

Platinum® Pro Instrument User Manual



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CONTACT: Quantum-Si Incorporated, 29 Business Park Drive, Branford, CT 06405.

NOTE: The displayed screenshots may differ from the actual user interface and should be considered as examples. The information in this guide is subject to change without notice.

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PRODUCT OVERVIEW

DESCRIPTION

The Platinum Pro instrument is scalable and accessible, delivering Next-Gen Protein Sequencing™ to enable deeper proteomic insights with single-molecule resolution. It is fully compatible with Quantum-Si library preparation kits, sequencing kits, barcoding kits, and Platinum Analysis software. The instrument conveniently fits on standard laboratory benchtops and seamlessly integrates into existing workflows. Featuring a user-friendly interface, Platinum Pro allows researchers to initiate a protein sequencing run effortlessly by following a few prompts. The generated sequencing data can be automatically transferred to the Platinum Analysis software, facilitating streamlined proteomic discoveries.

INSTRUMENT SPECIFICATIONS

Attribute	Requirement
Instrument dimensions	8.5 in W × 23 in L × 11.5 in H (21.6 cm W × 58.4 cm L × 29.2 cm H)
Weight	36 lbs (16.3 kg)
Power port	IEC 60320 (IEC 60320 C14 inlet)
Fuses	250VAC 10A fuse (2)
On-board storage	456 GB

SITE REQUIREMENTS

The following bench space, environmental, electrical, and network conditions are required to operate Platinum Pro.

Bench Space

Bench space required for installation of the Platinum Pro instrument is 16.5 in W × 29 in × 17.5 in (41.9 cm W × 73.7 cm L × 44.5 cm H) with the following clearance around the instrument:

Side	Min Clearance
Left side	4 inches (10.16 cm)
Right side	4 inches (10.16 cm)
Top	6 inches (15.24 cm)
Rear	6 inches (15.24 cm)

Environment

Room temperature: 15-25°C (59-77°F)

Room relative humidity: 35-55% (non-condensing)

The instrument must operate under a stable environmental temperature. Room temperature should not fluctuate beyond $\pm 2.5^{\circ}\text{C}$ ($\pm 4^{\circ}\text{F}$) throughout the duration of the run. Temperature change with more than 1°C per hour is not recommended.

Electrical

Section	Requirement
Line voltage	100-240 volts VAC 50/60 Hz
Power consumption	220 watts

Network

Platinum Pro in cloud mode must have a wired internet connection to receive updates and support, and to use the Platinum Analysis software. For offline mode, software upgrades must be installed from a USB drive connected to the instrument (contact support@quantum-si.com for system update files).

Component	Requirement
Network connection	1x RJ45 1 Gbps Ethernet port
Ethernet cable	CAT6 or CAT5e Ethernet cable of 2 meters (6 feet); included
Connection speed	1,000 Mbps (1 Gbps)

Optional: If a static IP is necessary, the MAC address can be found from the Platinum Pro interface under *Settings » Internet* page.

GETTING STARTED

Installation and registration of the instrument is expected to take about 10 minutes. For support, please contact support@quantum-si.com.

INSTRUMENT INSTALLATION

1. Identify a clear flat space with adequate clearance and access to an Ethernet port and a power outlet based on the requirements listed above

2. Remove top foam piece
3. Open the Platinum Pro instrument box (the instrument weighs 36 lbs and may require two people to lift). **Note: It is recommended to keep all Quantum-Si packaging.**
4. Confirm box contents include instrument, power cable, and Ethernet cable
5. Remove Ethernet and power cables
6. Remove the quickstart guide
7. Remove the top foam cover
8. Remove the instrument from the plastic bag
9. Place the instrument on a sturdy, level surface
10. Connect the Ethernet and power cables on the back of the instrument to the Ethernet port and power outlet

Port Assignment

The Platinum Analysis software is hosted on AWS cloud. All connections to Platinum Analysis software are outbound-initiated connections. Access to the following domains is required to ensure proper data communications.

URL/Name	Port(s)	Description
https://qsi.io	443	Access is required to upload data on Platinum Analysis software
https://*.qsi.io		Initiate software upgrades and remote support from the cloud
https://qsi.jfrog.io	80, 443	Access is required to download software upgrades
http://security.ubuntu.com		
http://archive.ubuntu.com		
https://download.docker.com		
https://tractor.qsi.io	49022	Optional for remote support

POWERING ON THE INSTRUMENT

The power button on the right side of the Platinum Pro turns on and off the power to the instrument.

Component	Requirement
Turn on Platinum Pro	Press the power button for 1 second (it may take up to 2 minutes to load the home screen)
Turn off Platinum Pro	Press the power button for 1 second
Force shut down	Press and hold the power button for 6 seconds and then release
Power cycle	When performing a power cycle, wait 30 seconds after turning off the instrument before turning it back on

Note: Powering off the instrument during a sequencing run will result in a failed run. You will not be able to recover your data or reuse your Quantum-Si consumables. Make sure no runs are in process before powering off the Platinum Pro.

SELECTING OPERATION MODE

The Platinum Pro provides two operation modes: *Cloud* mode and *Offline* mode.

Feature	Cloud Mode	Offline Mode
Data storage	Stored in Platinum Analysis software (cloud-hosted environment)	Stored on instrument with USB required to export processed data (USB 2.0 or higher). Export destination is selected in the <i>Data Management</i> page in <i>Settings</i>
Processing	Cloud-based processing that provides a user interface to view, analyze, and store protein sequencing data	Processing entirely on the instrument
Re-processing	Supported	Runs can be re-analyzed while stored on the instrument and exported via USB. Once deleted, they are permanently removed from the instrument and cannot be re-analyzed (exporting does not delete the run).

Feature	Cloud Mode	Offline Mode
Max runs stored	Unlimited	Storage capacity varies by run size, supporting as few as 3 runs or up to 10 runs before export is required.

Note: Switching between modes requires manual reconfiguration and requires support from a Field Application Scientist (FAS).

Data Export Instructions

Cloud mode	Data automatically uploads to Platinum Analysis software and can also be manually exported to a USB drive from the <i>Completed Run Details</i> screen.
Offline mode	Insert a USB drive, navigate to <i>Settings » Data Management » Export Destination</i> , and select a storage folder. Data is automatically exported after a run finishes and can also be manually exported to a USB drive from the <i>Completed Run Details</i> screen.

Note: Refer to the Platinum Analysis software manual for instructions on how to analyze data in cloud mode.

REGISTERING PLATINUM PRO WITH PLATINUM ANALYSIS SOFTWARE

Cloud Mode Registration Process

1. Account Setup Notification

- Quantum-Si will create a secure tenant organization for your instrument and send an email to the account admin
- The email will contain a direct link to the Platinum Analysis software organization account (the link will end with [organization name] – <http://qsi.io/organization>)

2. Admin Account Creation

- Click on the direct link and follow the prompts to set up a password for the account

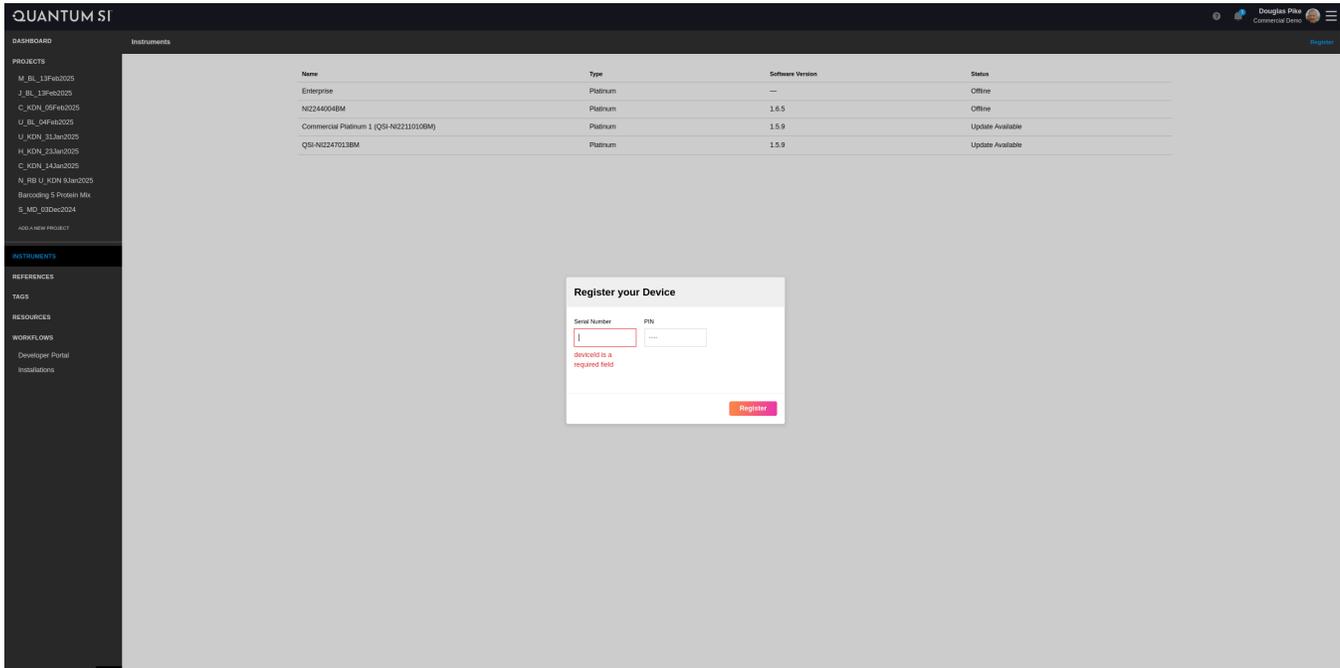
3. Instrument Registration in Platinum Analysis software

- Log in to Platinum Analysis software
- Navigate to the *Instruments* section and select *Register*
- Enter the serial number and PIN shown on the instrument's screen
- Select *Register* to complete the registration

4. Confirmation

- If registration is successful, the *You Are Connected* screen will appear
- If registration is unsuccessful, the system will display *Connection Failed*; verify credentials and network settings, check that all ports and URLs in the site prep guide have been accepted, then retry

Note: If the designated admin has not received the account setup email, please contact support@quantum-si.com.



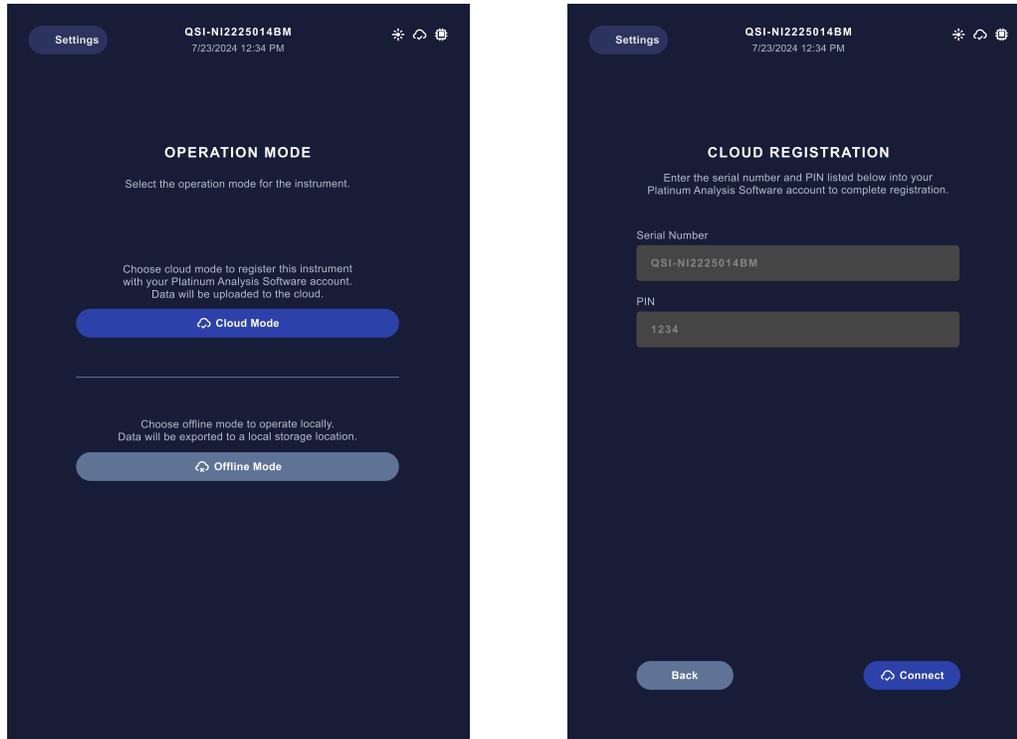
The screenshot shows the Quantum SI dashboard. The top navigation bar includes the Quantum SI logo and a user profile for Douglas Pike. The left sidebar contains navigation menus for PROJECTS, INSTRUMENTS, REFERENCES, TAGS, RESOURCES, and WORKFLOWS. The main content area features a table of instruments and a 'Register your Device' modal form.

Name	Type	Software Version	Status
Enterprise	Platinum	---	Offline
NZ244048M	Platinum	1.6.5	Offline
Commercial Platinum 1 (QSI-N02210108M)	Platinum	1.5.9	Update Available
QSI-N022470138M	Platinum	1.5.9	Update Available

Register your Device

Serial Number PIN

deviceid is a required field



Offline Mode Setup Process

Account Setup Notification

1. Select *Offline Mode* from the *Operation Mode* screen
2. Select an export destination:
 - Connect a suitable USB drive to the instrument (option to format USB drive in *Settings* menu for compatibility)
 - Select an existing directory or create a new directory
 - Press *Continue*
3. After selecting the export destination, the folder icon in the status bar will change to indicate that the export destination is valid



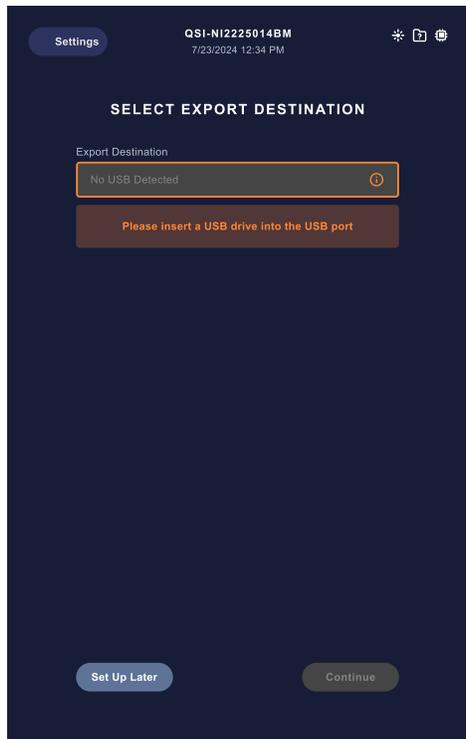
The export destination is configured and valid



The export destination is not configured



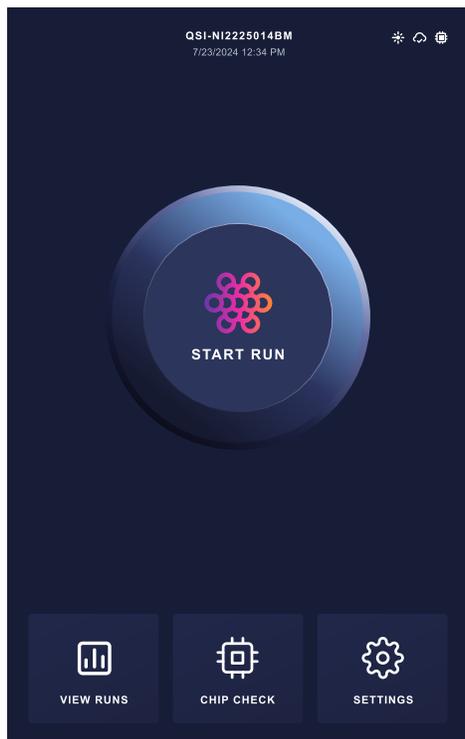
The export destination is invalid



INTERFACE OVERVIEW

Home Screen

Status Bar	The instrument serial number, system date, and time are located in the top center, while the instrument status icons are in the top right
Start Run	Button allows a user to begin a sequencing run
View Runs	Contains a list of completed runs that are stored on the instrument with options to view status, export, and delete
Chip Check	Verify that Platinum Pro and chip are functioning correctly
Settings	Configure instrument preferences



SEQUENCING WITH PLATINUM PRO

STARTING A RUN IN PLATINUM PRO (OFFLINE OR CLOUD MODE)

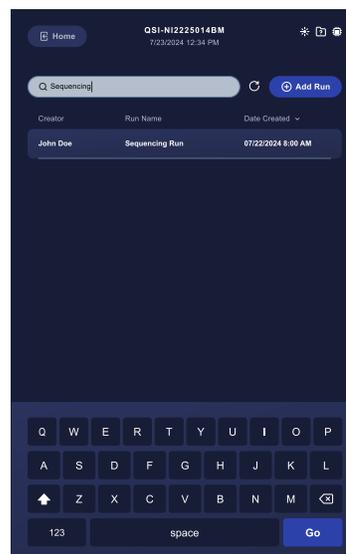
Accessing the home screen

Navigate to the home screen:

1. After powering on and setting up the instrument, the home screen will be displayed
2. The main button labeled *Start Run* allows users to begin a sequencing run

Setting up a run

1. Prepare samples using kits provided by Quantum-Si
2. Plan a new run:
 - **Cloud mode:** Follow the Platinum Analysis software user manual to create a run plan from the cloud interface. Click *Start Run* button on the home screen. The planned run will show up on the list. Select the desired run from the list. After reviewing the run details, click *Start Run* and follow the prompts. Note: if run was planned after *Start Run* button was clicked on the home screen, user needs to click *Refresh* button for run plan to show up on the list.
 - **Offline mode:** Click *Start Run* button on the home screen. Click the *Add Run* button on the top right and follow the prompts to specify the run details. After reviewing the run details, click *Save Run* to save the run for later or click *Start Run* and follow the prompts.

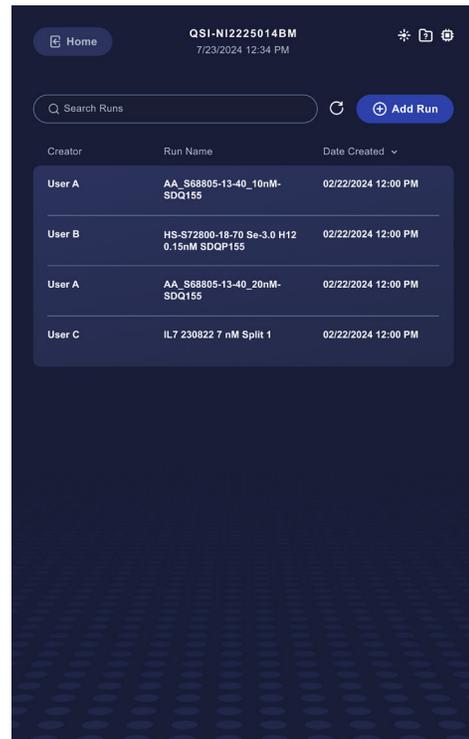


SELECTING A RUN

Once a run has been set up or added from the instrument for offline mode, the run can be chosen from the instrument by selecting *Start Run* on the home screen. If the desired run is not found, scroll through the list or use the search bar to locate additional planned runs. Click the *Refresh* button to load new runs from the cloud. Once the desired run has been selected from the list, run details may be reviewed prior to initiating the sequencing run. To initiate the run, select *Start Run*, which will begin a chip check to ensure proper chip function prior to sample input and calibrate the instrument laser.

Note: When selecting a chip that has been set up as a left/right lane split in Platinum Analysis software, only the run name of the left lane will appear in the run list as available for selection. Selecting the left lane run will start a run for both the left and right lanes.

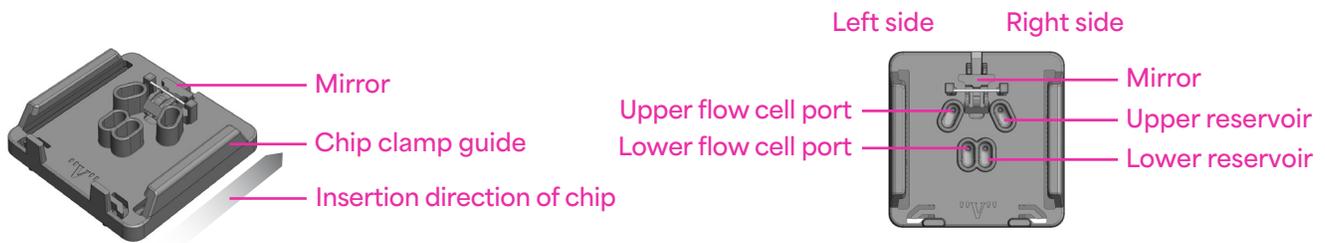
Chip check stage checks if the chip and instrument are functioning properly at the beginning of the run. At the end of the chip check, the system will continue to the next step if the chip check passes. The run will stop if the chip check fails.



Chip Orientation

The main components of the sequencing chip include two independent flow cells (left and right), a mirror to guide the laser light, and chip clamp guide on each side that allow the chip to slide into the correct position on the chip clamp lid.

- The sequencing chip can only be inserted mirror side first (refer to the Sequencing protocol for details on pipetting into the flow cell port within the reservoirs)
- Rest the chip clamp guides on the chip clamp lid and slide until you feel gentle resistance
- Close the chip clamp when the instrument is not in use to avoid dust accumulation



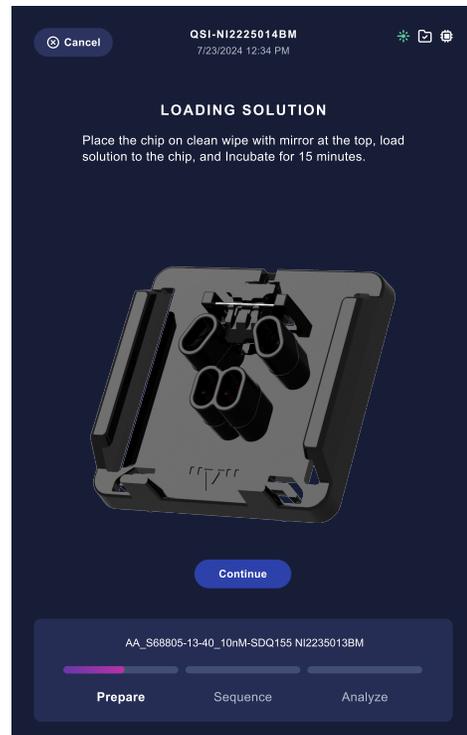
LOADING AND SEQUENCING

Once the chip check is complete, the next series of steps are loading, recognizer addition, and aminopeptidase addition. The instrument screen will prompt off-instrument activity. For a step-by-step walkthrough of the protocol, refer to the Sequencing protocol, which outlines imaging, recognition, and aminopeptidase addition steps required for a sequencing run.

ABORT A RUN OR CHIP CHECK

1. Select *Cancel* in the top left corner of the screen
2. Confirm cancellation by selecting *Yes*
3. Aborting a run will result in *Run Completion* status of *ABORTED*

Note: Aborting a run will cause the run to fail. Consumables and data cannot be recovered or reused.



INSTRUMENT SETTINGS

Settings screens can be accessed from the home screen. Configurations, options, and information available in the settings are described below.

GENERAL INFORMATION

The *General Information* screen shows the instrument name, instrument ID, and software version. It also includes the following options:

Eject USB	Ejects the USB drive for safe removal
Power Off	Powers down the instrument
Upgrade	Updates the software to the latest version (appears only when an update is available)

SYSTEM PREFERENCES

The *System Preferences* screen allows the user to change instrument options such as the time zone.

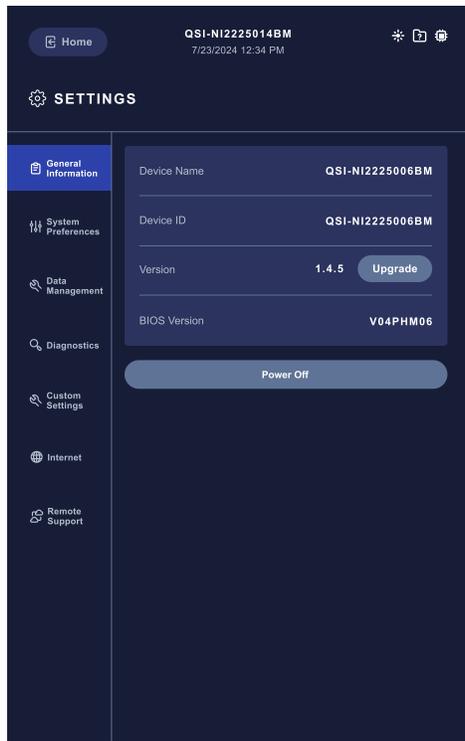
DATA MANAGEMENT

The *Data Management* screen provides:

Export Destination	The directory on the USB drive that will be used for data export operations
Free Space on Instrument	The available free space on the instrument's internal storage

Offline mode only:

Reference Location	The directory on the USB drive that will be searched for user-supplied reference files (*.FASTA) when creating a new run
Clear User References	A tool to delete all user reference files from the instrument's internal storage



DIAGNOSTICS

The *Diagnostics* screen provides options to run preliminary diagnostics on the instrument:

Site Test	Performs a series of hardware tests to confirm correct operation; use only with guidance from support
Touch Screen Test	Allows user to verify the touch screen's functionality
System Check	Tests if the chip and instrument are functioning properly
Upgrade Firmware	For updating or reinstalling firmware; perform only with guidance from Quantum-Si support
Restart Instrument	Restarts only the instrument software application, not the firmware; can be used for network disruption issues
Format USB	Formats the attached USB drive to ensure compatibility with the instrument

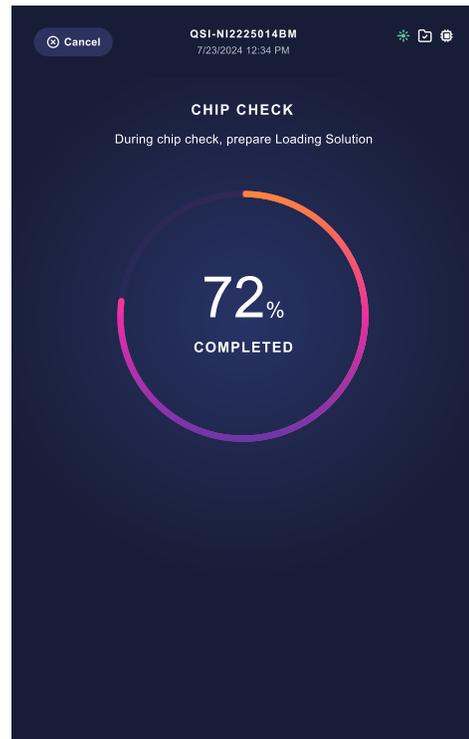
STANDALONE CHIP CHECK

Standalone chip check provides a quick way to check if chip and instrument are functioning correctly. To start a standalone chip check, go to the home screen, select *Chip Check*, and follow the prompts. At the end of chip check, users will be provided with pass/fail status.

To perform a standalone chip check:

1. Navigate to the home screen and select *Chip Check*
2. Insert a new, unloaded chip in the proper orientation (see *Chip Orientation*) and close the lid
3. Chip check will begin once the lid is closed
4. Upon completion, a chip check status will be generated with *pass* or *fail* status

Note: If the chip check repeatedly fails, contact support@quantum-si.com



CUSTOM SETTINGS

Use only with assistance of remote support to enable debug features available to Quantum-Si service and support team members.

INTERNET

The *Internet* screen displays the Ethernet port, IP address, DNS server, and MAC address of the instrument. Once the instrument is connected to the internet via the Ethernet cord, it should be configured with the Platinum Analysis software. See the Platinum Analysis software user guide or Platinum Pro quickstart guide for further instructions.

REMOTE SUPPORT

The *Remote Support* screen allows the customer to request remote support from the instrument when working with the Quantum-Si support team.

UPDATING INSTRUMENT SOFTWARE

Instrument software upgrades can be installed in both *Offline* and *Cloud* mode:

To perform upgrades in *Cloud* mode, the instrument must be connected to the internet. For *Offline* mode, software upgrades must be installed from a USB drive connected to the instrument (contact support@quantum-si.com for software upgrade files).

- On the Platinum Pro Instrument, when new software versions become available either from cloud for *Cloud* mode or from a USB drive for *Offline* mode, an *Upgrade* button will appear in the *General Information* section. Selecting *Upgrade* will initiate the software upgrade process.
- From Platinum Analysis software: from the *Instruments* page, click on the instrument that will be updated. These are indicated as *Update Software* in the *Status* column. Select *More...* in the upper right and select *Update Software*.

Note: Upon confirming the update, the instrument screen will indicate that the update is in progress. The download and installation process takes approximately 15 minutes and can vary depending on internet connectivity speeds. New runs cannot be started during the installation process.

CARE AND MAINTENANCE

Note: Always keep the clamp closed to avoid dust accumulation when instrument is idle.

CLEANING RECOMMENDATIONS

Component	Cleaning Method	Frequency
Instrument exterior	Wipe the exterior (including the rear fan grill) with a 70% or higher isopropyl alcohol (IPA) wipe	Every 3–6 months
White plastic exterior	Wipe only with a lint-free microfiber cloth (other materials may cause scratches)	As needed
Touch screen display	Power off instrument; wipe with a 70%+ IPA wipe. Avoid highly concentrated alcohol (>70%), non-diluted bleach or ammonia solutions, as these may cause discoloration	As needed
Chip clamp	Follow the maintenance steps below to prolong instrument health (see details under <i>Chip Clamp Maintenance</i>)	Every 3–6 months
Chip	If a chip has been placed anywhere outside of the instrument other than on a clean, lint-free wipe, clean the bottom of the chip with <70% IPA before inserting it into the instrument	As needed

CHIP CLAMP MAINTENANCE

1. Open the chip clamp of the instrument
2. Hold a can of compressed gas at a 45° angle, about half an inch from the front of the clamp, aiming toward the center
3. Squeeze the trigger on the duster once across each part of the interposer to remove dust/debris
4. If dust/debris remains visible, repeat as needed

Important: The interposer should not be physically touched or cleaned by any other methods. Contact support@quantum-si.com if chip interface errors persist during a run or chip check, even after following these steps.



SAFETY

WARNINGS



Significant vibration during sequencing may add noise and reduce measurement quality. The Platinum Pro instrument must be installed on a bench free from vibration. Avoid placing Platinum Pro near equipment that causes vibrations (e.g., vortexers or centrifuges, freezers, or pumps).



Place the instrument at least 40 inches (1 meter) away from major sources of electronic noise such as refrigerators or microwaves.



Do not touch the instrument during a sequencing run.



If the unit is used in a manner not specified in this manual, the manufacturer's protection provided by the equipment may be impaired.



The unit is intended for indoor laboratory use only, at an altitude of less than 6,000 ft above sea level, within a temperature range of 15–25°C and a relative humidity range of 35–55% non-condensing. If stored outside these ranges, allow the instrument to equilibrate within these limits before use.



There are no user-accessible or serviceable parts inside the unit.



This product is designed to operate safely in environments that contain non-conductive foreign matter up to pollution degree 2 per EN/IEC 61010-1. (Normally only non-conductive pollution occurs, although occasional temporary conductivity caused by condensation must be expected.)

INSTRUMENT ICONS

The following icons will be shown in the top right corner of the Platinum Pro screen. These are used to demonstrate changes in conditions and instrument states.

Category	Icon	Instrument State
Alert		One or more alerts are active; select the icon to display the list
Cloud Status (Cloud mode)		The instrument's cloud connection is active
		The instrument's cloud connection is not active
Export Destination (Offline mode)		The export destination is configured and valid
		The export destination is not configured
		The export destination is invalid
Laser		The laser is in either the <i>on</i> or <i>attenuated</i> state
		The laser is warming up
		The laser is in the error state
Chip		A chip is inserted and detected as present
		Error communicating with chip or chip state unknown

TROUBLESHOOTING AND FAQs

Instrument won't power on	Check power connection and restart
No connection to cloud	Ensure the Ethernet cable is securely connected, the wall port is functional, and the accepted URLs and ports in the <i>Site Prep</i> guide are accessible, then reboot the instrument
Chip not detected	Clean bottom of chip with 70%+ isopropyl alcohol before inserting it into the instrument
Run won't start	Check that the instrument is registered and updated

ADDITIONAL RESOURCES

Resource	Description
Platinum Pro Site Prep Guide (PTL-0021)	Specifications for laboratory space, electrical and network requirements, and environmental considerations for Platinum Pro
Platinum Pro Quickstart Guide (PTL-0020)	Description of installation of Platinum Pro and registration of the instrument to Platinum Analysis software
Library Preparation Kit	Instructions for preparing your sample library for sequencing on Platinum Pro
Barcoding Library Preparation Protocol	Instructions for preparing peptide barcodes for sequencing with the Quantum-Si Sequencing Kit
Sequencing Kit	Instructions for loading and sequencing a library on Platinum Pro
Platinum Analysis Software User Guide (PTL-0022)	Specifications and instructions for using Platinum Analysis software, including run setup, result viewing, and data storage