

HEWLETT-PACKARD

The Touchscreen
Personal Computer Family
System Configuration Information



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This guide is designed to help HP sales and support people, along with HP dealers work together with customers to develop better business and computer solutions. This guide covers the HP 150A, Touchscreen, and Touchscreen II Personal Computers.

This guide will help you:

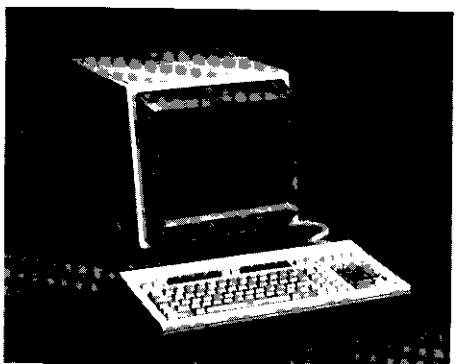
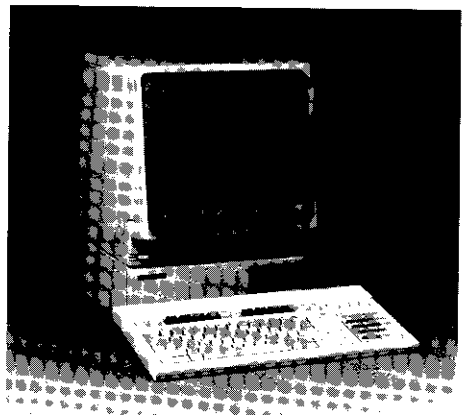
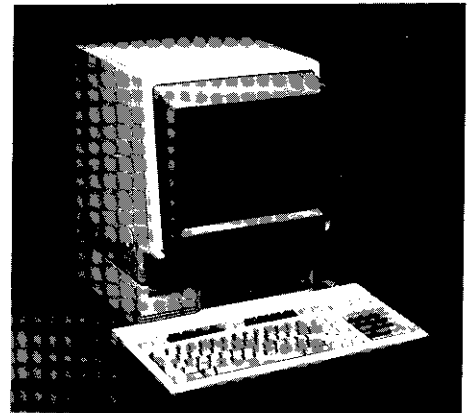
- Choose the right Touchscreen II System.
- Expand the system by adding flexible or Winchester disc drives, printers, plotters, and accessory cards.
- Develop communications solutions.
- Determine which software solutions have additional hardware requirements.
- Determine which version of the HP 150A or Touchscreen Personal Computer your customer has, and how to make it work with the peripherals and software mentioned here.

Meet the Touchscreen II Personal Computer



There are seven Touchscreen II configurations available

CONFIGURATION	ORDER PRODUCT NUMBERS	SYSTEM DESCRIPTION
Touchscreen II Personal Computer	45851A	HP 150 II CPU With Personal Computer Kit <ul style="list-style-type: none"> ■ HP 150 II CPU <ul style="list-style-type: none"> □ 12-inch green phosphor display □ 256K bytes of RAM □ One RS-232C/RS-422 port □ One RS-232C port □ One HP-IB port □ Four I/O Accessory Slots ■ One Power Cord ■ HP-HIL Keyboard with HP-HIL port ■ One 92220E HP-IB Cable ■ System Master Disc (with MS™-DOS 2.11 operating system, PAM, system utilities) and Work Disc ■ "Getting Started with Your HP Touchscreen II Personal Computer" manual ■ "Using Your HP Touchscreen II Personal Computer" manual
	35723A	HP Touch Accessory (user installable bezel)
	9123D	Dual 3½-inch Microfloppy Disc Drive
	45851A	HP 150 II CPU with Personal Computer Kit (same as above)
Touchscreen MAX II Personal Computer	35723A	HP Touch Accessory (user installable bezel)
	<i>Choice of three Winchester disc options</i>	
	9153A	10M byte Winchester Disc Drive with one 3½-inch microfloppy disc drive
	9133H	20M byte Winchester Disc Drive with one 3½-inch microfloppy disc drive
9133L	40M byte Winchester Disc Drive with one 3½-inch microfloppy disc drive	
Touchscreen II Terminal	45850A	HP 150 II CPU with Terminal Kit <ul style="list-style-type: none"> ■ HP 150 II CPU <ul style="list-style-type: none"> □ 12-inch green phosphor display □ 256K bytes of RAM □ One RS-232C/RS-422 port □ One RS-232C port □ One HP-IB port □ Four I/O Accessory Slots ■ One Power Cord ■ HP-HIL Keyboard with HP-HIL port ■ "Using Your HP Touchscreen II Personal Computer as a Terminal" manual
	35723A	HP Touch Accessory (user installable bezel)
Network Starter Kit		See Section Three (Communications) for more information.
Discless Network Node		See Section Three (Communications) for more information.
Network Node		See Section Three (Communications) for more information.
Network Server		See Section Three (Communications) for more information.



Expansion and Input/Output Capabilities: The Connections

The Touchscreen II and Touchscreen MAX II Personal Computers come standard with one HP-IB port, one RS-232C/RS422 port, one RS-232C port, one HP-HIL port, and four I/O accessory slots. The HP 150A and Touchscreen PC do not have an HP-HIL port, and only have two I/O accessory slots.

I/O Accessory Slots 1 through 4

Use the I/O accessory slots to add the following:

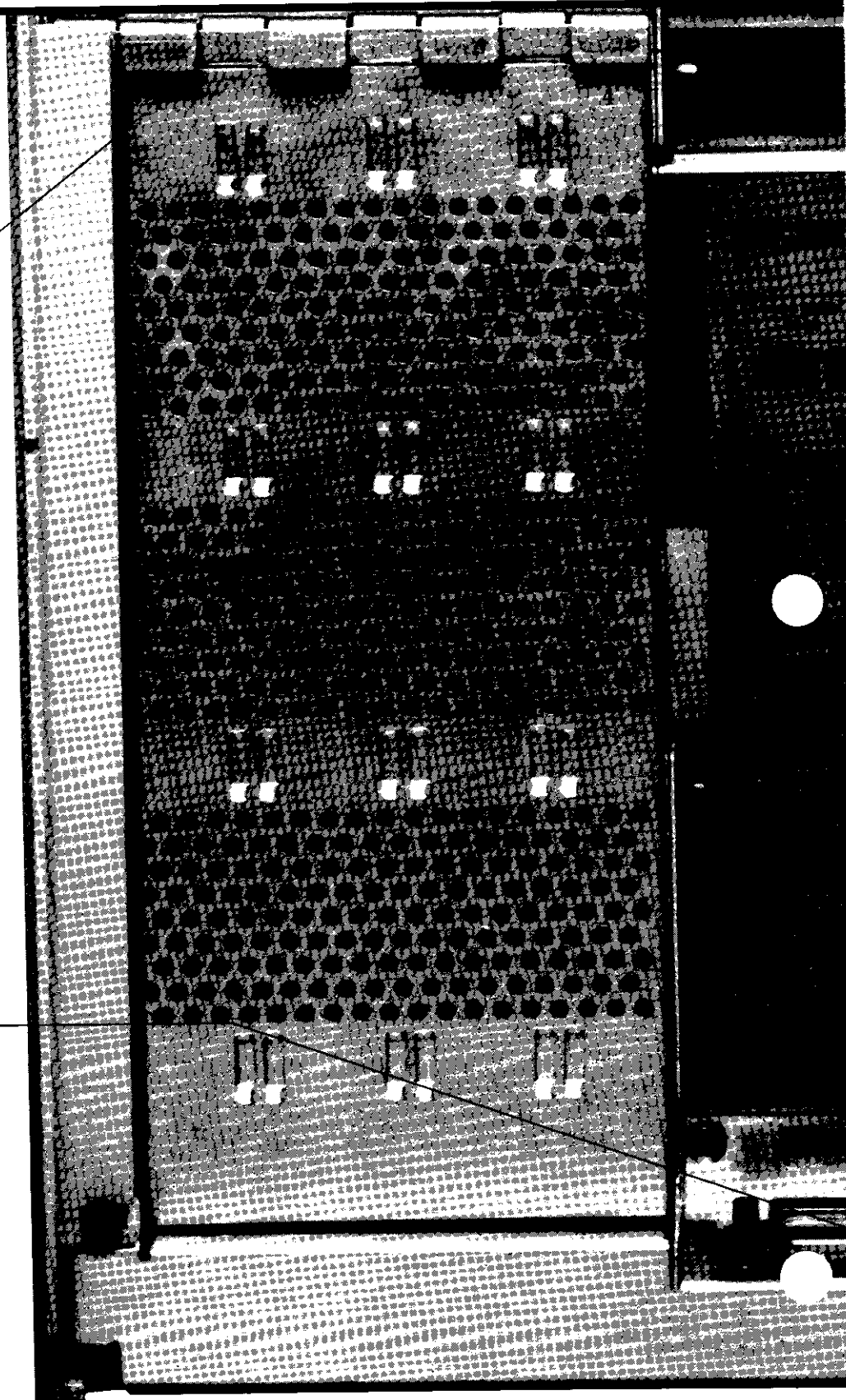
- Additional Memory (must be placed in accessory slot 1)
 - 256K RAM Memory board (45631A)
 - 384K RAM Memory board (45632A)
- Communications
 - 1200/300 baud internal modem board (also uses one of the built-in RS-232C ports) (45640A)
 - Touchscreen 3278 Emulation Accessory with File Transfer (45641B)
 - EtherLink™/150 board (45644A)
 - EtherStart™/150 plug-in module for EtherLink™/150 board (does not require separate I/O slot) (45649A)
 - Extended I/O Accessory (45643A)
- Accessories
 - Language board (for non-English localization—must be placed in I/O slot 1) (45635A)
 - Language board with 256K RAM Memory (for non-English localization—must be placed in I/O slot 1) (45637A)

HP-IB Port

The HP-IB (Hewlett-Packard Interface Bus—IEEE 488) supports up to eight peripherals through one port. Use the HP-IB port to connect:

- HP Disc Drives
- HP Printers
- HP Plotters

See the tables on pages 6 through 8 for configuration information.





Port 1 RS-232C/RS-422

This port supports RS-232C cables up to 50 feet in length, and RS-422 cables up to 4,000 feet in length. Use Port 1 to connect:

- Hardwire connections to host computers
 - RS-232C Interface cable for HP 3000 Advanced Terminal Processor (ATP) (13242X)
 - U.S. Modem Cable (13242N)
 - RS-422 Direct Connect Cable (13242P) (for more information, see Computer Users Catalog 5953-2450D)
- HP Printers with RS-232C interface (see table on page 7)
- HP Plotters with RS-232C interface (see table on page 8)
- Modems
 - 1200/300 baud Internal Modem Accessory (requires one I/O accessory slot, and one built-in RS-232C port) (45640A)
 - Hayes Smartmodem 1200 (stand-alone—requires 13242N U.S. Modem Cable) (92205A)

Port 2 RS-232C

This port supports RS-232C cables up to 50 feet in length. Use Port 2 to connect:

- Hardwire connections to host computers
 - RS-232C Interface cable for HP 3000 Advanced Terminal Processor (ATP) (13242X)
 - U.S. Modem Cable (13242N) (for more information, see Computer Users Catalog 5953-2450D)
- HP Printers with RS-232C interface (see table on page 7)
- HP Plotters with RS-232C interface (see table on page 8)
- Modems
 - 1200/300 baud Internal Modem Accessory (requires one I/O accessory slot, and one built-in RS-232C port) (45640A)
 - Hayes Smartmodem 1200 (stand-alone—requires 13242N U.S. Modem Cable) (92205A)

Expansion and Input/Output Capabilities: Accessories and Input Devices

Use the following table to determine which accessories meet your customers' needs.

ACCESSORY	ORDER PRODUCT NUMBER	DESCRIPTION	ALSO REQUIRES
256K RAM Memory	45631A	256K RAM Memory board	Must be placed in slot 1
384K RAM Memory	45632A	384K RAM Memory board	Must be placed in slot 1
Internal Modem	45640A	1200/300 baud internal modem board	One of the built-in RS-232C ports
Touchscreen 3278 Emulation Accessory with File Transfer	45641B	IBM 3278 terminal emulation accessory	Software included
EtherLink™/150	45644A	EtherLink™ local area network board	Software included
EtherStart™/150	45649A	Plug-in module for EtherLink™/150 board	EtherLink™/150 (45644A)
Language Board	45635A	Non-English language board (for localization)	Must be placed in slot 1
Language Board with 256K RAM	45637A	Non-English language board (for localization)	Must be placed in slot 1
8087 Co-processor Accessory	45885A	Intel 8087 numeric co-processor board	Must be HP Field or Dealer installed
Extended I/O Accessory	45643A	Extended I/O board that adds Centronics and HP-IL interfaces	Centronics cable (HP-IL cables and software included)
HP-HIL Board	45914A	HP-HIL accessory board adds HP-HIL port to HP 150As and Touchscreen PCs	HP 150A or Touchscreen only
HP Mouse	46060A	Mouse input device	HP-HIL Port is standard on Touchscreen II. HP 150A & Touchscreen PCs require HP-HIL accessory board (45914A)
Graphics Tablet	46087A	Graphics tablet input device (A-size)	HP-HIL port is standard on Touchscreen II. HP 150A & Touchscreen PCs require HP-HIL accessory board (45914A)

Expansion and Input/Output Capabilities: The Peripherals



Disc Drives

Use the following table to determine which HP disc drive meets your customers' needs. See Note 1 for cable requirements.

DISC DRIVE NUMBER	FIXED DISC CAPACITY	FLEXIBLE DISC SIZE	DOUBLE-SIDED OR SINGLE-SIDED FORMAT & CAPACITY#	NUMBER OF HP-IB ADDRESSES USED*	OPERATING SYSTEM AND ROM RELEASE COMBINATIONS REQUIRED†	COMMENTS
9123D		Dual 3½-inch	Double-sided 710K byte	One	9 and 10	See Note 2
9122D		Dual 3½-inch	Double-sided 710K byte	One	8 through 10	
9122S		Single 3½-inch	Double-sided 710K byte	One	8 through 10	See Note 3
9153A	10M bytes	Single 3½-inch	Double-sided 710K byte	One	9 and 10	
9154A	10M bytes			One	9 and 10	See Note 3
9133H	20M bytes	Single 3½-inch	Double-sided 710K byte	One	9 and 10	
9134H	20M bytes			One	9 and 10	See Note 3
9133L	40M byte	Single 3½-inch	Double-sided 710K byte	One	9 and 10	See Note 4
9134L	40M byte			One	9 and 10	See Notes 3 and 4
9142A			¼-inch streaming tape backup (13 or 52M bytes)	One	9 and 10	See Note 5
9144A			¼-inch streaming tape backup (16.7 or 67M bytes)	One	8 through 10	See Note 5
9125S		Single 5¼-inch	IBM Format 360K byte	One	8 through 10	See Note 6
9133D	14.8M bytes	Single 3½-inch	Double-sided 710K byte	One	8 through 10	
9134D	14.8M bytes			One	8 through 10	See Note 3
9121D		Dual 3½-inch	Single-sided 270K byte	One	1 through 8	
9121S		Single 3½-inch	Single-sided 270K byte	One	1 through 8	See Note 3
9133V	4.8M bytes	Single 3½-inch	Single-sided 270K byte	Two	1 through 8	
9133XV	14.8M bytes	Single 3½-inch	Single-sided 270K byte	Two	1 through 8	
9134XV	14.8M bytes			One	1 through 8	See Note 3

Note 1: Cables

92220E is the .6 meter HP-IB cable included with the Touchscreen III/ Touchscreen MAX II systems. It allows for "piggy-backing" of HP-IB cables on disc drive end only.

92220R is the ½ meter, right-angle HP-IB cable included with the Touchscreen and HP 150 systems. This compact cable is also recommended for stacking disc drives or disc drives and printers.

For add-on drives, order 10833A (1 meter), 10833B (2 meters), or 10833C (4 meters).

Note 2:

Can only be used with Touchscreen II due to power requirements (9123D does not have its own power supply).

Note 3:

Supported only as an add-on disc drive to a system already configured with one or more disc drives.

Note 4:

Supported only as two 20M byte volume disc drives on an EtherSeries™ local area network. Not supported as a single volume 40M byte Winchester in this configuration.

Note 5:

Provides fixed-disc backup. The 9142A uses the 92242S (15M byte) and 92242L## (52M byte) tape cartridges. The 9144A uses the 88140L, 88140LC## (both 67M byte), 88140S, and 88140SC (both 16.7M byte) tape cartridges.

Note 6:

IBM PC-DOS 1.0 and 2.0 compatible. Add-on drive only.

* The Touchscreen family supports up to eight HP-IB addresses per port.

† See Section Five for information on supported ROM and Operating System release combinations.

You can use double-sided discs in a single-sided drive if the discs are in single-sided format. You can also use single-sided discs in a double-sided drive.

One included with tape drive.

Printers

Use the following table to determine configuration and ordering information for printers supported on the Touchscreen family of personal computers.

PRINTER	OPTION	INTERFACE	CABLES*	OPERATING SYSTEM & ROM RELEASE COMBINATION REQUIRED†	COMMENTS
LaserJet 2686A		RS-232C	13242G	5 through 10	
ThinkJet 2225A		HP-IB	10833A,B,C	2 through 4, and 6 through 10	See Notes 1 & 2
ThinkJet 2225B		HP-IL	HP-IL cable 82167B (included)	2 through 4, and 6 through 10	See Note 3
ThinkJet 2225C		Centronics	13242D	2 through 4, and 6 through 10	See Note 3
ThinkJet 2225D		RS-232C	13242G	2 through 4, and 6 through 10	
2601A	242	RS-232C	13242G	1 through 10	
2602A	046	RS-232C HP-IB	13242G 10833A,B,C	1 through 10	
2932A	046	RS-232C HP-IB	13242G 10833A,B,C	1 through 10	
2933A	046	RS-232C HP-IB	13242G 10833A,B,C	1 through 10	
2934A	046	RS-232C HP-IB	13242G 10833A,B,C	1 through 10	
82906A	001-004	HP-IB	10833A,B,C	1 through 10	See Note 4
82905B	001-004	RS-232C HP-IB	13242G 10833A,B,C	1 through 10	See Note 4 No enhancements

Note 1:

For ROM Versions B and C (see Section Five), printer must be turned off until system is booted.

Note 2:

When the ThinkJet Printer is stacked on top of a disc drive that is alongside the Touchscreen, HP-IB cable 92220R is recommended for connecting the printer to the disc drive.

Note 3:

A) Supports personal computer software only (not supported in terminal mode).

B) Requires HP 45643A for hardware installation.

Note 4:

For ROM Version A, connected 7475A plotters must be turned off while printing.

* All cables must be ordered separately.

† See Section Five for information on required ROM and Operating System release combinations.

FCC Approval pending for Touchscreen II configurations.

Plotters

Use the following table to determine configuration and ordering information for plotters supported on the Touchscreen family of personal computers.

PLOTTER	OPTION	INTERFACE	CABLES*	OPERATING SYSTEM & ROM RELEASE COMBINATION REQUIRED†	COMMENTS
7470A Two-pen	001	RS-232C	13242G Stand-alone, 17455A and 13242N for terminal mode (eavesdrop)	1 through 10	
	002	HP-IB	10833A,B,C or 45529A,B,C	1 through 10	Stand-alone only, not in eavesdrop mode
7475A Six-pen	001	RS-232C	13242G Stand-alone, 17455A and 13242N for terminal mode (eavesdrop)	1 through 10	
	002	HP-IB	10833A,B,C or 45529A,B,C	1 through 10	Stand-alone only, not in eavesdrop mode
7550A		Dual Interface HP-IB and RS-232C	For HP-IB Interface use 10833A,B,C or 45529A,B,C. For RS-232C Interface use 17755D for stand-alone, and 13242N for terminal mode eavesdrop	1 through 10	

FCC Approval pending for Touchscreen II configurations.

* All cables must be ordered separately.

† See Section Five for information on required ROM and Operating System release combinations.

Communications

Use the following table to determine configuration and ordering information for communications supported for the Touchscreen family of personal computers.

Touchscreen to Host Communications

TO COMMUNICATE WITH:	ORDER PRODUCT NUMBER	DESCRIPTION
HP 3000/HP 1000/HP 9000 using built-in HP 2623A capabilities via hardwire connection* (PC or terminal configuration)	<i>One of the following:</i> 13242N	U.S. modem cable
	13242M	European modem cable
	13242X	RS-232C interface cable for HP 3000 Advanced Terminal Processor (ATP)
	13242P	RS-422 interface cable for HP 3000
HP 3000/HP 1000/HP 9000 using built-in HP 2623A capabilities via modem* (PC or terminal configuration)	<i>One of the following:</i> 45640A	1200/300 baud internal modem (cables included)
	<i>or</i> 92205A <i>and</i> 13242N	Hayes Smartmodem 1200 U.S. modem cable
	45431A	AdvanceLink (software)
HP 3000/HP 1000/HP 9000 with file transfer via hardwire connection* (PC configuration only)	<i>And one of the following:</i> 13242N	U.S. modem cable
	13242M	European modem cable
	13242X	RS-232C interface cable for HP 3000 Advanced Terminal Processor (ATP)
	13242P	RS-422 interface cable for HP 3000
HP 3000/HP 1000/HP 9000 with file transfer via modem* (PC configuration only)	45431A	AdvanceLink (software)
	<i>And one of the following:</i> 45640A	1200/300 baud internal modem (cables included)
	<i>or</i> 92205A <i>and</i> 13242N	Hayes Smartmodem 1200 U.S. modem cable
IBM Host with IBM 3278 Terminal Emulation* (PC configuration only)	45641B	Touchscreen 3278 Emulation Accessory with File Transfer
DEC Host with VT100 Terminal Emulation via modem* (PC configuration only)	45412A	VT 100 Terminal Emulator
	<i>or</i> 45414A	Transend COMplete™
	<i>And one of the following:</i> 45640A	1200/300 baud internal modem (cables included)
	<i>or</i> 92205A <i>and</i> 13242N	Hayes Smartmodem 1200 U.S. modem cable
	45412A	VT 100 Terminal Emulator
DEC Host with VT100 Terminal Emulation via hardwire connection* (PC configuration only)	<i>or</i> 45414A	Transend COMplete
	<i>And one of the following:</i> 13242N	U.S. modem cable
	13242M	European modem cable

*See individual system manager for information on how to connect a Touchscreen PC to that particular system.

Communications
(continued)



TO COMMUNICATE WITH:	ORDER PRODUCT NUMBER	DESCRIPTION
Touchscreen II, Touchscreen, or HP 150A with file transfer via hardwire (direct) connection	45431A	AdvanceLink (one for each system)
	<i>And either of the following:</i>	
	13242G	RS-232C-compatible serial printer cable
	13242N	U.S. modem cable (one for each system)
	<i>or</i>	
	13232U	Modem eliminator cables (for connecting the 13242N U.S. modem cables)
Touchscreen II, Touchscreen, or HP 150A with file transfer via modem (remote) connection	45431A	AdvanceLink (one for each system)
	<i>And either of the following:</i>	
	45640A	1200/300 baud Internal Modem (cables included)
	92205A	Hayes Smartmodem 1200
	<i>and</i>	
	13242N	U.S. modem cable
The PORTABLE PC	45643A	Extended I/O Accessory (includes board, cables, and software)
IBM PC with file transfer via modem (remote connection)		IBM PC/XT with 128K RAM, disc drive, PC-DOS 2.0 or later, and modem
	45439A	Monitor/IBM PC (for the IBM PC)
	45431A	AdvanceLink (for the Touchscreen)
	<i>And one of the following:</i>	
	45640A	1200/300 baud internal modem (cables included) (for the Touchscreen)
	92205A	Hayes Smartmodem 1200 (for the Touchscreen)
	<i>and</i>	
	13242N	U.S. modem cable
IBM PC with file transfer via hardwire (direct) connection		IBM PC/XT with 128K RAM, disc drive, PC-DOS 2.0 or later, and Asynchronous Communications Adapter
	45439A	Monitor/IBM PC (for the IBM PC)
	45431A	AdvanceLink (for the Touchscreen)
	13242H	RS-232C Cable

Communications
(continued)

Touchscreen PC to PC Communications in a Local Area Network (LAN)¹

TO CONFIGURE:	ORDER PRODUCT NUMBER	DESCRIPTION	
Network Starter Kit	45644A	EtherLink™/150 Kit (3)	
	45645A	EtherShare™/150 Server Software (1)	
	45646A	EtherPrint™/150 Server Software (1)	
	45691A	Thin LAN cable, 7 meter length (2)	
	45695A	Terminator Kit (1)	
	45698A	Loopback Connector	
	<i>plus</i>	A Touchscreen MAX/MAX II and two other HP Touchscreen PCs.	
Network Server ³	45851A	HP 150 II CPU and PC Kit	
	45644A	EtherLink™/150 Kit	
	45645A	EtherShare™/150 Server Software	
	45646A	EtherPrint™/150 Server Software	
	45695A	Terminator Kit	
	45698A	Loopback Connector	
	<i>And one of the following:</i>		
	9153A	10M byte Winchester disc and 3½-inch microfloppy disc drive	
	<i>or</i>		
	9133H	20M byte Winchester disc and 3½-inch microfloppy disc drive	
<i>or</i>			
9133L	40M byte Winchester disc and 3½-inch microfloppy disc drive		
Optional	45647A	EtherMail™/150 Server & User Software (one per network server)	
	<i>and</i>		
	45631A	256K RAM Memory board	
	<i>or</i>		
45632A	384K RAM Memory board		
<i>(Minimum of 384K total RAM required to support EtherMail™/150)</i>			

Table continued on next page.

Touchscreen PC to PC Communications in a Local Area Network (LAN)¹

TO CONFIGURE:	ORDER PRODUCT NUMBER	DESCRIPTION
Discless Network Node ³	45851A	HP 150 II CPU and PC Kit
	46544A	EtherLink™/150 Kit
	45649A	EtherStart™/150
Network Node ³	45851A	HP 150 II CPU and PC Kit
	45644A	EtherLink™/150 Kit
		Also requires disc drive
Optional	45639A	EtherMail™/150 User Software (for use with non-HP servers)
Network Accessories	45691A	Thin LAN Cable (7 meter)
	45692A	Thin LAN Cable (15 meter)
	45693A	Thin LAN Cable (30 meter)
	45694A	Thin LAN Cable (custom length) ⁴
	45695A	Terminator Kit (one per network)
	45696A	Barrel Connector (to join two segments of Thin LAN cable)
	45697A	BNC "T" Connector
	45698A	Loopback Plug (one per network)

¹See the EtherSeries™/150 Data Sheet (5954-2400) for more information.

²Hewlett-Packard supports EtherSeries™/150 Local Area Networks only with a Touchscreen network server. Network Servers require a Winchester disc.

³Touchscreens and IBM PCs are supported as nodes. At least one Thin LAN cable is required per network node. Maximum number of users supported by HP is 100 per network.

⁴Maximum HP supported Thin LAN cable length is 300 meters.



Below are comments and configuration information for some of the more popular software packages.

The Gallery Collection (45437A)

- Performance can be improved with the addition of:
256K RAM Memory accessory board (45631A)
or
384K RAM Memory accessory board (45632A)
- HP Mouse recommended for use on Drawing Gallery.
- Plotters must be configured as "PLT" device.
- Printers must be configured through terminal device control. See the Gallery Collection owner's guide for specific instructions.

Executive MemoMaker (45418A)

- HP ThinkJet Printer requires a one-inch margin (minimum).
- HP 82905B dot-matrix printer doesn't support boldface, underlining or graphics.
- HP 2601 or 2602 letter-quality printers don't support graphics, and boldface is a double strike.
- HP 2934A dot-matrix printer doesn't support boldface.

ExecuDesk (45444A)

- Recommend use of
Touchscreen MAX/Touchscreen MAX II
and
256K RAM Memory accessory board (45631A)
or
384K RAM Memory accessory board (45632A)
- Requires Operating System and ROM release combinations 2 through 4 or 6 through 10. See table in Section Five for information on supported ROM and Operating System release combinations.

AdvanceLink (45431A)

- File transfer not supported when a plotter is connected in eavesdrop mode.
- Printer can be logged "to" in command file by specifying PRN, INT, or LST as logfile name.
- Requires operating system and ROM release combinations 4-10.
- Upload requires Parity to be set as NONE in Port Configuration.

1-2-3™ from Lotus™ (45482A)

- Recommend use of 256K RAM Memory accessory board (45631A) or 384K RAM Memory accessory board (45632A)
- Does not use HP Touch.
- 82905B dot-matrix printer does not support graphics.
- HP ThinkJet requires one-inch margin (minimum).
- For printing, printer option number in Lotus must correspond to MS-DOS device configuration menu setting.
- Plotters must be configured using "AUX," not "PLT" section of MS-DOS device configuration menu.

Personal Card File (45422A)

- HP Touch recommended.
- Configure non-HP printers as "Special" in Device configuration. For more information, see printer owner's manual.

Deluxe VisiCalc® (45405A)

- The LST device in Deluxe VisiCalc allows for a secondary printer. This is selected on the printer configuration menu (/PC).
- Cannot be installed into subdirectories.
- Escape sequences can be sent to the printer through the Printer Configuration menu. Refer to the printer owner's manual for a specific list of escape sequences.

WordStar® (45400D)

- Does not support proportional spacing on printers.
- Does not support subdirectories on discs.
- HP ThinkJet Printer requires one-inch margin (minimum).
- HP 2934A dot-matrix printer requires default reset to be turned off in order to achieve letter-quality print.
- HP LaserJet Professional PC Printer does not support variable line height and pitch, microjustification, variable height on sub-/superscripts, and bi-directional printing.
- HP 82906A dot-matrix printer doesn't support variable line height.

Condor™ 1 and 3 (45415A and 45416A)

- Does not interface with plotters. Using the "WRITE" command with the [G] option, data can be written in a format that HP Graphics can read.
- Condor files cannot be transferred into Deluxe VisiCalc®.
- Condor can read data from other applications if written in "BASIC" format. Personal Card File is one of the applications that can create such files.

dBASE II™ (45468D)

- Does not recognize subdirectory files.
- Program disc must reside in drive A.

Financial Calculator (45423A)

- HP Touch recommended.

MultiMate™ (45424A)

- The "=" sign (used as a user prompt when highlighted) is not highlighted with Touchscreen II.

Context MBA™ (45481A)

- Will not work with 20 or 40M byte drives (9133H/9134H, or 9133L/9134L).

3Com™ EtherSeries™

- Only supports the 40M byte drives (9133L or 9134L) as two 20M byte disc drives.

PFS®: Series

- Only supports the 40M byte drives (9133L or 9134L) as two 20M byte disc drives.

With the introduction of the Touchscreen II Personal Computers, there are now six versions of the firmware for the Touchscreen family of PCs, and three versions of the MS™-DOS operating system.

To determine what peripherals your Touchscreen II, Touchscreen or HP 150A will support, you must identify the firmware (ROM) and operating system releases on that computer.

To Identify the Firmware (ROM)

1. Turn on the system, enter "Terminal" mode.
2. Press the "User" key located in the middle of the top row of the keyboard (next to the "f5" key).
3. Touch "Service keys" label, or press function key "f3."
4. Touch "IDENTIFY ROMS" label, or press function key "f6." Five rows of twelve numbers each will appear on the left side of the screen.
5. Compare the first eight numbers in each row with the following table. Each list corresponds to the version indicated.

To Identify the Operating System

1. On the System Master Disc find the series of letters and numbers on the third row of text that follows the format A.xx.xx (for example).

If you do not have the System Master Disc, the numbers can be found on the top left corner of the screen after the word "BIOS" when the computer is booting up.

2. Compare the number with the following table to determine which revision is on that computer.

Supported Firmware and Operating System Release Combinations

Upgrade Options



The following are the supported combinations for Firmware (ROM) releases and Operating System releases.

FIRMWARE ID	FIRMWARE RELEASE	OPERATING SYSTEM RELEASE		
		A.xx.xx Version 1 HP 150A	B.xx.xx Version 2 Touchscreen	C.xx.xx Version 3 Touchscreen II
1818-3296 1818-3295 1818-3294 1818-3293 1818-3292	Version A (HP 150A)	Supported Combination 1	Supported Combination 5	Not Supported
1818-3325 1818-3324 1818-3323 1818-3322 1818-3321	Version B (HP 150A)	Supported Combination 2	Supported Combination 6	Not Supported
1818-3325 1818-3324 1818-3439 1818-3438 1818-3321	Version C (HP 150A)	Supported Combination 3	Supported Combination 7	Not Supported
1818-3325 1818-3324 1818-3437 1818-3436 1818-3435	Version D (Touchscreen)	Supported Combination 4	Supported Combination 8	Not Supported
1818-3527 1818-3531 1818-3530 1818-3529 1818-3528	Version E (Touchscreen II)	Not Supported	Not Supported	Supported Combination 9
1818-3649 1818-3531 1818-3648 1818-3530 1818-3629	Version F (Touchscreen II)	Not Supported	Not Supported	Supported Combination 10

If you do not have the firmware (ROMs) and operating system combination required for configuring a solution that meets your customer's needs, you can obtain an upgrade kit from Hewlett-Packard. The firmware upgrade kits are HP Customer Engineer or Dealer installable only. For more information, see the Upgrade addendum to the Touchscreen II Sales Guide (5954-2432).

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