Miltenyi Biotec



MACSQuant® Instrument short instructions

Start-up, shutdown, and instrument monitoring

Before using the instrument for the first time, read the MACSQuant Instrument user manual and MACSQuantify Software user manual.

Introduction

These short instructions give an overview about how to start and shutdown the MACSQuant Instrument. They also contain information about monitoring the status of the instrument and its hardware.

Instrument start-up

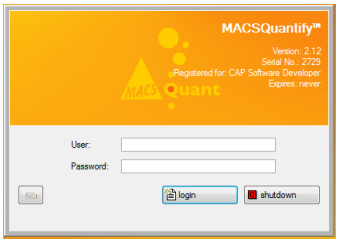
Switching on the instrument

1 Use the main switch on the right-hand side of the instrument to switch the instrument to standby mode.
2 Tap the screen to start the MACSQuantify Software.
3 A login window will appear.

A red LED in the lower left corner of the screen indicates that the instrument is in standby mode.

Login

1 Enter user name and password.
2 Click **Login**.



After login, the instrument is in data analysis mode. Data acquisition is not yet possible. Prime the instrument before proceeding.

Priming the instrument

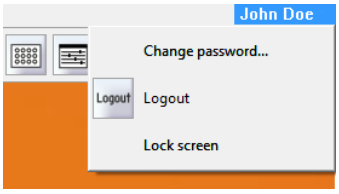
1 To prime the instrument (power up the lasers, activate fluidics), click on the **Main instrument control** button in the upper right corner of the software and select **Acquisition mode**.
2 Let the optical bench warm up after priming for at least 30 minutes.

While the instrument warms up, it is recommended to perform a **flush cycle** followed by a **clean program**.

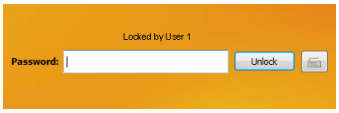
Locking the screen

The current user can manually lock the screen to prevent other users from accessing the instrument.

1 Click on the user name at the upper left corner of the screen.



2 Select **Lock screen** from the drop-down menu.
3 Enter the password to unlock.



4 Click **Unlock**.

To deactivate the automated **Lock** function, refer to chapter **Timers** in the MACSQuantify Software user manual.

Instrument shutdown

Switching off the instrument

Before switching off the instrument, start the shutdown procedure. During the shutdown procedure, the fluidic system is cleaned and filled with storage solution. Automatic shutdown is enabled by default after a defined idle time. An MQ Administrator can change the timer settings in **Edit > Options (default) > Timers > Standby Timer**.

1 Click the **Main instrument control** button in the upper right corner of the software to shut down manually.
2 Select **Instrument off** to switch the instrument to standby mode, or select **Data analysis** to proceed with data analysis after the shutdown procedure. After a seven-minute washing procedure, the instrument is in standby or data analysis mode.
3 Use the main switch on the right-hand side of the instrument to switch off completely.

Instrument monitoring

Instrument status bar

The current status of the instrument is displayed in the **Instrument status** bar. The status indicator changes its color depending on the current status. The **clear** button deletes the current data from the data file during acquisition. The status of the current acquisition is shown in detail. The **Rinse** button and the **Start** button are located at the far right. They may be inactive (grayed out) during certain processes.

- Right-click on the **Rinse** button for the options **Clean** or **Flush**.
- Right-click on the **Run** button to access the option **Pause** to pause the measurement. Click the **Run** button to continue.
- Right-click on the **Run** button to access the options **Skip** to switch to the next sample in line.

Instrument status indicator

Green	The instrument is in acquisition mode and ready for measurement.
Yellow	Cleaning, priming, or incubation during autolabeling in progress. The instrument is not available for measurement. Also displayed if a bottle has reached a critical level. The respective information will appear in the status bar.
Orange	The instrument is in data analysis mode. Prime the instrument to switch to acquisition mode for measurement.
Gray	The instrument is initializing and not available for any measurement.
Blue	The instrument is processing a sample.
Red	Error alert.

Hardware monitor

The hardware monitor enables to view the status of different hardware components including fluidics, lasers, and detectors. Go to **View > Hardware** to access the hardware monitor. The **Lasers and detectors** tab displays the status of the optical bench. The temperature, fan speed, PMT voltage, and annotated path of each laser is shown. The operating temperature for the main laser should be between 35 °C and 45 °C. The main laser is the blue laser for MACSQuant Analyzer 10, 16, and MACSQuant X, and the yellow laser for the MACSQuant VYB. The side lasers are kept at a temperature of 25 °C. When in acquisition mode, colored lines from the lasers to the detectors indicate that lasers are switched on. The bench temperature is kept between 33 °C and 37 °C. The fan speed is regulated automatically depending on the room temperature and internal temperature of the MACSQuant Instrument. Refer to **Figure 1** for a schematic overview of the optical bench. In case of errors, contact Miltenyi Biotec Technical Support.

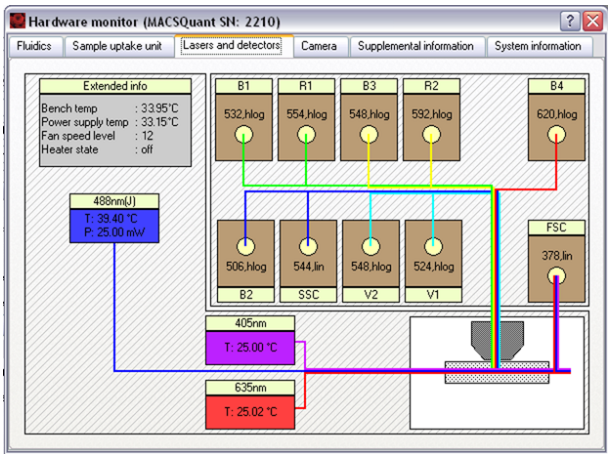


Figure 1: Real-time Hardware monitor of the MACSQuant Analyzer 10 optical bench. T indicates the current temperature, P the power of the main laser.

Are you in need of additional assistance?

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140-003-143.06