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**Research (MKI)**

**Detector Assembly Pressure Test Procedure**  
**(ACIS)**

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# Preface

**1.0 Detector Assembly**

The Detector Assembly (DA) is extremely susceptible to Electrostatic Discharge (ESD). MIT procedure 99-01003 Electrostatic Discharge, Handling of Parts and Equipment must be followed. Insure shipping container, Detector Assembly (DA), VGSE, and operator are at the same voltage potential.

1.1 Prepare the Vacuum Ground Support Equipment (VGSE) for measurement and pump down of the Detector Assembly (DA) and Vent Valve Assembly (VVA).

1.2 Open purge valve on the shipping container to insure internal and exterior atmospheric pressure are equalized.

1.3 Remove top cover of the shipping container.

1.4 Cut access openings in outer and inner contamination bags.

1.5 Connect VGSE electrical connector to DA/VVA ground service connector.

1.6 Connect high conductance and low conductance vacuum lines from the VGSE to the DA/VVA.

1.7 Start VGSE. When VGSE is ready, measure the pressure in the detector assembly.

1.8 Record pressure, time, and date.

Pressure \_\_\_\_\_  
Time \_\_\_\_\_  
Date \_\_\_\_\_

1.9 The DA/VVA was pumped down on 06/14/97. The pressure reading on the VGSE was -1 Torr. Calculate the rate of pressure change. Divide the pressure increase from 06/14/97 to 0630/97 by sixteen days.

1.10 Record the rate of pressure change.

Pressure change rate = \_\_\_\_\_ Tor per day.

**NOTE:** A pressure change rate of less than 1.5 Torr per day is considered to be outgassing. A pressure change rate of 1.5 Torr per day or greater is to be handled at the discretion of MIT.

2.0 Initiate the Pump Down Procedure through the VGSE

2.1 When the pump down is completed, record the pressure, time, and date.

Pressure \_\_\_\_\_

Time \_\_\_\_\_

Date \_\_\_\_\_

2.2 Disconnect vacuum and electrical connectors from the DA/VVA and the VGSE.

2.3 Restore internal contamination bag on the DA/VVA and re-purge with dry nitrogen.

2.4 Restore outer contamination bag on the DA/VVA and re-purge with dry nitrogen

2.5 Replace the top cover of the Shipping Container.

2.6 Purge the shipping container with dry nitrogen.

2.7 Close the shipping container purge ports.

3.0 Secure the VGSE and water chiller.

3.1 Prepare the VGSE and water chiller for transportation.