

TRACER III - V

Quick Start Guide

Important: Please read before operation



July 2008

Pre-operating instructions

3.1. Preparing the TRACER for use:

1. If the instrument and PDA have not been used for a week or more, you may have to recharge the PDA on it's A/C adaptor before use. *(The PDA draws its power from the instrument's battery handles during use. However, it cannot recharge a dead battery on the PDA.)*
2. Slide a battery into the instrument.
3. Remove stylus from the PDA.
4. Unlock the PDA lock with the key and slide the PDA holder on the top of the instrument forward.
5. Place PDA snugly into the cradle of the instrument. **Be careful not to use too much force installing the PDA.** This may damage the PDA connector at the base of the cradle and disable the instrument.
6. Slide holder down and lock computer into place. (You cannot remove the key until the holder is moved to downward position.)
7. Turn the TRACER power key to the ON position. This will activate the yellow power indicator. Wait 1-2 minutes for the peltier cooler and X-ray tube to stabilize.
8. Push PDA power ON (button on the top left side of the computer). **Important:** Do not start the PMI program until the TRACER power is ON. The PMI program is looking for communication with the TRACER. If you start in the wrong sequence, you will have to turn the TRACER off and restart the program.

NOTE for Vacuum systems only: If you wish to analyze Aluminum alloys, you will need to use the vacuum attachment. To do so—

8. Connect the vacuum tube connector to the vacuum pump line.

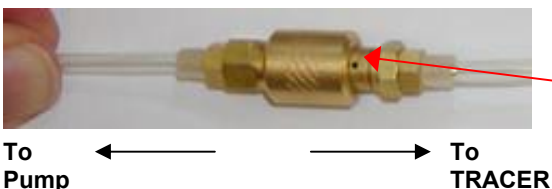


To use the TRACER with vacuum, connect the instrument's vacuum line and the pump vacuum line.

Be sure to connect with relief port on instrument side (not pump side).

(NEVER RELEASE THIS LINE WITHOUT FIRST RELEASING THE VACUUM with THE VACUUM RELEASE SLIDER. This could damage the instrument's highly sensitive SiPIN detector.)

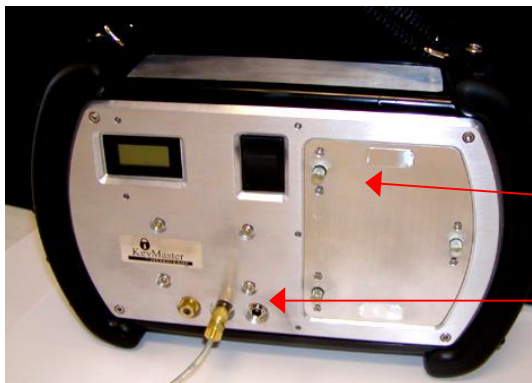
9. **Make sure the vacuum release slider is closed.** (Slide toward stop nut.)



Relief port should be on instrument side (Shown in Open position)

Vacuum Setup continued.

- 10. Connect either the battery connector or the A/C connector to the pump's Power input.



Battery Inside

A/C Power input

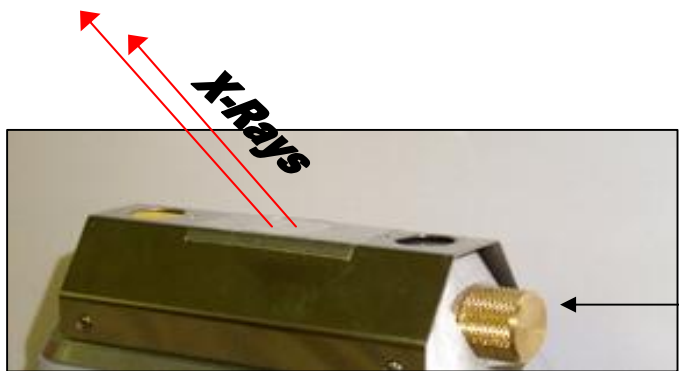
- 11. Close vacuum line relief port. (Important: Upon job completion and **Before removing the pump from the instrument, slide the vacuum release valve to the open position.** Failure to do so could damage detector.



Vacuum Relief in OPEN position
NOTE: Relief Valve Port

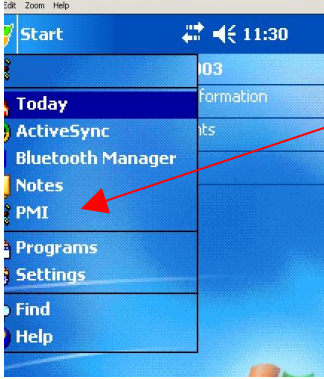
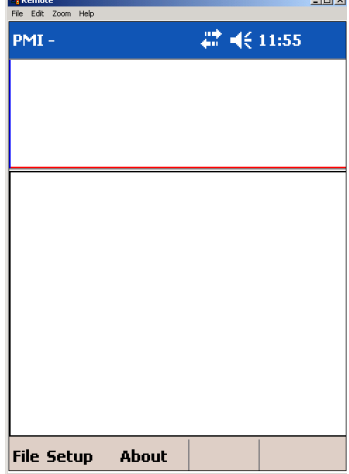
Important Safety Note—

X-rays are emitted at ~45° angle from the aperture in the opposite direction from the filter port.



Filter port

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	<p>9. While in main menu, tap on "Start" icon (top left corner).</p>
	<p>10. Tap on the PMI icon to start the analytical program</p> <p><i>Note! It will take few seconds to load the program</i></p>
	<p>11. Place a sample in front of TRACER aperture.</p> <p>12. Pull the trigger to take assay.</p>

3.2. Adjusting the display contrast

On the "Start" menu, tap the "Programs" icon and then "My Settings" icon. Now select "Front Light" and set according to your need.

3.3. Switching ON/OFF backlight

On the "Start" menu, tap the "Settings", then "System" tab and finally "Backlight".

Replacable Filters (TRACER III-V only)

New vacuum system with Re target tube and manually changeable filters—

Filter options include--

Standard configuration -- Al/Ti

.0012 Al/.0001 Ti

- To examine Iron, Steel, Nickel, Cobalt or Copper (Bronze), alloys, insert the Ti/Al filter (with Al side up).
- To examine Aluminum or Titanium, remove all filters.

Manually Changeable filter head for Vacuum Instrument



Al/Ti Filter Holder
Aluminum side should face out
Titanium is the darker metal and
should face the X-ray tube



Remove the protective cover for
Light alloys and Vacuum
operation