

## HP 59970C ChemStation

February, 1987

### General Description

The HP 59970C ChemStation analytical workstation is a single-tasking, single-user, single-instrument data system designed for use with HP 5988A and 5995C MSs and the 5970B Mass Selective Detector (MSD). The ChemStation is based on an HP 9000 Series 300 Technical Computer with 2 Mbytes of RAM in either monochrome or color versions. To complete the system, you can choose from a variety of disc drives, printers, and color graphics plotters.

Operating software provides a complete set of MSD, GC/MS and LC/MS applications including programs for Tuning, Data Acquisition, Data Editing, and Reports. A variety of optional software packages can be added to the operating software to enhance system performance. Sequencing software adds complete automation capabilities and control of HP Automatic Liquid Samplers such as the HP 7673A. Colorview software allows the user to gain a quick qualitative understanding of GC/MS results by providing 3-dimensional views of data. PBM Library Search Software and the NBS mass spectral library aid in the identification of unknowns.

Installation and 90-day warranty are provided. Operator training is highly recommended.

### How to Order

The HP 59970C workstation can be ordered to satisfy your specific needs. A valid configuration must include the following:

1. 59970C ChemStation
2. Computer option
3. Disc drive option
4. Power cord option
5. MS-MSD operating software
6. Software media option



The following options should also be specified if desired:

1. Printer option
2. Plotter option
3. Library data base software
4. Sequencing software
5. Colorview software



On the following pages, gray shading in a box indicates that something **must** be ordered from within that box.





## ChemStation Mainframe

Notes	Description	✓	Order	Price
Must specify one computer option and one disc drive. May specify printer and/or plotter. Must order 59974J operating software.	<b>MS ChemStation</b> Analytical workstation for use with HP 5988A and HP 5995C MSs and the 5970B MSD.	—	59970C	N/C

## Computer Options


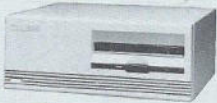




Notes	Description	✓	Order	Price
	<b>Monochrome Computer</b> Includes HP 310 computer with 10 MHz 68010 processor, 12" monochrome monitor, 2 MBytes RAM, ITF keyboard, 512 × 400 bit mapped display interface, DIO, GPIO, HPIB and RS232 interfaces and HPIB cabling.	—	59970C #120	
	<b>Color Computer</b> Includes HP 310 computer with 10 MHz 68010 processor, 12" color monitor, color display board, 2 MBytes RAM, ITF keyboard, 512 × 400 bit mapped display interface, DIO, GPIO, HPIB and RS232 interfaces and HPIB cabling.	—	59970C #140	

## Disc Drive Options

Notes	Description	✓	Order	Price
Order all software with media option #630. 	<b>10 MByte Disc Drive</b> HP 9153A 10 MByte Winchester disc drive with a built-in 3.5" double-sided flexible disc drive.	—	59970C #210	
Order all software with media option #630. 	<b>20 MByte Disc Drive</b> HP 9133H 20 MByte Winchester disc drive with a built-in 3.5" double-sided flexible disc drive.	—	59970C #220	





## Disc Drive Options, cont'd.

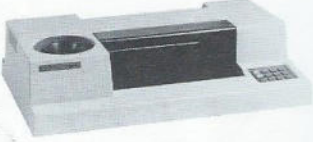
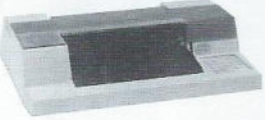

Notes	Description	✓	Order	Price
<p>Order all software with media option #630.</p> 	<p><b>40 MByte Disc Drive</b>                      HP 9133L 40 MByte Winchester disc drive with a built-in 3.5" double-sided flexible disc drive.</p>	<p>—</p>	<p>59970C #240</p>	
<p>Uses 16 or 67 MByte preformatted cartridges. Recommended for use with options #280 and #290. Order all software with media option #022.</p> 	<p><b>1/4" Tape Drive</b>                      HP 9144A 1/4" cartridge tape drive for back up storage.</p>	<p>—</p>	<p>59970C #244</p>	
<p>Order all software with media option #022.</p> 	<p><b>55 MByte Disc Drive</b>                      HP 7946A 55 MByte Winchester disc drive with a built-in CS-80 cartridge tape drive.</p>	<p>—</p>	<p>59970C #255</p>	
<p>Requires flexible disc drive or cartridge tape drive for back-up storage. 59970C #244 highly recommended.</p> 	<p><b>81 MByte Disc Drive</b>                      HP 7957A 81 MByte Winchester fixed disc drive.</p>	<p>—</p>	<p>59970C #280</p>	
<p>Order all software with media option #022.</p> 	<p><b>132 MByte Disc Drive</b>                      HP 7914P 132 MByte Winchester disc drive with a built-in CS-80 cartridge tape drive.</p>	<p>—</p>	<p>59970C #288</p>	
<p>Requires flexible disc drive or cartridge tape drive for back-up storage. 59970C #244 highly recommended.</p> 	<p><b>130 MByte Disc Drive</b>                      HP 7958A 130 MByte Winchester fixed disc drive.</p>	<p>—</p>	<p>59970C #290</p>	



## Printer Drive Options

Notes	Description	✓	Order	Price
<p>For low-volume printing. (200–500) pages per month.</p> 	<p><b>ThinkJet Printer</b> HP 2225A ThinkJet printer with HPIB interface. Includes cables, paper, paper tray and ink cartridges. 150 cps maximum printing speed.</p>	—	59970C #300	
<p>For high-volume printing and long-term automated operation.</p> 	<p><b>Office Impact Printer</b> HP 2934A dot matrix impact printer with memo-quality, letter quality, and increased letter quality printing modes. Includes HPIB interface, cable and paper. 200 cps maximum printing speed.</p>	—	59970C #310	

## Plotter Options

Notes	Description	✓	Order	Price
	<p><b>ColorPro Plotter</b> HP 7440A 8-pen color graphics plotter for use with 8.5" × 11" (210mm × 297mm) paper only; 40 cm/s plotting speed.</p>	—	59970C #400	
	<p><b>6-Pen Plotter</b> HP 7475A 6-pen color graphics plotter for use with 8.5" × 11" (210mm × 297mm) paper; 54 cm/s plotting speed.</p>	—	59970C #405	
	<p><b>Automatic Feed Plotter</b> HP 7550A 8-pen color graphics plotter for use with 8.5" × 11" (210mm × 297mm) and 11" × 17" (297mm × 420mm) paper; 80 cm/s plotting speed.</p>	—	59970C #410	

## Power Cord Options

Notes	Description	✓	Order	Price
Choose one only.	Power cord for UK	—	59970C #900	N/C
	Power cord for Australia/NZ		59970C #901	N/C
	Power cord for Europe/220V		59970C #902	N/C
	Power cord for US/Canada		59970C #903	N/C
	Power cord for Switzerland		59970C #906	N/C
	Power cord for Denmark		59970C #912	N/C
	Power cord for South Africa		59970C #917	N/C

## ChemStation Software

Notes	Description	✓	Order	Price
Must specify media option #022 or #630.	<b>MS Operating Software</b> Operating software for the 59970C MS-MSD ChemStation. Provides complete set of MSD, GC/MS and LC/MS applications. Includes field installation of the ChemStation.	—	59974J	
	<b>CS-80 Tape Media Option</b> Provides back-up copy of 59974J software on CS-80 tape media for use with HP 7946A and 7914P disc drives and 9144A tape drives.	—	59974J #022	N/C
	<b>3.5" Disc Media Option</b> Provides back-up copy of 59974J software on 3.5" flexible disc media for use with HP 9153A, 9133H and 9133L disc drives.	—	59974J #630	N/C
Must specify media option #022 or #630. Must supply computer/ID module serial number and order number of original 59974 software purchase.	<b>Upgrade of MS Operating Software</b> Upgrades existing 59974 operating software to 59974J operating software. Requires 1.2 MByte RAM. Installation is not included.	—	59974J #800	
For international orders only	<b>Delete Installation</b>	—	59974J #895	
Must specify media option #022 or #630. Must supply order number of original 59974J software purchase.	<b>Repeat Copy of MS Operating Software</b> Provides a repeat copy of 59974J MS operating software for customers who have purchased 59974J software for another system.	—	59974R	
	<b>CS-80 Tape Media Option</b> Provides back-up copy of 59974R software on CS-80 tape media for use with HP 7946A and 7914P disc drives and 9144A tape drives	—	59974R #022	N/C
	<b>3.5" Disc Media Option</b> Provides back-up copy of 59974R software on 3.5" flexible disc media for use with 9153A, 9133H and 9133L disc drives.	—	59974R #630	N/C
Must specify media option #022 or #630. Must supply computer/ID module serial number and order number of original 59974J software purchase.	<b>Repeat Copy of MS Operating Software Upgrade</b> Provides repeat copy of MS operating software upgrade for existing 59974 software.	—	59974R #800	



## Enhancement Software

Notes	Description	✓	Order	Price
Must specify media option #022 or #630. Required for HP 7673 ALS Operation. Requires HP 59974J.	<b>Sequencing Software</b> Adds complete automation capabilities and control of HP Automatic Liquid Samplers such as the HP 7673A for unattended operation.	—	59972C	
	<b>CS-80 Tape Media Option</b> Provides back-up copy of 59972C software on CS-80 tape media for use with HP 7946A and 7914P disc drives and 9144A tape drives.	—	59972C #022	N/C
	<b>3.5" Disc Media Option</b> Provides back-up copy of 59972C software on 3.5" flexible disc media for use with HP 9153A, 9133H and 9133L disc drives.	—	59972C #630	N/C
Must specify media option #022 or #630. Must supply computer/ID module serial number and number of original 59972 software purchase. 59974J operating software is required.	<b>Upgrade of Sequencing Software</b> Upgrades existing 59972A/B Sequencing software to 59972C Sequencing software. Requires 1.2 MByte RAM.	—	59972C #800	
Must specify media option #022 or #630. Must supply order number of original 59972C software purchase.	<b>Repeat Copy of Sequencing Software</b> Provides a repeat copy of 59972C Sequencing software for customers who have purchased 59972C software for another system. Installation is not included.	—	59972R	
	<b>CS-80 Tape Media Option</b> Provides back-up copy of 59972R software on CS-80 tape media for use with HP 7946A and 7914P disc drives and 9144A tape drives.	—	59972R #022	N/C
	<b>3.5" Disc Media Option</b> Provides back-up copy of 59972R software on 3.5" flexible disc media for use with HP 9153A, 9133H and 9133L disc drives.	—	59972R #630	N/C

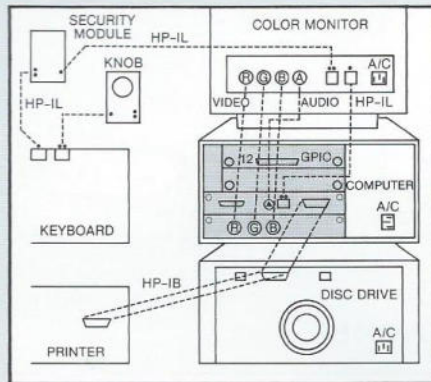
## Enhancement Software, cont'd.

Notes	Description	✓	Order	Price
	<b>3.5" Disc Media Option</b> Provides back-up copy of 59971R software on 3.5" flexible disc media for use with HP 9153A, 9133H and 9133L disc drives.	—	59971R #630	N/C
Must specify media option #22 or #630. Must supply computer/ID serial number and order number of original 59971B software purchase.	<b>Repeat Copy of Colorview Software Upgrade</b> Provides repeat copy of Colorview software upgrade for existing 59971 software.	—	59971R #800	
Not compatible with PBM. Non-disclosure agreement required. Must specify media option #022 or #630.	<b>NBS Library</b> Revision E NBS mass spectral library containing over 38,000 compounds and 11 subsets. Ten most significant mass peaks format.	—	59973A	
	<b>CS-80 Tape Media Option</b> Provides back-up copy of 59973A software on CS-80 tape media for use with HP 7946A and 7914P disc drives and 9144A tape drives.	—	59973A #022	N/C
	<b>3.5" Disc Media Option</b> Provides back-up copy of 59973C software on 3.5" flexible disc media for use with HP 9153A, 9133H and 9133L disc drives.	—	59973A #630	N/C
Requires 59974J software, at least 11 MBytes of disc space not including subsets, and at least 1.2 MBytes RAM. HP 310 computers with 1 MByte RAM (59970C #120 and #140 sold before January 1987) require at least an additional 256 KByte RAM board, P/N 98256A. Non-disclosure agreement is required. Must specify media option #022 or #630.	<b>PBM Search/NBS Library</b> Provides PBM library search software with parametric retrieval capabilities and the NBS/NIH/EPA/MSDC Data Base-1 containing 42,261 compounds.	—	59973B	
	<b>CS-80 Tape Media Option</b> Provides back-up copy of 59973B software on CS-80 tape media for use with HP 7946A and 7914P disc drives and 9144A tape drives.	—	59973B #022	N/C
	<b>3.5" Disc Media Option</b> Provides back-up copy of 59973B software on 3.5" flexible disc media for use with HP 9153A, 9133H and 9133L disc drives.	—	59973B #630	N/C
Requires 59974J software, at least 11 MBytes of disc space not including subsets, and at least 1.2 MBytes RAM. HP 310 computers with 1 MByte RAM (59970C #120 and #140 sold before January 1987) require at least an additional 256 KByte RAM board, P/N 98256A. Non-disclosure agreement is required. Must specify media option #022 or #630.	<b>PBM Search/NBS Library Upgrade</b> Upgrades existing 59973A NBS Library to 59973B NBS/NIH/EPA/MSDC Library with PBM search software.	—	59973B #800	

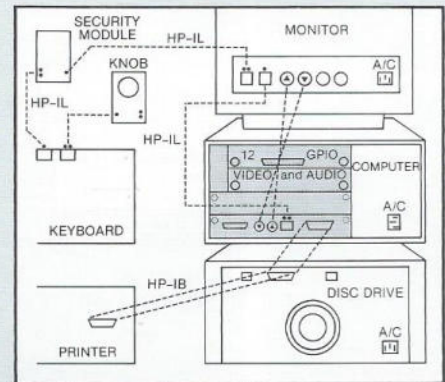


# HP 59970C ChemStation Overview

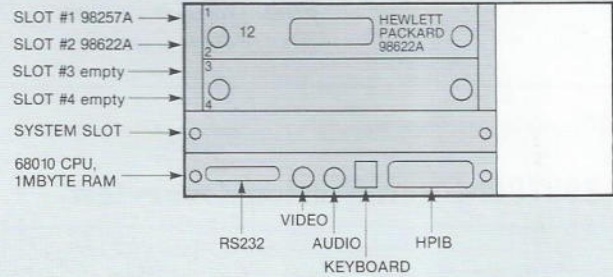
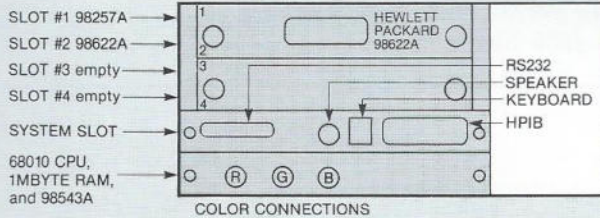
**CONFIGURATION FOR  
59970C OPTION #140**



**CONFIGURATION FOR  
59970C OPTION #120**



INSTALL:

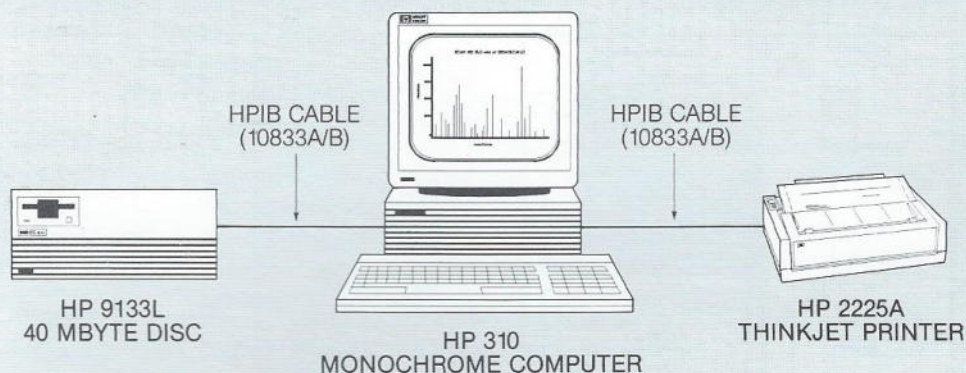


- NOTE: (1) SLOT #1: P/N 98257A 1 MByte Memory Board  
 (2) SLOT #2: P/N 98662A GPIO Interface  
 (3) SLOT #3: Available for additional RAM or Accessory Board  
 (4) SLOT #4: Available for additional RAM, Accessory or Interface Board  
 (5) P/N 98543A Color Display Board



## Typical System Configurations

### Standard System



### Ordered as:

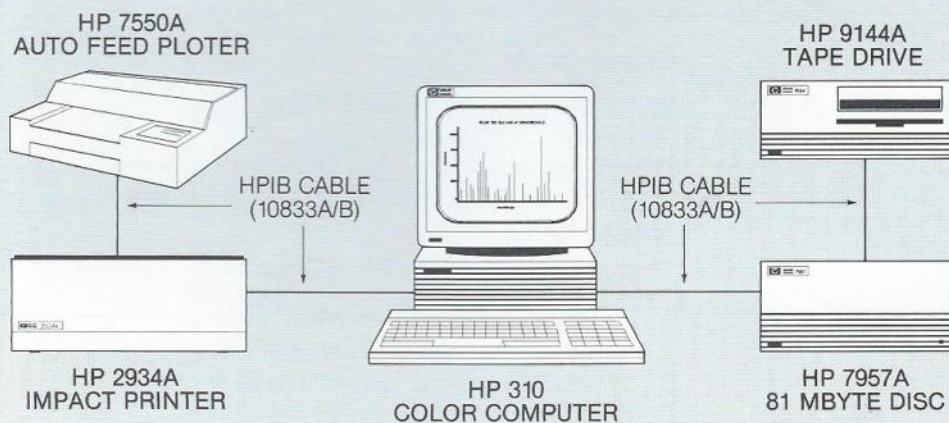
HP 59970C ChemStation  
 #120 Monochrome Computer  
 #240 40Mbyte Disc  
 #300 ThinkJet Printer  
 #9xx Power Cord

HP 59974J MS Software  
 #630 Media

HP 59973B NBS/PBM Software  
 #630 Media

## HP 59970C ChemStation Overview

### High Performance System



### Ordered as:

HP 59970C ChemStation  
 #140 Color Computer  
 #244 Back-Up Tape Drive  
 #280 81Mbyte Disc  
 #300 Impact Printer  
 #410 Auto Feed Plotter  
 #9xx Power Cord

HP 59973B NBS/PBM Software  
 #022 Media

HP 59972C Sequencing Software  
 #022 Media

HP 59971B Colorview Software  
 #022 Media

HP 59974J MS Software  
 #022 Media









For more information, call your local HP sales office or call one of these regional offices: **USA:** 2 Choke Cherry Road, Rockville, MD 20850, (301) 644-5800; 1200 East Diehl Road, Naperville, IL 60566, (312) 357-8800; 2000 South Park Place, P.O. Box 105005, Atlanta, GA 30348, (404) 955-1500; Neely Sales Region, 5161 Lankershim Boulevard, North Hollywood, CA 91604, (818) 509-2300 • **IN EUROPE:** P.O. Box CH-1217, Meyrin 2, Geneva, Switzerland, (022) 83 81 11 • **IN JAPAN:** Yokogawa Electric Corporation, 9-32, Naka-cho, 2-chome, Musashino-Shi, Tokyo 180, Japan (0422)55-0138 • **IN CANADA:** 6877 Goreway Drive, Mississauga, Ontario, L4V 1M8, (416) 678-9430 • **IN AUSTRALIA:** 17-23 Talavera Road, North Ryde, N.S.W. 2113, 888-4444 • **ELSEWHERE IN THE WORLD:** Hewlett-Packard Intercontinental, 3495 Deer Creek Road, Palo Alto, CA 94304, (415) 857-5037.

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