



Water Cooling Kit

Closed Loop 12V Powered Water Cooling Kit

Model: IHWK-4M



Features and Specifications

- Closed loop cooling for dry operation
- Ultra Quiet 12V Pump with coolant reservoir
- Supplied with adaptors for fitting a wide range of items such as 4mm induction coils, or CPU coolers.

The IHWK-4M water cooling kit is designed to allow for easy closed loop cooling of high power projects such as induction heating.

Example Applications

- Induction Heating
- Overclocking
- Power Electronics

Parts Included in the Kit

- 120mm Radiator
- 12v DC ultra-quiet water pump with built in reservoir
- 120mm Fan with filtered grill and mounting screws
- 2 x 4mm O.D compression fitting to G1/4 male thread adaptors
- 2 x G1/4 Female to 8mm barb adaptors
- 2 meters of 8mm I.D silicone tube
- PTFE tape

Tools Required for Assembly

- Screwdriver
- Adjustable Spanner
- Wire Snips

Assembly Instructions

These instructions are based on the cooling system being used to cool our induction heater coils which use 4mm copper pipe.

First link the two pipe adaptor types together by wrapping a little PTFE tape around the male thread end of the silver coloured 4mm compression fittings and then screwing it into the G1/4 brass adaptor. Tighten these together using a spanner to ensure it will not leak.

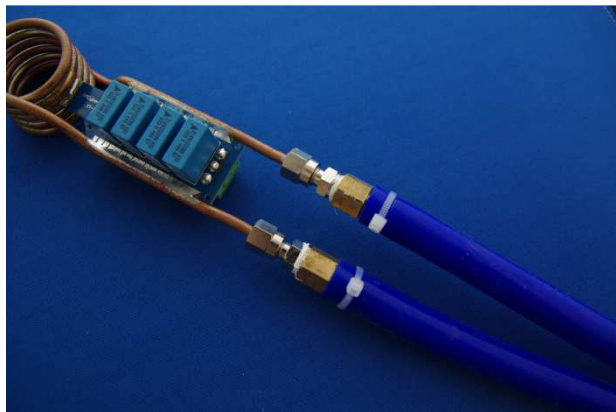


Figure 1: Adaptors and Pipes

Next insert the ends of the 4mm copper to be cooled into the compression fittings and then tighten with spanners to ensure a good water tight seal. Once completed you will be able to easily connect the silicone hose provided by pushing it over the 8mm barb fitting.

The water pump and radiator provided both use 8mm barb fittings so you can simply cut the silicone tubing to lengths required and push fit it all together. We recommend using a small cable tie or hose clip around the connections to prevent any accidental uncoupling or leaks.



Figure 2: Radiator and Water Pump

The water pump has a standard PC fan header type connection with Red, Black and White wires. Red and Black are for 12V and GND, while White is for an RPM output signal though generally not used. Arrows on the hose connections indicate the direction of water flow.

To fill the pump, remove the top screw with a large flat head screwdriver. The pump should be filled up completely with a suitable coolant such as water. If the water is to be left in permanently we suggest using some sort of biocide additive to prevent any algae growth in the water.

When the pump is first switched on, water will fill the pipes and radiator. Once settled top up the reservoir again until it remains full.

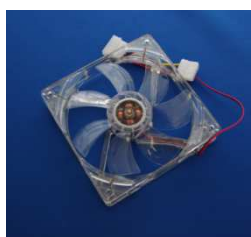


Figure 3: 120mm Fan

The 120mm Fan supplied comes with Molex connectors attached for easy connection in a standard PC. Alternately these can be cut off for direct connection to the 12V wires.

To fit the finger guard/ filter assembly pull it apart and attach the part with screw holes to the fan and radiator. Insert the supplied screws through this, then through the fan and fixing them into the matching holes on the radiator. The fan should be oriented with the label towards the radiator so that it blows through it.

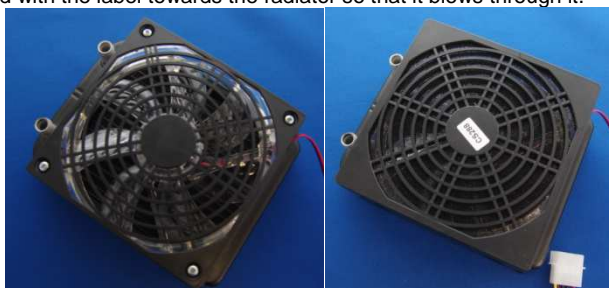


Figure 4: Finger Guard/Filter Assembly

Once the screws are in place, the filter can be placed on the other plastic part and then clipped together. The filter is optional but if used should be checked regularly to see if it needs cleaning.

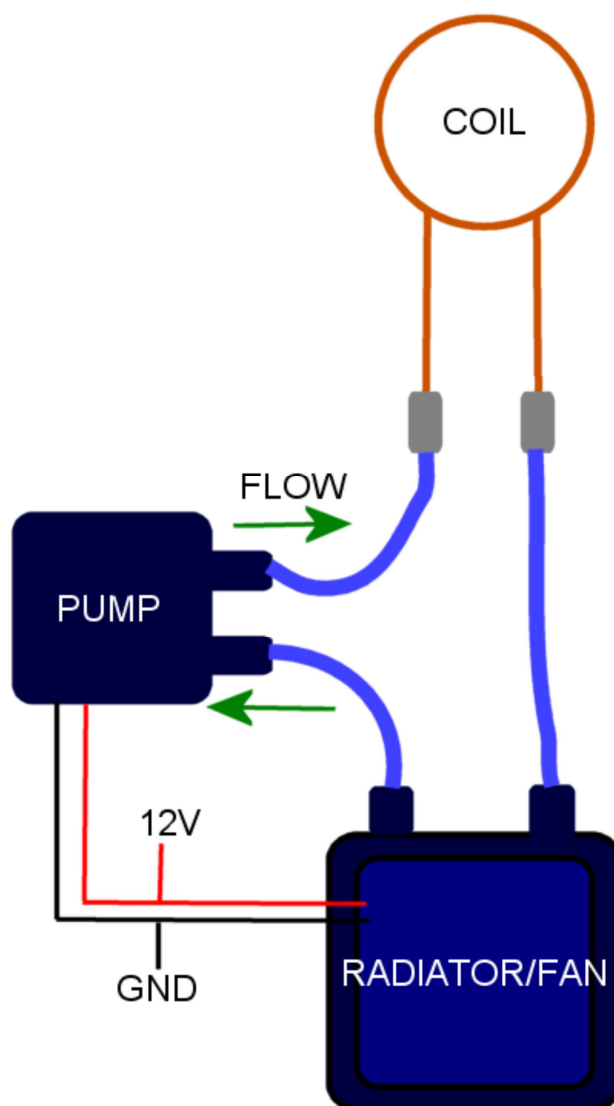


Figure 5: Connection Diagram