



## How to Reset the MS SmartCard MS ChemStations

**HP 5970, 5971, 5972, 5973, 5989 and 1100 MSD (LC-MSD)**

The error or problem you have reported is most likely caused by a disruption in communication between the PC Controller and the “SmartCard” on board the MS instrument itself. This is usually corrected by resetting the SmartCard.

### “Soft” reset procedure:

1. For G1034C: From Top level, select **Tune... Manual tune**

For G1701AA/BA/CA: From Instrument View, select **View... Manual tune**

2. Once in Manual Tune, be sure the command line is shown (the command line is the white bar just below the green message line at the bottom of the window). If the command line is not visible, select the control menu (click the small box in the upper left corner of the Manual tune window) and select **Cmdline on**.

3. Type (on the command line) **SCINIT,1**

After a few moments a message should appear on the command line indicating the interface has been reset. If NOT see “Hard” reset instructions below.

**Note:** If you have a recent version of MS ChemStation, you can do a soft reset as follows:

From the Instrument View, select **View ... Diagnostics and Vacuum Control**. Then from the Diagnostics window, select **Diagnostics ... Initialize MS Interface**.

4. To test the reset effort, try to tune your instrument. If the problem still exists, stronger measures are required (see below).

#### **“Hard” reset procedure:**

A hard reset involves interrupting power to the SmartCard for a few seconds. The details and risks vary from model to model. If your instrument is a 5971 or 5972, read the details and warnings carefully.

- 5970 and 5989 have switches on the front of the instrument labeled (5970) “Heater and Electronics” or (5989) “Electronics”. To reset these instruments, cycle this switch off, then on after 2-3 seconds.
- The LC-MSD (1100 MSD) smart card can be reset by opening the left panel, locating a small hole labeled “**Reset**”, then inserting a small non-conductive tool to push the reset switch.
- A 5973 can be reset safely by using the smart card reset switch; see the details later in this document

#### **C A U T I O N**

The 5971 and 5972 MSDs are both diffusion pumped, some 5973s are also diffusion-pumped. Resetting the SmartCard *can* be done by merely turning the main power switch OFF, then ON. However, there is risk involved: The mechanical pump could fail to start when the power is re-applied to the instrument. If this happens the diffusion pump would most likely “backstream” coating the inside of the analyzer with diffusion pump oil, and necessitating a costly repair. Any repair costs incurred from this type of shutdown would not be covered by any contract.

These models have been reset in this way numerous times without incident; it is the most common means of resetting the SmartCard, BUT the risk is real. If you are not willing to take the small risk involved, you can call Agilent for on-site service or try the safe, slow way outlined later in this document.

Resetting the SmartCard on your 5971 or 5972 MSD by interrupting the power briefly:

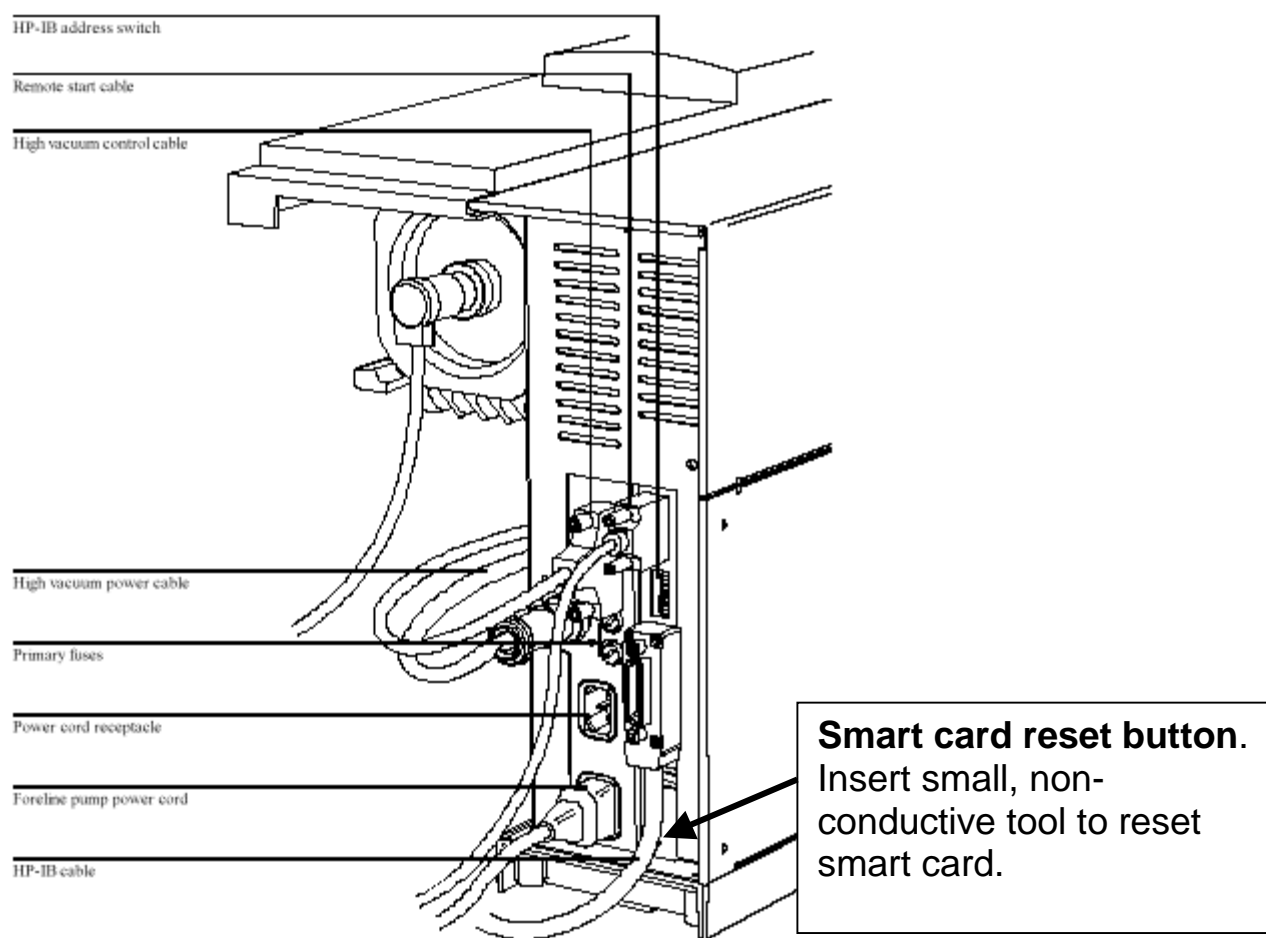
Locate the power switch on the rear of the MSD, and without removing your finger from the switch, turn the instrument OFF; wait 2-3 seconds and turn it back ON. If you forget to turn it on for even a few minutes, your risk goes from remote to 100%!

The safe (and slow) way to reset the SmartCard on the 5971 and 5972 MSD:

1. Consult your hardware manual to locate the foreline vacuum gauge (page 6-63 in the 5971 Hardware manual, page 190 in the 5972 Hardware manual.)
2. Unplug the blue connector from the foreline gauge. This will cause the MSD to sense a pump problem and turn the diffusion pump OFF
3. WAIT 15 Minutes until the diffusion pump feels cool, then reconnect the blue vacuum gauge connector and power-cycle the MSD as detailed above.
4. If you don't feel comfortable following these instructions, call Agilent for on-site service.

The 5973 MSD provides a recessed Smart Card Reset switch. To reset the 5973 smart card, insert a non-conductive tool into the reset switch location shown in the diagram below. Restart the ChemStation after the instruments have been reset.

5970B 5971 5971A 5972 5972A 5973 5973A 5973B 5989A 5989B G1701AA G1701BA G1701CA G1701DA G1034C



**5973 MSD, rear view.**