



Another way



RECOM[®]
PowerStation Evo Liquid Case
Manual v1.1

Liquid Cooling Case Installation Manual

Introduction

The working principle of the PowerStation Evo liquid cooling case, works on a method known as “Heat Exchange”. When power is sent to the pump, it begins to circulate the liquid around the system. Liquid coolant is then passed through the cooling blocks which are attached to your CPU, VGA & Northbridge Chipset (optional parts), the liquid coolant will then transfer the heat from the heat source through the cooling blocks and then into the coolant. From there, the water circulates into the radiator which will then be “Surface Cooled” by 2 Pieces Silent 12cm (14cm optional) Fans, and will finally disperse the heat from the Coolant.

Caution: Please read and understand this manual correctly and accurately before installing or operating this product. By disregarding any instructions in this manual could result in damage to your computer, loss of data, damage to this product and/or personal injury.

Thank you for purchasing the Recom PowerStation Evo liquid cooling product.

NOTICE

- This product is subject to updates or changes without prior notice.
- Recom is not responsible for any direct, indirect, intended, or unmeant damage to your computer, loss of use, loss of data, loss of income or profit, and/or personal injury due to incorrect installation and illegal operation.
- If you do not understand any part of this manual, please contact the technical support. Without understanding the instructions, the installation is forbidden.

IMPORTANT NOTICE

- Before using this liquid cooling set, please read and keep the manual close by for reference.
- The working temperature environment of the liquid cooling set is from -10°C to $+40^{\circ}\text{C}$.
- If there are any leaks from the liquid cooling system, shut down your pc, and unplug it and peripherals immediately and check the system carefully.
- Keep the radiator out of direct sunlight and away from any other heat sources.
- Before using the equipment, please make sure that your power supply is at least 450W or more for safe operation.
- Hold the Molex when unplugging the power cable. Plucking the power cable directly is not advised.
- Try not to bend or kink the tubing when using the system.
- Running the system with low liquid may result in damage to the parts within your computer, please check the liquid every 3 months.
- **Please screw the fittings on the components by hand, no tools will be needed, there is no guarantee for the damage due to this!**

MAIN PARTS AND WORKING PRINCIPLE

1. **CPU Cooling Block:** Specifically designed for the heat transfer process from the CPU core.
2. **Pump:** will provide power for the circulation of the coolant.
3. **Radiator & Fan:** Also know as the Heat Exchanger, for dispersing heat from the coolant
4. **Mounting Plate:** for 1156 (i5), 1366(i7), LGA775, AM3/AM2(+), 754 / 939 / 940 / 478
5. **Heat-Transferring Liquid:** Liquid coolant, used to transfer heat from the system. Ready-to-use (doesn't have to be diluted with distilled water anymore)
6. **Thermal compound:** Used to increases heat transfer from the heat source to the cooling block.
7. **Tubing:** Used to direct coolant around the system.
8. **Fittings:** Used to fix hose on the liquid cooling components.

Installation

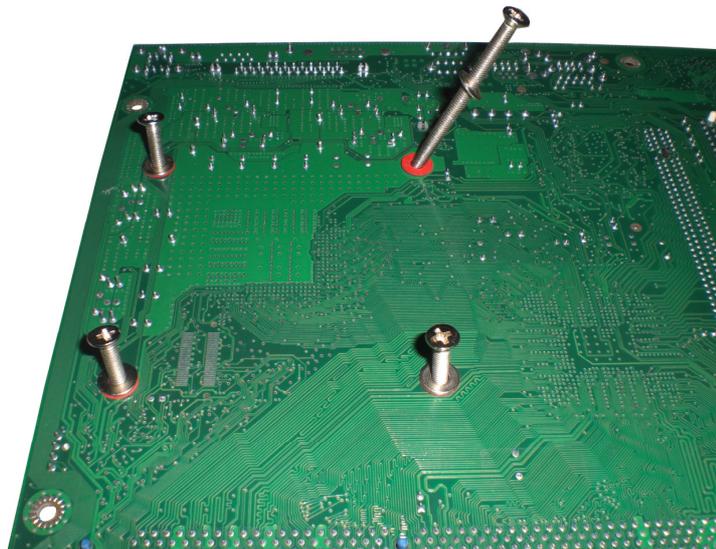
SET UP YOUR WORK AREA

Your working area should be well lit at all times, gather your tools: screwdriver; scissors etc.

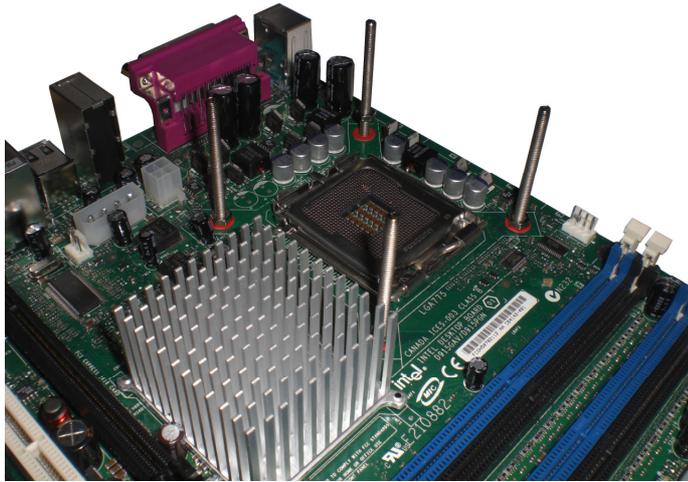
Installation of the CPU Block

Warning: Please take care while installing the CPU-Block. Fixing too hard using tools might cause damages to the CPU and M/B!

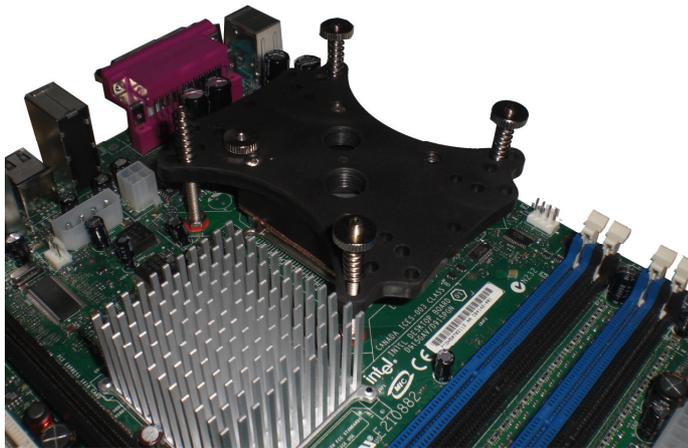
1. Please remove the retention module from the M/B if necessary. The M4 screws have to be put through the M/B from the bottom side. Please make sure that the washer and insulating is placed in between as shown on the picture.



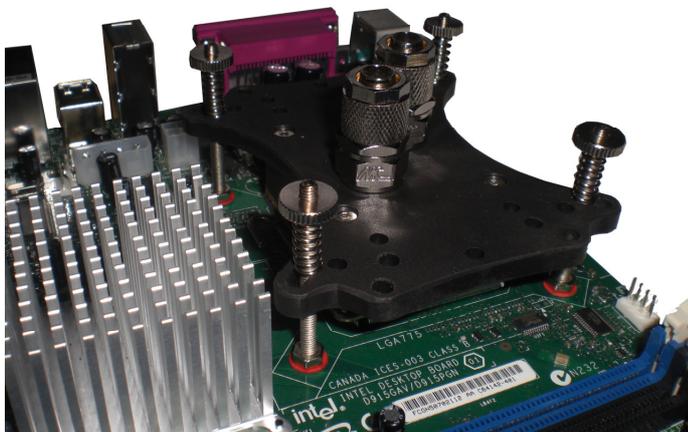
2. Please use the washer on the topside of the M/B as well.



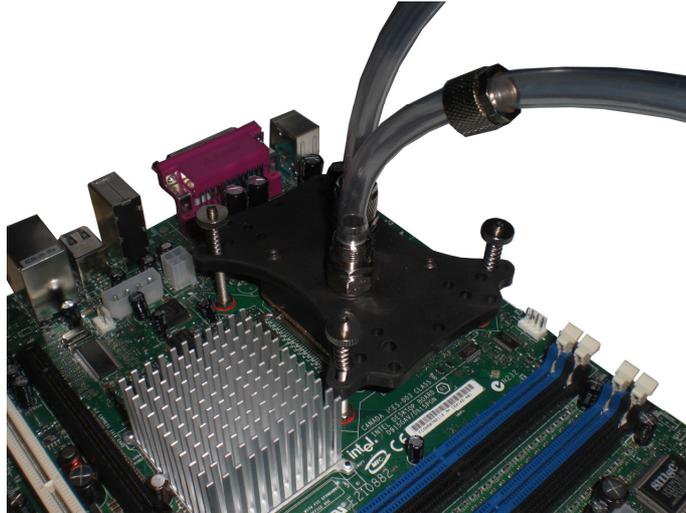
3. Screw the four nuts onto the screws to fix the clip on the M/B.



4. Remove clear film from the base of the CPU Cooling Block and apply the thermal grease on it properly, and put it onto the CPU.



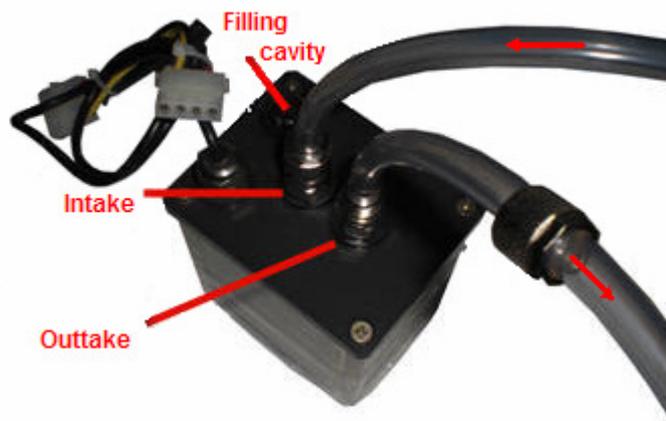
5. Fix the 1/4" fittings on the CPU Block (hand screwed – no tool needed !) As a last step please fix the springs and the knurled nuts included in delivery onto the screws as you can see on the next page.



Pump installation

The pump was created for usage in a complete water cooling system only – please take care on the coolant level. If it is too low the pump might be damaged.

Pump is preinstalled on the bottom of the case, please take care on „IN“ and „OUT“ connector while installing the hose.



Please connect the pump directly to the Power Supply Unit with the 4 pin molex connector.

The pump can be moved for mounting. The current location is a suggested location. In some cases it can be possible the pump needs be moved a few centimetres because of mainboard space/mounting. The mounting screws are located on the bottom, outer side of the case.

CAUTION: The Liquid level in the pump/reservoir needs to be higher then the end of the “pipe” inside the reservoir that is connected to the intake. Lower can cause damage to the pump and exceeds the warranty. Check the reservoir liquid level regularly.

Radiator Fitting Installation

Screw the two 1/4" fittings into G1/4" thread of the pre-mounted radiator by hand, now you can connect this radiator with other components by using enclosed tube.



Tubing Installation

After installing the CPU-Block, it is time to connect the single components to each other. Please trim the tubes due to your personal system.

It is important to straight cut the ends of the tubes. A side cutter is recommended to do so.

The tubes will be connected with the included 1/4" fittings.

The single steps to connect the single components as followed:

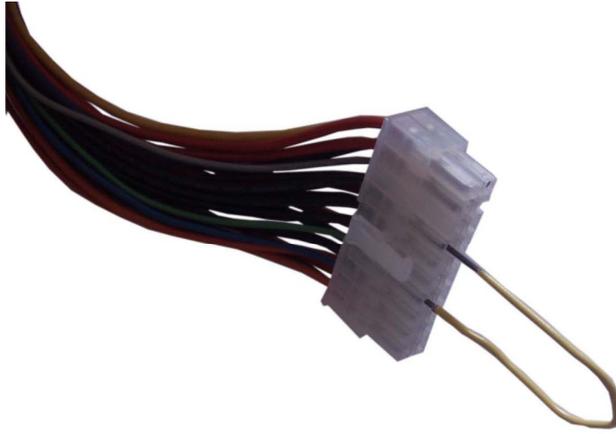
- Step 1: From **Pump „OUT“** to **CPU Block**
- Step 2: From **CPU Block** to **Radiator**
- Step 3: From **Radiator** to **Pump „IN“**

It is sufficient to fix hand-screwed only!

Filling up the Cooling Systeme & Testing Pump

To fill up the water cooling kit you need the funnel or syringe, the coolant and a screwdriver. The coolant is ready-to-use and doesn't have to be mixed anymore with distilled water.

- Step 1: Please remove the 220 Volt plug from your PC (!)
- Step 2: Remove the 20 (24) PIN power plug of the PSU from your M/B. It is best to remove other components like HDD from power as well.
- Step 3: Bypass the power plug by connecting the green wire with the black one using a paper clip for example. This step prevents the M/B for getting electricity but it is still possible to switch the pump „on“ and „off“ using the power button at the PSU.
You also can use the Recom T8 or T12 PSU power tester.



- Step 4: Please open the screw at the top of the pump to fill up, fill in some coolant into the pump using a small funnel. Switch on the ATX PSU and fill the pump step for step.
- Step 5: Initial noises from the pump are quite normal and will stop after filling up the system completely. If there are problems with the circulation of the coolant please shake the pump carefully.
- Step 6: In order to get out the air bubbles inside the radiator, you need to shake the radiator gently as well. Please test the pump for a minimum of 1 – 2 hours before closing the case.



The installation is now completed !

Please check all connectors and cables before you turn on your Computer.

Specifications:

- CPU Block:** Material: Copper base, Cover: Fiber Glass Nylon
Dimension: 50,4 x 50,4 x 9 mm (Copper base), total: 80,5 x 104,5 x 25 mm
2x G1/4" thread, Weight: 175 g
Compatible Sockets: 1156(i5) / 1366(i7) / 478/ 775/ 939/ 754/ AM2(+)/ AM3
- Pump:** Rated Voltage: 12V, 60 Hz
Power Input: 10 W
Pump Speed: 700 L/hr.
Pump Height: 1.7 m
Life Expectancy: 50000 hrs.
Connector: 4 pin
- Radiator:** Dimension: 323 x 142 x 29 mm
Material: Brass, Copper Fins, with 2x G1/4" thread
Weight: 710 g
- Fan:** Dimension: 120x120x25 mm
Rated Voltage: 12V
Power Input: 2W
Speed: 1000 RPM
Life Expectancy: 50000 hrs.
Connector: 3 pin
- Liquid:** Ingredients: Distilled Water, Glycol, UV liquid etc. (Ready-to-use)
Volume: 500 ml
Anti-corrosive fluid for PC liquid cooling systems
Protects copper, aluminium, brass and nickel.
Injurious to health when swallowing! Keep out of the reach of children!
Avoid contact with the eyes and skin.
- Tube:** Material: PUR or PVC 8/10
Length: 2 m
Diameter: ID 8 mm, OD: 10 mm
- Fittings:** Material: Plated Brass, for 1/4" thread, for tube 8/10

This product is subject to updates or changes without prior notice!

Please check for update informations and optional add-on components at www.recom.nl, in order to extend your water cooling kit!

TROUBLESHOOTING:

If any trouble is encountered with the operating of the liquid system, please refer to the section below before contacting your point of purchase.

Problems	Problem Solution
The Pump does not work?	Check your mains power supply; Check your Molex connector on the pump is fully connected to the power supply
The cpu reports high (70°C) + temperatures?	Check your Pump is working, Check you have used thermal grease on the water blocks & also check if they have been mounted properly; Make sure your 120mm fan is wired up to the system power supply.
Liquid is leaking from the pump constantly?	Check the fittings of the pumps are fixed properly.
The liquid is getting low, but there is no leak?	Top the system up with coolant (purchased from your point of purchase) or distilled water.
The pressure reducing valve fizzles?	This is a normal occurrence.
The pump fizzles when the mainboard is powered, but fizzles die down shortly after?	This is a normal occurrence.
The heat transfer liquid is dirty & discolored?	Algae will build up in your system after time; it is recommended that you replace the Liquid Coolant every 6–8 months.
The fan of copper tube radiator doesn't work?	Check to see if the power connector is connected properly. If not contact your point of purchase to arrange a new fan.

Disclaimer:

Please read and understand this manual correctly and accurately before installing or operating this product. By disregarding any instructions of this manual could result in damage to your computer, loss of data, damage to this product / or personal injury. Recom will not be held responsible for any of the above and in proper use of this piece of equipment.

***All trademarks are registered to their respective owners.**

(Manual v1.1)