



## Operating instructions to the HPPS pump

**We wish you much fun with the installation of your HPPS - 12V special pump. So that the assembly folds problem-free, we would like to ask you to read and consider the following guidance exactly!**

### **Bases:**

The Innovatek HPPS pump is a 12V synchronous runner centrifugal pump, whereby the current supply is made by a 4-pin plug (HDD/CD drive assembly power connection plug). The pump has a hoisting depth of 1.65 m/Ws. The power input amounts to in the enterprise typically 2.5 Watts. The HPPS starts after switching on on with a lower pressure and increases this then gently within for instance 3s to the operating pressure. This serves both the durability extension and preserves besides the mechanics substantially.

### **Please you consider the following references for the appropriate application:**

- Do not submerge the pump underwater as the pump control electronics will fail.
- Do not leave the pump running dry. The resulting damage would reduce the durability of the the pump's impeller or possibly the electronics. The coolant also serves for the lubricating of the pump and for the absorption of the pump's impeller oscillations. Please use the pump only to circulate water and/or innovatek protect water mixtures. The usage of other chemicals or additives can cause damage to the seals or other parts of the pump!
- Please keep the pump at least 1 meter away from your computer monitor to avoid disturbances in the picture. CRT Montors are extremely sensitive to electromagnetic disturbances and while the montior will not be damaged by said electromagnetic interference the displayed image may be effected. **NOTE:** Damage will not occur to hard disk drives or other hardware, the electromagnetic fields produced by the pump are well within safety margins and will not penetrate your hard disk drives shielding.
- The HPPS is not adjustable by undervoltage. When voltage falls below the given 12V by more than 25% the HPPS switches off. A drop exceeding more than 25% can damage the HPPS.
- Use only connections that are intended for the HPPS. The seals is not made by the front surface – overtightening the connections can damage the thread and will not provide a better seal.
- Optimal operating position for the pump is horizontal with the discharge opening side at the top. With other installation positions one has to make sure that an air pocket won't remain within the pump as that would reduce efficiency.

### **References for the Installation:**

- Attaching the pump to the case with a decoupling (anti-vibration) set is recommended as it avoids transfer the pumps oscillations to the case, thus reducing noise. (part numbers: small set 500470; large set 500277)
- When using plug-on header tanks please moisten the intake with water. The assembly is much more likely to get a good seal this way.

### **How to start the pump WITHOUT starting the computer (for filling the watercooling system):**

Turn your Power Supply off with its rocker switch. Unplug your Power Supply's ATX power plug from the motherboard and attach the jumper plug (white plug with wire loop) to the ATX power plug. Turn your Power Supply back on with its rocker switch and the Power Supply should start up.

### **Suitable connections and adapters:**

Outlet: G1/8" Adapter Part Number: 500202 (Adapter for 1/4" Thread)  
G1/8" Adapter Part Number: 500512 (Connection for 8/10 Tubing)  
Inlet: G3/8" Adapter Part Number: 500394 (Adapter for 1/4" Thread)  
G1/8" Adapter Part Number: 500925 (Connection for 8/10 Tubing)

If you have any other questions about the pump please use our forum: <http://www.innovatek.de/forum/>

For more information please request the technical data sheet: [info@innovatek.de](mailto:info@innovatek.de)

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