How do I test my original LabQuest battery?

This is a procedure for testing a LabQuest battery to determine if it needs to be replaced. Testing the battery under a known set of parameters will give you an idea of how well it will last under normal daily use.

Some signs of a weak or failing battery:

- In some cases, the LabQuest battery will appear to discharge or drain very quickly after being fully charged.
- In other cases, even though it has been connected to AC power for a long time, it still hasn't charged fully.
- The charging icon may be red when AC power is connected.

Doing a discharge test will help you to check the capacity of your battery, resolve problems, and provide the LabQuest with an accurate calibration of the battery.

LabQuest Battery Test

Setup:

1. Connect LabQuest to AC power and let it **charge overnight** (at least 8 hours) with the power ON
2. Please skip this step if your LabQuest battery shows any sign of being a weak or failing battery (see above).
   If you have not already updated your LabQuest to the latest version, you can download the free **update** at: https://www.scientrific.com.au/downloads.php?c=software
3. **Disconnect** all sensors.
4. Choose **Sensor Setup** from the Sensors menu.
5. Tap Internal Temperature to turn on the internal temperature sensor and tap OK.
6. Tap Length On the Meter screen
7. Set the length to 16 hours and Sampling Rate to 600 samples/hour. Tap OK.
8. With the LabQuest still ON, disconnect the fully-charged unit from AC power.
9. Tap Start and let data collection run overnight.

In the morning the LabQuest battery should be completely discharged.

Check:

1. Connect the LabQuest to AC power and press the power button.
2. Tap Open when you see a message telling you that "An auto-recovery or remote data collection file has been detected".
3. Tap the Graph tab and then tap the last data point.
4. Take note of how many hours data collection lasted.
5. If data collection lasted for more than 6 hours, the test has resolved your issue and it is safe to attempt an update if required. If data collection lasted less than 6 hours, continue to the next step.

Repeat Check:

1. Repeat this process by again charging the battery overnight and repeating data collection to see how long the battery lasts during a second data-collection run.
2. If the battery lasted less than 6 hours during the second data-collection run, it can no longer hold a full charge. It can still be used, but will no longer be useful for long experiments. If you can use the LabQuest connected to AC power, it will still work. If you need to use the LabQuest on battery power, the battery will need to be replaced.

Less than 6 hours to discharge:

1. If your battery is less than a year old, contact Scientrific support to arrange for a replacement battery.
2. If your battery is more than a year old, a replacement battery is available: **Order code: LQ-BAT**