The Delta XRF Workstation is comprised of two major components:

1. The new A-020-D Test Stand

2. ANY Delta INX handheld analyzer model, including:
   - Premium
   - Standard
   - Classic

The Delta is supported by PC control.

The XRF Workstation offers the following features:

- Portable, light-weight, shielded enclosure
- A rugged and repeatable testing environment
- A safe closed-beam system
- Easily erected in laboratory or at remote field site

— HOW TO: CONTENTS —

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## Parts, Accessories, and Panel Checkoff

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<th>ID</th>
<th>Description</th>
<th>Part Number</th>
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<tr>
<td>A</td>
<td>Delta Probe Adapter w/ Integrated Cable</td>
<td>Assy. No. 900486</td>
</tr>
<tr>
<td>B</td>
<td>USB-A to MINI USB-B cable</td>
<td>P/N 101310</td>
</tr>
<tr>
<td>C</td>
<td>CalCheck (Standardization) Coupon</td>
<td>P/N 100039</td>
</tr>
</tbody>
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![Delta Probe Adapter w/ Integrated Cable Assembly](image1.png)

**A Delta Probe Adapter w/ Integrated Cable Assembly**

![USB-A to MINI USB-B cable](image2.png)

**B USB-A to MINI USB-B cable**

![CalCheck Coupon](image3.png)

**C CalCheck Coupon**

![I/O Panel (Cover Removed)](image4.png)

**I/O Panel (Cover Removed)**

Serial
9 Pin DSub
15 Pin DSub
USB

**Do Not Use**

![XRF Workstation (Rear View)](image5.png)

**XRF Workstation (Rear View)**
Site Planning

— Where will the XRF workstation be used?
  It weighs 19.6 pounds with probe adapter, analyzer, and battery.
  It can sit on a lab bench or table.
  It can also be used in-the-field. User must consider battery power/charger issues.

— How much space (area) to allocate?
  • The “Footprint” for the test stand (with a 2 in clearance) is 22 1/2 in 17 3/4 in
    See table and rendering below for the exact dimensions.

— Any special space issues for height?
  Operator must be able to access the analyzer’s lid latch and test chamber comfortably.
  • Ensure that the lid can open without encountering an obstruction. Need 27 1/2 in clearance

— What are the electrical power requirements?
  Have two choices: Use removable Li-ion Battery (standard part) or use an AC adapter (optional).
  Operator may want to have the Delta docking station or a standard Battery Charger in the
  workstation area. Note: Either of these charging accessories require an AC power source.

Dimensions in millimeters and inches

<table>
<thead>
<tr>
<th>Test Stand Dimensions</th>
<th>mm</th>
<th>in</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Width-Legs-Side-to-Side Extend</td>
<td>522</td>
<td>20 1/2</td>
</tr>
<tr>
<td>B Depth w/PDA Cradle (Not Applicable)</td>
<td>402</td>
<td>15 7/8</td>
</tr>
<tr>
<td>C Depth w/o PDA Cradle</td>
<td>360</td>
<td>14 3/4</td>
</tr>
<tr>
<td>D Legs-Front-to-Back</td>
<td>238</td>
<td>9 3/8</td>
</tr>
<tr>
<td>E Width of Platform</td>
<td>345</td>
<td>13 1/2</td>
</tr>
<tr>
<td>F Height-Lid Closed</td>
<td>497</td>
<td>19 1/2</td>
</tr>
<tr>
<td>G Height-Lid Open</td>
<td>688</td>
<td>27 1/8</td>
</tr>
</tbody>
</table>

Sample Test Chamber: View Looking Straight Down

Dimensions in millimeters and inches

<table>
<thead>
<tr>
<th>Chamber Dimensions</th>
<th>mm</th>
<th>in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width, Side Wall-to-Side Wall</td>
<td>248</td>
<td>9 3/4</td>
</tr>
<tr>
<td>Height, Internal, Lid Closed</td>
<td>124</td>
<td>4 7/8</td>
</tr>
<tr>
<td>Depth, Front-to-Back</td>
<td>156</td>
<td>6 1/8</td>
</tr>
<tr>
<td>D-1, Center Window-to-Front Wall</td>
<td>83</td>
<td>3 1/4</td>
</tr>
<tr>
<td>D-2, Center Window-to-Rear Wall</td>
<td>70</td>
<td>2 3/4</td>
</tr>
</tbody>
</table>
Five Steps for ERECTING the A-020 Test Stand

1. Place folded unit on table or bench so that legs are facing toward you. Ensure that Locking Levers are released.

2. Swing the LEFT LEG out (clockwise) to its fully extended position. Use Locking Lever to hold leg in place.

3. Swing RIGHT LEG out (counter-clockwise) to its fully extended position. Use Locking Lever to hold leg in place.

4. Lift A-020 to upright position. If necessary, use levelling feet to “fine tune” the platform for stability.

5. Slide the LID LATCH to right and lift the Lid to maximum upright position. Ensure that this Open position is clear and not blocked by any shelves, lights, or test apparatus.
Attach the PROBE ADAPTER

Probe Adapter (PA) Attachment Instructions

1. Note that the Delta PA has these features:
   - Two thumb screws
   - Two tabs of different sizes on its outer plastic ring - large tab on the bottom.
   - Interface port connector
   - An integrated Interface cable with 15 pin D sub connector

2. Back out thumbscrews so that PA slides smoothly over instrument’s probe/nose.

3. Orient PA so that the 16 pin Docking Station connector mates with the corresponding connector on the analyzer; the large ring tab is on the bottom.

4. Seat the PA so that the Measurement Window is flush with the plastic face.

5. Tighten the thumb screws, ensure that the Measurement Window remains flush.

6. Carefully move the analyzer with PA to the Test Stand.
   Follow directions on next page to complete the assembly of the XRF Workstation.
INSTALL Delta in Test Stand to make XRF Workstation

**Installation Instructions**

1. Open the Test Stand; legs must be fully extended and locked.
2. Place the Test Stand on its “Back”; Ring Locking Fixture is accessible.
3. Note the position of the Notches on the Ring Locking Fixture.
4. Align the Large Tab of the PA with the Large Notch on the Ring Locking Fixture.
5. Raise the analyzer until the face of the Probe Adapter is flush with the floor of the Test Cavity.
6. Carefully twist the instrument in a counterclock-wise direction until the PA locks.
7. The PA’s black plastic housing is centered with the Alignment Screw; the instrument’s handle should be parallel to the Test Stand’s legs.
8. Raise the Test Stand to its upright position. Installing an analyzer into the Test Stand has created an XRF Workstation.
9. Use instructions on the next page to configure the XRF Workstation’s cables.

Grey: From Above View into the Test Cavity

Blue: From Below View of Ring Locking Fixture

Alignment Screw
CONFIGURE Delta XRF Workstation for PC Control

**Precondition**
Delta is already secured in the Locking Fixture via the Probe Adapter (PA).

**PA Cable Assembly** A/N 900486
1. Insert the 15 pin DSub female connector (located at the end of the PA cable assembly) into the male socket on the I/O Panel

**Cable #2** PN 101310
2. Insert MiniUSB B connector into Data port of Delta
3. Insert USB A connector into USB port of PC.

Ensure that the Mini USB-B plug is inserted with the proper orientation. Here the “UP” arrow is actually to the left side. Do not force the plug into the socket.
Safety Features and Emergency Procedures

Radiation Safety
The XRF Delta Workstation (Test Stand plus any Delta handheld analyzer model) is a safe instrument when used according to our recommended safety procedures.

- It is a closed beam measurement system.
- Detectable radiation is below the limit for an uncontrolled area and is within regulatory limits.
- The X-Ray instrument has a multi-tiered safety interlock structure. (See block below)

Hardware Safety Features

X-Ray Indicator
Four amber, high-intensity LEDs light when the X-Ray tube is enabled. The LED flashes when X-Rays are being emitted during a test.

Shielding
Entire test chamber is shielded.

Interlock Sensors
Lid interlocks ensure that lid is closed prior to X-Rays turning ON. If lid is lifted during an active test, the X-Ray beam turns OFF.

Proximity Sensor
Analyzer shuts OFF when there is NO sample in front of measurement window.

Emergency Shutoff Procedures

Open Lid
This shuts OFF X-Rays immediately. Test data is preserved. This is the recommended method.

On PC
Press the STOP button on UI.

I/O Panel
Remove PA control cable from 15-pin port.

Safety Label

A-020-D Test Stand - Top View