Heatmaster2 *FAQ*

Properties

What are the system requirements of the Heatmaster?
Minimum system requirements:
CPU 500 MHz, recommended 1000 MHz
RAM 512 MB
50 - 100 MB vacant HDD space
USB 1.1
Windows XP Service Pack 3, Windows Vista , Windows 7
Windows 98 SE, Windows 2000 Service Pack 4 (with limitations)

Depending on the operation being processed, the software requires some CPU time. When the settings have been transferred to the Heatmaster 2 and the PC software has been shut down, no more CPU time is required. The Alphacool Heatmaster 2 will then commence independent operation and fulfill the programmed tasks (Monitoring and control).

What are the technical specifications of the Heatmaster 2?
Dimensions: 110mm x 145mm
Power consumption: max. 5A
Fan channel power output: max. 10W per channel
Maximum power output of all channels: max. 60W overall power output
Load maximum of the relay outputs: max. 5W per relay

What is the extent of delivery?
1x Alphacool Heatmaster 2
4x temperature sensor with approx. 50 cm cable
1x internal 4-Pin USB connection cable
1x jumper
1x mounting manual
1x quick manual

What kind of devices can be connected to the Heatmaster?
6 fans
3 pumps / flow rate sensors
6 temperature sensors
1 analogue coolant level sensor
3 status LEDs
3 relays for control of external devices
3 buttons

What is the temperature range in which the Heatmaster 2 can be operated?
The Heatmaster 2 can be operated at a room temperature of 20C° – 50C°. The maximum operating temperature of 70°C should not be exceeded, as damages can be the result.

How high is the power consumption of the Heatmaster 2 itself?
The current draw of the unit itself is approximately 60mA (without fans, display and switched relay)

Does the Heatmaster 2 have an acoustic alarm?
No, the Heatmaster 2 has no acoustic alarm. A relay can be used to control an alarm.

What can be Heatmaster 2 Bus be used for?
The Heatmaster 2 bus is used for the internal communication of the Heatmaster. The bus is used to connect the expansions.

Restore default settings

How to reset the settings?
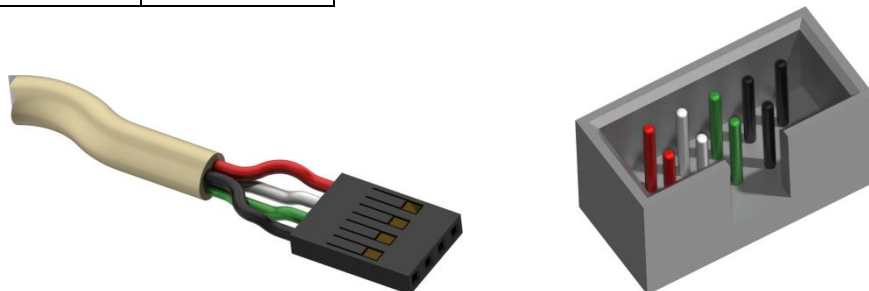Download the latest drivers. In the zip file is a "Standard.dat" file. This must be import the Heatmaster2 software. **NOTE: After importing the Standard settings is no undo possible.**

USB cable

What is the assignment of the USB cable and the plug?

The assignment of a USB cable is as follows:

PIN	Name	Farbe	Beschreibung
1	VCC	🔴 Red	+5V
2	D-	⚪ White	Data -
3	D+	🟢 Green	Data +
4	GND	⚫ Black	Ground

For the pin assignment, please look also into your manual of the mainboard. While this is a common standard, but there are always exceptions.

Displays

What kinds of displays are supported by the Heatmaster 2?

At the moment no displays are supported.

Settings load and save

Can the settings be transferred to another Heatmaster 2?

Yes. The profile can be exported and imported to another Heatmaster 2.

Why does the first connection take longer to establish?

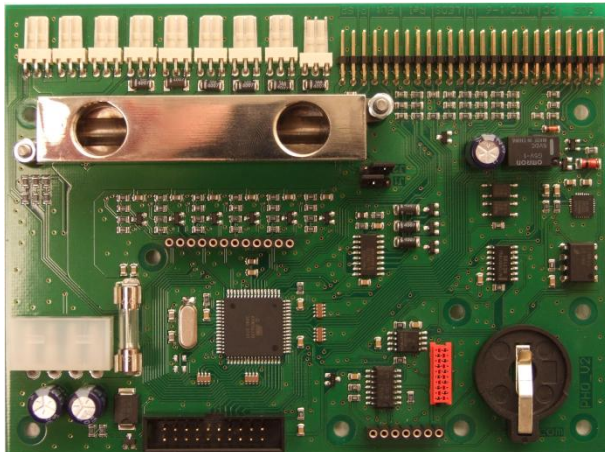The connection is tested and the current settings are transferred form the Heatmaster 2 to the software. This may take a couple of minutes. The second time the system is started the connection will be established as quickly as usual.

Cooling for Heatmaster II

What kinds of heatsink fit on the Heatmaster 2?

The Heattrap RegCooler Asus SLI (A8N-Serie / 680i chipset)

How is the heatsink mounted?

Fans

How are the fans controlled?
The fans are controlled with p**ulse width modulation** *(PWM)*. The frequency on the Heatmaster 2 is 16kHz.

What is the voltage range on the fan outputs?
The Heatmaster 2 can set the fan channel voltage from 0V to 12V. Please consider that some fans only start to spin around 3-5V.

The fans are displayed sporadically or not at all?
Some slow-spinning fans may not be recognized. This issue can be resolved with the automatic min/max fan speed determination. This saves the fan characteristics in the Heatmaster 2.

Temperature sensors

The temperature sensors display negative values?
This happens if no sensor is connected, but the input is active, meaning that the sensor input is set to "ON" in the software.

The temperature sensors display too high or too low.
Are you sure you have selected the correct resistance. The Heat Master II support's 5k and 10k temperature sensors.

Temperature changes are displayed only very slowly and jumping a few degrees Celsius.
This happens when you have had the temperature sensors on digital, but analog is connected. Can resolve this switch to analog. The sensors need but still about 10-20 seconds to reach its correct value.

Flow Sensors

The flow rate sensor display incorrect values?
1. This may be caused by an incorrect pulse rate being set.
2. The flow rate sensor is designed for significantly lower or higher flow rates. It should always be chosen according to the pump used in the cooling loop. The pressure head of the pump is of minor importance, the flow rate of the pump in liters per hour should be approximately matching the specified rate of the sensor.
3. Some coolants have the tendency to form crystals which may impair the flow rate sensor, resulting in incorrect measurements.
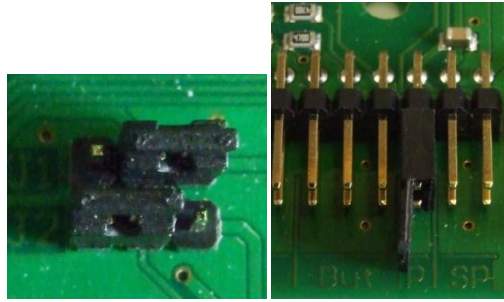
Level

What kind of coolant level sensors can be connected to the Heatmaster 2?
Coolant level sensors with a 0V-10V output can be used.

common problems

The Heat Master 2 is not recognized.
Check the jumper. The jumpers must be set as shown in the pictures.

You should also check the USB cable. WARNING: Never pull out the USB cable while the PC is turned on. This destroys the USB ports. The Heat Master 2 is non-Plug and Play ready.