PromethION 48 Series Data Acquisition Unit User Guide

This Quick start guide contains everything you need to set up yourPromethION™ 24/48 A-Series and to check the device is ready for use.
For detailed information and troubleshooting, view the User Manual.

Contents

Pre-installation

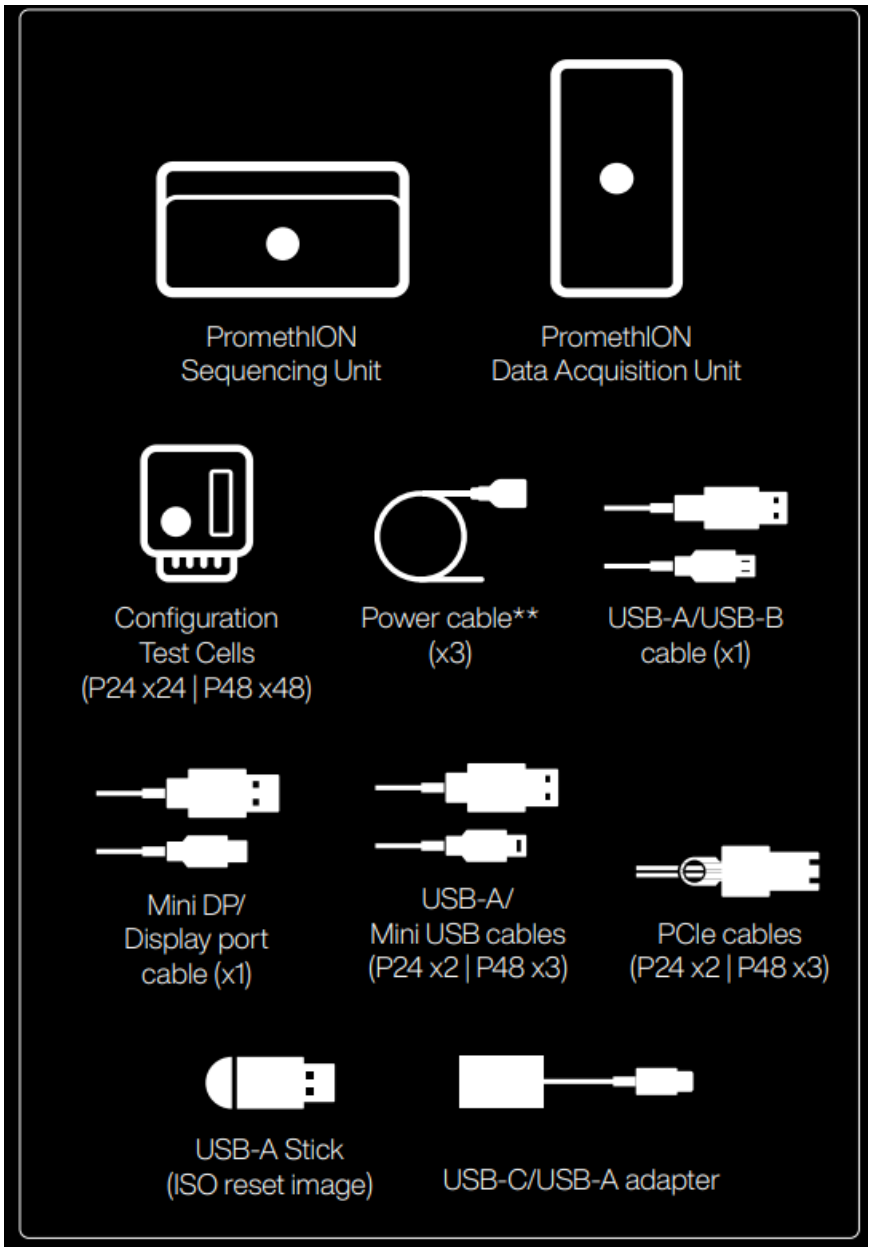
Before using the device, familiarise yourself with the following
PromethION 24/48 A-Series User Manual

community.nanoporetech.com/to/promethion

Safety and regulatory information

community.nanoporetech.com/to/safety

What’s in the box:*



* Peripherals not supplied: monitor (Display port or VGA compatible), USB keyboard, USB mouse, Ethernet cable.
** The Data Acquisition Unit ships with 10 power cables (2 x US, 2 x UK, 2 x EU, 2 x CN, 2 x AUS), the Sequencing Unit ships with 5 power cables (1 x US, 1 x UK, 1 x EU, 1 x CN, 1 x AUS). Only those shipped with each unit must be used with that unit.

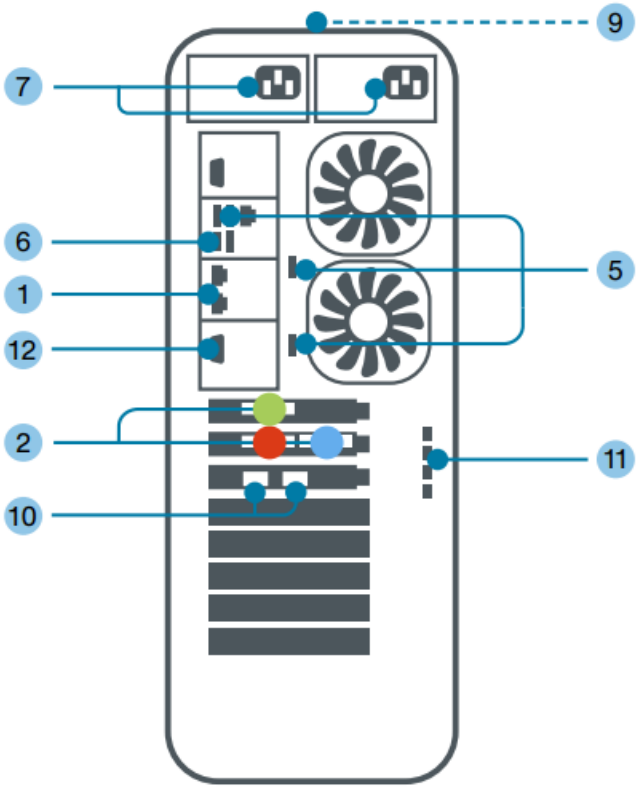
Set up and power on your device

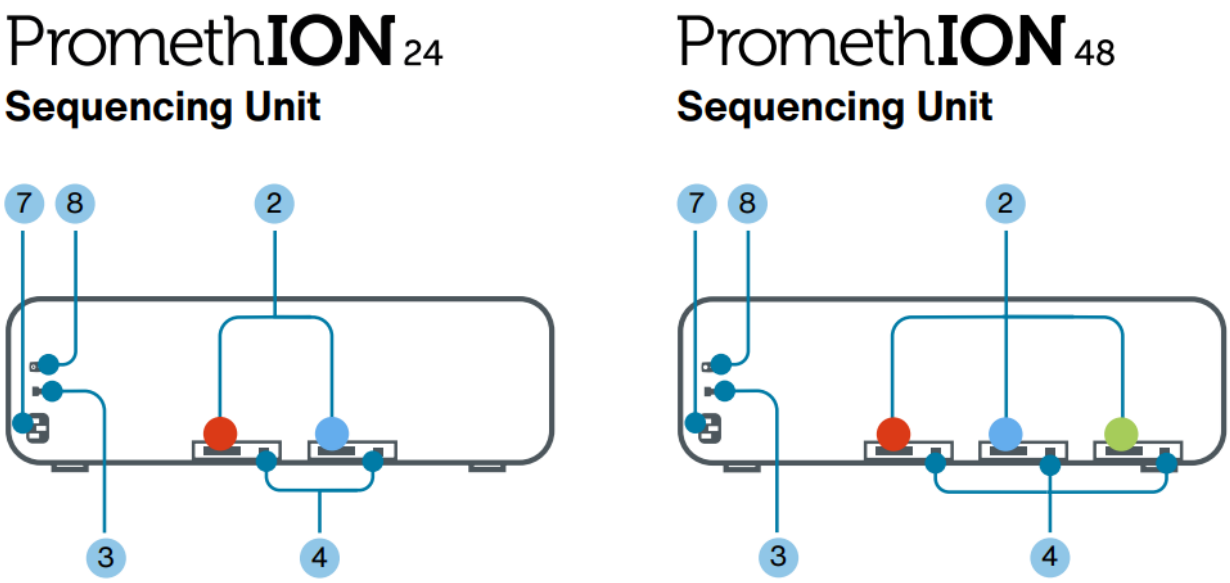
A-Series Data Acquisition Unit

Device connections

1. 10G Ethernet ports
2. PCIe cable ports
3. USB-B port
4. USB-Mini ports
5. USB-A ports
6. USB-C port
7. Power sockets

8. Power on/off
   – Sequencing Unit
9. Power on/off
   – Data Acquisition Unit
10. Fibre module cages
11. Mini display ports
12. VGA port





1. Unbox your PromethION
   Place the Sequencing Unit and Data Acquisition Unit on a bench less than 2 m from each other. Ensure at least 30 cm clearance around both the Sequencing Unit and the upright Data Acquisition Unit. The devices must be placed away from direct sources of heat or sunlight. Without sufficient airflow, the devices will encounter

problems with temperature regulation, which will have a detrimental effect on performance.

2. Attach network cables

   Connect the bottom Ethernet port 1 of the Data Acquisition Unit to an Ethernet port running a DHCP service using a single copper Ethernet cable. For fibre optic installations, refer to the PromethION User Manual.

3. Attach PCIe cables

   Connect the Sequencing and Data Acquisition units using the supplied PCIe cables (x2 for P24; x3 for P48) 2 according to the port-to-port colour coding shown in the diagram ( ).

4. Attach USB cables

   Connect x1 USB-B 3 and x2 (P24) or x3 (P48) Mini USB 4 cables to the Sequencing Unit. Connect the other end of the cables to the USB-A ports 5 on the Data Acquisition Unit.

5. Attach peripherals

   Connect a monitor to a Mini display port 11 or the VGA port 12 (do not connect both VGA and Mini display at the same time) on the Data Acquisition Unit. Switch on the power to the monitor. Connect a mouse and keyboard via the USB inputs

6. on the Data Acquisition Unit.

7. Attach power cables and power on

   Important: This step must be performed in the order described below, and use the power cables with the Data Acquisition Unit for the Data Acquisition Unit and the power cables with the Sequencing Unit for the Sequencing Unit.

   a. Attach the power cable to the Sequencing Unit 7 , turn on the power at the mains socket and then toggle the power switch at the rear of the unit 8 .

   b. Wait 3 minutes.

   c. Connect the two power cables to the Data Acquisition Unit 7 and turn the mains power on. Press the power button 9 to turn on the Data Acquisition Unit. The boot screen will appear on the monitor.

Log in and activate your device

1. Log in to your PromethION Password: prom.
2. Open MinKNOW™

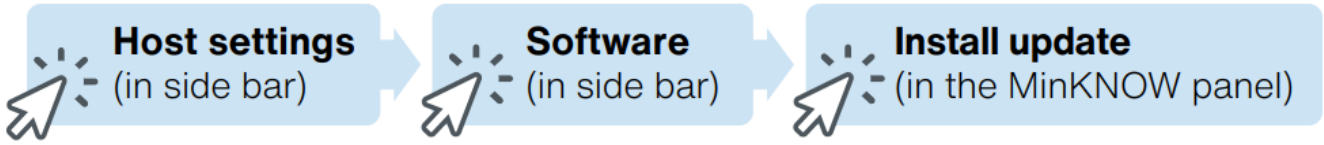
   Click the wheel icon on the desktop and log in using your Nanopore Community account.

Tip: View the pop-up tutorials to learn how to navigate the user interface.

Check for updates

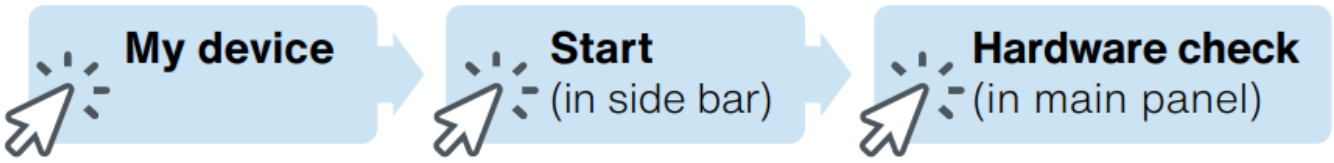
New software updates will be displayed automatically when opening MinKNOW.

You can also manually check and install updates following the workflow below.



Perform hardware check

To ensure the device is working as expected, insert all the Configuration Test Cells (CTCs) into the device and follow the workflow below to initiate the hardware check.
On-screen instructions will guide you through the process.



Hardware check overview:

1. Insert the CTCs into the device using the instructions in the User Manual.
2. Wait until all of the LEDs on the device light up green. Then, in the MinKNOW software, the flow cell status indicators (the 24 or 48 boxes) will change colour from grey to white.
3. Press Select all available. This will change the colour of the flow cell status indicators (the 24 or 48 boxes) on the MinKNOW Hardware check panel to dark blue.
4. Press Start in the bottom right.
5. Check the flow cell positions show a ☑ to pass the hardware check.

For more information, refer to the User Manual (**community.nanoporetech.com/to/promethion**)

Power down the device

ⓘ The PromethION must be shut down according to the steps below to prevent potential device errors. Please place the Powering on and off your PromethION 24/48 A-Series flyer that accompanies this Quick start guide next to your PromethION device to support other users.

1. Ensure that no experiments are running and remove all flow cells or Configuration Test Cells (CTCs).
2. Select Host settings in the side bar, then click the Shutdown button in the main window. Confirm shutdown in the pop-up box.
3. Important: Only turn off the Sequencing Unit (using the power switch on the back of the device) once the Data Acquisition Unit has fully shut down.
4. Turn off both devices at the main power supply.

Discover the Nanopore Community

community.nanoporetech.com

Ensure the success of your nanopore sequencing project and stay up-to-date with the latest technology and protocol updates.
Use the web browser on your PromethION to navigate to the Nanopore Community.

Additional information

	Storage and warranty PromethION 24/48 A-Series: Do not expose device to temperatures outside of 5–40ºC. For flow cell warranty information, see community.nanoporetech.com/to/warranty
	Recycle used flow cells Oxford Nanopore is committed to environmental sustainability. Please help us by sending back y our PromethION Flow Cells for recycling. Find out how: community.nanoporetech.com/support/returns
	Place your next order Order more PromethION consumables at the Oxford Nanopore store: store.nanoporetech.com
	Documentation PromethION 24/48 A-Series IT requirements, User Manual, and an online version of this Quick st art guide are available at: community.nanoporetech.com/docs
	Support Our technical specialists will be in contact with you shortly to ensure the device is set up correctly . If you encounter issues at any point, please contact support@nanoporetech.com or visit com munity.nanoporetech.com/support

Oxford Nanopore Technologies

phone +44 (0)845 034 7900
email support@nanoporetech.com
twitter @nanopore

www.nanoporetech.com

Documents / Resources

	PromethION 48 Series Data Acquisition Unit [pdf] User Guide 48 Series Data Acquisition Unit, 48 Series, Data Acquisition Unit, Acquisition Unit, Unit

References

- Oxford Nanopore Support | Oxford Nanopore Technologies
- Community
- Oxford Nanopore Support | Oxford Nanopore Technologies
- nanoporetech-customers - Sign In
- Community - PromethION 24/48 user manualProtocol - PromethION 24/48 user manual
- community.nanoporetech.com/to/safety
- Community - Flow Cell Check - Introduction to the flow cell check
- Welcome to Oxford Nanopore Technologies
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- User Manual