

## Manitoba Métis Federation

### Quick Setup

#### Setup and test

1. Connect Smart Sensors – Plug in the RJ-12 modular jacks, or the (+) and (-) splitters into their respective ports (this will require a small Phillips screwdriver). Then connect the battery.
2. Close battery switch, then close the logger switch. You can now connect to the hosting computer.
3. Using the USB interface cable, connect the logger to a computer with HOBOWare software installed and open.
4. Select the **Launch** option in the HOBOWare user interface.

#### Launching the Logger

1. Select the **Device** drop-down option and interact with **Launch**. Ensure that the HOBO Energy Logger is selected and then press **OK**.
2. Select a logging interval of 15 minutes, with a sampling interval of 5 seconds. Then select the **Start Logging at Interval** option and press **Launch**.
3. The Delayed Start feature will begin logging data on the next 15-minute increment.

#### Checking lights on Black Logger Box

Located on the right-hand side of the black box in the logger housing box

1. Logging (Green) – flashing every two seconds while the logger is recording data.
2. Memory Low (Red) – flashing with <25% of memory remains. The logger will continue to run until all memory is used.
3. Battery Low (Red) – flashing when battery power is <25% capacity or batteries have been installed incorrectly.
4. Sensor Fail (Red) – flashing when a SmartSensor communication fails.

#### Checking lights on Iridium chip

Located at the top of the iridium chip green panel in the logger housing box

1. Power (Red) – flashing constantly when on and working.
2. In range (Red) – flashing constantly when connected to satellite and transmitting data.
3. Receiver (Red) – flashing constantly when on and working.
4. Low battery (Red) – flashes when battery is low and needs to be replaced.

#### Adding or removing modules and sensors

Adding or removing modules and sensors should always be done in between deployments. Adding a module or sensor while the logger is recording data will cause the module or sensor to be ignored. If a module or sensor is removed while actively logging the **Sensor Fail** indicator will blink. Modules and sensors may be attached at the following times:

1. Any time between deployments or when the logger is stopped.
2. While configuration of launch parameters in HOBOWare is occurring.
3. After logger has been launched with a **Delayed Start** indicator.

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### Maintenance and Troubleshooting Guide

#### Maintenance

Regular maintenance of the sensors should be done to ensure the accuracy of data, and longevity of the equipment.

1. Inspecting the logger housing and cables – Visually verify that the logger housing box has not been damaged and is clean. Cables should also be inspected at this time to ensure they are free from damage and are properly secured/connected.
2. Cleaning the Logger – If upon visual inspection the logger is dusty, or grimy the logger and sensors should be wiped down. This must be done to ensure dirt or dust does not interfere with the sensors.

#### Problem

No status indicators are blinking

#### Solution

This may be due to several issues:

- Ensure the batteries are not dead. Each battery should have at least 1 volt per cell.
- The memory may be full. Relaunch the logger.
- The logger may not have been launched correctly or at all.

Individual modules or sensors are not found by the HOBOWare logger

If a SmartSensor is removed and then immediately reconnected it may not be detected. This can be fixed with the **Refresh** button in the HOBOWare Launch software.

You may also want to check for a loose connection between the sensor and the logger.

No modules or sensors appear in the HOBOWare Launcher software

Remove all sensors except one and click the **Refresh** button, to see if the sensor appears in the HOBOWare Launch software. Repeat this step with all the sensors in order to determine the issue.

Batteries die prematurely

This can be caused by an excess of moisture or condensation in the logger enclosure. It is important to keep up on general maintenance by checking over the logger box regularly.

Logger is not found

Check for damaged wiring and malfunctioning sensors. This can result in short circuits that can rapidly drain batteries.

Check and replace the batteries and reconnect the logger.

Check communication cable connections, and computers COM port and USB settings.