Oxford NANOPORE Technologies™

MinION

Quick start installation guide

D-0184-1, Rev 1.

Welcome

Here's everything you need to install your device and to check the system is ready for use.

Just follow the steps on the following pages in order to:

- Setup the MinIT™ for use
- Power on the device
- Run the Hardware check to confirm the device has shipped successfully

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The MinIT is made by:
Oxford Nanopore Technologies
Gosling Building, Edmund Halley Road
Oxford Science Park
OX4 4DQ, United Kingdom

The product is protected by the patents and patents pending **https://nanoporetech.com/patents**

Pre-installation

Before you install the device the following should be available:

- [ ] MinIT
- [ ] Power Supply
- [ ] Wireless-Compatible Tablet, Laptop or SmartPhone
- [ ] 1 x Oxford Nanopore MinION™
- [ ] MinION USB 3.0 Cable
- [ ] Optional: USB Memory Stick (for Data Transfer)
- [ ] Optional: 1 x 1 GB Ethernet (for Networking)

About your MinIT

Technical Specification:

Component	Specification
Size	W 65 x L 120 X D 40 mm
Weight	290 g
Compute Specification	Processing: GPU accelerators (ARM Processor 6 Cores, 256 Core GPU), 8 GB RAM
Connections	1 x USB 3.0 1 x USB 2.0 1 x 1 GB Ethernet (for Networking)
On-Board Software	Linux OS and MinIT OS (including MinKNOW)

Usage advice

Recommendations:

- [ ] Place the MinIT on a stable and clean laboratory bench.
- [ ] Ensure the Ethernet and power connectors are in close proximity to where the MinIT will be installed.
- [ ] Sequencing should be carried out at a room temperature at +18° C to +25° C.
- [ ] Do not cover the ventilation grills.

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Your MinIT

What's in the box:

1 x MinIT Device

1 x Power supply

4 x Country-Specific Adapters

MinIT overview

Useful information about MinIT setup:

- GUI is defined as a Graphical User Interface
- For Windows OS, please refer to A4 to A6 later in this document
- For Mac OS, please refer to B4 to B6 later in this document

White LED display indicates the device is powered

Blue LED display ‘flash’ indicates the Wi-Fi is being enabled

Green LED display ‘flash’ indicates the Wi-Fi has connected successfully

Red LED display ‘flash’ indicates the Wi-Fi connection has not been successful.

IMPORTANT:

Any further information or functional changes to the Quick Start Installation Guide, can be found on the MinIT channel in the Oxford Nanopore Technologies Community, here:

https://community.nanoporetech.com/posts/channels/minit

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Setting up your MinIT

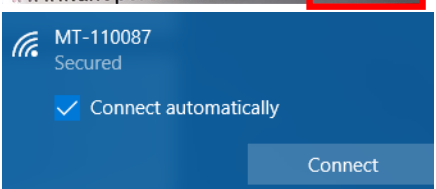
1 Unpack the device
Place the MinIT on a clean surface.

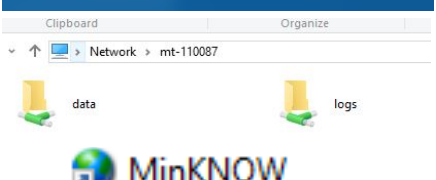
2 Attach the required cables
1 x MinION via USB 2.0 port (lower of two, power port right)
1 x (Optional) USB SSD Storage
1 x (Optional) Ethernet

- Ethernet
- USB 2.0 (for MinION)
- USB 3.0 (for SSD storage)
- Power socket

3 Power Supply
Connect the power supply to the AC mains power and the MinIT. The MinIT logo will illuminate white when powered.

Connecting your MinIT – Windows OS





A4 Identify the MinIT ID

The ID for the MinIT is shown above in the red box, on the underside label. Note this number (e.g. MT-110087) is required for Wi-Fi connection.

A5 Connect to the MinIT (Wi-Fi)

Using a Wi-Fi compatible device, connect to the Wi-Fi with the ID of your MinIT (A4).

Login with the Security Key:
WarmButterflyWings98

A6 Opening the MinKNOW GUI

Open network sharing and go to \\mt-1XXXXX (MinIT ID (A4)). This is your MinIT's location on the network. In the Data folder, open the MinKNOW™ shortcut to open the MinKNOW GUI.

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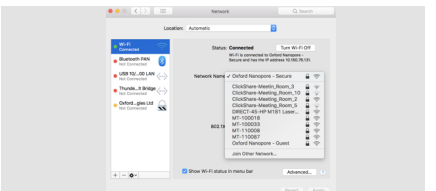
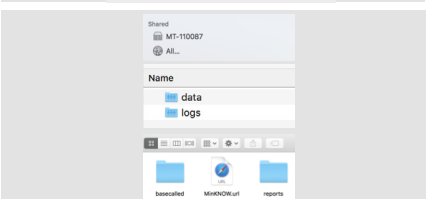
Connecting your MinIT – Mac OS





B4 Identify the MinIT ID

The ID for the MinIT is shown adjacent in the red box, on the underside label. Note this number (e.g. MT-110087) is required for Wi-Fi connection.

B5 Connect to the MinIT (Wi-Fi)

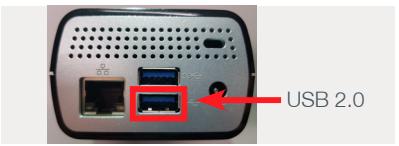
Using a Wi-Fi compatible device, connect to the Wi-Fi with the ID of your MinIT (B4).

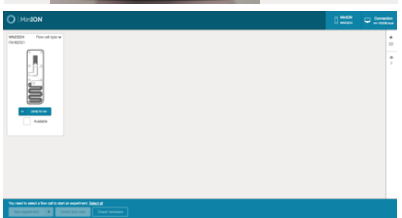
Login with the Password:
WarmButterflyWings98

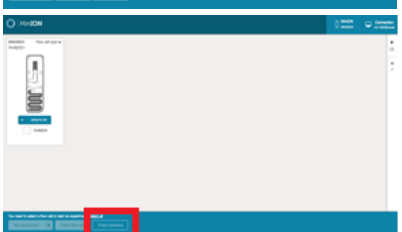
B6 Opening the MinKNOW GUI

Under Shared, click on MT-1XXXXX (MinIT ID (B4)). This is your MinIT's location on the network. In the Data folder, open the MinKNOW shortcut to open the MinKNOW GUI.

Running the Hardware Check







7 Plug MinION Into MinIT
Plug the MinION into the USB 2.0 port and insert your CTC flow cell into the MinION.

8 Select CTC
The CTC will appear numerically in the GUI. Select the ‘flow cell’ icon by ticking the box below it.

9 Click the “Check hardware” button
This can be found at the bottom of the screen, shown in the red box above.

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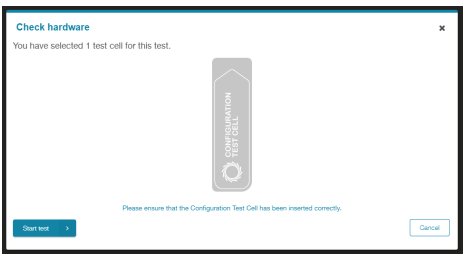
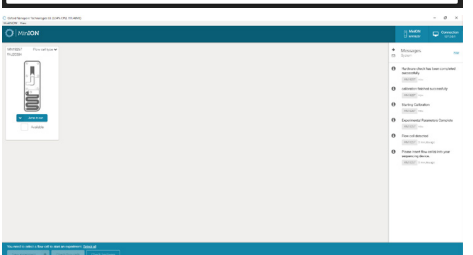


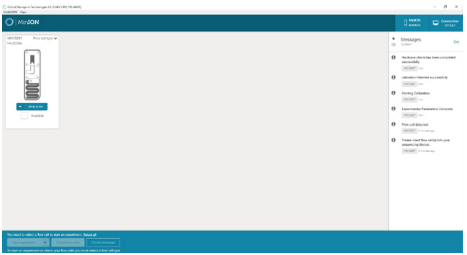


10 Confirm the CTC is loaded correctly
A display will appear asking you to check the CTC is inserted correctly. Once confirmed click “Start test”.

11 Check the messages
The message tab on the right will show “Calibration finished successfully”, followed by “Hardware check has completed successfully”.

12 Your hardware is working correctly
Once the configuration run has completed, the Hardware is ready for a sequencing experiment. Please refer to the Nanopore Community for additional protocols.

Powering off the device



13 Close the GUI

Ensure the MinION is not running. Close the GUI through the “x” in the top right corner.

14 Power off device

Remove MinION from MinIT and switch power off at the power source. The power cable can then be removed from the MinIT.

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Additional information

Cleaning the MinIT

Should any leaks develop over the course of loading a flow cell, or during an experiment, please absorb excess liquid using a laboratory tissue and clean the area using an IPA wipe.

Please dispose of the cleaning materials into a biohazard waste bin.

Safety Information

The MinIT is for Research Use Only.

Please ensure you have reviewed the MinIT safety information before you start using the device.

For more the fully updated Start Guide technical information, protocols, safety guides see:

https://community.nanoporetech.com/posts/channels/minit

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