

Clarity Controls

Agilent 7673

AS

ENG

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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, there are text sections written in format other than normal text. These sections are formatted as follows:

Note: Notifies the reader of possibly interesting information.

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

█ Marks the problem statement or trouble question.

Description: Presents any closer 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-DB9M cable (p/n SK02) is necessary, the **7673 A** and **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), RS232 interface card is necessary (p/n IHP76).

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	SK13C	SK13D

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

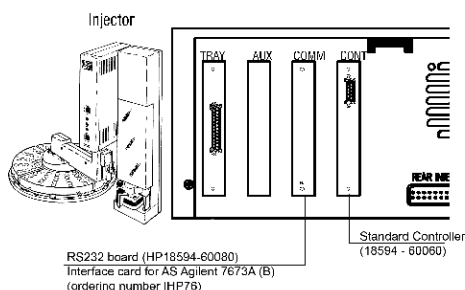


Fig 2: Location of the RS232 and Standard Controller cards

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

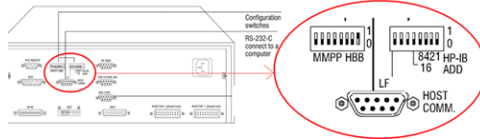
Note: The original RS232 board from Agilent (HP18594-60080) can be used. DataApex supplies compatible card (o/n: **IHP76**).

- 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-DB25F cable.

3.1.2 Installing in G1512A Controller

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

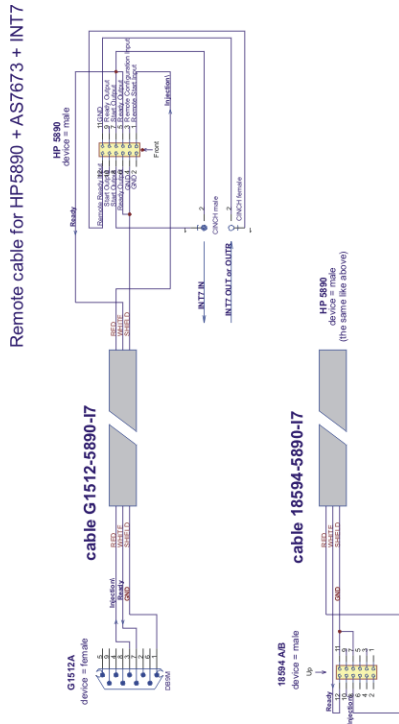
- On the backside of the controller set up the DIP Switches to meet your configuration settings (the recommended setting for 9600 baud rate can be seen on the image).
- Connect the controller with PC using the serial cross DB9F-DB9M cable.



3.2 Installing the AS module in the PC

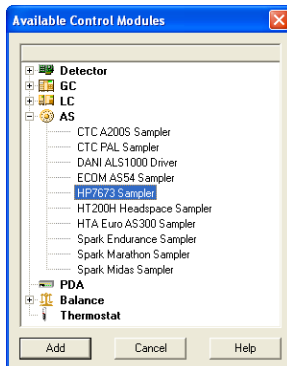
- Select and if necessary install a fast serial port in the PC.
- Connect the AS to the PC by serial cable, turn the power AS on.

3.3 Connections

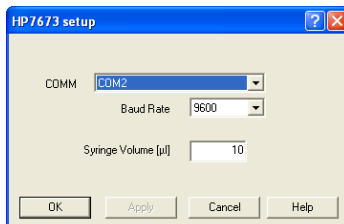


3.4 Clarity Configuration:

- Invoke the [System Configuration](#) dialog accessible from the [Clarity](#) window using the *System - Configuration* command.
- Press the *Add* button to invoke the [Available Control Modules](#) dialog.



- Select the *Agilent 7673 Sampler* and press the *Add* button.
- 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 (See "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.
- Press the *OK* button.
- Switch to the desired instrument tab in the right part of the [System Configuration](#) dialog.

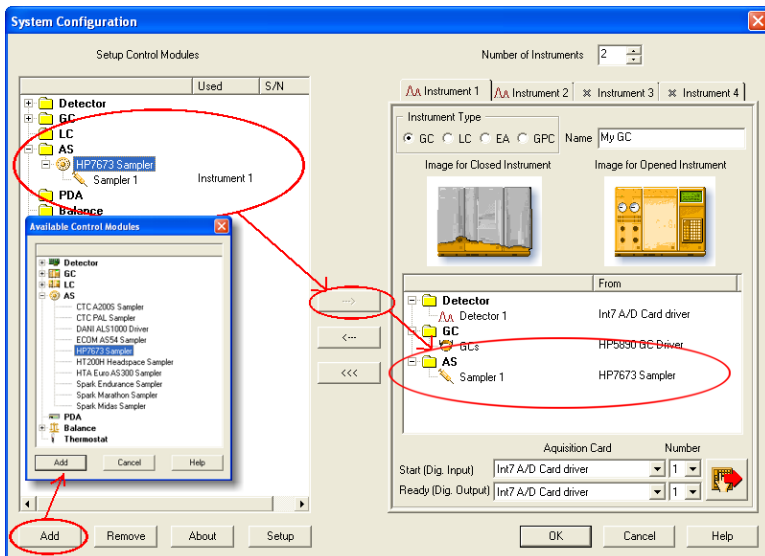


Fig 3: System Configuration

- Drag and drop the *HP7673 Sampler* from the *Setup Control Modules* in the left to the Instrument tab on the right.

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)

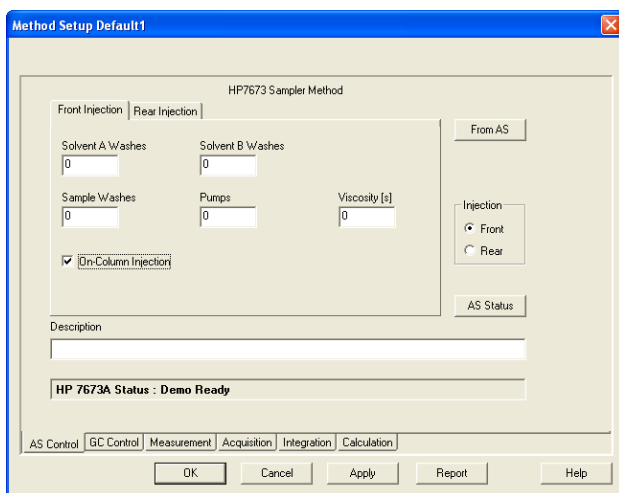


Fig 4: Method Setup - AS - Front Injection

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.

4.2 Hardware Configuration

The [Hardware Configuration](#) dialog reviews the current configuration of the autosampler.

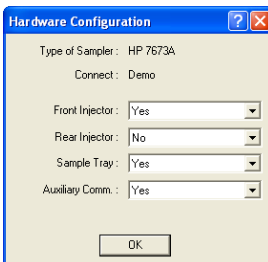


Fig 5: Hardware Configuration

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.