

# HP 260 Business Computer Systems



Configuration Guide

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For research and education purposes only.

# **PREFACE**

The purpose of this guide is to help you select the optimal HP 260 configuration for your application and to document the configurations that are available. This guide is intended for use primarily by Hewlett-Packard Sales Representatives and HP 260 Value-Added System Suppliers.

To assure a correct configuration, VASS' and customers should always request a formal quotation from Hewlett-Packard rather than ordering from this guide.

Hewlett-Packard Sales Representatives should use this guide in conjuction with the HP 260 Price Guide, the Hewlett-Packard Corporate Price List, and the Field Order Processing Guidelines.

The information in this guide re lects the data available at the time of publication. Because Hewlett-Packard is continually enhancing existing products and introducing new ones, some information printed here may be not be current when you place your order. Please consult product-specific information when ordering peripherals to ensure selection from the latest product offerings.



NOTE

Unless otherwise stated, "HP 260" refers to the Series 30 and Series 40 systems. The previous HP 260 computer will be referred to by its SPU product number, HP 15261D.

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# THINGS TO KNOW BEFORE YOU START

SECTION

1

This section describes the organization of this guide, the basic customer requirements you should know to configure a system, and conventions used here.

## **HOW THIS GUIDE IS ORGANIZED**

The guide contains five sections and six reference appendices. A short description of each is given below.

- Section 1, "Things to Know Before You Start," is an introduction to the use of this guide.
- Section 2, "Configuring an HP 260 System," contains steps which lead you through the configuration of a new HP 260 system from the SPU to training courses and consulting services.
- Section 3, "Adding to or Upgrading an Installed HP 260 System," lists the products which are ordered differently for installed systems than for new systems.
- Section 4, "Adding to or Upgrading an HP 45261D," contains information on upgrading the HP 45261D, as well as add-on products.
- Section 5, "Adding to or Upgrading an HP 250 System," contains information on HP 250 upgrades, as well as add-on products.
- Appendix A, "Configuring HP-IB Devices," is a reference for properly calculating HP-IB cable lengths by ascertaining device loads.
- Appendix B, "Cable Information," lists cables and also contains HP-IB, INP, and Asynchronous Serial Interface cabling diagrams.
- Appendix C, "Documentation," is a list of HP 260 manuals.
- Appendix D, "Sales Tools," is a list of available sales literature.
- Appendix E, "Approvals and Warranty," lists the safety, RFI, and data communication regulatory approvals the HP 260 has been awarded. An abridged description of warranty coverage is also included.
- Appendix F, "Configuration Summary," can be photocopied and used to compile all of your system selections.

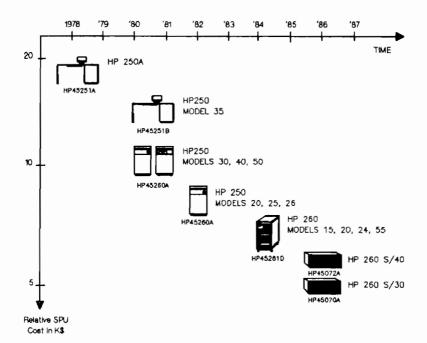
# **BASIC CUSTOMER REQUIREMENTS**

To successfully use this guide, you should first know the following:

- number of users
- number of concurrent tasks required
- · amount of on-line disc storage required
- · printing requirements for speed, carbons, and quality
- · local language requirements
- power requirements (for example, voltage and type of power cord required)

## CONVENTIONS

The following graph explains HP 260 and HP 250 SPU numbers:



Unless otherwise stated, "HP 260" refers to the Series 30 and Series 40 systems. The previous HP 260 computer is referred to by its SPU product number, HP 45261D.

Performance and capacity measurements used in this guide are conservatively presented.



"Note" instructions in this guide contain important information regarding configuration possibilities or limitations, configuration dependencies, ordering tips, and any other special considerations.

# **CONFIGURING AN HP 260 SYSTEM**

SECTION

2

The following steps will lead you through the configuration of an HP 260 Series 30 or Series 40 system. The questions at the end of each step are designed to make placing your order easier. It is very important that you proceed step by step through this guide, in order to have all of the information you will need for a proper configuration. Appendix I provides a configuration summary which can be photocopied and used to compile all of your system selections.

## STEP 1. SELECT THE BASIS OF YOUR SYSTEM

Two System Processor Units (SPUs) are available within the HP 260 family of business computer systems. They are described below.

# The HP 260 Series 30 System Processor Unit (HP 45070A)

This SPU has the following standard features:

- 16-bit processor
- 512 Kb of RAM memory, providing 256 Kb of system memory and 256 Kb (four partitions of 64 Kb) of user memory
- Peripheral Interface Channe for HP-IB disc/backup devices and printers
- Two integrated RS-232-C ports for workstations and printers
- U.S./Canadian power cord (NEMA 5-15P)
- 100-250V, 50-60 Hz operation
- Operating System B. 08 and system software on a 16 Mb tape cartridge
- · Standard manual set in English
- System installation by Hewlett-Packard

# The HP 260 Series 40 System Processor Unit (HP 45072A)

This SPU has the following standard features:

- 16-bit processor
- 1 Mb of RAM memory, providing 256 Kb of system memory and 768 Kb (12 partitions of 64 Kb) of user memory
- Disc cache
- Peripheral Interface Channel for HP-IB disc/backup devices and printers
- Two integrated RS-232-C ports for workstations and printers
- U.S./Canadian power cord (NEMA 5-15P)
- 100-250V, 50-60 Hz operation
- Operating System B. 08 and system software on a 16 Mb tape cartridge
- Standard manual set in English
- System installation by Hewlett-Packard

NOTE

The two CPU-integrated RS-232-C ports can only be used for printers, HP 2392A workstations, or PCs via direct or modem connections.

1.	Select the Basis of your System
	HP 260 Series 30 SPU (HP 45070A)
	HP 260 Series 40 SPU (HP 45072A)

# STEP 2. SELECT A POWER CORD OVERRIDE OPTION

A U.S./Canadian power cord (NEMA 5-15P) power cord is standard with both the HP 260 Series 30 and Series 40 SPUs. If this is the right power cord for your country, please proceed to Step 3.

Option 900	British power cord, BS 1363A
Option 901	Australian/New Zealand power cord, ASC 112/NZSS 198
Option 902	European power cord, CEE7-VII
Option 904	U.S./Canadian power cord, 240V, NEMA 6-15P
Option 906	Swiss power cord, SEV 1011
Option 912	Danish power cord, DHCR 107
Option 917	South African power cord, SABS 164

## 2. Select a Power Cord Override Option

Is the	standard	power	cord	specified	(NEMA	5-15P)	correct	for	your	country?	If not,	specify	the
SPU p	ower cord	overri	de opi	tion:									

Option
--------

# STEP 3. SELECT MANUAL OPTIONS

Please refer to Appendix C for a complete list of HP 260 manuals available at the time of printing.

# Local Language Options for the Standard Manual Set

The English-language manual set is standard unless one of the local language options is specified. Not every local language manual set has every manual in it localized. If localized manuals are not available, English-language manuals will be substituted.

Option 252	French standard manual set
Option 253	German standard manual set
Option 256	Spanish standard manual set
Option 257	Italian standard manual set

# **Programming Manual Kit**

Ten manuals are available as part of the programming manual kit, which is only available in English.

45261-87901 Prog

Programming manual kit

3. Select Local Language and/or Programming Manuals	
If you would like a local-language standard manual set, write in the option number:	
Option	
If you would like the programming manual kit, mark the following part number:	
45621-87901, programming manual kit	

# STEP 4. SELECT MASS STORAGE AND BACKUP DEVICES

When choosing a system disc, make sure you include a backup device (either separate or integrated).

NOTE

The HP 260 supports a maximum of four mass storage and/or backup devices.

The HP 7912P disc must be installed by HP.

The HP-IB cable between the SPU and a mass storage/backup device or between mass storage devices should be no longer than one metre. If you require a longer cable, consult your HP 260 Customer Engineer for an evaluation of device load limitations.

For more information about configuring HP-IB devices, please refer to Appendix A.

See Appendix B for more specific cable information, including alternate cables and lengths.

# Mass Storage and Back up Devices

			Storage Media			
Device	Capacity (Mb)	Fixed Disc drive	0.7 Mb (3.5") Microfloppy	67 Mb max. Tape cartridge	Interface	Cable to be ordered
HP 7909A*	80 <sup>+</sup>				HP-IB	**
HP 7912P	65	•		•	HP-IB	**
HP 7941A	24	•			HP-IB	**
HP 7942A	24	•		•	HP-IB	**
HP 7945A	55	•			HP-IB	**
НР 7946А	5.5	•		•	HP-IB	**
HP 7957A*	82	•			HP-IB	**
HP 7958A*	131	•			HP-IB	**
НР 9133Н	20	•	•		HP-IB	HP 10833A
HP 9133L	40	•	•		HP-IB	HP 10833A
HP 9134H	20	•			HP-IB	HP 10833A
HP 9134L	40	•			HP-IB	HP 10833A
HP 9144A				•	HP-IB	HP 10833A
HP 9153B*	20	•	•		HP-IB	HP 10833A
HP 9154B*	20	•			HP-IB	HP 10833A

<sup>\*</sup> Availability to be announced

<sup>\*\*</sup> HP 10833A (1-metre HP-IB cable) supplied with disc 60 Mb fixed and 20 Mb removable lisc cartridge

# Mass Storage Device Product Suffixes and Options

Listed below are the product suffixes (where applicable) for power specifications, as well as product options.

#### HP 7912P

Option 015 220V, 50 Hz operation

Option 140 Delete tape cartridge drive

#### HP 7941A, HP 7942A, HP 7945A, HP 7946A

Option 015 230V, 47. 5-66 Hz operation

Option 550 Delete HP-IB cable

#### HP 9133H

The HP 9133H can also be ordered under the following product numbers:

HP 9133HA South African power specifications (for ICON use only)

HP 9133HB European (except for Switzerland and Denmark) power specifications

HP 9133HQ Swiss power specifications

HP 9133HY Danish power specifications

#### Product options are:

Option 900 British power cord for Hong Kong, Malaysia, and Singapore.

Option 901 Australian power cord for Australia, New Zealand, and Argentina (for ICON use

only)

Option 902 European power cord for South America, the Middle East, and Africa (for ICON

use only)

#### HP 9134H

The HP 9134H can also be ordered under the following product numbers:

HP 9134HA

South African power specifications (for ICON use only)

HP 9134HB

European (except for Switzerland and Denmark) power specifications

HP 9134HQ

Swiss power specifications

HP 9134HY

Danish power specifications

#### Product options are:

Option 900

British power cord for Hong Kong, Malaysia, and Singapore.

Option 901

Australian power cord for Australia, New Zealand, and Argentina (for ICON use

only)

Option 902

European power cord for South America, the Middle East, and Africa (for ICON

use only)

#### HP 9133L

The HP 9133L can also be ordered under the following product numbers:

HP 9133LA

South African power specifications (for ICON use only)

HP 9133LB

European (except for Switzerland and Denmark) power specifications

HP 9133LQ

Swiss power specifications

HP 9133LY

Danish power specifications

#### Product options are:

Option 900

British power cord for Hong Kong, Malaysia, and Singapore.

Option 901

Australian power cord for Australia, New Zealand, and Argentina (for ICON use

only)

Option 902

European power cord for South America, the Middle East, and Africa (for ICON

use only)

#### HP 9134L

The HP 9134L can also be ordered under the following product numbers:

HP 9134LA South African power specifications (for ICON use only)

HP 9134LB European (except for Switzerland and Denmark) power specifications

HP 9134LQ Swiss power specifications

HP 9134LY Danish power specifications

#### Product options are:

Option 900 British power cord for Hong Kong, Malaysia, and Singapore.

Option 901 Australian power cord for Australia, New Zealand, and Argentina (for ICON use

only)

Option 902 European power cord for South America, the Middle East, and Africa (for ICON

use only)

# **Media Options**

If you selected a system disc with a microfloppy backup unit, you will need to specify the following SPU media option:

Option 045 Operating system and system software on 0.7 Mb (3.5") microfloppy discs instead

of a 16 Mb tape cartridge

4.	Select	Mass	Stora	ge
----	--------	------	-------	----

Write in the product number(s) of the mass storage device(s) you would like. Remember to check for product suffixes and options egarding power specifications. Also remember to include a backup device if you have not specified an integrated unit. After you fill in the total number of mass storage devices you have specified at the bottom of the box, proceed to Step 5.

	the total number of	f HP-IB mass storage devices yo	u have listed above: (must
	Option 045, opera f a 16 Mb tape cartr		e on 0.7 Mb (3.5") microfloppy discs
	lected a mass storag SPU media option:	ge device with an integrated micro	ofloppy backup unit above, specify the
HP	, Option	(if required), Cable HP	(if required)
HP	, Option	(if required), Cable HP	(if required)
HP	, Option	(if required), Cable HP	(if required)
HP	, Option	(if required), Cable HP	(if required)

# STEP 5. SELECT WORKSTATIONS

At least one workstation is required for each HP 260 system configuration. Three types of workstations are supported on the HP 260: video, asynchronous, and Personal Computers. The video workstation is the HP 45263D. The asynchronous workstation is the HP 2392A. Supported PCs include the HP 150 II (HP TOUCHSCREEN II), the HP Vectra, and the HP Portable PLUS. The IBM PC, PC AT, and PC XT can be used with an HP 260 system, but are not supported by HP. The workstations are described on the following pages, along with their product options.

# Video Workstation

The video workstation (HP 45263D) is connected to the HP 260 system via a Video MUX interface channel.

#### NOTE

To connect a video workstation to the SPU, a Video MUX interface must be installed.

A maximum of eight video workstations can be connected to an HP 260 system.

The video workstations cannot be used with modems or with NETWORK/260 software.

The cable between a video workstation and the SPU can be no longer than 100 metres.

#### HP 45263D

The HP 45263D workstation includes the following:

- 12" high-resolution monochrome video monitor
- height-adjustable alphanumeric U.S. keyboard
- audio interface unit
- five-metre cable (HP 45262-61605)
- 120V, 60 Hz operation
- U.S. power cord (NEMA 5-15P)

#### HP 45263D cable options:

Option 001	Replace 5-raetre cable with 10-metre cable
Option 002	Replace 5-rietre cable with 30-metre cable
Option 003	Replace 5-rietre cable with 50-metre cable
Option 004	Delete 5-metre cable

HP 45263D cable products (for asserbly by a qualified technician):

HP 92232A	Unconnectored video workstation cable on a 275-metre reel
HP 92232B	Connector kit for video workstation cable with assembly instructions
HP 92232C	Unconnectored video workstation cable on a 100-metre reel

HP 45263D power override option:

Option 230 50 Hz or 60 Hz operation with switch-selectable voltage (120/230V)

# Step 5. Workstations

# HP 45263D keyboard override options:

Option 252	French keyboard
Option 253	German keyboard
Option 254	U.K. English keyboard
Option 255	Swedish keyboard
Option 256	Spanish keyboard
Option 257	Italian keyboard
Option 258	Katakana keyboard
Option 259	French-Canadian keyboard
Option 500	Danish keyboard
Option 501	Flemish keyboard
Option 502	Finnish keyboard
Option 503	Swiss-German keyboard
Option 504	Swiss-Roman keyboard

# HP 45263D power cord override options:

Option 900	British power cord, BS 1363A
Option 901	Australian/New Zealand power cord, ASC 112/NZSS 198
Option 902	European power cord, CEE7-VII
Option 903	U.S./Canadian power cord, 120V, NEMA 5-15P
Option 904	U.S./Canadian power cord, 240V, NEMA 6-15P
Option 906	Swiss power cord, SEV 1011
Option 912	Danish power cord, DHCR 107
Option 917	South African power cord, SABS 164

# **Asynchronous Workstation**

The HP 2392A is the asynchronous workstation for the HP 260. It is connected to the HP 260 either via an RS-422 interface, or directly or over modems via an RS-232-C interface.

#### NOTE

At least one HP 239% A or PC is required for use with workstation modem connections or NETWORK/260 software.

An HP 2392A workstation using an RS-232-C interface requires one of the CPU-integrated RS-232-C ports or an Asynchronous Serial Interface port. An HP 2392A workstation using an RS-422 interface requires an Asynchronous Serial Interface board port.

The cable between an HP 2392A, using a direct RS-232-C interface, and the SPU can be no longer than 15 metres. The cable between an HP 2392A, using an RS-422 interface, and the SPU can be no longer than one kilometre.

#### HP 2392A

- 12" high-resolution display erminal
- U.S. keyboard
- 115V, 60 Hz operation

For modem connections, one of the following cable options and the HP 45111A cable are required:

Option 301 5-metre U.S. modem cable (HP 40242M)

Option 302 5-metre European modem cable (HP 40242M)

HP 45111A 4.5-metre FS-232-C modem cable

For direct RS-232-C connections, the following cable is required:

Option 305 5-metre shielded RS-232-C/V. 24 cable (HP 40242Y)

The following cable is optional for use with the cable described above as HP 2392A Option 305:

HP 45113A 10.5-metre RS-232-C extension cable

For RS-422 connections which allow the HP 2392A workstation to be placed up to one kilometre from the SPU, a customer-supplied RS-422 cable (24 AWG low-voltage computer cable) is required.

## Step 5. Workstations

## HP 2392A power override option:

Option 015 230V, 50 Hz operation

## HP 2392A keyboard override options:

Option 101	Swedish keyboard
------------	------------------

Option 103 French keyboard

Option 104 German keyboard

Option 105 U.K. English keyboard

Option 106 Spanish keyboard

Option 107 French-Canadian keyboard

Option 109 Italian keyboard

Option 111 Finnish keyboard

Option 112 Danish keyboard

Option 113 Swiss-German keyboard

Option 114 Swiss-French keyboard

Option 116 Flemish keyboard

## Additional HP 2392A options for connection of local printers:

Option 092 RS-232-C interface for port 2 (recommended)

Option 093 Centronix interface for port 2

# **Personal Computers**

Several Personal Computers (PCs) are supported on the HP 260: the HP 150 A/B, HP 150 II (HP TOUCHSCREEN II), HP Vectra, and HP Portable PLUS. The IBM PC, PC AT, and PC XT can be used with an HP 260 system, but are not supported by HP. The HP 150 A/B PCs are supported, but can no longer be purchased. They have been superseded by the HP 150 II.

Due to the many part numbers, options, and configuration possibilities available for PCs, these products are not listed here. Please consult the individual PC configuration guides for complete information.

#### NOTE

All PCs require an RS-232-C or RS-422 port for connection to the HP 260.

The cable between a PC, using a direct RS-232-C interface, and the SPU can be no longer tahn 15 metres. The cable between a PC, using an RS-422 interface, and the SPU can be no longer than one kilometre.

RS-422 connections between PCs and an HP 260 are supported only for the HP 150 A/B, HP 150 II (HP TOUCHSCREEN II), and HP Vectra PCs.

Only HP PCs are supported by Hewlett-Packard.

To use an IBM PC, PC AT, or PC XT with the HP 260, AdvanceLink 2392 terminal emulator software must be running on the PC.

#### HP 150A/B and HP 150 II PCs

The HP 150 A/B and HP 150 II require no additional software to work as HP 260 workstations. For file transfer capabilities, AdvanceLink terminal emulator software is required. See Step 10 for more information.

For modem connections, the following cables are needed:

HP 13242M/N 5-metre shielded RS-232-C/V. 24 cable

HP 45111A 4.5-metre RS-232-C modem cable

For direct RS-232-C connections, the following cable is required:

HP 13242M/N 5-metre shielded RS-232-C/V. 24 cable

The following cable is optional for use with the HP 13242M/N cable described above:

HP 45113A 10.5-metre RS-232-C extension cable

#### Step 5. Workstations

For RS-422 connections which allow the HP 150 II to be placed up to one kilometre from the SPU, a customer-supplied RS-422 cable (24 AWG low-voltage computer cable) is required.

#### HP Vectra PC

To use the HP Vectra PC as a workstation or to enable file transfer capabilities between the PC and an HP 260, AdvanceLink 2392 terminal emulator software is required. For more information, see Step 10.

For modem connenctions, the following cables are needed:

For direct RS-232-C connections, the following cable is required:

The following cable is optional for use with the HP 24542M cable described above:

For RS-422 connections which allow the HP Vectra to be placed up to one kilometre from the SPU, a customer-supplied RS-422 cable (24 AWG low-voltage computer cable) is required.

#### **HP Portable PLUS**

For the HP Portable PLUS to be used as an HP 260 workstation or to enable file transfer capabilities between the PC and the HP 260, REFLECTION 1 terminal emulator software is required. See Step 10 for more information.

For modem connections, the following cables are needed:

For direct RS-232-C connections, the following cable is required:

The following cable is optional for use with the HP 9221M cable described above:

~	~ 1 .	***	
	SALAAT.	WAND	stations

Specify which workstation(s) you would like by writing the quantity next to the product number. At least one workstation is required for each HP 260 system configuration. Remember to write in the appropriate option numbers for power and keyboard options, if required. For PCs, consult with the individual PC configuration guides for configuration and ordering information. At the bottom of this box, please write in the total number of video, asynchronous, and PC workstations you have chosen.

	HP 45263D, video workstation(s)
Options	
	HP 2392A, asynchionous workstation(s)
Options	
	HP 150 II (HP TOUCHSCREEN II) PC(s)
	HP Vectra PC(s)
	HP Portable PLUS PC(s)
Cables:	
	HP,HP,HP,
	HP
Total numb	er of video workstations (HP 45263D):
Total numb	er of RS-232-C asynchronous workstations (HP 2392A and PCs):

# STEP 6. SELECT PRINTERS

At least one printer is required for each HP 260 system configuration. Please select the printer(s) and accessories that best meet your needs from the following tables.

#### NOTE

For each printer you select, the interface option must be specified when listed in the table.

Line drawing on the HP 2563A/B, HP 2932A, and HP 2934A printers are not fully compatible with the HP 260 line drawing set.

The HP-IB version of the HP 2563A printer does not allow the HP 260 Operating System to detect an off-line condition. Therefore, programs and commands addressed to the HP-IB HP 2563A will wait until the printer is on line before continuing execution.

Any of the following locally-attached workstation printers can be used as a system printer for the workstation: the HP 2225D, HP 2603A, HP 2686A, HP 2932A, and HP 2934A.

A printer using an RS-232-C interface requires one of the CPU-integrated RS-232-C ports or an Asynchronous Serial Interface board port. A printer using an RS-422 interface requires an Asynchronous Serial Interface board port.

The cable between a printer, using a direct RS-232-C interface, and the SPU can be no longer than 15 metres. The cable between a printer, using an RS-422 interface, and the SPU can be no longer than one kilometre.

The HP 260 supports a maximum of two HP-IB printers.

HP-IB printers must be installed by HP.

The HP-IB cable between a mass storage/backup device and a printer or between printers should be no longer than two metres. If you require a longer cable, please consult your HP 260 Customer Engineer for an evaluation of device load limitations.

For more information about configuring HP-IB devices, please refer to Appendix A.

See Appendix B for more specific cable information, including alternate cables and lengths.

# Comparison of Printer Features

Device	Print Method	Max. Speed	Print Volume	Print Quality	Max. Paper Width	Paper Type
HP 2225D	ink-jet dot matrix character	150 cps	light	memo	210 mm 8. 5 in	continuous paper
HP 2563A HP 2563B	impact dot matrix line	300 lr m	heavy	memo	424 mm 16.7 in	continuous paper; multipart forms
HP 2603A	impact daisywheel character	48 cps	light	letter	418 mm 16.4 in	single sheet paper;* multipart forms
HP 2686A HP 2686D	laser	8 ppm	medium	near offset	210 mm 8.5 in	single sheet
HP 2932A	impact dot matrix character	200 cps	medium	memo	400 mm 15.75 in	continuous paper; multipart forms
HP 2934A	impact dot matrix character	40/67 cps 200 cps	light medium	letter memo	400 mm 15.75 in	continuous paper, multipart forms

<sup>\*</sup> A forms tractor and sheet feeder are available which provide continuous paper and multipart form capabilities.

# **Printer Interfaces and Cables**

Device	Interface Options	Direct Interfaces	Modem Interfaces	Cable(s) to be ordered
HP 2225D		RS-232-C	_	HP 13242M/N
			RS-232-C	HP 13242M/N HP 45111A
HP 2563A HP 2563B <sup>+</sup>	250	HP-IB		**
	049	RS-232-C	_	HP 13242M/N
	049		RS-232-C	HP 13242M/N HP 45111A
HP 2603A		RS-232-C		HP 13242M/N
HP 2686A/D		RS-232-C		HP 13242M/N
		RS-422		*
			RS-232-C	HP 13242M/N HP 45111A
HP 2932A		RS-232-C		HP 13242M/N
	035	RS-422	-	*
		_	RS-232-C	HP 13242M/N HP 45111A
HP 2934A	046	HP-IB		HP 10833A
		RS-232-C		HP 13242M/N
	035	RS-422		*
			RS-232-C	HP 13242M/N HP 45111A

<sup>\*</sup> A customer-supplied RS-422 cable (24 AWG low-voltage computer cable) is required

<sup>\*\*</sup> HP 10833B (2-metre HP-IB cable) supplied with HP-IB printer

<sup>+</sup>Availability to be announced

# **Printer Product Suffixes and Options**

Following is a list of printer product; suffixes and options.

#### HP 2225D ThinkJet

The HP 2225D can be ordered with the following product suffixes, which determine the voltage requirements:

HP 2225DB 220V for Europe except Switzerland, Denmark, and U.K.

HP 2225DK ICON

HP 2225DQ 220V for Switzerland

HP 2225DU 240V for U K. and S. Africa

HP 2225DY 220V for Denmark

#### HP 2563A

Listed below are the options for HP 2563A:

Option 001 Line draw, math, and block character sets

Option 002 Replace standard character set with Katakana 8 character set

Option 003 High density OCR-A and OCR-B character sets

Option 004 High density Roman 8 character set

Option 005 High density Italics Roman 8 character set

Option 006 High density Katakana 8 character set

Option 008 High density bar codes: 3 of 9 code, 2 of 5 interleaved code, 2 of 5 industrial

code, UPC A, UPC E, EAN 8, and EAN 13

# Step 6. Printers

Option 015	220V, 50/60 Hz operation
Option 016	100V, 50/60 Hz operation
Option 017	240V, 50/60 Hz operation
Option 068	3-pack ribbon starter kit
Option 110	Sound abatement cover
Option 112	Printer stand
Option 115	Passive stacker for printer stand
Option 500	Options package, inludes options 001, 004, 005, 068, 110, and 112
Option 715	Service documentation

# HP 2563B (Availability to be announced)

The options for the HP 2563B include all of those listed for the HP 2563A plus the following:

Option 009	12, 13.3 cpi with Roman8
Option 012	12, 15 cpi with Roman 8
Option 013	13.3, 15 cpi with Roman 8

## HP 2603A

The following product numbers and suffixes specify power requirements:

HP 2603AB	European version
HP 2603AG	Australian, New Zealand, Uruguayan, Argentinian version
HP 2603AK	ICON version
HP 2603AQ	Swiss version
HP 2603AU	U.K. version
HP 2603AY	Danish version

The following accessories can be ordered for the HP 2603A printer:

HP 26010A Forms tractor

HP 26030E Sheet feeder

#### HP 2686A LaserJet

The following product numbers and suffixes specify power requirements:

HP 2686AB 220V for Europe except U.K., Switzerland, and Denmark

HP 2686AU 240V for U K. and S. Africa

Any LaserJet printer listed above can be ordered with the following option, which offers enhanced graphics capabilities and down-load; ble fonts:

Option 300 LaserJet PLUS printer



#### HP 2686D LaserJet 500 PLUS

The LaserJet can also be ordered under this part number to include all of the features of a LaserJet PLUS printer and two 250-sheet paper trays. The HP 2686D can also be ordered under the following product numbers:

HP 2686DB European version

HP 2686DU U.K. version

#### 6. Select Printers

Specify the printer(s) you would like by filling in the blanks below. At least one printer is required for each HP 260 system configuration. Remember to check for product suffixes and options regarding power specifications. At the bottom of this box, write in the total number of RS-232-C, RS-422, and HP-IB printers you have chosen.

HP (check for product suffixes)
Interface option
Type of interface
Cable(s) to be ordered HP, HP
Additional options for this printer:
Additional printers, if required:
HP (check for product suffixes)
Interface option
Type of interface
Cable(s) to be ordered HP, HP
Additional options for this printer:
HP (check for product suffixes)
Interface option
Type of interface
Cable(s) to be ordered HP, HP
Additional options for this printer:
Total number of RS-232-C printers:
Total number of RS-422 printers:
Total number of HP-IB printers: (cannot exceed two)

# STEP 7. SELECT PLOTTERS

The HP 260 supports three graphics plotters. Please select the one(s) which best meets your needs from the following tables. All three plotters are supported by the HP 260 office support software packages discussed in a later step. If you do not require a plotter for your system, please proceed to Step 8.

#### NOTE

For each plotter you select, the interface option must be specified when listed in the table.

All plotters require that an Asynchronous Serial Interface board be installed.

The cable between a plotter, using a direct RS-232-C interface, and the SPU can be no longer than 15 metres.

See Appendix B for more specific cable information, including alternate cables and lengths.

# Comparison of Plotter Features

	No. o	f pens		Media Types Transparency   Polyester			Media Sizes			
Device	6	8	Paper	Film	Vellum		8. 5x11"	A4	11x17"	<b>A3</b>
HP 7440A*		•	•	•			•	•		
HP 7475A	•		•	•			•	•	•	•
HP 7550A		•	•	•	•	•	•	•	•	•

<sup>\*</sup> ColorPro

# Plotter Interfaces and Cables

Device	Interface Options	Direct Interfaces	Modem Interfaces	Cable(s) to be ordered
HP 7440A ColorPro	001	RS-232-C		HP 30062C
	001		RS-232-C	HP 30062C HP 45111A
HP 7475A	001	RS-232-C		HP 13242M/N
	001		RS-232-C	HP 13242M/N HP 45111A
HP 7550A		RS-232-C		HP 30062C
			RS-232-C	HP 30062C HP 41111A

# **Plotter Product Suffixes**

The HP 7440A ColorPro plotter has the following product suffixes to specify power requirements:

HP 7440AB European version (English language)

HP 7440AD German version

HP 7440AE Spanish version

HP 7440AF French version

HP 7440AQ Swiss version

HP 9440AU U.K. version

HP 9440AY Danish version

HP 9440AZ Italian version

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	plotter(s) you would like by writing in the quantity next to the appropriate productive sure to write in the required cable product numbers.
	HP 7440A, Option ()01
Cables:	HP, HP
	HP 7475A, Option ()01
Cables:	HP, HP
	HP 7550A (product suffix, if required)
Cables:	HP, HP

### STEP 8. SELECT DATA ENTRY DEVICES

Besides the asynchronous workstation and PCs described in Step 5, two types of data entry devices are supported on an HP 260 system: three bar code readers and an industrial workstation terminal. Other devices may be used for data entry with the HP 260, but they require additional or modified software not supplied by Hewlett-Packard.

If you do not need any data entry devices, please proceed to Step 9.

NOTE

The HP 92915A and HP 92916A require a port on a workstation keyboard. The HP 39800A and HP 3081A require that an Asynchronous Serial Interface board be installed.

The cable connecting a data entry device, using a direct RS-232-C interface, and the SPU can be no longer than 15 metres. The cable connecting a single-cliannel RS-232-C adapter, using an RS-422 interface, and the SPU can be no longer than one kilometre.

Appendix B contains more specific cable information.

### **Bar Code Readers**

Three bar code readers are supported: the HP 92915A, HP 92916A, and HP 39800A. The first two can be hooked up directly to keyboards; the last connects directly to the SPU.

#### HP 92915A

The HP 92915A bar code reader is for use with the HP 2392A workstation keyboard. It consists of a decoder pod, cable, wand, and wand holder. It can read the most commonly available codes: UPC/EAN/JAN, interleaved 2 of 5 code, two versions of Codabar (MHI standard USD-4 and the American Blood Commission standard), 3 of 9 code, and extended 3 of 9 code. The bar code reader attaches to a port on the keyboard.

#### HP 92916A

The HP 92916A bar code reader is for use with the HP 45263D video workstation and HP 150 II (HP TOUCHSCREEN II) and HP Vectra PCs. It consists of a decoder pod, cable, wand, and wand holder. It can read the most commonly available codes: UPC/EAN/JAN, interleaved 2 of 5 code, two versions of Codabar (MHI standard USD-4 and the American Blood Commission standard), 3 of 9 code, and extended 3 of 9 code. The bar code reader attaches to the HP-HIL port of the keyboard.

#### **HP 39800A**

The HP 39800A is a programmable bar code reader. It is capable of automatically recognizing and decoding 3 of 9 alphanumeric bar code, interleaved 2 of 5 code, and industrial 2 of 5 code. Messages in the 2 of 5 codes can be optionally length-checked for a valid checksum character. Up to 32 characters (not including start and stop characters) in any of the three standard bar codes are readable, and all bar codes can be scanned bidirectionally. The HP 39800A requires an Asynchronous Serial Interface board port.

To connect the HP 39800A to the HP 260, the following cable is required:

HP 13242M/N Five-metre shielded RS-232-C/V. 24 cable

The extension cable identified below is optional for use with the HP 13242M/N cable:

HP 45113A 10.5-metre RS-232-C extension cable

The following options are available for the HP 39800A:

Option 001	Add UPC, E.AN, JAN bar code reading, delete industrial 2 of 5 code
Option 002	Add codabar code reading, delete industrial 2 of 5 code
Option 210	100V power supply
Option 222	220V power supply
Option 224	240V power supply
Option 320	Add high resolution polycarbonate wand, delete standard polycarbonate wand
Option 400	Add standard industrial bar code wand, delete standard wand
Option 420	Add high resolution industrial bar code wand, delete standard wand
Option 610	Mounting kit
Option 910	Additional operating manuals

# Industrial Workstation Terminal

The HP 3081A is a character mode, industrial workstation terminal which may be mounted on a table or wall. The HP 3081A features an alphanumeric one-line display and a standard numeric keyboard.

To use the HP 3081A with the HP 260, either a four-channel or single-channel RS-232-C adapter is required. You must use one of the following products with the HP 3081A:

HP 92922A	Four-channel RS-232-C adapter for use with the HP 3081A (provides power for four HP $3081  As$ )
Option 015	220V, 50/60 Hz operation
HP 92923A	Single-channel RS-232-C adapter for use with the HP 3081A (provides power for one HP 1081A)
Option 015	230V operation

To connect the RS-232-C adapter to the HP 260, the following cable is required:

HP 92218D 15-metre HP 92922A/92923A to system RS-232-C cable

### Step 8. Data Entry Devices

The HP 92923A single-channel RS-232-C adapter can also be used for RS-422 connections, allowing the adapter and industrial workstation terminal to be placed up to one kilometer from the SPU. A customer-supplied RS-422 cable (24 AWG low-voltage computer cable) is required.

A two-metre current loop cable is supplied with each HP 3081A for connection to the adapter. If you require longer cables, you can select from the following products:

HP 92920A	HP 3081A to HP 92922A/92923A data/power cable delivered in 300-metre drums (maximum length of 60 metres per terminal)
HP 92921A	HP 3081A to HP 92922A/92923A special performance data/power cable delivered in 300-metre drums (maximum length of 150 metres per terminal)
HP 92179H	HP 3081A to HP 92922A/92923A data/power cable; minimum order is 50 metres (maximum length of 150 metres per terminal)

The following options are available for the HP 3081A industrial workstation terminal:

Option 004	Alphanumeric keyboard
Option 020	Mounting bracket
Option 052	Medium resolution general purpose wand, codes 3 of 9 and interleaved 2 of 5
Option 053	High resolution general purpose wand, codes 3 of 9 and interleaved 2 of 5
Option 054	Low resolution industrial wand, codes 3 of 9 and interleaved 2 of 5
Option 055	High resolution industrial wand, codes 3 of 9 and interleaved 2 of 5
Option 056	High resolution slot reader, codes 3 of 9 and interleaved 2 of 5
Option 057	Low resolution slot reader, codes 3 of 9 and interleaved 2 of 5

Select Data Entry Devices
Select the data entry devices you require by writing the quantity you would like next to the parnumber below.
HP 92915A, bar code reader for use with HP 2392A workstation keyboard
HP 92916A, bar code reader for use with HP 45263D, HP 150 L (HP TOUCHSCREEN II), and HP Vectra workstation keyboards
HP 39800A, programmable bar code reader
Options:
The following cable is required for each HP 39800A:
HP 13232M/N five-metre shielded RS-232-C/V.24 cable
The cable listed below is optional:
HP 45113A, 10.5-metre RS-232-C extension cable
HP 3081A, industrial workstation terminal
Options:,
You must select one of the following with the HP 3081A:
HP 92922A, four-channel RS-232-C adapter
HP 92923A, single-channel RS-232-C adapter
The cable listed below is also required for each HP 92922A/92923A:
HP 92218D, fiv?-metre HP 92922A/92923A to system RS-232-C cable
If you require longer cable length between the HP 3081As and the adapter (a two-metre cable is supplied with the HP 3081A) write in the appropriate cable product numbers below:
Cables: HP, HP
Total number of HP-HI workstation port bar code readers (HP 92915A and HP 92916A): (make sure that this number is less than or equal to the number of workstations you have ordered with HP-HIL keyboard ports in Step 5)
Total number of RS-232-C data entry devices (HP 39800A and HP 92922/92923A):

8.

# STEP 9. SELECT SOFTWARE

The HP 260 System Software described below comes automatically with every HP 260 system. If you selected any PCs as workstations in Step 5, you can order the terminal emulator software (if required) in this step. This software enables the PC to function as an HP 260 workstation and/or to transfer files. You can also optionally select HP 260 data communication and office support software. If you do not require any of these optional software packages for your system, please proceed to Step 10 after the description of the system software.

# System Software

The HP 260 System Software, which is standard with every SPU, includes the following:

- BASIC/260, an extended BASIC programming language
- IMAGE/260, a data base management system
- QUERY/260, a data base inquiry system
- REPORT WRITER/260, a report development system
- FORMS/260, an on-line forms development system
- TRACE/260, a program execution trace system
- SORT/260, a system to sort data base information
- MEDIA/260, a system to provide IBM 3741 and HP LIF read/write capability
- GPL/260, a graphics plotting library
- LK 3000, a program to provide an asynchronous link to the HP 3000
- TIO/260, an asynchronous device input/output system
- PERFORM, a system to execute commands without an operator
- TASK, a system to provide communication between tasks and to handle secondary tasks
- DIRECTORY CACHE, a system of storing directory entries in cache memory
- DRIVERS for all supported peripherals

- SYSTEM UTILITIES
  - Configure system
  - Duplicate media
  - Run-only control
  - Text editor
  - Cross reference listing
  - File and full volume back up
  - System test

The Series 40 SPU also comes standard with disc cache, which is a system of storing information in system memory for fast access.

# PC Terminal Emulator Software

If you selected an HP Vectra or HP Portable PLUS PC as a workstation in Step 5, you will need terminal emulator software to make it function with an HP 260 system. An HP 150 II (HP TOUCHSCREEN II) requires terminal emulator software only for file transfer capabilities; it will work as a workstation with no additional software.

#### AdvanceLink

If you selected an HP 150 II (HP TOUCHSCREEN II) in Step 5 and would like it to have file transfer capabilities, you must order the following software, which comes on 3.5" media:

HP 45431A

AdvanceLink software

AdvanceLink software is also available under the following product numbers:

HP 45431AD	German version
HP 45431Q	Right to copy HP 45431A
HP 45431S	Corporate L: cense Program
HP 45431T	Five sets of documentation (no software included)

#### AdvanceLink 2392

If you selected the HP Vectra PC in Step 5, or if you would like to connect an IBM PC, PC AT, or PC XT with an HP 260 system, you will need the following software for workstation and file transfer capabilities. It comes on 5 1/4-inch media.

HP 68333F

AdvanceLink 2392 software

AdvanceLink 2392 is also available under the following product numbers:

HP 68333Q

Right to copy HP 68333F

HP 68333T

Five sets of documentation (no software included)

HP 68333W

Asian Vectra

The following options are available for the Asian Vectra (HP 68333W):

Option ZAA

Traditional Chinese version

Option ZAB

Korean version

Option ZAC

Simplified Chinese version

### **REFLECTION 1**

If you selected an HP Portable PLUS in Step 5, you will need to order the following software for workstation capabilities. Be sure to specify option 400 with the product number.

HP 82863K,

REFLECTION 1 software

Option 400

## **Data Communication Software**

Purchase of a data communication software package allows use of that product on one HP 260 computer system. Once the package has been purchased (product with the suffix "A"), the right to copy that product can be bought at a reduced charge (product with the suffix "R"). This right to copy allows the product to be copied once and used on one additional HP 260 system with no time limit. One copy of the associated product manual(s) is included with each package.

#### NOTE

With the exception of APD/260, data communication software is available in run-only form only; it is not intended to be modified by the user.

APD/260 has an unlimited right to copy.

Each data communication software package requires a 64 Kb partition of user memory.

DSN/RJE and DSN/I)S require that a DSN/Intelligent Network Processor be installed. NETWORK/260 requires that an Asynchronous Serial Interface board be installed and that at least one non-video workstation be connected to the system via an Asynchronous Serial Interface board port.

#### HP 45209A APD/260

The Asynchronous Program Development/260 software package is intended for use by programmers with strong data communication backgrounds. It combines the features of TIO-II with the XMODEM protocol.

TIO-II permits an HP 260 to interface to any RS-232-C/V.24 device or system, regardless of the protocol the device or system is using. The XMODEM protocol can be used to develop programs for interprocess communications between an HP 260 and PCs. Additionally, it provides the capability to create programs for X. 25 communication. The product is delivered on a tape cartridge.

#### **HP 45123A DSN/RJE**

DSN/Remote Job Entry is a program for emulation of an IBM 2780/3780 batch terminal. The emulator allows a variety of input/output devices, including discs and keyboards. Punched card I/O and multi-leaving remote job entry are not supported. The remote processor can be any computer which supports or emulates an IBM 2780/3780. Communication with another IBM 2780/3780 emulator is limited to file transfers. This product is delivered on a tape cartridge unless the following option is selected:

Option 041 Software on an 8" floppy disc

Option 043 Software on a 3.5" microfloppy disc

Product HP 45123R is the right to copy HP 45123A.

### HP 45124A DSN/DS

DSN/Distributed Systems is a program which provides a friendly, interactive link between HP 260 and HP 3000 systems. It allows access to the HP 3000 as a virtual terminal, and additionally offers the capability of transferring data and program files. The HP 260 cannot, however, emulate block mode from the HP 3000. This product is delivered on a tape cartridge unless the following option is selected:

Option 041 Software on an 8" floppy disc

Option 043 Software on a 3.5" microfloppy disc

Product HP 45124R is the right to copy HP 45124A.

### HP 45125A NETWORK/260

NETWORK/260 allows HP 260 systems to communicate with each other, as well as with HP 250 systems. When in virtual workstation mode, a non-video workstation on one system is effectively connected to a remote host system and can run applications, access data bases and files, and use peripherals (anything a local non-video workstation can do). The file transfer utility allows any type of file to be copied from one system to another, including system software, data base, program, and data files. This product is delivered on a tape cartridge unless the following option is selected:

Option 041 Software on an 8" floppy disc

Option 043 Software on a 3.5" microfloppy disc

Product HP 45125R is the right to copy HP 45125A.

# Office Support Software

Purchase of an office support software package allows use of that product on one HP 260 computer system. Once the package has been purchased (product with the suffix "A"), the right to copy that product can be bought at a reduced charge (product with the suffix "R"). This right to copy allows the product to be copied once and used on one additional HP 260 system with no time limit. One copy of the associated product manual(s) is included with each package.

#### NOTE

Office support software is available in run-only form only; it is not intended to be modified by the user.

Each office support software package requires a 64 Kb partition of user memory.

DSG/260 and SLIDE/260 packages require that a plotter be connected to the system; TEXT/250 requires a printer.

### HP 45150A DSG/260

Decision Support Graphics is an interactive application for the creation of charts and graphs. Line charts, pie charts, bar charts, deviation charts, and scattergrams are supported. This product is delivered on a tape cartridge unless the following option is selected:

Option 041 Software on an 8" floppy disc

Option 043 Software on a 3.5" microfloppy disc

Product HP 45150R is the right to ccpy HP 45150A.

### HP 45160A TEXT/250

TEXT/250 is an interactive text processing system for creating, modifying, and formatting documents. It is delivered on a tape cartridge unless the following option is selected:

Option 041 Software on an 8" floppy disc

Option 043 Software on a 3.5" microfloppy disc

Product HP 45160R is the right to ccpy HP 45160A.

### HP 45170A SLIDE/260

SLIDE/260 is a graphic package for creating high quality textual presentation materials. A wide variety of character types and enhancements are supported: the proportionally-spaced Roman and stick character sets can be enhanced with boldface, i:alics, and underlining, while the uniformly-spaced Europlot, English Gothic, and hardware character sets can be underlined. Character size, color, and position on the page can be specified. SLIDE/260 is delivered on a tape cartridge unless the following option is selected:

Option 041 Software on an 8" floppy disc

Option 043 Software on a 3.5" microfloppy disc

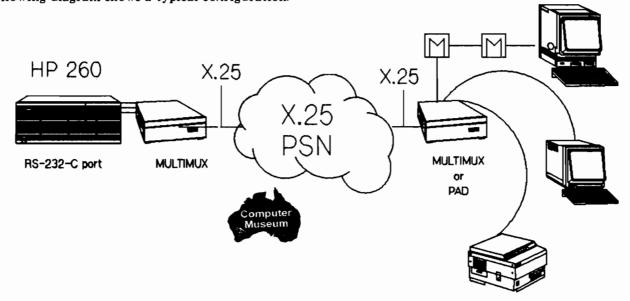
Λ	C - 1	4	C - E	<b>4</b>	
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appropriate product number(s). Remember to write in media options, if required. Check product with the suffix " $R$ " only after you have specified the corresponding " $A$ " product.
HP 45431A AdvanceLink
HP 68333F AdvanceLink 2392
HP 82863K, Option 400 REFLECTION 1
HP 45209A APD/260, Option (if required)
HP 45123A DSN/RJE, Option (if required)
HP 45123R
HP 45124A DSN/DS, Option (if required)
HP 45124R
HP 45125A NETWORK/260, Option (if required)
HP 45125R
HP 45150A DSG/260, Option (if required)
HP 45150R
HP 45160A TEXT/250, Option (if required)
HP 45160R
HP 45170A SLIDE/260, Option (if required)
HP 45170R
Total number of office support products:
Total number of DSN products:
Total number of NETWORK/260 products:

Select the software packages you would like by specifying the quantity on the line next to the

# STEP 10. CONSIDER A MULTIMUX

The MULTIMUX acts as a statistical multiplexer in an HP 260 system configuration. A statistical multiplexer (stat mux) combines multiple data paths into one physical path (comprising logically discrete data streams) and, conversely, separates the combined streams back into individual data paths. The following diagram shows a typical configuration:



If you do not need to access X.25 Packet Switching Networks (PSNs) with your HP 260 system, please proceed to Step 11.

### NOTE

One MULTIMUX is required on the HP 260 side of the above-pictured configuration. Any PAD (Packet Assembly/Disassembly) facility can be on the workstation/PC side of the configuration.

Communication must be initiated from the workstation, although file transfers can go in either direction (to or from the HP 260).

Option 123 must be ordered.

The MULTIMUX supports a maximum of 16 ASI devices.

# Step 10. MULTIMUX

if you wish to acce	ss X. 23 PSNs via an HP 260 system, specify the following product and option:
HP 2334A, Option 123	MULTIMUX statistical multiplexer with four-port modem control card
	twork modem cable is included with the HP 2334A. To connect the MULTIMUX to llowing cable must be ordered:
HP 45111A	4. 5-metre modem cable
	P 2334A port to one asynchronous modem or one computer port associated with a ing cable must be ordered:
HP 40220A	5-metre cable
Additional options	for the HP 2334A and products are listed below:
Option 015	230V, 50 Hz operation
Option 100	Initial configuration by an HP Applications Engineer (AE); this option is highly recommended
HP 40261A	Additional 4-port modem control card (up to three of these cards can be installed in one HP 2334A)
10. Consider a MU	JLTIMUX
If you would	like access to X. 25 PSNs, specify the following product:
h	IP 2334A MULTIMUX, Option 123, Cable HP 45111A
Options _	(if required)
Additiona	l products (cables and/or more modem control cards)
	_ HP
	HP

# STEP 11. SELECT I/O BOARDS

At least one Asynchronous Serial Ir terface board is required if you have selected any combination of three or more of the following:

- asynchronous workstation (HP 2392A or PC)
- printer using an RS-232-C or RS-422 interface

OR, if you selected one or more of the following:

- plotter
- data entry device
- NETWORK/260 software
- MULTIMUX

An ASI board has three RS-232-C/modem/RS-422 ports and two RS-232-C/RS-422 ports. Each port can be configured independently. The ASI board also has programmable baud rate features.

If you selected one or more video workstations, your system requires a Video MUX interface.

If you selected any DSN software packages, your system requires a DSN/Intelligent Network Processor.

### NOTE

A maximum of 20 perts can be configured on the HP 260, controlled by up to 15 users or tasks.

A maximum of two ASI boards (providing five ports each) can be installed in an HP 260 system. Additionally, two CPU-integrated RS-232-C ports are standard with each HP 260 SPU.

A maximum of two Video MUX interfaces (providing four ports each) can be installed in an HP 260 system.

A maximum of one I SN/INP can be installed in an HP 260 system.

# **Asynchronous Serial Interface Boards**

If you require an ASI board, specify the following product number:

HP 45127A

ASI board with three RS-232-C/modem/RS-422 and two RS-232-C/RS-422

### Video MUX Interface

If you require a Video MUX interface for video workstations, specify the following product:

HP 45128A

Video MUX interface with four video workstation ports

# Intelligent Network Processor

If you require a DSN/INP for synchronous data communication using DSN/RJE or DSN/DS software, specify the following product number:

HP 45129A

DSN/INP providing an RS-232-C/V. 24 synchronous port and an RS-366/V. 25 auto call port

BEFORE you select I/O boards
Please fill in the blanks below with the totals from previous steps:
1. Number of video workstations (Step 5):
2. Number of RS-232-C asynchronous workstations and PCs (Step 5):
3. Number of RS-232-C print?rs (Step 6):
4. Number of RS-422 printers (Step 6):
5. Number of plotters (Step 7):
6. Number of RS-232-C and RS-422 data entry devices (Step 8):
7. Number of HP 2334A MULTIMUXs (Step 10):
8. Number of NETWORK/26() software packages (Step 9):
9. Number of DSN software peckages (Step 9):
The total on line 1 tells you how many video ports you require. This number cannot be greater that eight. If this number is greater than four, you need two Video $MUX$ interfaces.
If the total of lines 2 and 3 is greater than two, you require an Asynchronous Serial Interface board.
If you have the number "I" or greater written on line 4, 5, 6, 7, or 8, you require an Asynchronou Serial Interface board.
The total of lines 2 through 7, inclusive, cannot be greater than twelve. If this number is greater than seven, you require two Asynchronous Serial Interface boards.
If you have the number "I" or greater written on line 9, you require a DSN/INP.
If any of your figures exceed the maximum or possible configurations described here, please go back to the corresponding step(s) and reevaluate your selections.
11. Select I/O Boards
Based on your answers in the preceding box, select the data communication hardware that fits you needs.
HP 45127A, ASI board with three RS-232-C/modem/RS-422 and two RS-232-C/RS-42? ports
HP 45128A, Video MUX interface with four video workstation ports
HP 45129A, DSN/INP providing an RS-232-C/V.24 synchronous and at RS-366/V.25 auto call port

### STEP 12. SELECT MEMORY

The HP 260 can use a maximum of 32 memory partitions of 64 Kb each. Four of the memory partitions are used by the system for holding and running the operating system and managing the multi-user functionality of the IMAGE/260 Data Base Management System. Fifteen memory partitions are available for tasks. The remainder of system memory will be used by disc caching on the Series 40.

NOTE

For each running task, one 64 Kb partition of user memory is required.

256 Kb of memory is required by the SPU for the operating system and system software. Both HP 260 SPUs ship with 512 Kb of memory as standard on the CPU board. The HP 260 Series 40 SPU ships with an additional 512 Kb memory board already installed.

A maximum of one memory board and two modules can be installed per system (in addition to the 512 Kb on the CPU board), for a total of 2 Mb of system memory.

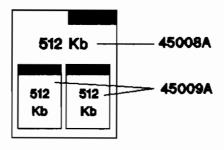
# Add-on Memory Boards

HP 45008A First add-on memory board of 512 Kb (for Series 30 only; the Series 40 already

contains this board)

HP 45009A 512 Kb add-on memory module (HP 45008A must already be installed; a maximum of two can be installed in any HP 260 system)

The memory board and two modules will all fit into one SPU slot, as two HP 45009A memory modules fit on top of one HP 45008A memory board. This is shown in the following diagram:



Maximum Add-On Memory = 1.5 Mb

### 12. Select Memory

When selecting memory, keep in mind that each task running on each workstation (including workstations running office support or data communication software) requires one 64 Kb partition of user memory. A maximum of one HP 45008A board and two HP 45009A modules can be installed in any HP 260 SPU.

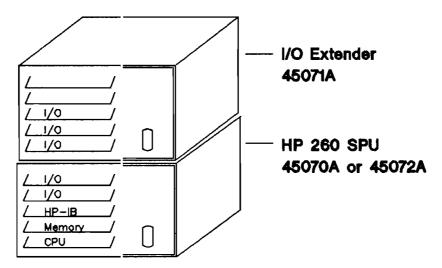
If you wish to add an additional memory board to your system, check one of the following products:

HP 45008A, 512 Kb meniory board for Series 30 only

HP 45009A, 512 Kb memory module (HP 45008A must already be installed; maximum two per system)

### STEP 13. SELECT THE I/O EXTENDER

The SPU has five board slots. Slot 1 is for the CPU board. Slot 2 is for add-on memory. Slot 3 is for the HP-IB board. The remaining three slots are for I/O boards (ASI, Video MUX, or INP).



If the number of I/O boards you selected in Step 11 is greater than the number of SPU slots you have available, you will need to order the E/O Extender:

HP 45071A

I/O extender providing five additional I/O board slots (in a maximum configuration, only three can be filled), 100-240V operation, U.S./Canadian power cord, and HP installation

### Step 13. I/O Extender/Step 14. Mini-rack Cabinet

The following power cord override options are available for the HP 45071A:

Option 900

U.K. power cord

Option 901

Australian/New Zealand power cord

Option 902 European power cord

Option 904 U.S./Canadian power cord, 250V

Option 906 Swiss power cord

Option 912 Danish power cord

Option 917 South African power cord

### 13. Select the I/O Extender

If the total number of the I/O boards you selected in Step 11 is greater than two, you need to order the I/O extender.

\_\_\_\_\_ HP 45071A, I/O extender

If the U.S./Canadian power cord is not correct for your country, specify the appropriate power cord override option:

Option\_\_\_\_

# STEP 14. CONSIDER A MINI-RACK CABINET

Two types of cabinets are available to house mass storage devices and the SPU. The HP 92211R and HP 45065/66A cabinets have the same dimensions. The HP 45065/66A are lighter in weight, easier to install, and eligible for Purchase Agreement Discounts. The HP 92211R is part of HP's Design Plus furniture line and can be ordered with optional drawer units from DMK.

A cabinet can hold mass storage and backup devices and the SPU. Any mass storage/backup device described in Step 4 except the HP 1912P will fit into a cabinet. Compare your mass storage/backup device selection(s) with the following

Size A	Size B
ні 7909а	HP 7941A
HI' 7942A	HP 7945A
HF 7946A	HP 7957A
	HP 7958A
	HP 9133H
	HP 9133L
	HP 9134H
	HP 9134L
	HP 9144A
	HP 9153B
	HP 9154B

Including the SPU, a cabinet can house the following combinations of mass storage/backup devices:

- up to two size A devices
- up to three size B devices
- one size A disc and one size B device

If you have an SPU with the optional I/O Extender attached (described in Step 13), a cabinet can additionally house:

- one size A device
- up to two size B devices

NOTE

The manual *Installing Your HP 260* includes installation instructions for installing an HP 260 system in the HP 45065/45066A cabinets only.

# **Select Cabinet**

Depending on your power requirements and whether you qualify for Purchase Agreement Discounts, consider one of the following cabinets and accessories:

HP 92211R Mini-rack cabinet

HP 92211S Rail kit for HP 92211R mini-rack cabinet

HP 92211T Filler panel kit for the HP 92211R mini-rack cabinet

OR:

HP 45066A Light-weight mini-rack cabinet with 120V power tap, including rails and filler

panels, and U.S./Canadian power cord

HP 45065A Light-weight mini-rack cabinet with 240V power tap, including rails and filler

panels, and U.S./Canadian power cord

The following power cord override options are available for the HP 45066A cabinet:

Option 900 U.K. power cord

Option 901 Australian/New Zealand power cord

Option 904 U.S./Canadian power cord, 250V

Option 906 Swiss power cord

Option 912 Danish power cord

Option 917 South African power cord

1.4	Consider	a Mini-re	ck Cahine	
14	Consider	a Milni-ra	ick Canine	ľ

	vould like a mini-rack cabinet to hold mass storage/backup device(s) and the HP 260 SPU, e of the following:
	HP 92211R, mini-rack cabinet
	HP 92211S, rail kit for HP 92211R mini-rack cabinet
	HP 92211T, filler panel kit for HP 92211R mini-rack cabinet
	HP 45065A, light-weight mini-rack cabinet with 100/120V power tap, including rails and filler panels
	HP 45066A, light-weight mini-rack cabinet with 220/240V power tap, including rails and filler panels
Powe	er cord override option for HP 45066A (if required)

# STEP 15. CONSIDER NON-HP INSTALLATION

System installation by Hewlett-Packard is standard with each HP 260 system. The system can, however, be installed by an HP 260 VASS or customer. However, Hewlett-Packard does not recommend that customers install their systems themselves unless they are skilled technicians. The manual *Installing Your HP 260* is standard with each system.

The only time an HP 260 system must be installed by Hewlett-Packard is when an I/O extender or HP 7912P disc has been ordered.

### NOTE

Regardless of whether HP or customer installation is selected, the VASS or customer should receive the manual *Preparing for Your HP 260* from the HP 260 Sales Representative at the time an order is placed. The manual is part number 45261-90003 from DMK.

Installation must be performed by Hewlett-Packard if an I/O extender or HP 7912P disc has been ordered.

# System Installation by Hewlett-Packard

As part of the system installation service offered by Hewlett-Packard, the HP Customer Engineer performs the following tasks for the HP products:

- supervise the unpacking and positioning of the equipment
- · inventory the shipment against the packing list
- assemble and interconnect the devices
- check primary power line voltage and connect line power to the devices
- perform turn-on procedures and make any electronic or mechanical adjustments required
- execute standard diagnostic programs and tests
- instruct customer personnel on daily care, start-up/shutdown, and backup
- install the operating system (this task may be performed by an Application Engineer)

### Non-HP Installation

Non-HP installation can be selected for any HP 260 system, except when an I/O extender or HP 7912P disc has been ordered, by specifying the following SPU option:

Option 020	Delete HP installation	

### 15. Consider Non-HP Installation

If you do no SPU option:		e HP	installation	service	which is	standard	with ;	your	system,	select th	e fol	llowin
	Option 02	20, de	elete HP ins	tallation	:							

# STEP 16. SELECT HARDWARE SUPPORT

Various levels of support are available for the HP 260 SPU and its supported peripherals. The following pages describe these hardware support levels in more detail. Each hardware support plan is customized for the customer's specific devices.

# Hardware Support Services

Standard Monthly Maintenance Charge (SMMC) and Basic Monthly Maintenance Charge (BMMC) are available for the SPU and peripherals. It is recommended that primary system peripherals (such as the principal workstation, system disc and printer) be included with the SPU under one of these levels of support:

SMMC Standard Monthly Maintenance Charge provides on-site\* response to service

requests placed between 8:00 a.m. and 5:00 p.m., Monday through Friday, within

four hours.

BMMC Basic Monthly Maintenance Charge provides next-day on-site\* response to

service requests placed between 8:00 a.m. and 5:00 p.m., Monday through

Friday.

Product Monthly Maintenance Charge (PMMC) and Field Repair Center Monthly Maintenance Charge (FMMC) offer less support than SMMC or BMMC for a lower price. If several peripherals are connected to an HP 260 system, hardware support savings can be achieved by placing all of the peripherals under one of these support services (as available):

PMMC Product Monthly Maintenance Charge provides next-day, on-site\* response to

service requests placed between 8:00 a.m. and 5:00 p.m., Monday through

Friday.

FMMC Field Repair Center Monthly Maintenance Charge provides service at HP Field

Repair Centers.

NOTE

PMMC and FMMC apply to certain peripherals only; not to the HP 260 SPU. The SPU can receive hardware support only under SMMC or BMMC.

<sup>\*</sup> On-site response depends on the distance from the customer site to the nearest HP Service Office.

# Hardware Support Service Availability for Peripherals

The following table shows which levels of support are available for peripherals supported by the HP 260 system.

DEVICE	SMMC	ВММС	РММС	FMMC	
Mass Storage Devices					
HP 7909A*	ТВА	ТВА	TBA	TBA	
HP 7912P	•	•			
HP 7941A	•	•	•	•	
HP 7942A	•	•	•	•	
HP 7945A	•	•	•	•	
HP 7946A	•	•	•	•	
HP 7957A*	TBA	ТВА	ТВА	TBA	
HP 7958A*	TBA	TBA	ТВА	ТВА	
HP 9133H	•	•	•	•	
HP 9133L	•	•	•	•	
HP 9134H	•	•	•	•	
HP 9134L	•	•	•	•	
HP 9144A	•		•	•	
HP 9153B*	TBA	TBA	TBA	TBA	
HP 9154B*	TBA	TBA	TBA	TBA	
Workstations**					
HP 45263D	•	•			
HP 2392A	•	•	•	•	

<sup>\*</sup>Availability to be announced

<sup>\*\*</sup>For information on PC support, consult PC-specific information

# Hardware Support Service Availability for Peripherals

DEVICE	SMMC	вммс	РММС	FMMC	
Printers					-
HP 2225D			•	•	
HP 2563A/B	•	•			
HP 2603A	•	•	•	•	
HP 2686A/D			•	•	
HP 2932A	•	•	•	•	
HP 2934A	•	•	•	•	
Plotters					
HP 7440A				•	
HP 7475A	•	•	•	•	
HP 7550A	•	•	•	•	
Data Entry Devices					
HP 92915A		•		•	
HP 92916A	•	•	•	•	-
HP 39800A	•	•	•	•	_
HP 3081A	•	•	•	•	-
HP 92922A	•	•	•	•	
HP 92923A	•	•	•	•	

### 16. Select Hardware Support

Write the product numbers of the devices you wish to include under the specific hardware support service you require. If you ordered one of the packaged models in Step 1, the SPU and disc can be separately listed under different support services. Keep in mind that the SPU can only go under SMMC or BMMC.

SMMC				
HP	·			
BMMC				
HP			,	
PMMC				
HP,				
HP		,		
FMMC				
HP		·		
HP				

### STEP 17. SELECT SOFTWARE SUPPORT

There are several levels of software support available for the operating system, office support software, and data communication software. In order to properly select software support services, it is necessary to:

- 1. Determine the base software product number (five digits and one letter) which corresponds to the software you wish to include under support service
- 2. Determine the level of software support (one letter) you require
- 3. Determine the media option (two digits) you require
- 4. Add the proper local language option (three digits), if applicable

The support product number will look like this:

The following parts of this step will lead you through the process described above.

# **Base Software Product Numbers**

HP 45230B

HP 45160A

The product numbers listed below correspond to the base software packages. These are the packages you can have covered by software support, as long as the specified package has already been purchased:

HP 260 operating system and system software

HP 45123A	DSN/RJE software package
HP 45124A	DSN/DS software package
HP 45125A	NETWORK/260 software package
HP 45209A	APD/260 software package

HP 99086C	Data communication	software category,	includes	DSN/RJE,	DSN/DS,	and
	NETWORK /260 softs	vara mackages				

	NET WORK / 200 software packages
HP 45150A	DSG/260 scftware package

<b>HP</b> 45170A	SLIDE/260 software package	

HP 99083C Data management (office support) software category, includes DSG/260, TEXT/250, and SLIDE/260 software packages

# **Levels of Software Support**

There are three basic levels of software support available, although not all levels of support are available for all software products.

AMS	Account Management Support includes support materials, telephone support, and local support
RCS	Response Center Support includes support materials and telephone support

SMS Software Materials Subscription includes support materials

TEXT/250 software package

Step 18. Software Support

Services available for the various levels of support are detailed in the following table:

SERVICE	AMS	RCS	SMS
Account-assigned AE/CSR	yes	no	no
Support Management Reviews*	yes	no	no
Software Release Planning**	yes	no	no
Product Usage Assistance & Problem Solving Assistance			
Access to Response Center	yes	yes	no
On-site AE/CSR assistance	yes	no	no
Software problem reporting	yes	yes	no
Software patches and workarounds	yes	yes	no
Support Materials			
Software updates	yes	yes	yes
Firmware updates	yes	yes	yes
Software Status Bulletin (SSB)	yes	yes	yes
HP 260 Communicator	yes	yes	yes
Manual updates	yes	yes	yes
Optional, Chargeable Services			
Additional Response Center caller	yes	yes	no
Coverage for multiple systems	yes	yes	yes
Custom support plan	yes	no	no

<sup>\*</sup> Support Management Reviews usually occur twice a year and typically last three hours at the customer's site.

<sup>\*\*</sup> The Software Release Planning sessions occur each time there is a major software release at an HP office. These sessions are for several customers at the same time (usually four) and last approximately two hours.

The table below shows which service; are recommended for the various types of HP 260 customers.

TYPE OF CUSTOMER	AMS	RCS	Additional System Coverage	Custom Support Plan
End User				
Single System Site				
Multiple Independent System Site	•		•	
Network Site	•		•	
VASS	•			•
VASS Customer			•	

The following letter codes denote the levels of support available for the operating system and system software (HP 45230B):

T	Account Management Support
---	----------------------------

first system)

S Software Materials Subscription

W Extended Materials Subscription

Q Manual Update Service

N Software Netification Service

P Additional F.esponse Center Caller

For the individual data communication and office support software packages, the following levels of support are available only:

S Software Materials Subscription

W Extended Materials Subscription

For the data communication and data management software categories, the following levels of support are available only:

C Extends the level of support purchased on the operating system to all of the

software products in that particular category

Q Manual Update Service

V Additional System Coverage

# Software Support Media Options

Three media options are available to accommodate any HP 260-supported mass storage device for all levels of support except Software Notification Service (N) and Additional Response Center Caller (P):

No option (to be used, for example, with the Manual Update Service)

22 Cartridge tape

41 8" floppy disc

45 3. 5" microfloppy disc

# **Local Language Options**

The following local language options are available for all levels of operating system support (base software product HP 45230B), except Software Notification Service (N) and Additional Response Center Caller (P); U.S. English is standard.

Option 252 French

Option 253 German

Option 254 U.K. English

Option 255 Swedish

Option 256 Spanish

Option 257 Italian

Option 258 Katakana

Option 500 Danish

Option 501 Flemish

Option 502 Finnish

17	Select	Software	Support
<b>4</b> /,	Select	SULLWALE	Sabboti

Select one item out of the second, third, and fourth columns (if applicable) for each base software product number for which you require software support.

Operating system:

HP 45230B	T	00	252*
	H	22*	253*
	V	41*	254*
	S	<i>45*</i>	255*
	W		256*
	0		257*
	N		258*
	$\boldsymbol{P}$	Computer	500*
		Museum	<i>501</i> *
			502*

<sup>\*</sup> except for N and P levels of support

Data communication and office support software packages:

HP 45123A	S	00	N/A
HP 45124A	W	22	
HP 45125A		41	
HP 45209A		45	
HP 45150A			
HP 45160A			
UD 451704			

Data communication and data management (office support) sofware categories:

HP 99086C	C	00	N/A
HP 99083C	Q	22	
	V	41	
		45	

Write in the quantities and complete support product numbers below:

 HP		
 HP		
 HP	·· <del></del>	
 HP		
HP		_

# STEP 18. CONSIDER TRAINING COURSES AND CONSULTING

Training courses and a consulting service are available under the following product numbers: HP 45103A HP 260 Comprehensive Introduction Course for five days at selected HP Training Centers, one student HP 45103X HP 260 Comprehensive Introduction Course for five days at the customer's site, ten students Add one student to HP 45103X Option 001 HP 51414A Consulting from an HP AE, charged per hour on a time and material basis 18. Consider Training Courses and Consulting Select the training course(s) and consulting service you require by writing in the quantities below: \_ HP 45103A, Comprehensive Introduction Course at HP Training Center for one student, five days HP 45103X, Comprehensive Introduction Course on-site for ten students \_\_\_\_\_ Option 001, add one student to HP 45103X \_\_\_\_\_ HP 51414A, consulting from an AE charged on a time and material basis per hour

# ADDING TO OR UPGRADING AN INSTALLED HP 260 SYSTEM

SECTION

3

All products can be ordered for an installed HP 260 Series 30 or Series 40 system in exactly the same manner as a new system. To add products to an installed system, refer to the appropriate step in Section 2.

### **UPGRADING AN HP 260 SERIES 30 TO A SERIES 40**

To upgrade a Series 30 to a high-performance Series 40, with disc caching, the following kit must be ordered. Additional memory and/or I/O boards must be ordered separately (see Section 2).

HP 45072AH

Series 30 to Series 40 upgrade kit, includes new CPU board and Series 40 nameplate

# ADDING TO OR UPGRADING AN HP 45261D

SECTION

4

This section describes the products unique to HP 260 systems based on the HP 45261D SPU.

#### **HP 260 PLUS UPGRADE**

This performance upgrade kit for the HP 45261D SPU includes:

- a new CPU board with a faster processor, one Mb of RAM memory, disc caching, and an integrated memory management unit
- Operating System B. 08 which supports up to 15 concurrent users, PC integration, a stand-alone tape, and new peripherals
- user documentation updates
- new "HP 260 PLUS" nameplate

NOTE

No CPU-integrated RS-232-C ports are available with the HP 260 PLUS upgrade.

All peripherals supported by the HP \$5261D are supported by the performance upgrade kit.

HP 45261AH

HP 45261D performance upgrade kit

The OS included in the performance upgrade kit comes standard on a 16 Mb tape cartridge. If you would like the OS on a different media, select one of the following options:

Option 041

OS on 8" media

Option 045

OS on 3.5" media

User documentation updates for the HP 260 PLUS upgrade kit come standard in English. If you require local-language manuals, select one of the following local-language options:

Option 252

French user documentation

Option 253

German use: documentation

Option 256

Spanish user documentation

Option 257

Italian user documentation

#### **OPERATING SYSTEM B.08 UPGRADE**

OS B.08 includes support for up to 15 concurrent users, PC integration, a stand-alone tape, and new peripherals. If you wish to upgrade from OS B.07 to B.08 without the HP 260 PLUS upgrade, order the following product number.

HP 45265E Operating System B. 08 upgrade on a 16 Mb tape cartridge

If you would like the OS upgrade delivered on a different media, select one of the following options:

Option 041 OS upgrade on 8" media

Option 045 OS upgrade on 3.5" media

User documentation updates for the B.08 Operating System upgrade come standard in English. If you require local-language manuals, select one of the following local-language options:

Option 252 French user documentation

Option 253 German user documentation

Option 256 Spanish user documentation

Option 257 Italian user documentation

NOTE

Operating System B. 08 requires 256 Kb of memory.

#### **MEMORY**

When ordering additional memory boards, keep in mind that a maximum of two memory boards can be installed in an HP 45261D SPU. Memory boards supported on the Series 30 and Series 40 are not supported for the HP 45261D. If you need additional memory for an HP 45261D, you can choose from the following products:

HP 45006A 256 Kb memory board which provides four 64 Kb user memory partitions

HP 45007A 512 Kb meniory board which provides eight 64 Kb user memory partitions

If additional memory boards are ordered for an HP 45261D, an extra charge for HP installation service will be added to the price of the additional equipment.

NOTE

Keep in mind that the HP 260 PLUS upgrade provides an additional 1 Mb of memory.

#### I/O BOARDS

When ordering additional I/O boards keep in mind that:

- a maximum of two ASI boards (providing five ports each) can be installed in an SPU
- a maximum of two HP-HII/video interfaces (providing four ports each) can be installed if no DSN/INP is installed. If a DSN/INP is installed, only one HP-HIL/video interface can be installed due to power supply limitations

I/O boards supported on the Series 30 and Series 40 are not supported for the HP 45261D. If you require additional I/O boards for an HP 45261D, select from the following products:

HP 45120D	Asynchronous Serial Interface board with five RS-232-C/RS-422 ports			
HP 45120D, Option 001	ASI board with three RS-232-C/Current Loop ports and two RS-232-C/RS-422 ports (this option is to HP 45120D)			
HP 45122D	DSN/INP providing an RS-232-C/V.24 synchronous port and an RS-366/V.25 auto call port			
HP 45126D	HP-HIL/video interface with four video workstation ports			

If additional I/O boards are ordered for an HP 45261D, an extra charge for HP installation service will be added to the price of the additional equipment.

NOTE

Additional memory boards, ASI boards, DSN/INPs, and HP-HIL/video interfaces cannot be installed by the customer.

#### **PERIPHERALS**

Most peripherals supported by a Series 30 or Series 40 are also supported by the HP 45261D. Such peripherals can be ordered as described in Section 2. Products not supported by the HP 45261D are the:

- HP 92916A bar code reader for HP 45263D video workstations and HP 150 II (HP TOUCHSCREEN) and Vectra PCs
- HP 150A/B PC as a workstation; it is supported as a terminal
- HP Portable PLUS PC
- HP 150 II PC as a terminal; it is supported as a workstation
- HP Vectra PC as a terminal; it is supported as a workstation
- HP 7909A mass storage device
- HP 9153B mass storage device
- HP 9154B mass storage device

NOTE

A workstation is a terminal that is completely controlled by the Operating System. It has a full memory partition and programs can be developed on it.

A terminal is a "dumb" RS-232-C device controlled by a program written with TIO. Program development is not possible on a terminal.

## ADDING TO OR UPGRADING AN HP 250 SYSTEM

SECTION

5

This section describes the products unique to HP 250 systems.

NOTE

All customers operating an HP 250A system (HP 45251A desk model with an integrated workstation), who have not upgraded to the "B" revision of the operating system, should purchase the HP 45265E Operating System Upgrade Kit and HP 45276A CPU Loader ROM Kit described below. The "A" version of the operating system is obsolete and no longer receives bug fixes. The "B" version requires an additional 64 Kb of system memory.

#### **HP 250 PLUS UPGRADE**

This performance upgrade kit for the HP 45260A HP 250 SPU includes:

- a new CPU board with a faster processor, one Mb of RAM memory, disc caching, and an integrated memory management unit
- Operating System B. 08 which supports up to 15 concurrent users, PC integration, a stand-alone tape, and new peripherals
- user documentation updates
- new "HP 250 PLUS" nameplate

#### NOTE

The HP 250 PLUS upgrade kit is not available for HP 45251A or HP 45251B HP 250 SPUs.

No CPU-integrated ES-232-C ports are available with the HP 250 PLUS upgrade.

All peripherals supported by HP 250 systems are supported by the performance upgrade kit.

HP 45261AH

HP 250 system performance upgrade kit

The OS included in the performance upgrade kit comes standard on a 16 Mb tape cartridge. If you would like the OS on a different media, select one of the following options:

Option 041

OS on 8" media

Option 045

OS on 3.5" riedia

User documentation updates for the HP 250 PLUS upgrade kit come standard in English. If you require local-language manuals, select one of the following local-language options:

Option 252	French user documentation
Option 253	German user documentation
Option 256	Spanish user documentation
Option 257	Italian user documentation

#### **OPERATING SYSTEM B.08 UPGRADE**

OS B.08 includes support for up to 15 concurrent users, PC integration, a stand-alone tape, and new peripherals. If you wish to upgrade from OS B.07 to B.08 without the HP 250 PLUS upgrade, order the following product number.

HP 45265E Operating System B.08 upgrade on a 16 Mb tape cartridge

If you would like the OS upgrade delivered on a different media, select one of the following options:

Option 041 OS upgrade on 8" media
Option 045 OS upgrade on 3. 5" media

User documentation updates for the B.08 Operating System upgrade come standard in English. If you require local-language manuals, select one of the following local-language options:

Option 252	French user documentation
Option 253	German user documentation
Option 256	Spanish user documentation
Option 257	Italian user documentation

NOTE

Operating System B. 08 requires 256 Kb of memory.

#### **CPU LOADER ROM KIT**

If you do not order the performance upgrade kit but wish to load the Operating System from an HP 7909A, HP 794X, HP 795X, HP 913X, HP 9144A, or HP 915X disc or backup device, you need to order the CPU loader ROM kit.

The CPU ROMs are integrated circuits that contain special software which functions as an operating system until the actual operating system and system software are loaded. The ROM code tells the system to perform self-tests and to load the operating system if everything is working properly.

With the latest CPU ROMs, the operating system can be loaded from all supported discs, including the built-in 5, 10, and 15 Mb Winchester discs. The CPU ROMs are necessary for an HP 250 system only if you wish to load the operating system from the above-listed products.

If you need the CPU loader ROM kit, order the following product number:

HP 45276A

CPU loader ROM kit

NOTE

Only Operating Systems B. 07 and B. 08 support the HP 794X and HP 913X discs. Only Operating System B. 08 supports the HP 7909A, HP 795X, HP 9144A, and HP 915X devices.

#### EXTERNAL HP-IB DEVICE SUPPORT

HP 250 Models 20, 25 and 26 car be upgraded to add support for external HP-IB devices via the Peripheral Interface Channel (PIC). There is an additional charge for installation by Hewlett-Packard; external PIC capability cannot be installed by the customer. If the HP 250 system is covered by a hardware maintenance contract, installation of the HP-IB cabling and the new peripherals is provided by HP at no additional charge.

The following cable must be ordered:

8120-4429

One-metre IIP-IB cable, internal to the processor

#### I/O BOARDS

I/O boards for HP 250 systems are different than those available for HP 260 systems. The following paragraphs describe the products available for the following HP 250 SPUs: HP 45251B and HP 45260A.

NOTE

The HP 45251B SPU (HP 250 Model 35) can support either two Asynchronous Serial Interface boards or one ASI board and one DSN/Intelligent Network Processor.

The HP 45260A SPU (HP 250 Models 20, 25, 26, 30, 40 and 50) can support a maximum of two Asynchronous Serial Interface boards and one DSN/Intelligent Network Processor.

Video MUX/HP-HIL interfaces are not supported on HP 250 systems.

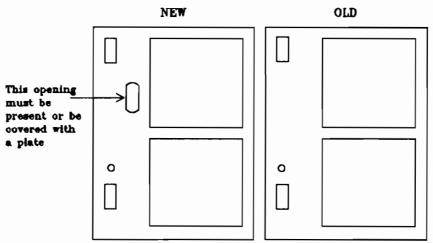
#### Asynchronous Serial Interface Boards

The following ASI board is available for HP 45251B SPUs:

HP 45120A

Asynchronous Serial Interface board providing five RS-232-C/V. 24 ports, valid for the HP 45251B SPU (HP 250 Model 35) only.

For HP 45260A SPUs, it is first necessary to determine if the system requires a back panel upgrade. The HP 250 Model 26 does not require a back panel upgrade; all other models should be checked against the following diagram:



If no opening is present, a back panel upgrade is required.

The following ASI board and options can be ordered for the HP 45260A SPU:

HP 45120B Asynchronous Serial Interface board providing five RS-232-C/V.24 ports, valid

for the HP 45260A SPU (HP 250 Models 20, 25, 26, 30, 40, and 50) only.

Option 001 Include external DSN/INP module and cable. This is required if a DSN/INP

(HP 45122B) is installed and a second ASI board is needed.

Option 002 Include external DSN/INP module, cable, and system back panel upgrade. This is

required if: a DSN/INP (HP 45122B) is installed, a second ASI board is needed,

and a back panel upgrade is necessary.



### Intelligent Network Processor

A DSN/INP can be ordered for any HP 250 system, but it is necessary to determine if a back panel upgrade is required (as shown previously).

HP 45122B DSN/Intelligent Network Processor providing one RS-232-C/V.24/V.28

synchronous port and an RS-366/V. 25 auto call unit port.

The following options to HP 45122B are valid only for the HP 45260A SPU.

Option 001 Include external DSN/INP module. This is required if two ASI boards are

already installed.

Option 002 Include external DSN/INP module and system back panel upgrade. This is

required if two ASI boards are already installed and a back panel upgrade is

needed.

#### **MEMORY**

Due to power supply limitations, a 512 Kb memory board must be installed if more than four memory boards and more than 640 Kb of total memory are required. A maximum of 896 Kb of total memory is usable in any configuration. The following memory boards are available for the HP 250:

HP 45006A 256 Kb memory board

HP 45007A 512 Kb memory board

NOTE

The HP 45006A and HP 45007A memory boards can only be used if the HP 250 system is running Operating System B.04 or greater.

At lease one HP 45007A memory board is required for HP 250 systems with more than six workstations.

The HP 250 PLUS upgrade provides an additional one Mb of memory.

## CONFIGURING HP-IB DEVICES

APPENDIX

A

When configuring HP-IB devices for an HP 260 system, the following points should be kept in mind:

- A maximum of four mass storage and/or tape devices and 10 volumes are supported (see Section 2, Step 4).
- A maximum of two HP-IB printers are supported.
- The HP-IB cable between the SPU and a mass storage/backup device and between mass storage/backup devices should be no longer than one metre. The HP-IB cable between a mass storage/backup device and printer or between printers should be no longer than two metres.
- A daisy-chain configuration should be used for all HP-IB peripherals.
- All HP-IB devices should draw power from the same power outlet.
- The total length of internal and external HP-IB cables should not exceed the equivalent device loads in the configuration, nor should it exceed 15 metres. \*\* To perform this calculation, refer to the table "HP-IB Device Loads" and add the internal cable lengths for all HP-IB devices in your configuration. To this sum add the total length of external HP-IB cables (refer to Appendix B, if required) between devices. Now total the number of device loads as listed the table "HP-IB Device Loads" for each HP-IB device in your configuration. The configuration is valid only if the total (internal and external) cable length does not exceed the total number of device loads and if the total is not greater than 15 metres.
- All cable connections should occur at the device (i.e., no cables should be connected simply to extend the effective length of the cable).

<sup>\*</sup>If you do not exceed cable recommendations above, it is not necessary to calculate device loads.

## **HP-IB DEVICE LOADS**

	Device	Internal HP-IB Cable Length in Metres	Device Loads	
	HP 45261D	1.0	7	
	HP 7909A	0.0	1	
	HP 7912P	1.0	1	
	HP 7941A	0.0	1	
	HP 7942A	0.0	1	
-	HP 7945A	0.0	1	
	HP 7946A	0.0	1	
	HP 7957A*	0.0	1	
	HP 7958A*	0.0	1	
	HP 9133H	0.0	1	
	HP 9133L	0.0	1	
	HP 9134H	0.0	1	
	HP 9134L	0.0	1	
	HP 9144A	0.0	1	
	HP 9153B*	0.0	1	
	HP 9154B*	0.0	1	
	HP 2563A/B	0.0	1 (default)	
	HP 2934A	0.0	1	

<sup>\*</sup>Availability to be announced

## CABLE INFORMATION



В

Following is a list of recommended cable products for the HP 260:

#### **HP-IB** Cables

HP 10833A 1-metre HP-IB cable (male/male)

HP 10833B 2-metre HP-IB cable (male/male)

HP 10833D 0.5-metre F.P-IB cable (male/male)

#### DSN/INP Cables

HP 45115A 10-metre modem or auto call unit connection cable (male/male)

HP 45116A 10-metre DSN/INP to HP 3000 INP cable for Series 37/39/42/48/68

(male/female)

HP 30221A 10-metre DSN/INP cable to HP 3000 INP Series 37/39/42/48/68 modem cable

(male/PC edge connector)

HP 30222A 10-metre DSN/INP cable to HP 3000 INP Series III modem cable (male/PC edge

connector)

#### RS-232-C Cables

HP 13222M 5-metre European modem cable for HP 2622D workstation (male/special)

HP 13222N 5-metre U.S. modem cable for HP 2622D workstation (male/special)

HP 13242M 5-metre European modem cable (male/male)

HP 13242N 5-metre U.S. modem cable (male/male)

HP 17355D 5-metre modem cable (male/female)

HP 24542M 2-metre Vectra RS-232-C cable

HP 30062C 5-metre modem cable (male/female)

HP 40242M 5-metre HP 2392A RS-232-C modem cable

HP 40242Y 5-metre HP 2392A RS-232-C cable

HP 45111A 4.5-metre modem cable (male/male)

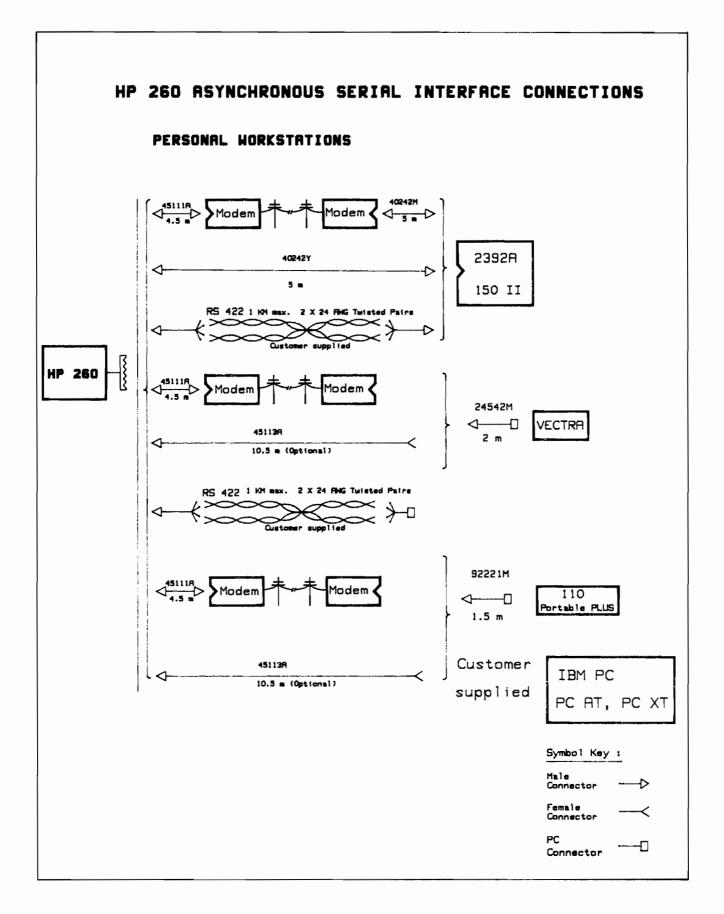
HP 45113A 10.5 metre direct connection extension cable (male/female)

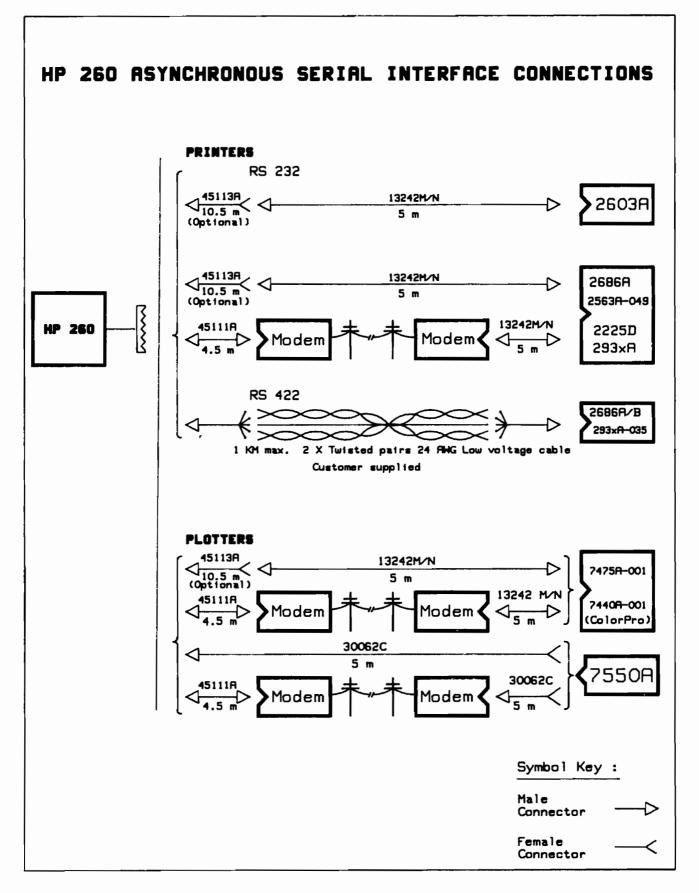
#### Cable Information

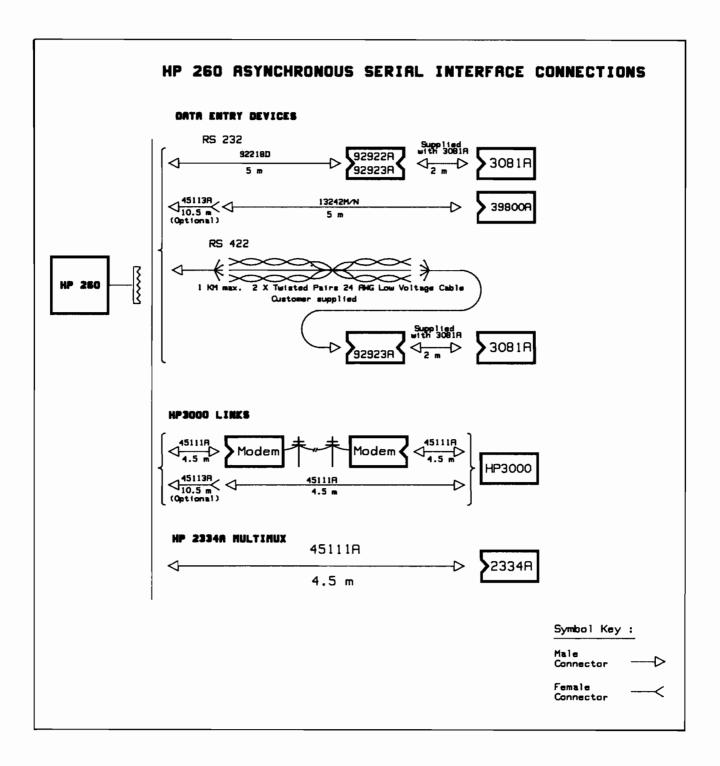
HP 92218D	15-metre HP 92922A/92923A to system cable (male/male)
HP 99221M	1.5-metre Portable PLUS RS-232-C cable
Current Loop Cables	
HP 45112A	1.5-metre modem cable (male/unterminated)
<b>НР</b> 92179 <b>Н</b>	HP 3081A to HP 92922A/92923A data/power cable (unterminated)
HP 92920A	HP 3081A to HP 92922A/92923A data/power cable (unterminated)
HP 92921A	HP 3081A to HP 92922A/92923A special performance data/power cable (unterminated)
Video Cables	
45262-61605	5-metre workstation cable (special/special)
45262-61610	10-metre workstation cable (special/special)
45262-61620	20-metre workstation cable (special/special)
45262-61630	30-metre workstation cable (special/special)
45262-61650	50-metre workstation cable (special/special)
HP 92232A	HP-HIL workstation cable (unterminated) on a 275-metre reel; should be assembled using HP 92232B connector kit
HP 92232C	HP-HIL workstation cable (unterminated) on a 100-metre reel; should be assembled using HP 92232B connector kit
RS-422 Cable	

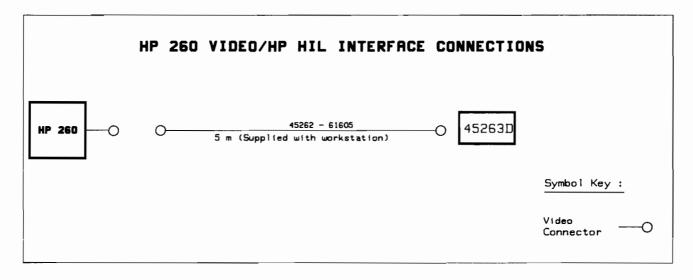
1.5-metre ASI to RS-422 cable (male/unterminated)

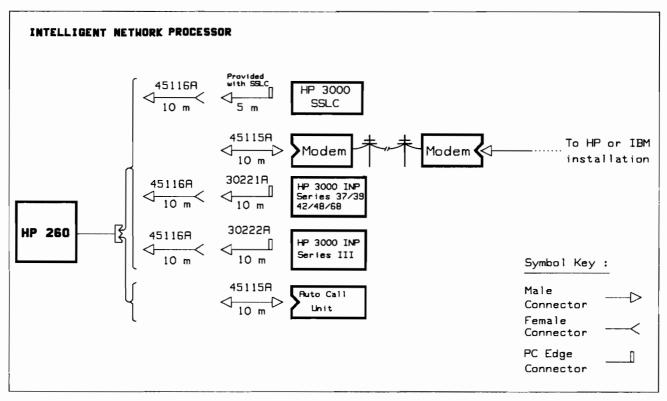
HP 45114A

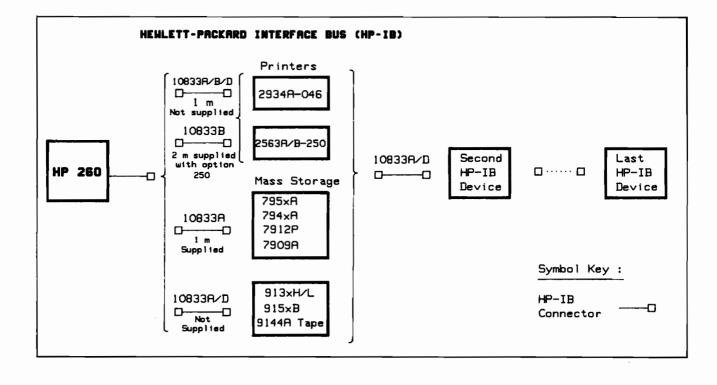












# **DOCUMENTATION**

APPENDIX

C

The following documentatin is available for HP 260 systems.

Included With	Manual	Language*	Part Number
System Order**	Preparing for your HP 260	English French German Spanish Italian	45070-90003 45070-90203 45070-90303 45070-90603 45070-90703
HP 45070A HP 45072A Bundles	Unpacking Instructions	English French German Spanish Italian	45070-90002 45070-90202 45070-90302 45070-90602 45070-90702
	Installing your HP 260	English French German Spanish Italian	45070-90006 45070-90026 45070-90036 45070-90066 45070-90076
	Operating and Managing your HP 260	English	45261-90001
	HP 260 Utilities	English	45261-90061
	Query Operator's Guide	English	45261-90005

<sup>\*</sup> The manuals are supplied in the language specified by the SPU local language option if manuals are available in that language. If manuals are not available in the specified local language, English manuals will be supplied.

<sup>\*\*</sup> Provided by HP 260 Sales Representative

#### Documentation

Included With	Manual	Language*	Part Number
45261-87901	TIO Programming	English	45120-90006
(includes binders)	IMAGE Programming	English	45261-90020
	QUERY Programming	English	45261-90021
	REPORT WRITER Programming	English	45261-90022
	FORMS Programming	English	45261-90023
	SORT Programming	English	45261-90024
	MEDIA Programming	English	45261-90025
	BASIC Programming	English	45261-90051
	Syntax Reference	English	45261-90063
	Graphics Plotting Library Programming	English	45261-90064
HP 45263D	Personal Workstation Assembly Instructions	Multi**	45263-90001
HP 45071A	Installing the HP 260 I/O Extender	English	45071-90006
HP 45072AH	Installing HP 260 Series 30 to Series 40 Upgrade	English	45072-90006
HP 45261AH	Installing the HP 250/260 PLUS Upgrade	English	45261-90070

<sup>\*</sup> The manuals are supplied in the language specified by the SPU local language option if manuals are available in that language. If manuals are not available in the specified local language, English manuals will be supplied.

<sup>\*\*</sup> English, French, German, Spanish, Italian

Included With	Manual	Language*	Part Number
HP 45209A	APD/260 Programmer's Manual	English	45070-90100
HP 45122D	DSN/INP Reference	English	45122-90010
HP 45123A/R	DSN/RJE User's Manual	English	45123-90000
HP 45124A/R	DSN/DS User's Manual	English	45124-90000
HP 45125A/R	NETWORK User's Manual	English	45125-90001
HP 45150A/R	Decision Support Graphics User's Manual	English	45150-90010
HP 45160A/R	TEXT Self-Teaching Guide TEXT Reference TEXT Pocket Guide	English	45160-90000 45160-90010 45160-90020
HP 45170A/R	SLIDE User's Guide	English	45170-90001

<sup>\*</sup> The manuals are supplied in the language specified by the SPU local language option if the manuals are available in that language. If manuals are not available in the specified local language, English manuals will be supplied.

# **SALES TOOLS**

APPENDIX

D

The following sales tools are available for HP 260 systems.

Literature Piece	Version	Part Number
Management brochure	European (English)	5954-6210
	U.S. (English)	5954-6210D
	Italian	5954-6210IT
	Spanish	5954-6210SP
	Norwegian	5954-6210NO
	Danish	5954-6210DK
	German	5954-6210GE
	Dutch	5954-6210DU
	French	5954-6210FR
	Finnish	5954-6210FI
Direct mail flyer	European (English)	5954-6211
	U.S. (English)	5954-6211D
	Italian	5954-6211IT
	Spanish	5954-6211SP
	Swedish	5954-6211SW
	Norwegian	5954-6211NO
	German	5954-6211GE
	French	5954-6211FR
	Finnish	5954-6211FI

Literature Piece	Version	Part Number
System Overview	English	5954-6213
	Italian	5954-6213IT
	Danish	5954-6213DK
	Swedish	5954-6213SW
	German	5954-6213GE
	Finnish	5954-6213FI
NETWORK data sheet	English	5954-6227
QUERY data sheet	English	5954-6228
TEXT data sheet	English	5954-6229
DSG data sheet	English	5954-6230
REPORT WRITER data sheet	English	5954-6231
GPL data sheet	English	5954-6232
DSN data sheet	English	5954-6233
IMAGE data sheet	English	5954-6234
SLIDE data sheet	English	5954-6235
HP 45263D workstation data sheet	English	5954-6237
SPU data sheet	English	5954-6218
HP 260/250 PLUS data sheet	English	5954-6219
APD/260 data sheet	English	5954-6220
Poster 1	Universal	5954-6221
Poster 2	English	5954-6222
Sales Training Manual	English	5954-6224
Price Guide (US)	English	5954-6225D
Price Guide (FBP)	English	5954-6226

# **APPROVALS AND WARRANTY**



E

#### **APPROVALS**

The HP 260 computer system has the following safety approvals:

- UL 478, electronic data processing units and systems
- CSA C22.2 No. 154, data processing equipment
- IEC 380/VDE 0806, international standard for safety of electrically energized office machines
- IEC 435, safety of data processing equipment

The HP 260 has the following Radio Frequency Interference approvals:

- for Germany, FTZ license number C-032/81
- for the U.S., this equipment has been tested and complies with the requirements in part 15 of FCC rules for a class A computing device

The HP 260 has data communication approvals in the following countries:\*

- Federal Republic of Germany
- United Kingdom
- Australia
- Belgium
- Finland
- Sweden

<sup>\*</sup>The United States does not require regulatory approval.

#### WARRANTY

The following paragraphs are abridged descriptions of the HP 260 system warranty coverage. Complete warranty terms are described in *Computer Products Warranty and Installation Guide*, part number 5953-3010.

#### **Hardware Products**

Hewlett-Packard warrants its hardware against defects in material and workmanship. During the warranty period, normally 90 days following installation, Hewlett-Packard will, at its option, repair or replace hardware which proves to be defective.

#### Software and Firmware Products

Hewlett-Packard warrants that its software and firmware designated by Hewlett-Packard for use with a Central Processing Unit will execute its programming instructions when properly installed on that CPU. Hewlett-Packard does not warrant that the operation of the CPU, or software, or firmware, will be uninterrupted or error free.

#### Limitation of Warranty

The foregoing warranties shall not apply to defects resulting from:

- improper or inadequate maintenance by the buyer
- buyer-supplied software or interfacing
- unauthorized modification or misuse
- operation outside of the environment specifications of the product
- improper site preparation and maintenance

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E

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- operation outside of the environment specifications of the product
- improper site preparation and maintenance

# **CONFIGURATION SUMMARY**



F

Please photocopy these pages and use them to compile all of your system selections. It is recommended that you use a separate set for each system order.

When actually placing an order, HP Sales Representatives should refer to the HP 260 Price Guide, the HP Price List, and the Field Order Processing Guidelines for specific ordering information.

#### NOTE

A line before a product or option number requires a quantity. A line after "HP" or "option" requires that a product/option number be inserted.

1.	System basis
	HP 260 Series 30 SPU (HP 45070A)
	HP 260 Series 40 SPU (HP 45072A)
2.	Power cord override option
	Option (SPU option)
3.	Manuals
	Option local-language option (SPU option)
	Option 030, programming manual kit (SPU option)
4.	Mass storage/backup devices
	HP, option (if required)), cable HP (if required)
	HP, option (if required)), cable HP (if required)
	HP, option (if required)), cable HP (if required)
	HP, option (if required)), cable HP (if required)

### Configuration Summary

5.	Workstatio	ons					
	, HP 45263D, options,,,,,						,
	, HP 2392A, options,,,,,						
		_ HP 150 II (H	IP TOUCHSCREEN II	) PC			
		_ HP Vectra P	С				
		_ HP Portable	PLUS PC				
	Cables: _	НР	,	_ НР		HP	,
	н	Р					
6.	Printers						
		_ HP	, interface option	, cabl	e(s) HP	, HP	
		_ HP	, interface option	, cabl	e(s) HP	, HP	
		_ HP	, interface option	, cabl	e(s) HP	, HP	
7.	Plotters						
		_ HP 7440A, c	option 001, cable(s) HP	, н	P	-	
		_ HP 7475A, c	option 001, cable(s) HP	, н	P	-	
		HP 7550A	, cable(s) HP	, HP			

8.	Data Entry Devices  HP 92915A, bar code reader for use with HP 2392A  HP 92916A, bar code reader for use with HP 45263D, HP 150 II (HP TOUCHSCREEN II), and HP Vectra						
	HP 39800 bar code reader, options,,						
	Cable HP 13232M/N, HP						
	HP 3081A industrial workstation terminal and either:						
	HP 92922A four-channel RS-232-C adapter						
	HP 92923A single-channel RS-232-C adapter						
	Cables HP, HP						
9.	Software						
	HP 45431A AdvanceLink						
	HP 68333F AdvanceLink 2392						
	HP 82863K, option 400 REFLECTION 1						
	HP 45209A APD/260, option						
	HP 45150A DSG, option						
	HP 45150R						
	HP 45160A TEXT, option						
	HP 45160R						
	HP 45170A SLIDE, option						
	HP 45170R						
	HP 45123A DSN/RJE, option						
	HP 45123R						
	HP 45124A DSN/DS, option						
	HP 45124R						
	HP 45125A NETWORK, option						
	HP 45125R						

1 U. N	MULTIMUX
_	HP 2334A MULTIMUX, option 123, cable HP 45111A
	Options (if required)
	Additional products and/or cables: HP, HP
11. I,	/O boards
	HP 45127A ASI board
	HP 45128A Video MUX interface
_	HP 45129A DSN/INP
12. N	<b>Memory</b>
	HP 45008A, 512 Kb memory board (Series 30 only)
_	HP 45009A, 512 Kb memory board (HP 45008 must already be installed
13. I,	O Extender
_	HP 45071A I/O Extender
Po	wer cord override option
14. N	fini-rack cabinet
	HP 92211R Mini-rack cabinet
<del></del> -	HP 92211S Rail kit for HP 92211R
	HP 92211T Filler panel kit for HP 92211R
	HP 45066A Light-weight mini-rack cabinet (100/120V)
_	HP 45065A Light-weight mini-rack cabinet (220/240V)
15. C	Customer Installation
	Option 020, delete HP installation (SPU option)

16. Hardware support									
SMMC: HP	_, HP	, HP	, HP	, HP					
BMMC: HP	, HP	, HP	, нР	, HP					
PMMC: HP	, HP	, HP	, HP	, HP					
НР	, HP	, HP	, HP	, HP					
FMMC: HP	, HP	, HP	, HP	, HP					
НР	, HP	, HP	, HP	, HP					
17. Software support									
HP	+								
HP	+								
HP	+								
НР	+								
18. Training courses and consulting									
HP 45103A, five days at HP Training Center									
HP 45103X, five days on-site									
Option 001, add one student to HP 45103X									
HP 51414	HP 51414A, per hour SE consulting								

