DataApex
Clarity™
CHROMATOGRAPHY SOFTWARE

AGILENT 7673

Clarity Control Module ENG

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Contents

To facilitate the orientation in the **Agilent 7673** manual and **Clarity** chromatography station, different fonts are used throughout the manual. Meanings of these fonts are:

Instrument (blue text) marks the name of the window to which the text refers.

Open File (italics) describes the commands and names of fields in **Clarity**, parameters that can be entered into them or a window or dialog name (when you already are in the topic describing the window).

WORK1 (capitals) indicates the name of the file and/or directory.

ACTIVE (capital italics) marks the state of the station or its part.

The bold text is sometimes also used for important parts of the text and the name of the **Clarity** station. Moreover, some sections are written in format other than normal text. These sections are formatted as follows:

Note: Notifies the reader of relevant information.

Caution: Warns the user of possibly dangerous or very important information.

Marks the problem statement or trouble question.

Description: Presents more detailed information on the problem, describes its causes, etc.

Solution: Marks the response to the question, presents a procedure how to remove it.

1 Agilent 7673 AS Control Module

The **Agilent 7673** AS driver can control Agilent (formerly HP) **7673A, B** and **7673 Series II** autosamplers.

Fig 1: Agilent (HP) 7673 with a 5890GC

2 Requirements

- **Clarity** Installation CD ROM with AS Control module (p/n A26).
- Free serial port in the PC (fast - 16550 UART).

Note: Modern computers usually have only 1 (if any) serial (COM) port installed. To use more devices requiring the port, the **MultiCOM** adapter (p/n MC01) is available.

- For the **Agilent 7673 Series II** sampler the serial cross DB9F-DB9F cable (p/n SK01) is necessary, the **7673 A** nad **B** models use the cross DB9F-DB25F cable (p/n SK04) instead.

Note: Cables are not part of **Clarity** Control Module. It is strongly recommended to order required cables together with the Control Module.

- For the **Agilent 7673 A** and **B** controllers (HP18594 A, B), Agilent standard controller card (Agilent p/n 18594-60060) is necessary, along with the RS232 interface card (Agilent p/n 18594-60080). **DataApex Ltd.** does not supply the standard controller card.

Note: **Agilent 7673 Series II** controller (G1512A) already has the RS232 interface circuits.

- Remote control cable for connection between the controller and the chromatograph. The type of the cable depends on the controller installed and on the use of the chromatograph control module. For the particular cable supply number, see table below:

		Type of the controller	
		HP18594	**G1512A**
Chromatograph control	YES	SK13A	SK13B
	NO	SK13A + SK13E	SK13B + SK13E

3 Installation Procedure

3.1 Autosampler Setup

The setup procedure depends on the controller type:

3.1.1 Installing in 18594 A/B Controller board

Note: Not necessary if RS232 board is already installed

- Unscrew and remove the top covering panel of the autosampler
- Remove the original INET card

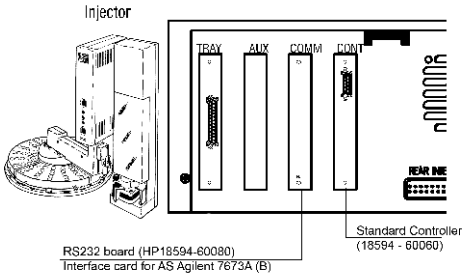


Fig 2: Location of the RS232 and Standard Controller cards

- Set up the **Baud Rate** using the jumpers on the card. Recommended setting is *9600*.

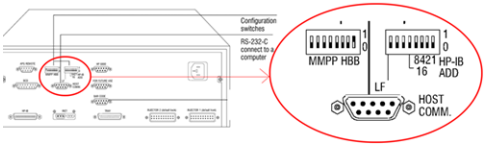
Note: The original RS232 board from Agilent (HP18594-60080) can be used.

- The type of the **Standard Controller** card must be **18594 - 60060.**
- Insert the interface card.
- Connect the controller with PC using the serial cross DB9F-DB9F cable (p/n SK01).

3.1.2 Installing in G1512A Controller

The **G1512A** controller already provides RS232 communication circuits.

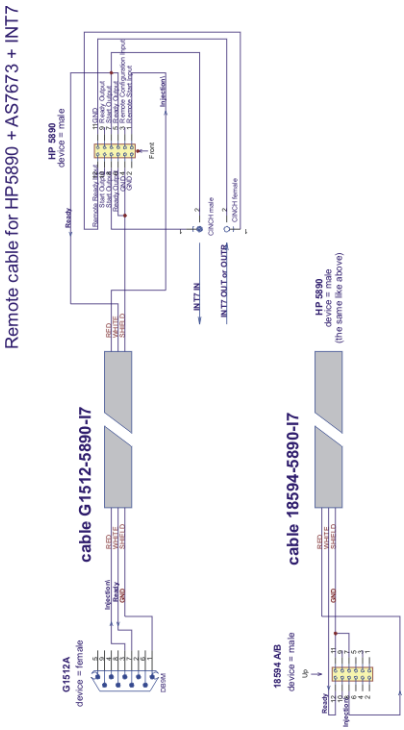
- On the backside of the controller set up the DIP Switches to meet your configuration settings (the recommended setting for 9600 baud rate can be seen on the image).
- Connect the controller with PC using the serial cross DB9F-DB9F cable (p/n SK01).



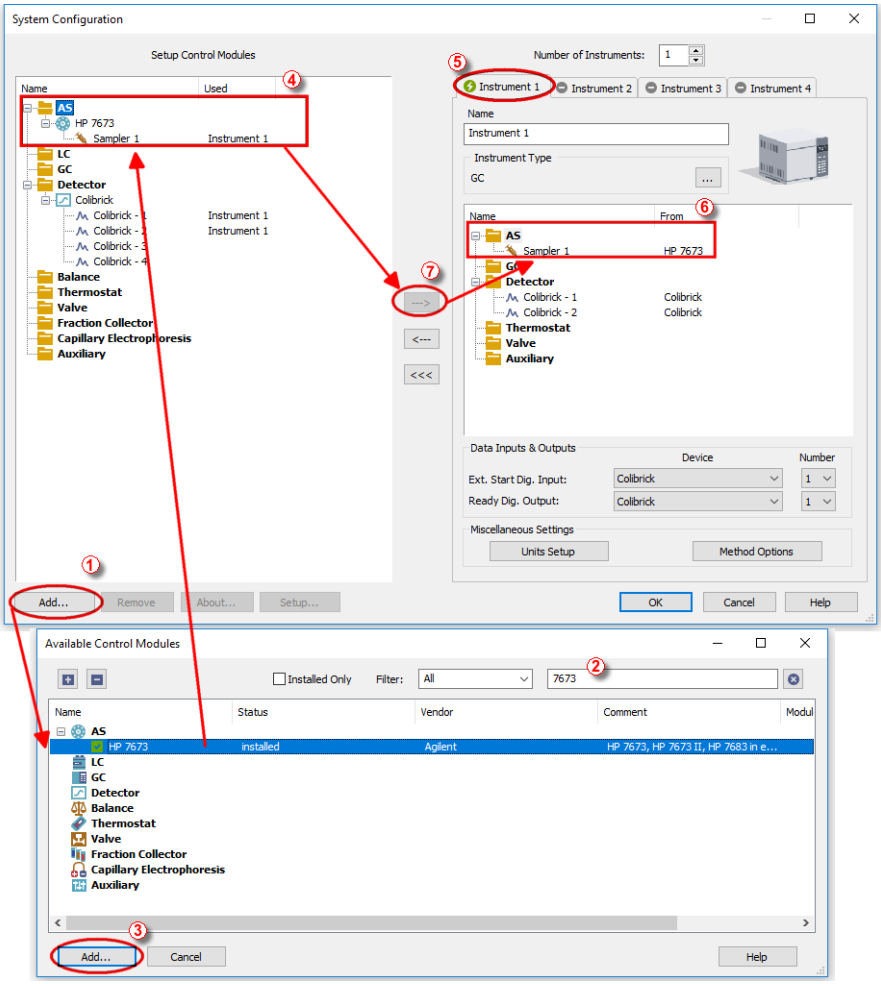
3.2 Installing the AS module in the PC

- Select and if necessary install a fast serial port in the PC.
- Connect the AS to the PC by serial cable, turn the power AS on.

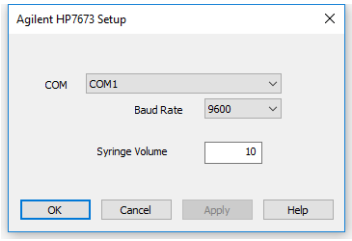
3.3 Connections



3.4 Clarity Configuration



- Invoke the System Configuration dialog accessible from the Clarity window using the *System - Configuration* command and press the *Add* button ①
- Type "7673" into the searching field on the top of the dialog ② for quick filtering out the desired instrument.



- Select the *Agilent 7673 Sampler* and press the *Add* button ③.
- The HP7673 Setup dialog will appear.

- In the HP7673 setup dialog set *COM* port, *Baud Rate*: *9600*.

Note: The recommended baudrate is *9600* and it must be set also on the DIP Switches on the controller or on the card ("Autosampler Setup" on page 3)

- Fill in the *Syringe Volume*. This value will be used exclusively, regardless of real volume of the syringe installed in autosampler.
- Switch to the desired instrument tab in the right part of the System Configuration dialog.

Fig 3: System Configuration

- Press *OK*. The **Agilent 7673** item ④ will appear in the *Setup Control Modules* list of the System Configuration dialog.
- Drag the AS icon from the *Setup Control Modules* list on the left side to the desired *Instrument* tab ⑤ on the right side ⑥, or use the ---> button ⑦ to do so.

4 Using the control module

4.1 Method Setup - AS

A new Method Setup AS tab will appear in the Method Setup dialog, enabling the setting of AS control method.

- Use the *From AS* button to download current method parameters from autosampler (and save it under suitable name in **Clarity**).
- Use the *To AS* button to upload the **Clarity** method AS parameters to **Agilent 7673.**
- Use the *AS Status* button to see the current AS configuration (syringe volume, etc.)

Note: In DEMO mode the dialog enables selecting them

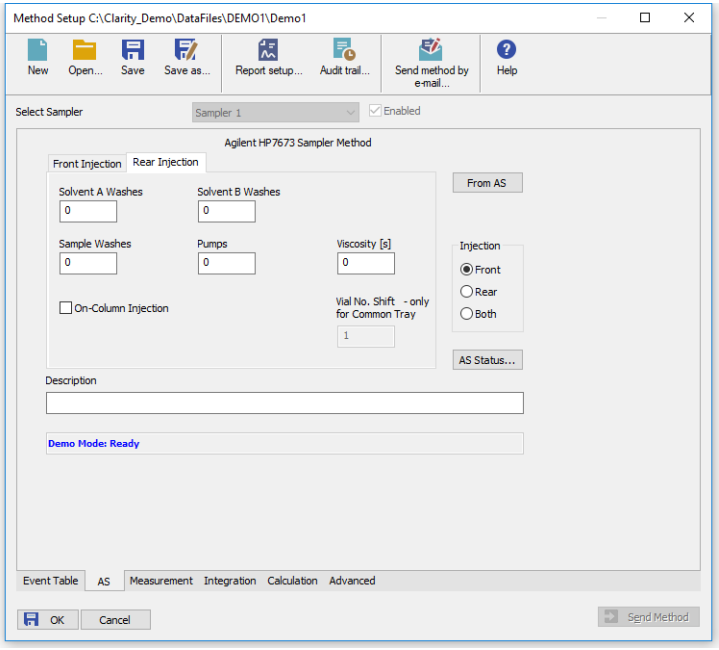


Fig 4: Method Setup - AS - Front Injection

Note: The Front Injection and Back Injection tabs have the same layout (only Front Injection tab will be described).

Solvent A Washes

Number of washes with solvent A.

Solvent B Washes
Number of washes with solvent B.

Sample Washes
Number of washes with the sample.

Pumps
Number of pumps with the sample.

Viscosity
Sets the viscosity.

On-Column Injection
Sets the On-Column Injection mode.

Note: Autoinjector turret without external tray does not support identification of missing vials. In case there will be requested to inject from position where vial is not placed the injection will take place as usual. This injection will result in chromatogram with unexpected signal pattern (for example).

4.2 Hardware Configuration

The Hardware Configuration dialog reviews the current configuration of the autosampler.

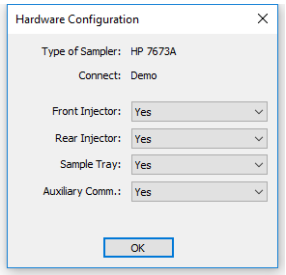


Fig 5: Hardware Configuration

In the full operation regime, it is a place where the communication settings and automatic detection of optional components can be reviewed.
In the demo mode this dialog presents listboxes illustrating the available options.

5 Troubleshooting

Card does not fit in the controller slot.

Various versions of the **18594A/B Controller** can have slightly different dimensions. It is necessary to ensure that all cards will be properly inserted in its respective slots on the controller mainboard.

Adjust the card (mechanically) to fit in the slot if necessary.