# Recalibration & Re-scaling differences

## Differences between a standard recalibration and a recalibration and re-scaling service.

When a sensor is sent back to Skye Instruments for recalibration there are two options a customer can choose, a standard recalibration or a recalibration and re-scaling. These are both outlined below using an example sensor;

A new HOPL PAR Quantum may have the following scaling or sensitivity;

*1V = 3000 µmol $m^{-2}$ $s^{-1}$.*

**Standard Recalibration**

When the sensor undergoes a standard recalibration, it is given an "as received" calibration. This means we test to see how much the sensor has changed from its original sensitivity.

Using the example sensor;

- For example, the new scaling may be 1V = 2985 µmol $m^{-2}$ $s^{-1}$.
- This means that the sensor sensitivity has changed by 0.5% from its original calibration of 1V = 3000µmol $m^{-2}$ $s^{-1}$.
- The new sensitivity and percentage change are reported on the new calibration certificate.

**Recalibration and Re-scaling**

During a recalibration and re-scaling, the sensor head is removed from the amplifier and calibrated to determine its sensitivity in µA/µmol $m^{-2}$ $s^{-1}$.

Using the example sensor;

- Once the new sensitivity is known the feedback value on the amplifier is adjusted to compensate for the change in sensitivity.
- The feedback is adjusted until the scaling is once again equal to 1V = 3000 µmol $m^{-2}$ $s^{-1}$.

Most users do not require re-scaling because they can simply enter the new calibration into their meter/logger/system. However, some customers such as quality assurance companies require the sensor to match exactly the original calibration. This is due to integration into their systems.


Skye Instruments Ltd
21, Ddole Enterprise Park, Llandrindod Wells, Powys LD1 6DF, United Kingdom
TEL: +44 (0)1597 824811 EMAIL: skyemail@skyeinstruments.com WEB: www.skyeinstruments.com