

Scanning with the XL2 Plus Analyzer

This Quick Start Guide provides an introduction to scanning and safety. Use this guide along with the Thermo Scientific XL2 Plus User Guide (110-00156).

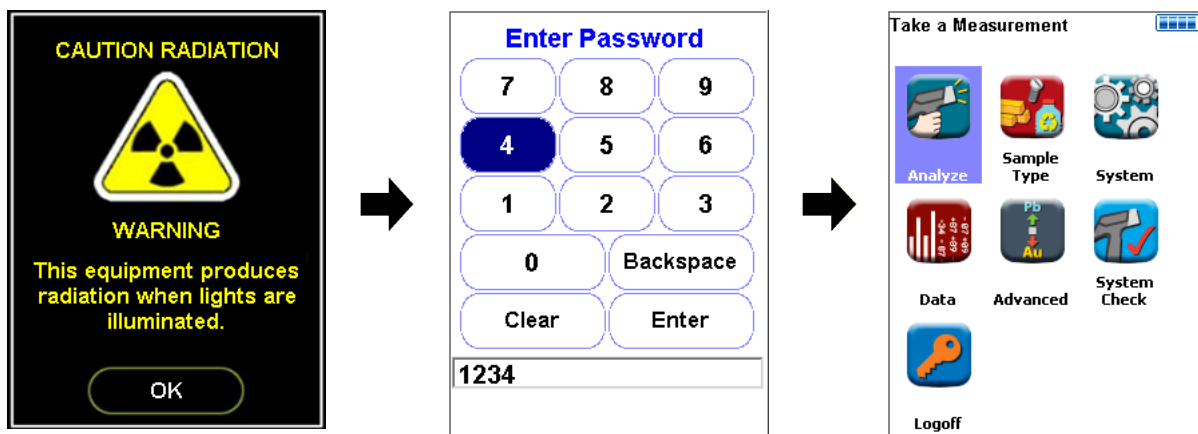
Navigation

Use the touch screen or keypad to access XL2 Plus features.



To Login

1. Press the On/Off button.
2. At the **Caution Radiation** screen select **OK**.
3. Enter password 1-2-3-4 and select **Enter**. The home screen displays.

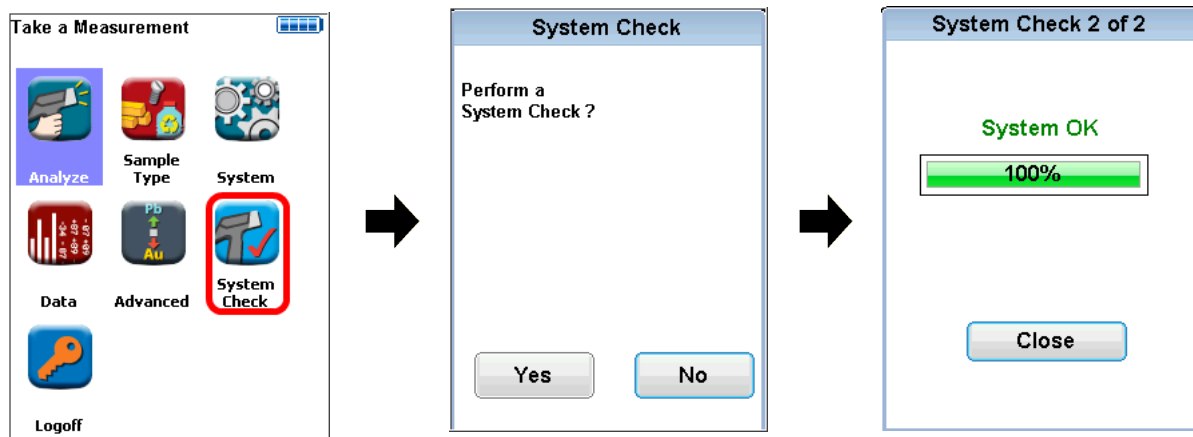


To Perform a System Check

System Check calibrates the detector and verifies it is operating to specifications. Thermo Scientific recommends that you run a system check daily, as part of your normal startup procedure, after allowing a minute or so for the analyzer to warm up.

1. From the home screen select **System Check**.
2. Select **Yes** to begin the check.

No further user interaction is required during this operation. When the check passes a **System OK** message displays.

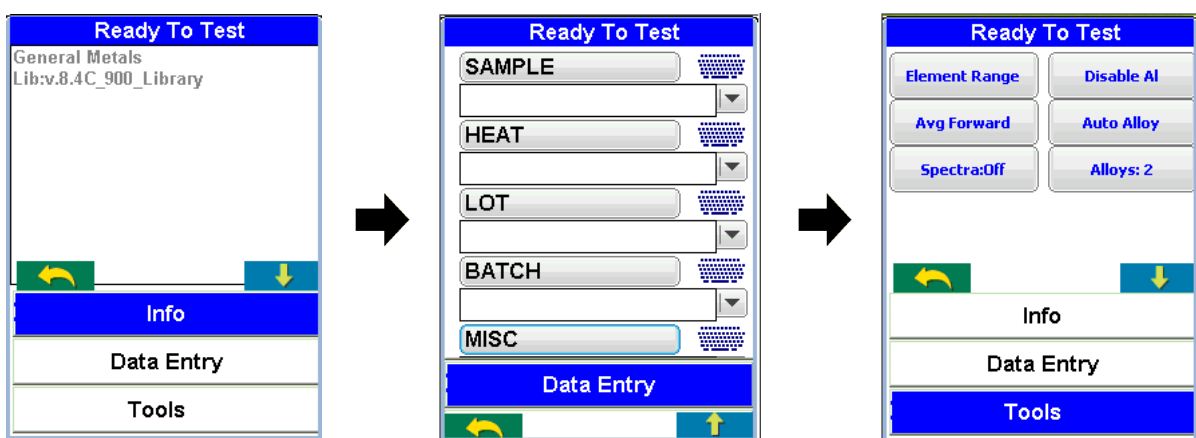


3. If the check fails click **Recheck**. If the unit still does not show “**System OK**,” contact Customer Support. See “Contacting Thermo Fisher Scientific” on page 4.

Ready to Test Screen

This section provides a review of the Ready to Test screen.

1. From the home screen select **Analyze**.
2. The **Ready to Test** screen displays. Select Info, Data Entry, or Tools to view the different screens.

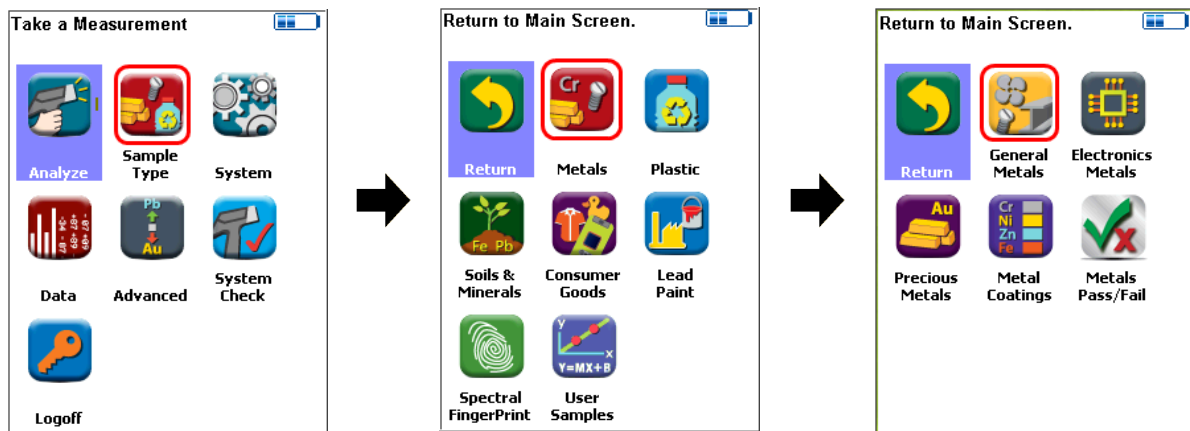


- **Info** screen shows the mode and library. In this example *General Metals* is the mode, and *v.8.4C_900* is the alloy library for the selected Element Range conditions.
- **Data Entry** screen lets you enter values for up to five data fields (Sample, Heat, Lot, Batch, and Misc). Select the keyboard icon to enter values.
- **Tools** screen provides tools that let you configure the data acquisition and display conditions. The tools shown in the screen above apply to the General Metals mode. Different modes may use different tools.

Taking a Reading

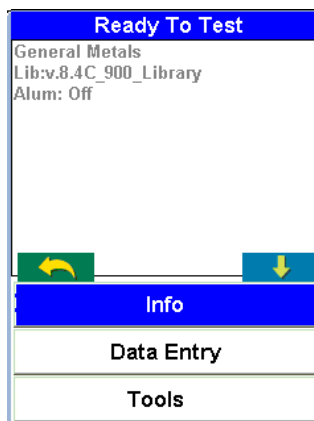
The example below shows how to take General Metals reading.

1. Clean the sample to be analyzed so it is free of all surface contamination.
2. From the home screen select **Sample Type**, then select Metals > General Metals



3. Press the trigger when the **Ready to Test** screen appears. The Results Screen will display elements detected and will continue to update while the trigger is pressed. (The longer you acquire data, the better the precision of the measurement.)

When the sample has been sufficiently analyzed, release the trigger.



Understanding the Results Screen

When you release the trigger the results screen displays. Some details are explained below.

Reading Number and Active Profile

Navigation Menu — NAV Tools

Test Time — Time 24.4 sec

Alloy ID — 1.25Cr(P11) 0.8 Good

Tools Menu — Tools

Alloy Match Quality — 0.8 Good

2 Sigma Precision — $\pm 2\sigma$

Ele	%	$\pm 2\sigma$
Ti	0.056	0.027
Cr	1.22	0.036
Mn	0.54	0.044
Fe	96.87	0.13
Cu	0.076	0.019
Mo	0.50	0.017
LEC	0.75	0.011

Safety

WARNING! - Always treat radiation with respect. Never point your analyzer at yourself or anyone else when the shutter is open.

The Niton Model XL2 Plus analyzer contains an x-ray tube which emits radiation only when the user turns the x-ray tube on. When the x-ray tube is on and the shutter is open, as during a measurement, the analyzer emits a directed radiation beam. For complete safety information, refer to the XL2 Plus User Guide (110-00156).

Thermo Fisher Scientific recommends that anyone operating the XL2 Plus analyzer participate in a radiation safety and operational training class. You can find courses online at <https://portables.thermoscientific.com/>. Login and search for “radiation safety training”.

Software Updates and Support Documentation

Register your analyzer at <https://portables.thermoscientific.com/> to receive software updates, User guide updates, Standard Operating Procedures (SOPs) and other user documents.

Contacting Thermo Fisher Scientific

Use the information below to contact Customer Support.

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