

# OM-2010 Frequently Asked Questions

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# FAQ Battery & Power

## How long will the batteries last in the OM-SQ2010 Logger?

With all channels logging, the following table can be used as a guide:-

LOGGING INTERVAL	SQ2010
1 Second	2.5 days
15 seconds	31 days
1 minute	82 days
5 minutes	75 days
15 minutes	145 days

These results were conducted with a new set of Duracell Procell manganese alkaline batteries at 25 C, temperatures below about 10 C or other batteries could change values drastically. These results assume that the 5V external power supply is not being used

## What happens when the batteries are exhausted?

It is not possible to arm the logger when below approximately 5.5. Volts. If the unit was logging when the voltage dropped below this point, it will disarm automatically.

## Can I power from external supply?

Yes, 8-28V DC only. Includes 12VDC battery.

## What happens if the external supply fails?

If the external power fails, batteries must be fitted to prevent loss of data. In the case of a power failure, the logger will switch to the battery supply and continue with no interruption.

## How is the battery level displayed?

By use of a "bar" multi-segment battery indicator on the logger display and, if required, the actual voltage is displayed in the appropriate screen both on the logger display and in OMEGALOG®.

## Can the OM-SQ2010 Logger be used on a vehicle?

The logger is designed to be powered from a 12V vehicle system directly; higher system voltages will require the use of a suitable convertor.

**Can the Logger be powered by the USB port?**

Yes.

**How do I power a GSM modem?**

External supply voltage (if connected) is provided at the I/O socket. This is made available for powering external devices. The voltage is permanent and cannot be switched ON or OFF.

**Can the internal batteries be rechargeable?**

No only C cell alkaline batteries should be used

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# FAQ Connection & Communication

## **Is the Logger USB 2.0 Compliant?**

Yes

## **Can I connect to the logger remotely?**

Yes via 3rd party Ethernet or wireless adapters as well GSM and dial-up modem. Contact Omega Engineering for more details.

## **Is the logger real 'plug & play' via USB?**

Windows will automatically detect the presence of your data logger, supplied drivers will be required the first time used.

## **What if I connect to both ports simultaneously?**

The USB and serial ports may be physically connected at the same time, however, the logger will talk to only one external host at a time.

## **Can the logger survive mains supply accidentally connected to inputs?**

The unit is not designed to withstand such an event, however the unit is ESD protected.

## **Can the Logger connect to Ethernet?**

Yes, Ethernet converter kit (OM-SQ-NET-ADAP) a power adaptor lead is included with the kit to power the modem and the logger from the mains power pack (OM-SQ-UNIV-ADAP)

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# FAQ Operation

## **Can I download while the logger is logging?**

Yes if downloaded via OMEGALOG®. The logger will download until the point that the instruction to download was issued.

## **Can I download by time?**

Yes, use the advanced function in the download screen.

## **What is the alarm output regime (one per channel)?**

User specified triggers can activate a total of 2 alarm outputs. As an example; these triggers may be based upon channel conditions.

## **What can I trigger from?**

Triggers can be from analogue, digital channels or time.

## **Can I print direct from the logger?**

No, this can only be achieved via the host

## **Why is the Ref Junction set automatically when I select a Thermocouple in Sensor Type?**

Thermocouples do not measure absolute temperature, they only measure the temperature difference between the sensing end (the probe tip) and the reference end (where the probe plugs into the logger). To acquire the absolute temperature the logger adds together the temperature difference measured by the thermocouple to the temperature at the reference junction. The reference junction temperature is measured by the Reference Junction channel. To save the user from having to remember to turn on the Reference Junction channel, OMEGALOG® and the logger do it automatically whenever a thermocouple channel is selected.

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## FAQ General

### **Can I read my data using notepad (.csv file)?**

By using OMEGALOG<sup>®</sup> you are able to export data to .csv format to a preferred spreadsheet.

### **Can I fit the OM-SQ2010 to a wall?**

Yes, contact Omega Engineering for details.

### **How often does the Logger require calibration?**

Drift is not expected although annual calibration is recommended. In real terms this is dependant upon use. Contact Omega Engineering for further details. The last date of calibration can be viewed via OMEGALOG<sup>®</sup> .->Diagnostics->2010 Squirrel.

### **What is the Inter-channel isolation?**

The analogue inputs are isolated from the logger's supply but must all be within  $\pm 25V$  of each other and within  $\pm 25V$  of the logger's negative power supply; the digital inputs are directly connected to the logger's negative supply and must be in the range 0V to +5V for correct operation. The protection on the analogue inputs will turn on outside the  $\pm 25V$  range and will try to limit them to about  $\pm 50V$ . The input protection will be destroyed if it is connected to a low impedance source (e.g. 230V mains supply) but it will protect against high impedance sources such as an electro-static discharge from a person. The protection on the digital inputs will turn on at about -0.5V and +6V and will protect the inputs up to about  $\pm 25V$  although operation outside the 0-5V range may cause counting errors. Again, the digital inputs (and outputs) are protected against electro-static discharge from a person.

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## FAQ Memory

### **How long will the memory last?**

How long the memory will last is mainly dependant upon the number of channels set and their sample rate. For sample rates that are not sub-hertz, 16 bytes are used per reading (less than 16 bytes is used when logging sub-hertz). If Channel 1 was logging every second it would take approximately 11 days to fill the internal capacity or 16 weeks if logging every 10 seconds. If 4 channels log every 10 seconds the memory would fill in approximately 40 days.

### **What happens when the memory is full?**

The logger will disarm and go into the memory full condition. The logger cannot be armed again until enough free space is made available by the deletion of data. Download and most other functions will still be available when memory is full.

### **Can I choose how much memory to download?**

It is not possible to specify memory but it is possible to download between two specified times.

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## FAQ Speed

**How fast can I log with n number of channels?**

See Sample Rates under OM-SQ2010 Logger

**Can I have different channels logging at different speeds?**

Yes, a total of 4 sample intervals can be specified, but they must be multiples of each other.

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# FAQ Front Panel Controls

## **How many channels can I view on the loggers display at the same time?**

In the meter mode 3 channels are displayed on the screen at one time and other can be viewed by using the up and down arrows.

## **How many channels can I view on the graph display at the same time?**

Only one channel can be viewed on the graph, and this is chosen from the meter mode.

## **Can I display sampled inputs in real time?**

The metering feature allows data to be viewed on the logger display or OMEGALOG<sup>®</sup> at approximately 1Hz, regardless of channel sample rates.

## **Can you lock and disable the keypad?**

You can configure the logger such that no changes to setup can be made (read only). Refer to the Configuration Tab in OMEGALOG<sup>®</sup>.Logger Setup.

## **Can I program the Logger from front panel?**

Yes you are able to configure channels using the front panel buttons as well as being able to load pre-configured set-ups that have previously been stored in the logger.

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