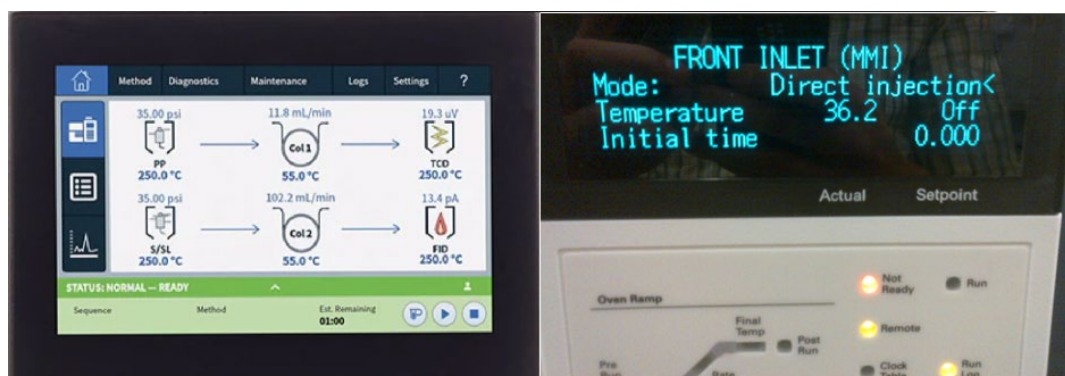**Customer Support Note 017**

Updating EPC flow control of a Markes TD with an MMI (7890 or 8890 GC)

Disclaimer: It is vital that this Customer Support Note is read carefully before proceeding and that any instructions contained within the document are followed closely. Markes International will not accept responsibility for any damage done to instrumentation or personnel if any instructions within this document are not followed exactly. Any ongoing warranty or contract may be voided if failure to follow these instructions results in damage to the instrumentation. If anything is unclear, you must clarify the details with a Markes representative before proceeding.
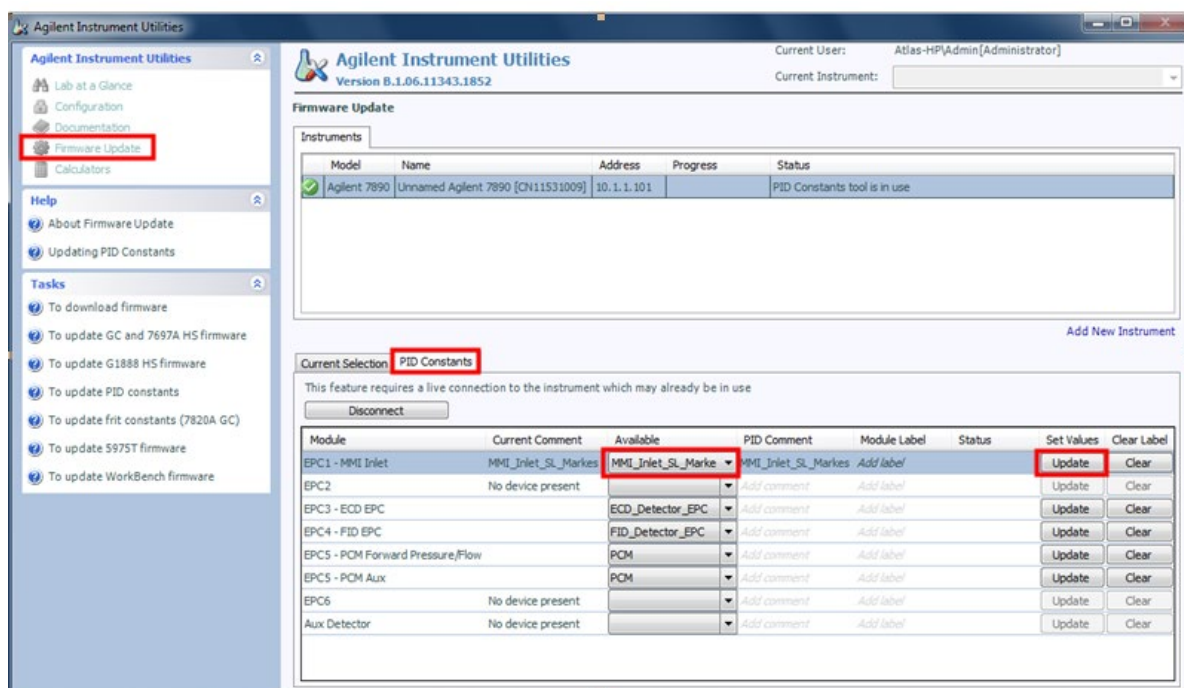
1. MMI inlet mode setup

- Inlet must be set up in 'Direct Injection' mode to work with the Markes TD.

- There is no need to set the inlet to 'Splitless' and enter a 999.99 purge time (the value will be accepted, but the inlet will not control correctly).

- The EPC PID values should be updated to provide stable flow during trap fire:

2. Using Agilent GC Control Software

- Put the Markes Control software USB into the computer, select USB:\Software\Additional Software\Agilent files\Agilent XML PID update files.

- Locate the file 'MMI_Inlet_SL_Markes.xml'.

- Copy the file to C:\Program Files\Agilent\Lab Monitor\firmware\pneumatic-eeprom.

- Close Agilent Control Software.

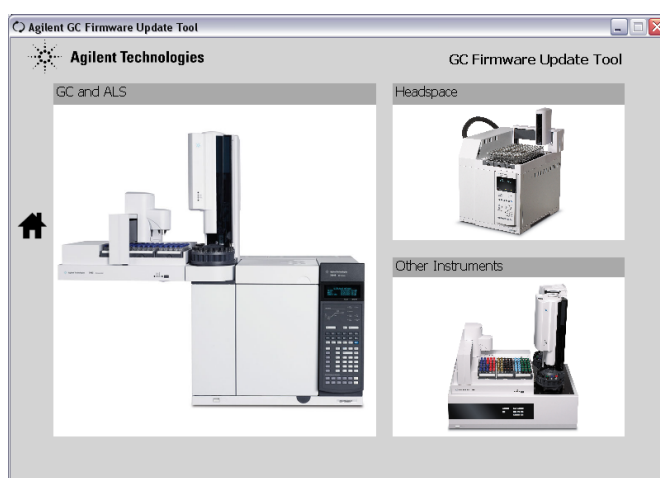- Open Agilent Instrument Utilities and select 'Firmware Update'.

- Click on the 'PID Constants' tab then click 'connect':

- Once connected, locate the 'MMI Inlet' line, and in the available drop-down box select 'MMI_ Inlet_SL_Markes'.

- Click 'Update' to download the new PID values to the GC:

- Once completed, click 'Disconnect', close the software and power-cycle the GC.
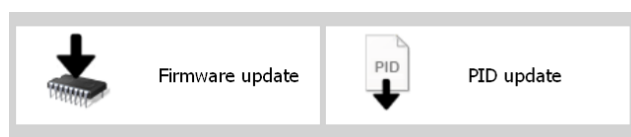
3. Using Agilent GC Firmware Update Tool

- Download and install Agilent GC Firmware Update Tool. This can be accessed using the following link: http://www.chem.agilent.com/Library/usercontributedsoftware/Public/GC-Firmware-Update-Tool-Setup.exe.

- Once installed, run the program and select 'GC and ALS':

- Choose the model of GC (options are 7890A, 7890B or 8890):

- Select 'PID Update':

- Enter the GC's IP address into the box:

- Select the inlet supplying the TD system, and in the drop-down menu select the Markes settings (different versions will be available dependent on the GC and inlet present, but all will have the Suffix '_Markes'):

- Click 'Set Selected Module Values' to download the PIDs.
- Click 'Disconnect', and then close the program.
- Restart the GC.
- Run a blank tube/trap fire black to check the stability of the total flow during the trap fire stage.

For all technical support queries, please contact Markes International.

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