3. Tips for using ECH2O Utility and installing data loggers

1. A driver for the USB Cable Adapter (UCA) must be installed on a device (computer or laptop) before it is used to communicate with the EM50 logger. If this is not done, the appropriate communication port containing "Decagon UCA" will not be available. The driver installer can be found on the ECH2O System Software CD or from Decagon's website at http://www.decagon.com/support/decagon-usb-cable-adapter-driver/.

2. It is important to have the correct date and local time on a computer that is being used for configuration. When moving across time zones, make sure to update the time zone on your device (if this is not automatically done).

3. When replacing batteries, it is essential to immediately connect to the data logger directly via ECH2O Utility to synchronize the time and avoid an incorrect date /time stamp on the measurements being stored.

4. Small measurement intervals consume data logger battery and memory fast. As the Em50 loggers collect data every minute for most sensor types and average and store that data. The measurement interval chosen should consider these facts and the resolution required for the data to be collected.

5. The Em50 stores "raw" data for each sensor. The stored values are not in millivolt units. The raw value has to be converted to a meaningful measurement depending on the sensor type and calibration.

6. Firmware updates to data loggers erase data. So, make sure to download and backup data first. When re-deploying data loggers for a new study or if changes are made on sensor configuration at any point, download and erase old data and start new.

7. The Em50 stores 36,864 data scans. When the logger has filled its data memory, it begins overwriting the oldest data in the memory.

8. Do not install Em50R or Em50G wireless loggers near large metallic objects, as these can attenuate the radio signal. If the loggers are mounted on a metallic post, be sure to use an antenna extension cable to mount the antenna to the top of the post. This will maximize the transmit range of the data logger.

9. Plug the sensor's stereo jack firmly and all the way into the Em50 sensor ports. A slightly pulled out sensor does not take any measurement.

10.   In field installations, make sure to install the Em50 upright to avoid water entering the data loggers' enclosure. Check the thin rubber seal around the Em50 casing to ensure that it is firmly seated and not crimped.

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