

## **Frequently Asked Questions**

### **FAQ 10029 How can I test and replace the battery on my Avolites Borris motherboard?**

Avolites part no. for battery is 11-03-0006

Battery type: 3V6 1/2AA with Polarized Terminals (non-rechargeable).

Battery chemistry: Lithium Thionyl Chloride (Li-SOCl<sub>2</sub>)

Consoles with a Borris motherboard:

Avolites Sapphire 2000

Avolites Pearl 2000,2004,2008,2010

Avolites Azure

Avolites Pearl Tiger

**When the battery on a Borris motherboard goes flat the console may show the following symptoms:**

- The battery voltage when the console is turned off measures less than 3.5V (should be 3.6V for a healthy battery).
- The console may not start up.
- The show data is lost or corrupted when the console is turned off (you need to re-load the show every time console is turned on).
- The clock time/date setting is lost when the console is turned off.
- The license is lost (applies to 2008 versions and later - you will need to replace the battery before applying for a new license).

If the console battery has lasted less than 5 years then you should test the current drain from a new battery otherwise the new battery lifetime may be shortened.

**Caution:** take care not to short circuit or overheat the battery terminals at any time.

**To test current drain from a (new) battery:**

- Turn the console off.
- Temporarily solder/connect the -ive terminals of the battery to the Borris motherboard.
- Solder a 10K resistor in series from the + ive contact pad on the Borris to the + terminal of the battery. (so battery current will have to go through the resistor).
- Turn the console on and then off again (this is important).
- Measure the dc voltage across the resistor. Every 0.01 V measured represents a current draw of 1uA.
- Normal current draw is less than 10uA (ie less than 0.1V reading across 10K resistor is normal).
- If the reading is normal, remove the resistor, apply a small amount of silicon glue under the battery, and solder the battery in.

The battery capacity is about 1Ah so the normal lifetime should be greater than 10 years.

Faulty components (eg faulty static ram) on the motherboard can increase the current drain from the battery and decrease the battery life.

Contact Avolites support if you have any questions.