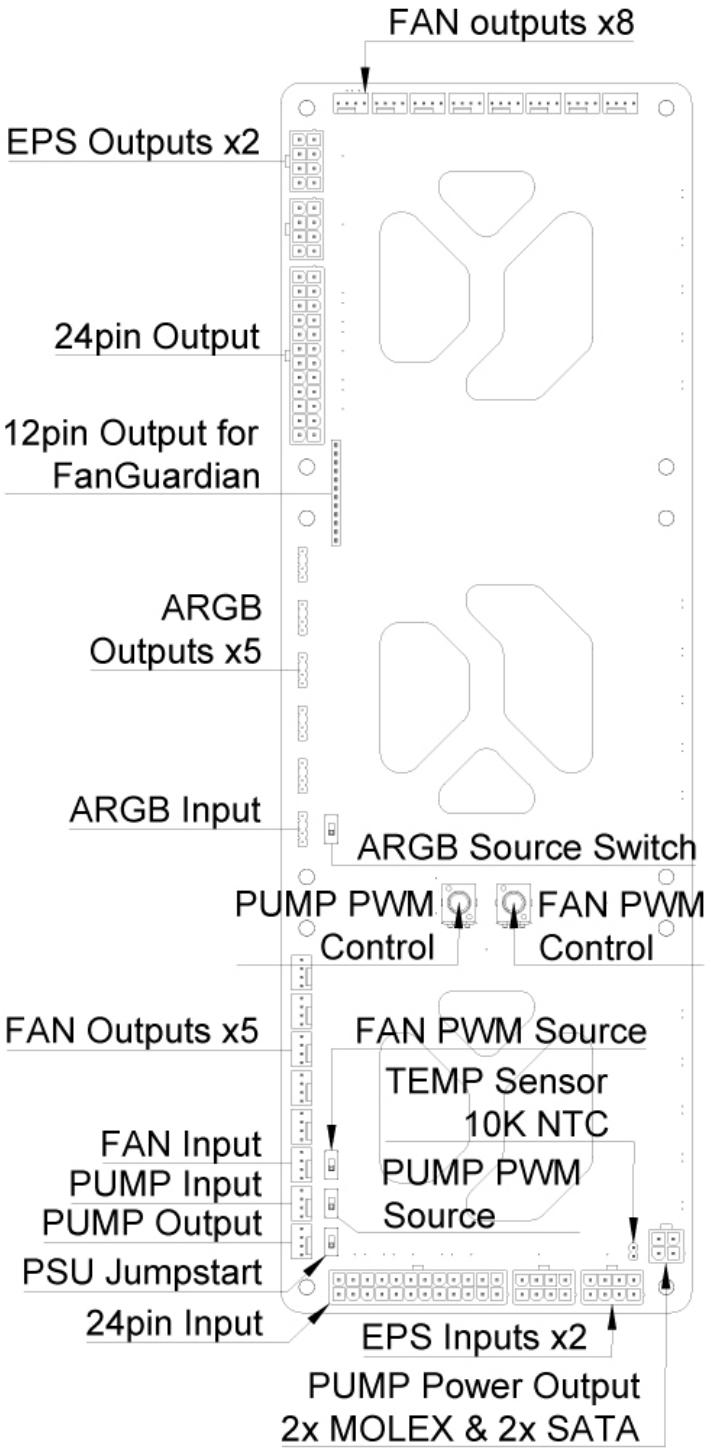
SINGULARITYCOMPUTERS

POWERBOARD
UNIVERSAL 360MM
& DISTRIBUTION PLATES

MANUAL

Revision 1.0



⚠ ***All PowerBoards need PowerBoard Linking Cables.***

Features

The PowerBoard is a PCB integrating 24pin, EPS, PWM and ARGB Hubs, Fan and Pump speed control, 12pin header for a FanGuardian, switches and a dedicated header for powering a pump. The PowerBoard has x15 ARGB LEDs positioned under the right side of the PCB. The PSU Jumpstart switch allows to turn on the power supply and the pump without booting the motherboard, this way the loop can be filled easier, especially when the pump speed is lowered with the potentiometer. There is a source switch for fan, pump and ARGB headers which allows for an easy choice between motherboard and PowerBoard built-in PWM control.

Hubs: PWM Fan Hubs x1 with 13x outputs. Pump input x1 and output x1. The fan and pump output have coolant temperature-based PWM control or can be switched to motherboard PWM control. The built-in PWM control on the PowerBoard is independent of the motherboard and no software is needed.

PWM Control: 2x potentiometers to set the minimum PWM speed.

Temperature sensor inputs: x1. Compatible with any water-cooling brand plug temperature sensor or inline sensor if it is a 10K NTC thermistor.

Essentially the PowerBoard is a distribution plate for cables also integrating other features and functions. It is a new method for cables allowing standardization of cable lengths and making cable management almost unnecessary.

The distribution plate adds a DDC reservoir combination to the PowerBoard and has an inlet, outlet, fill and drain port. The reservoir is designed to make filling and draining as easy as possible.

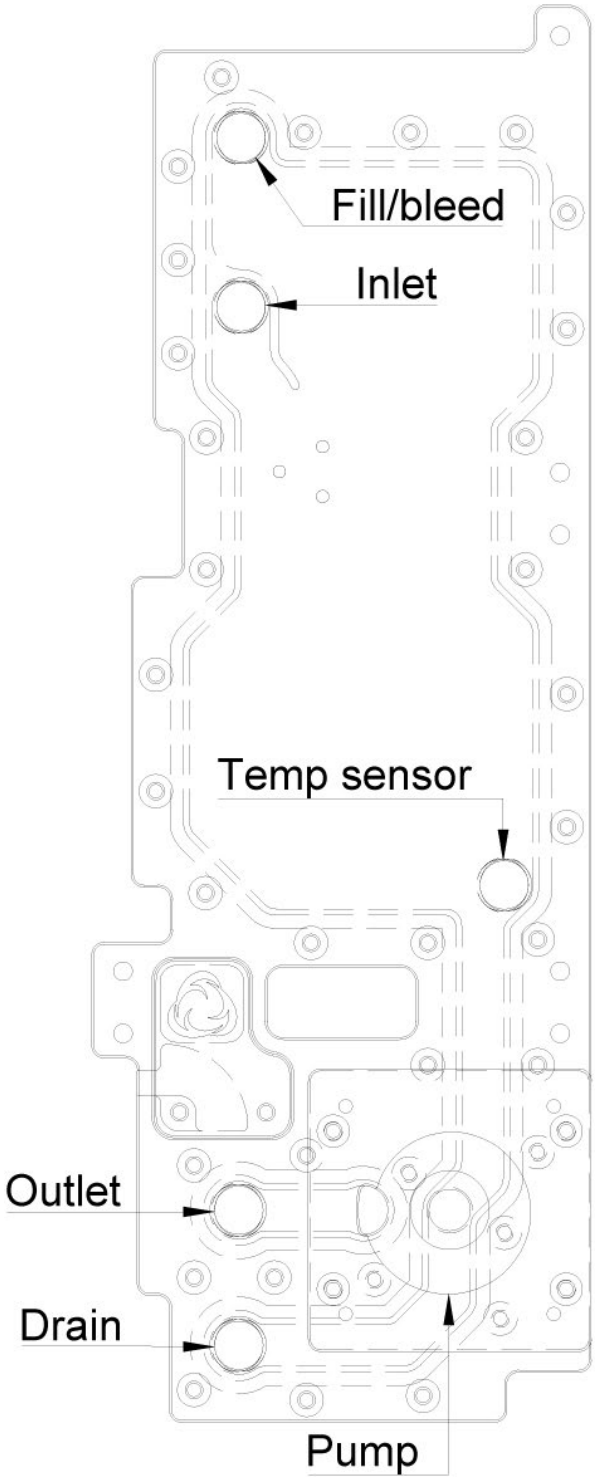
Specifications

PowerBoard Universal 360mm (distribution plate Optional)	
Cables	PowerBoard Linking Cables: 18AWG wire black sleeved: 24pin x1. 8pin EPS x2. PWM Fan Linking Cable Black Sleeved 50cm x2. RGB Linking Cable Black 50cm x1.
Electronics Integration	Inputs: 24pin x1. 8pin EPS x2. PWM x2. ARGB x1. Outputs: 24pin x1. 8pin EPS x2. 4pin ATX PUMP x1. PWM x13. ARGB x5. ARGB built in LEDs x15. 12Pin header. PSU jumpstart switch. Control source switch x3. Potentiometers x2.
Fasteners	Stainless Steel
Manufacturing Process	PCB. Laser.
Materials	PCB. Satin Black Acrylic.
PowerBoard Universal 360mm Distribution Plate (Optional)	
Lighting	Integrated ARGB PCB with 30cm black cable.
Fasteners	Stainless Steel.
Gaskets	Silicone Black.
Materials	Cast Acrylic.
Manufacturing Process	CNC Router.
Assembly	Assembled by hand and pressure tested.
Product Weight & Dimensions:	**PowerBoard Universal 360mm** L: 360mm x W: 120mm x H: 20mm. 0.3kg. L: 400mm x W: 150mm x H: 50mm. 0.5kg. (Packaged)

PowerBoard Universal 360mm & DDC Distribution Plate
L: 360mm x W: 120mm x H: 26mm. 1.2kg.
L: 400mm x W: 150mm x H: 50mm. 1.5kg. (Packaged)

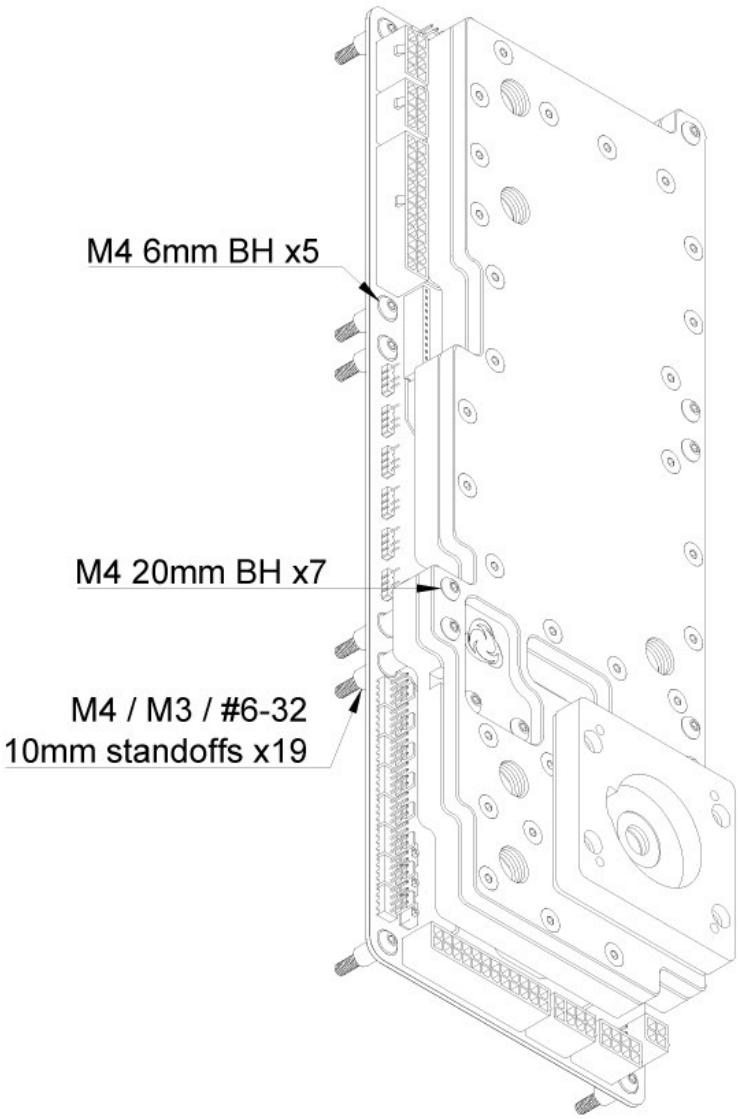
PowerBoard Universal 360mm & D5 Distribution Plate
L: 360mm x W: 120mm x H: 38mm. 1.5kg.
L: 400mm x W: 150mm x H: 50mm. 1.8kg. (Packaged)

PowerBoard Universal 360mm Distribution Plate Port Layout



PowerBoard Installation (standalone)

Install the PowerBoard using the included stand offs and fasteners. There are four options upon purchasing the PowerBoard which are for different radiators or for standard mounting. Different radiators use different fasteners, M3, M4 and 6-32, you will need to check which ones your radiator uses if you want to mount the PowerBoard directly.



Standard mounting

Remove the M4 Nuts and Washers from the PowerBoard Stand Offs and mount the PowerBoard onto a 360mm radiator mount. Then install the M4 washers and Nuts and tighten them from the back.

Radiator mounting

Remove the Distribution Plate from the PowerBoard by undoing the x7 fasteners. Then remove the Stand Offs from the back of the PowerBoard which also means the M4 6mm x5 will need to be undone.

You will now have all of the Stand Offs and fasteners separate from the PowerBoard and Distribution Plate. Next install the Stand Offs onto the radiator, they should be the ones you selected upon purchase which are suitable for your radiator. Then you can mount the PowerBoard and Distribution Plate using the Stand Offs and fasteners in the same configuration they were in before dismantling.