

! Before You Begin...

The instrument generates X-rays and should be operated by only users trained in radiation safety. Refer to the **S1 TITAN and TRACER 5ⁱ User Guide** for safety information. **·DO NOT EXPOSE ANY PART OF THE BODY TO X-RAYS·**

In case of emergency, or if your analyzer is lost, stolen, or damaged, immediately notify the appropriate regulatory and law enforcement agencies in your state or country, then contact Bruker at +1 (509) 783-9850.

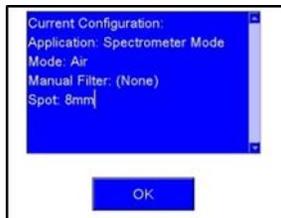
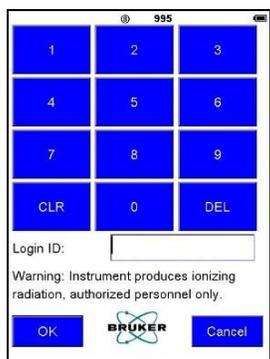
Step 1

- a) Insert a fully-charged battery, or connect an approved AC adapter.
- b) Press the power switch and hold for one second.
- c) Wait for the Login screen to appear.



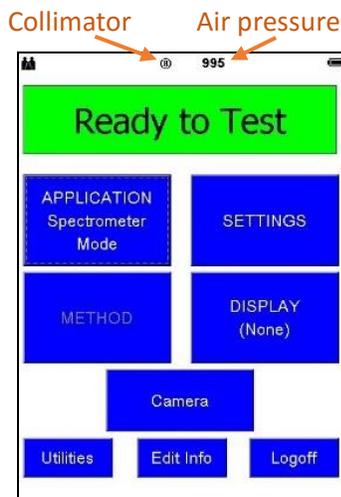
Step 2

- a) Tap the **Login** button.
- b) Tap the password (12345) and **OK**. A radiation warning displays.
- c) Press and release the trigger.
- d) Tap **OK** to acknowledge **Application** settings.



Step 3

If the **APPLICATION** selection is appropriate, go to Step 4. If not, from the **APPLICATION** menu, select the application that matches your sample type. The instrument selects the appropriate **METHOD**, **SETTINGS**, and **DISPLAY** options.



Step 4

- a) Press the analyzer nose to a sample thick enough to absorb X-rays and hold it there. **Ready to Test** is displayed.
- b) Press the trigger.



X-rays are generated.

- c) Stop the analysis by releasing the trigger.



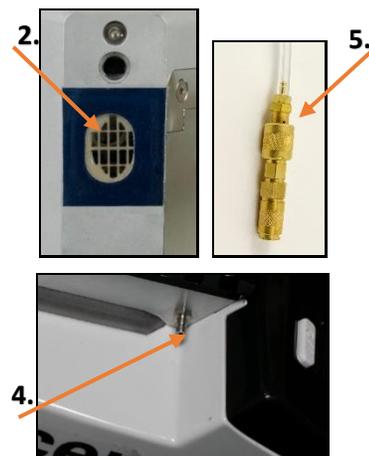
Measuring in a vacuum

To use a vacuum while measuring a sample with light elements –

1. Set the **Application** to **Spectrometer Mode**. Go into **Settings** and set **Atmosphere** to **Vacuum**. Return to **Ready to Test**.
2. Remove the nose plate and ensure the **gridded** window is installed.
3. Connect the vacuum pump to the AC adapter or install a charged battery pack.
4. Connect the slide valve end of the tube to the pump and the other to the analyzer fitting.
5. Ensure the slide valve is **open** so the pinhole shows.
6. Power on the pump, slide the valve **closed**, and wait for the pressure to drop below 10 Torr on the pump. Then measure the sample.



To prevent damage to the window or expensive detector, ensure the valve is open before turning off the vacuum pump or removing the hose.



Changing collimator and filter

To manually change a filter –

1. Open the hatch with the supplied 0.05" hex driver. Use a thumbnail to slide out the current collimator with filter assembly.
2. Slide in a new collimator with filter assembly. Secure the hatch.



Artax

To operate the TRACER 5ⁱ remotely and analyze spectra –

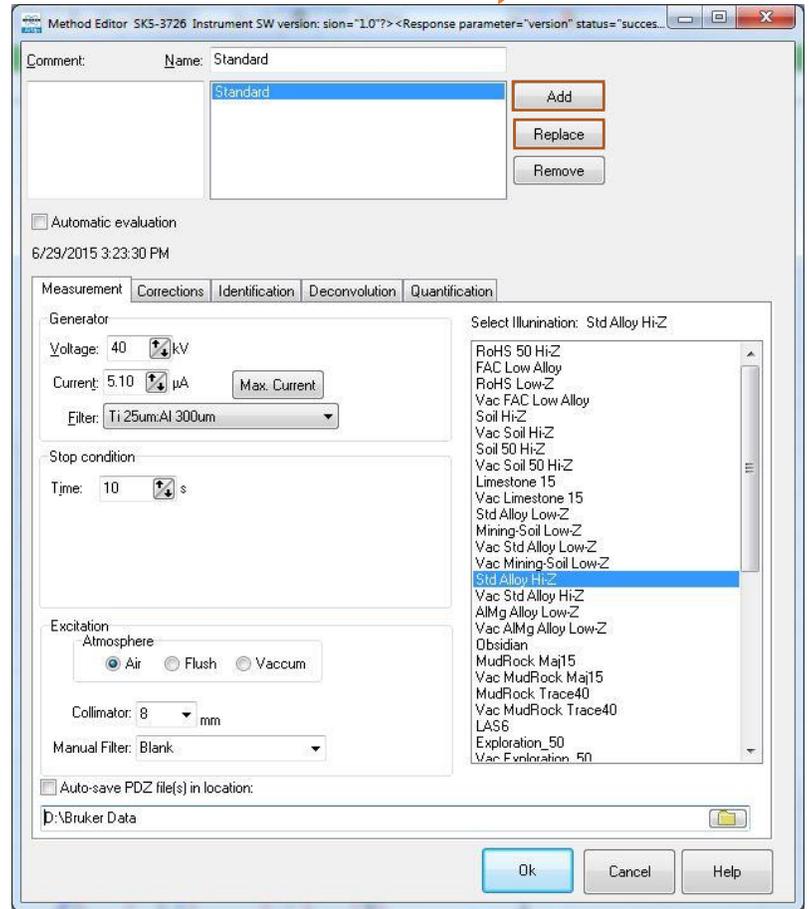
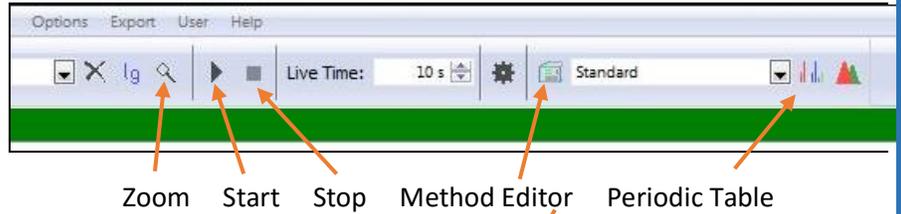
1. Power on the TRACER 5ⁱ.
2. On the PC, open Artax by clicking on the icon or typing Artax in the **Search For** field.
3. Enter user name (test) and password (test).
4. With a USB cable, connect the PC to the TRACER 5ⁱ. For Wi-Fi connectivity instructions, see the *Accessories Manual*.
5. Click **Device**, then **Connect**. The **Connect** dialog box is displayed. (If the device is not listed, from supervisor mode, make sure USB connection is enabled on the TRACER 5ⁱ.)
6. Click the **Name** and **Connect**. The green bar at the top indicates a connection.
7. Click the **Method Editor** icon. Adjust settings and click **OK**.
To save a new method, type a name and click **Add**.
8. To modify an existing method, click **Replace**.
9. Note the icons for starting and stopping an assay.

These methods are stored in *Artax*, not on the instrument, and can be accessed only using Artax toolbar to start and stop an assay. If the trigger is pressed, the instrument uses the latest saved settings on the *instrument*.

To identify elements in the spectrum – use the Periodic Table.

To see an element symbol on the spectrum – click the symbol on the Periodic Table.

To identify a spectrum line – click it. Select a suggestion from the right side of the Periodic Table. The element symbol is highlighted on the Table.



To view the spectrum – use zoom and, with the mouse, create a box around an area to expand.

To display the original spectrum – double-click in the window.

