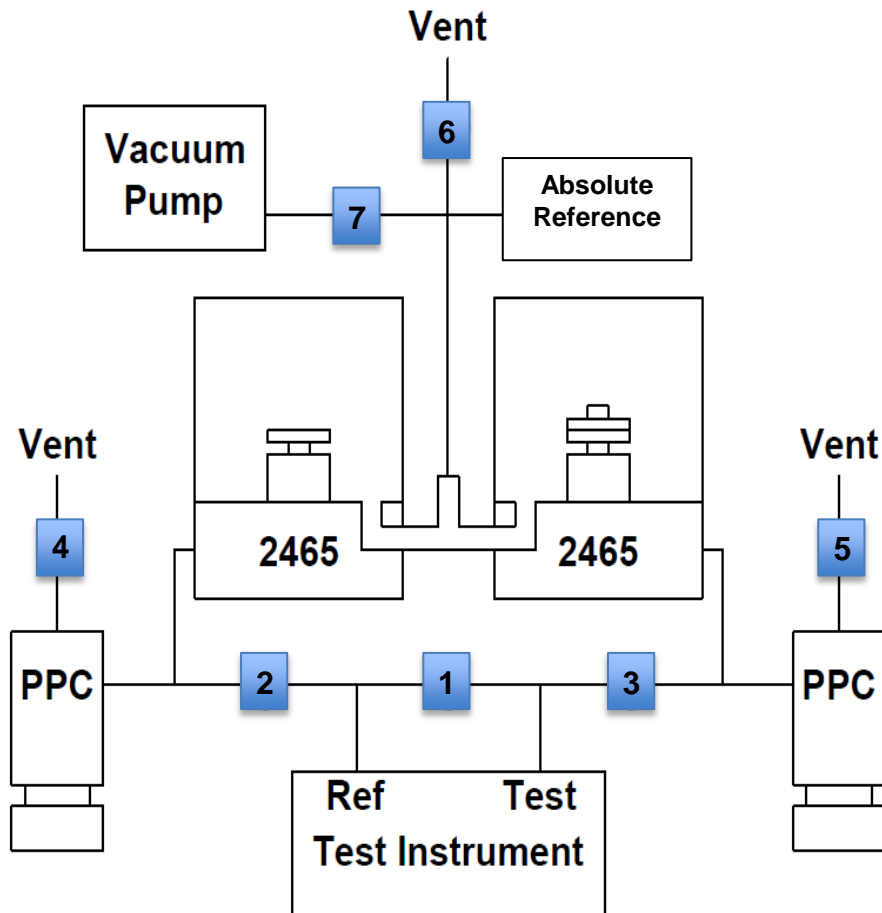
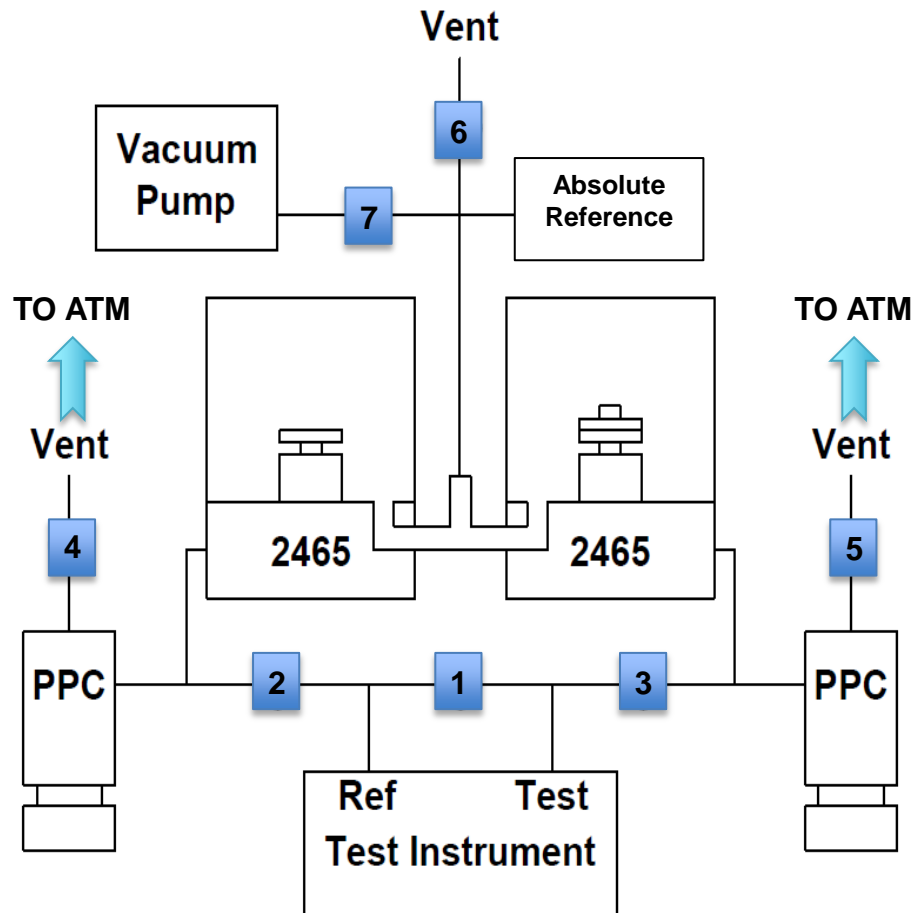


SYSTEM VALVE DIAGRAM



- **VALVE 1:**
 - Test [+] / Ref [-] Port Bypass
- **VALVE 2:**
 - UUT Reference and System Isolation
- **VALVE 3:**
 - UUT Test Port and System Isolation
- **VALVE 4:**
 - “Tare P-C” ATM Vent (path to atmosphere)
- **VALVE 5:**
 - “Test P-C” ATM Vent (path to atmosphere)
- **VALVE 6:**
 - Bell jar vacuum pressure release valve
- **VALVE 7:**
 - Vacuum source valve

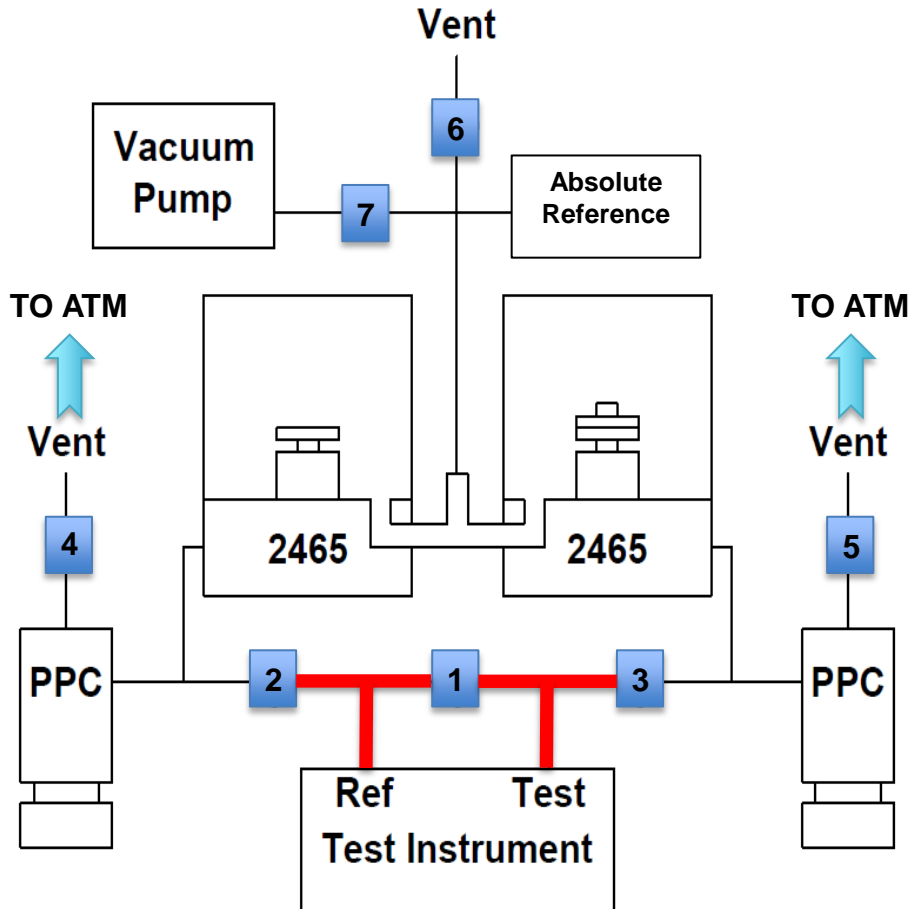
VENT MODE: System Open to ATM



Initial state of system with UUT connected. All paths to atmosphere (vent state). UUT. The UUT is left in this state for its warm-up and acclimation to the environment.

- **VALVE 1: OPEN**
 - Test [+] / Ref [-] Port Bypass
- **VALVE 2: OPEN**
 - UUT Reference and System Isolation
- **VALVE 3: OPEN**
 - UUT Test Port and System Isolation
- **VALVE 4: OPEN**
 - “Tare P-C” ATM Vent (path to atmosphere)
- **VALVE 5: OPEN**
 - “Test P-C” ATM Vent (path to atmosphere)
- **VALVE 6: OPEN**
 - Bell jar vacuum pressure release valve
- **VALVE 7: CLOSED**
 - Vacuum source valve

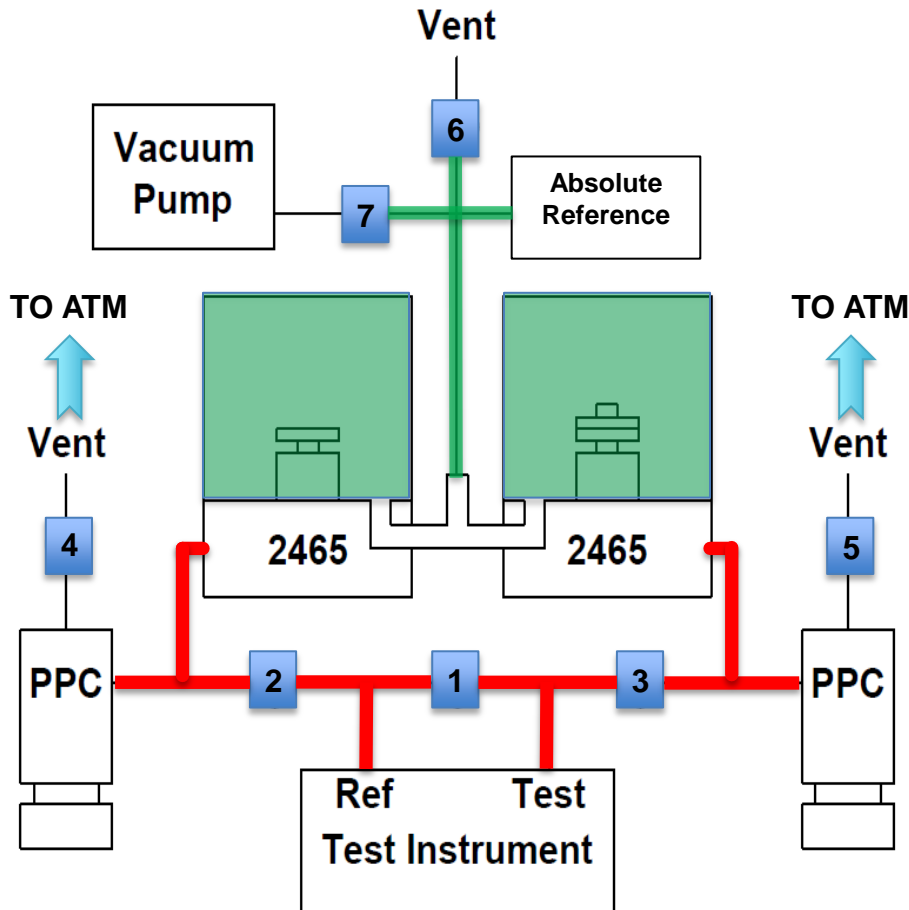
UUT ZERO MODE: System Closed to ATM



- **VALVE 1: OPEN**
 - Test [+] / Ref [-] Port Bypass
- **VALVE 2: CLOSED**
 - UUT Reference and System Isolation
- **VALVE 3: CLOSED**
 - UUT Test Port and System Isolation
- **VALVE 4: OPEN**
 - “Tare P-C” ATM Vent (path to atmosphere)
- **VALVE 5: OPEN**
 - “Test P-C” ATM Vent (path to atmosphere)
- **VALVE 6: OPEN**
 - Bell jar vacuum pressure release valve
- **VALVE 7: CLOSED**
 - Vacuum source valve

After warm-up and exercise the UUT is zeroed. It is important to zero the UUT with both Test [+] and Ref [-] ports connected together. Do not zero with the [+] and [-] ports vented directly to atmosphere. UUT pressure is in **RED**.

UUT MEASURE MODE:



- **VALVE 1: CLOSED**
 - Test [+] / Ref [-] Port Bypass.
 - This enables the dP between the two P-C's when closed.
- **VALVE 2: OPEN**
 - UUT Reference and System Isolation.
- **VALVE 3: OPEN**
 - UUT Test Port and System Isolation
- **VALVE 4: CLOSED**
 - “Tare P-C” ATM Vent (path to atmosphere)
- **VALVE 5: CLOSED**
 - “Test P-C” ATM Vent (path to atmosphere)
- **VALVE 6: CLOSED**
 - Bell jar vacuum pressure release valve
- **VALVE 7: CLOSED**
 - Vacuum source valve. U

After warm-up and exercise the UUT is zeroed. It is important to zero the UUT with both Test [+] and Ref [-] ports connected together. Do not zero with the [+] and [-] ports vented directly to atmosphere. UUT pressure is in **RED**. Vacuum is in **GREEN**.

2465 Differential Pressure System

- The line pressure on the Reference Port [-] is close to Atmospheric pressure.
- Sensitivity w/ a TL-xxxx Piston-Cylinder (P-C) is 1 mg. $1 \text{ mg} \approx 0.029 \text{ Pa}$.
 - With 1 mg minimum mass load you cannot achieve a better differential trim zero if the difference between the two piston gauges are within $\pm 0.029 \text{ Pa}$.
- Both 2465 motors should be turned on and off at the same time so the heat generated is the same for both P-C's.