Using the 7890 Service Mode Inlet Leak Check

- For the Split/Splitless (SS), Multimode (MMI) and Programmable Temperature Vaporization (PTV) Inlets
- Used to evaluate the leak rate, and help identify the source of leaks in these Inlet Systems
- Useful for leaks > 2-3 ml/minute

Entire Leak Check Menu:

To Run the Test:

1. Confirm the accuracy of the Capillary Column Configuration
2. Select a Test Pressure – Typical Examples:
   - For 30M X 250um on GCMS – 5-20 PSIG
   - For 30m X 530uM column on GC Detector – 5-15 PSIG
   - For 30M X 320 uM column on GC Detector – 5-25 PSIG
   - For 30M X 200uM column on GC Detector – 5-85 PSIG
3. Press “ON” to start the Leak Check
**Interpreting the Results:**

Compare the measured “Total Flow” to the calculated “Column Flow”

![Image of flow measurements](image1)

The Leak rate is approximately
74-6 ≈ 68 mL/minute

The Leak rate is negligible!

**Potential Leak Points:**

Check/Adjust/Tighten these areas while monitoring the Total Flow in the Display:

![Image of potential leak points](image2)

**Applications for the Test**

- Before and After Inlet Maintenance
- As a Pre-Run Check before running a sequence
- As a daily check for leaks
- As a Check for Plugged Column - “Total Flow” result will be close to 0.0 ml/minute

**Setting Warnings and Faults**

Example: Will generate a “Service Due” Warning if Test results are > 5 ml/minute
And a “Fault” with “Not Ready” if > 10.00 ml/minute

![Warning and Fault images](image3)