koolance system temperature probe (if available) to the CPU cooler during installation. Koolance system safety features may not function properly without the correct placement of this probe, and hardware damage can result.



Install two G 1/4 BSPP threaded fittings (sold separately) into the cooling block. Hand tighten all fittings--overtightening can damage the block and threads.

Remove any protective film from the bottom of the cold plate.



If a Koolance system is used, place the temperature sensor included with it on the edge or side of the water block's metal cold plate. *Make sure it is not covering any area that will be in contact with the CPU.*

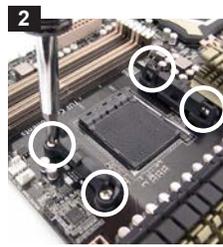


DO NOT attempt to install the temperature probe in between the processor and cooler. Despite its thin size, it will interfere with CPU contact or burn-out the sensor.



Trim out a piece of metal tape and apply it to keep the temperature probe in place. DO NOT stick metal tape or the temperature probe where the processor comes in contact with the cooler.

You can use a zip-tie to further secure the temperature probe wire to the water block's tubing.



(AMD boards only) AMD sockets require removal of the motherboard's existing retention frame in order to install the Koolance water block.

If present, remove this retention frame by unscrewing its screws, or if plastic tabs are used, pulling out these locking tabs.

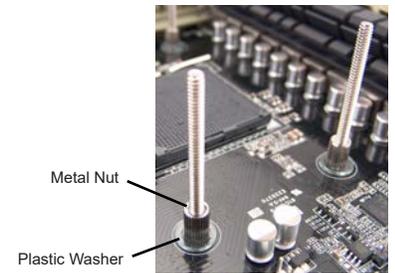
Place the rubber insulation pad against the rear Koolance bracket. Push four mounting posts through the back plate and insulation pad. The posts and bracket holes are keyed to prevent spinning when tightened later.

Refer to the rear bracket images on the next page for the correct hole locations based on your CPU socket.

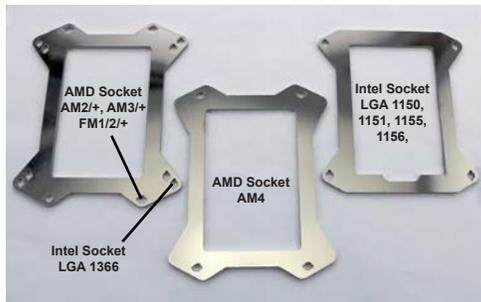


From beneath the CPU socket, carefully insert the back plate posts through the motherboard mounting holes. The insulating pad will be sandwiched between the back plate and motherboard.

Above the motherboard, place a plastic washer around each mounting post. Hand-tighten a metal nut onto each post above the washer to hold the rear bracket in place.



Apply thermal paste to the CPU directly. Spread the paste so that it evenly and thinly covers the CPU. A piece of thick paper (such as a business card) works well for this.



One or two back plates may be included with your water block. Use the left picture to determine which hole location your mounting posts must use.

NOTE: For Intel socket LGA 2011, screw the included posts directly into the motherboard backplate:



Place the water block over the mounting posts. The temperature sensor should already be installed on the cooler (if supported).



Over each mounting post above the top bracket, place a plastic washer, then a spring, and lastly a thumb nut. Tighten thumb nuts gradually in a cross-shape pattern. **DO NOT OVERTIGHTEN THUMB NUTS OR DAMAGE TO THE WATER BLOCK, PROCESSOR, OR MOTHERBOARD COULD RESULT!**

The CPU water block can be opened (for cleaning, etc.) by carefully unscrewing the four assembly screws with the included wrench. It is extremely important to reassemble this product properly. **WHEN REASSEMBLING, CAREFULLY HAND-TIGHTEN THE ASSEMBLY SCREWS AND DO NOT OVER-TIGHTEN. IF DONE IMPROPERLY, THE THREADS CAN BECOME STRIPPED OR CROSS-THREADED!**



Reassembly:

Make sure both o-rings (1 and 2) are smoothly in their grooves. Do not assemble with an o-ring bulging out from the groove or if an o-ring is damaged.

The center impingement plate must be properly aligned with the top cover. Failure to align the parts properly may damage the CPU block or cause a leak.



The cold plate microfins must run **perpendicular** to the impingement plate center slot!

When the block is assembled, look into the outlet hole to confirm proper fin direction. The microfins should be oriented so they appear to run from one fitting hole to the other (inlet to outlet). If not aligned properly, liquid will not flow through the CPU water block.

