Quick Guide

Get started with Serstech Arx mkII

1. Start the instrument by pressing the power button.

2. Select you identity – first time access, you can use one of the two predefined users: Default, Admin.

3. Enter the four-digit PIN code (default is 0000) and press OK button.

For more details, refer to the user manual on the included USB stick.

The device is **not** suitable for identifying the following:

Black-colored materials – Dark or black substances tend to absorb the laser energy, which can lead to poor signal quality or even pose safety risks. **This is especially critical with black powder and similar materials, which may ignite or explode upon laser exposure.**

Biological materials – Including plants, tissues, food, blood, urine, feces, bacteria, viruses, and other microorganisms.

Metals – Cannot identify pure metals, metal alloys, or metal ions in solutions (e.g., aqueous solutions).

SERSTECH

Lens

Lens

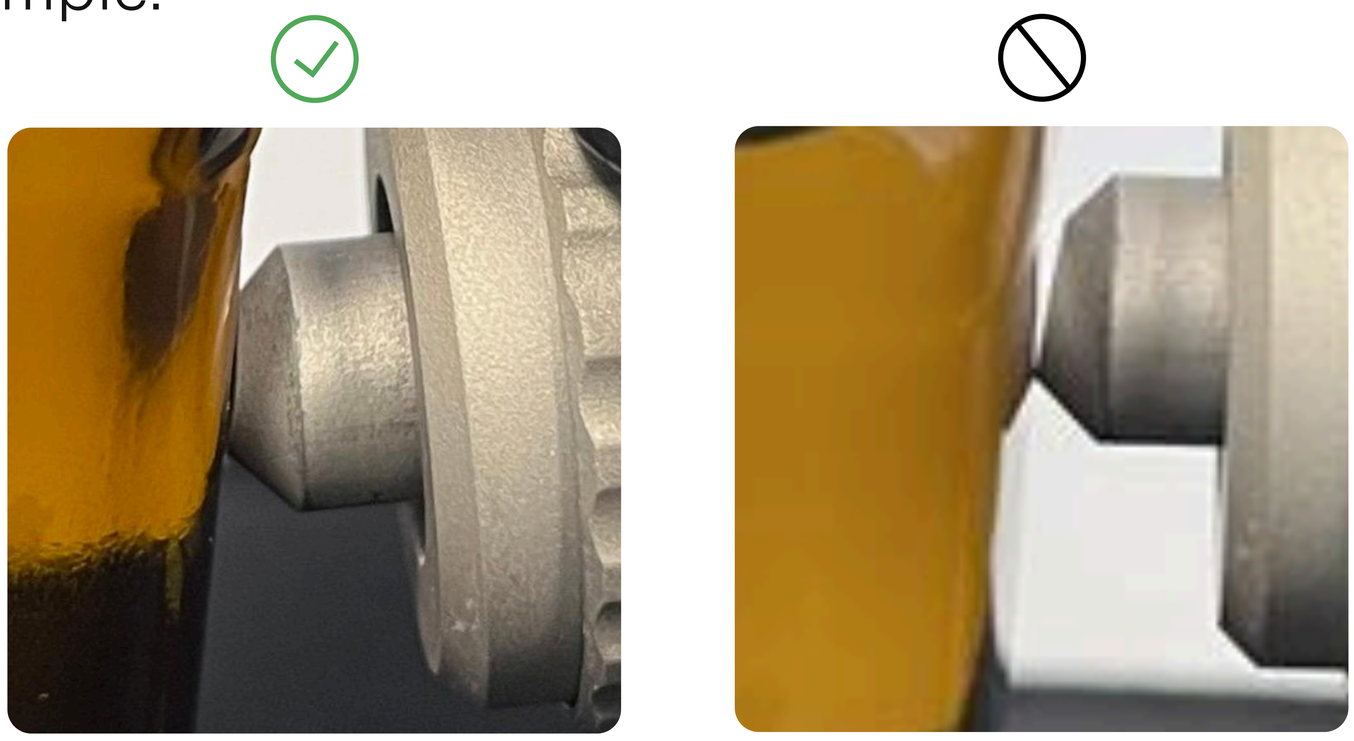
The laser emerges from the lens and interacts with the sample to create the Raman signal. The Raman signal is sent back through the lens from the sample and is analyzed in the instrument. **Do not look into the lens when the instrument is on – severe eye damage can occur!** Note: It is important to keep the lens clean - see cleaning instructions .

Probe

The probe is a sensitive part of the instrument and is not meant to be removed under any circumstances.

Probe tip

The probe tip should be pointed at the sample. Various adapters can be attached to the probe tip, e.g. the calibration cap or the SERS kit. To achieve the most precise results, position the sample as close to the probe tip as possible in a straight line towards the sample.



For more details, refer to the user manual on the included USB stick.

INVISIBLE LASER RADIATION
AVOID EXPOSURE TO BEAM
CLASS 3B LASER PRODUCT

This is a Class 3B laser product and complies with EN 60825-1:2014. Ensure the beam is always terminated at asuitable non-specular (i.e. non mirror-like) surface. Do not direct the beam at other people or into areas where other people unconnected with the laser work may be present. Refer to the International standard EN 60825-14 user's guide for guidance on identifying and controlling hazards associated with laser use.

Always ensure the laser is turned off when changing measuring accessories, e.g. from point-and-shoot adapter to vial holder.

Quick Scan

The Quick Scan feature is commonly used for quickly starting a measurement. It includes three options designed for various types of containers. The options set the focus distance and ensure an optimal focus for different container thicknesses, allowing precise measurements.

1.Thin or none: Used for no or very thin, transparent containers, such as plastic bags. Point the instrument directly on a pill or on the bag with the substance.
Focus position: 0.0 mm

2.Medium: Used for vials or similar thickness of sample holders.
Focus position: 2.15 mm

3.Thick: Used when scanning with all the different adapters included in the kit, as well as thicker transparent sample holders, like glass or plastic vials.
Focus position: 3.65 mm

For more details, refer to the user manual on the included USB stick.

Adapters

SERS adapter

To identify low concentration samples, use the SERS kit and its adapter. Place a methanol solution of the substance directly onto the SERS surface and place it in the adapter. Refer to the SERS kit manual for usage instructions.

Vial holder adapter

For solid or liquid samples in a vial, the vial holder can be used for convenience.

Small-volume adapter

This adapter is used to aim the laser onto small samples (~7-5 mg). When measuring larger samples through plastic bags it is preferred to do the analysis without any adapter.

With small sample

On a tablet

For more details, refer to the user manual on the included USB stick.

Instrument Maintenance and Optimization

Libraries

The Arx instrument is typically delivered with one or several substance reference libraries. Reference libraries include narcotics, explosives, hazardous chemicals/TICs and chemical warfare agents.

Calibration Cap

The Calibration Cap is used for instrument calibration. It is important to have the cap placed firmly on the probe tip while performing the calibration. The recommendation is to calibrate every 8 hours.

Firmware

It is important to remember to keep the device's firmware updated. This ensures your device is equipped with the latest features and substance library updates. Serstech provides updates and expanded substance libraries several times per year.

Cleaning

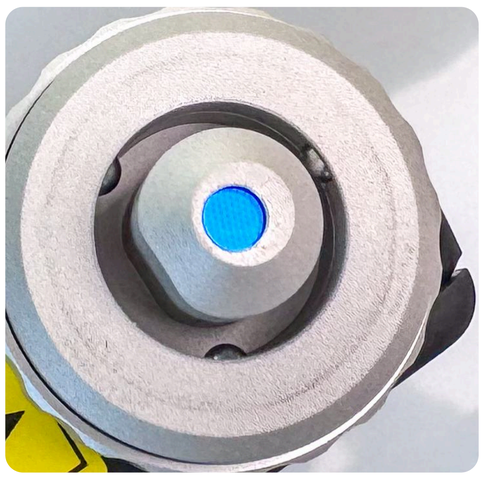
Since Serstech Arx mkII is an optical instrument, it is important to keep the front lens clean. Any dirt on the front lens can reduce the accuracy and speed of the measurements.

For more details, refer to the user manual on the included USB stick.

Cleaning instructions

Lens: Keeping the lens clean is essential. Regularly inspect the lens for any dust or scratches. Use the lens pen, swab stick, or a small amount of alcohol (e.g. isopropanol) on a cotton swab to clean the surface of the lens.





Calibration Cap: Inspect the inside of the cap for a spotless surface. Ensure there are no traces of dust, scratches, or loose components. To maintain the quality of the cap, use a lens pen, swabstick, or apply isopropanol to the cap's interior.


Arx: Clean the instrument by removing any dust or dirt with alcohol-free screen cleaner on a cloth

Quick Guide

For detailed information, please refer to the full Arx manual
included on the **USB stick**.

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SIMPLICITY SPEED PRECISION