Aletheia Operator's Manual

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General safety notices

⚠ **WARNING! Risk of fire or serious personal injury!**

- Do not place the Aletheia on any any conductive surface or let any conductive materials or liquids come into contact with the Aletheia, unless the battery has been removed and no USB-C cable is connected.
- Immediately remove both the battery and any connected USB-C cable if the Aletheia is hot to the touch, but only if it is safe to do so.
- Handle the Aletheia with care as the corners of its circuit board and any protruding legs of mounted components may be sharp.
- Ensure that any connected batteries or power adapters meet local regulations on electrical safety; and that connected batteries are rated for 9 V output, and power adapters are rated for 5 V output. USB-C Power Delivery capable power adapters may be used, but must be fully compliant with the USB-C Power Delivery specifications to prevent overvoltage.
- Children should be supervised by a responsible adult when using the Aletheia.
- The Aletheia contains small parts which could present a choking hazard to children 0–3 years of age.

⚠ **CAUTION! Risk of causing permanent damage to the Aletheia**

- The Aletheia contains precision components which are sensitive to electrostatic discharge. Ensure that electrostatic discharge protection is used when handling the Aletheia.
- Do not drop the Aletheia as this could cause significant damage to its circuit board or exposed components.
- Do not place heavy items on top of the Aletheia as those items could scratch or damage its components.
- Ensure that the Aletheia is sufficiently protected when storing it in bags or containers. Wrapping the Aletheia in non-conductive protective materials (such as bubble wrap) can help to avoid damage during transport.
- Do not use the Aletheia in temperatures cooler than 0 °C (32 °F) or warmer than 70 °C (158 °F).
- While the Aletheia has protections against connecting the battery terminals in the reverse polarity, ensure that terminals are connected in the correct polarity to minimise the risk of component damage.

⚠ **CAUTION! Risk of losing data stored in the Aletheia's memory**

- To prevent data loss, ensure that any data stored on the Aletheia is backed up.
- Do not remove the battery unless absolutely necessary or as part of performing the safe battery replacement process (see page 5).
- When the connected battery is low on charge, ensure that it is replaced at the earliest convenience using the safe battery replacement process.
- Do not flip the RAM bank switch while the mode select switch is in the CPU RUN mode.

Safe battery replacement process

All data is stored on the Aletheia's random access memory (RAM). This memory is volatile, which means that all data stored on it is cleared when the Aletheia is completely depowered. When replacing the Aletheia's battery, care must be taken to ensure that the Aletheia still receives a stable source of power to prevent the contents of RAM from being cleared.

The following battery replacement process significantly reduces the risk of data loss occuring when performing a battery replacement. Finite Devices advises those replacing the Aletheia's battery to make a backup of the data stored on the Aletheia prior to battery replacement, if possible.

1. Ensure that the mode select switch is in the CPU OFF mode.
2. Connect a 5 V power source to the Aletheia via the USB-C socket using a USB-C cable. Typical phone charger power adapters are usually acceptable to ensure a stable power source.
3. Before proceeding, ensure that the red external power supply LED lamp next to the Aletheia's USB-C socket is illuminated and steady.
4. Disconnect the 9 V battery from the Aletheia's battery connector. Do this with care to ensure that the USB-C cable is not accidentally disconnected.
5. Connect a new, unused 9 V battery to the Aletheia's battery connector.
6. Disconnect the 5 V power source and USB-C cable. Ensure that the new battery remains connected.
7. Verify that the Aletheia continues to work as intended by putting the mode select switch into the CPU run mode.