




# autoMACS® – General User instructions

## autoMACS® Startup Procedure

- ☑ Check that all bottles are filled up with the appropriate solution. Disconnect storage bottle and connect Running buffer bottle (located in the fridge) to the appropriate blue sensor cable.

*Note: The connectors for the fluid bottles are color-coded: blue for Running Buffer, green for washing solution, and red for the waste bottle.*

- ☑ Empty waste bottle and add 100 ml Clean to the bottom.
- ☑ Switch on the instrument. It starts initializing automatically (equilibration).
- ☑ Check the status for fluid container, columns and miniSampler in the status bar.

Bottle	Symbol	Symbol color and user action
Running Buffer		Green: no action required Red: refill bottle Gray: connect bottle sensor
Washing Solution		Green: no action required Red: refill bottle Gray: connect bottle sensor
Storage solution		Gray: no liquid detection; visually check volume

**2.3.1 Status of fluid bottles**

Confirm that the fluid bottle status is ready.

Green: no action required  
Red: refill bottle  
Gray: connect bottle sensor

### 2.3.2 Status of columns

Confirm that the column status is ready.

- Green:** no action required
- Red:** exchange column
- Grey:** no column has been installed

### 2.3.3 Status of MACS MiniSampler

Confirm that the MACS MiniSampler is correctly installed.



Figure 2.6: MACS MiniSampler status graphic. Left: The MACS MiniSampler was successfully installed. Right: No MACS MiniSampler was detected.

- ☑ To prime the instrument, go to the Separation menu and press wash now, select “Rinse” and press Run.
- ☑ Instrument is now ready for performance.

## Autolabeling and Cell Separation

- ☑ Use pre-cooled chill rack (4 °C fridge).
- ☑ Prepare cell sample according to recommendations in the respective product datasheet.

- Install Reagent rack and Chill rack and place sample tubes:  
A = Original sample, B = Negative (depleted) and C = Positive (enriched).
- Scan product QR-Code or enter order no. manually. Place vials accordingly.
- Select Separation, highlight the desired sample, define the separation template and assign an autolabeling protocol. Enter the correct sample volume.
- Choose a washing program between different samples and after the last sample (QRinse, Rinse or Sleep; use Clean only when you have sorted from whole blood or bone marrow).
- Run the protocol and click OK in the buffer volume checkbox.

## Manual labeling and Cell Separation

- Use pre-cooled chill rack (4°C fridge).
- Prepare cell sample according to recommendations in the respective product datasheet.
- Install Reagent rack and Chill rack and place samples tubes: A = Original sample, B = Negative (depleted) and C = Positive (enriched).
- Scan product QR-Code or enter order no. manually. Place vials accordingly.
- Select Separation, highlight the desired sample and define the separation template. Enter the correct sample volume.
- Choose a washing program between different samples and after the last sample (QRinse, Rinse or Sleep; use Clean only when you have sorted from whole blood or bone marrow).
- Run the protocol and click OK in the buffer volume checkbox.

## Cleaning and Shutdown Procedure

- After finishing the last separation, the instrument has either been rinsed automatically when programmed as a last washing step OR do it manually.
- Press Shutdown icon.
- Turn off the instrument.
- Refill 70% EtOH bottle, put Running buffer back into fridge and install an empty dummy glass bottle.
- Clean table and accessories.
- Provide information in the LogBook.

## General Remarks

Detailed instructions are in this folder or check the User manual, which is in the cart below the table.

Wash programs in between and after separation:

QuickRinse: Standard short wash program, only Running Buffer. ~ 1,5 min.

Rinse: Extensive wash program, Washing solution and Running Buffer. ~3 min.

Clean: Most stringent wash program. After whole blood or bone marrow. ~7 min.

Sleep: For shut-down with 70% EtOH. ~5 min.

## Questions and Problems

Please call the FlowKon staff -3947/-3949 or write an email to [flowkon@uni-konstanz.de](mailto:flowkon@uni-konstanz.de) when something is missing or not working properly.

If an incident occurs during a session, please report it immediately in the PPMS incident sections so every autoMACS user is aware of this and can re-plan his/her experiments if necessary.