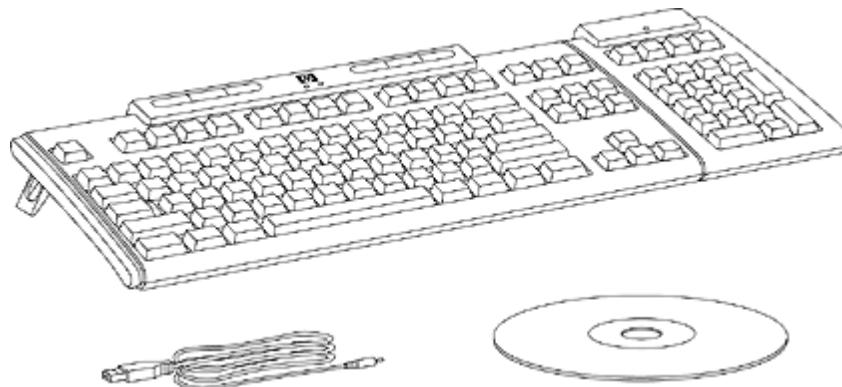


# QuickSpecs

## HP Modular Keyboard and Adapters

### Overview



### Models

HP USB Modular 'Comfort' Keyboard	DT530A
HP smartcard reader adapter for Modular Keyboard	DT531A
HP Bluetooth wireless adapter kit for Modular Keyboard	DT532A

### Introduction

The new HP Modular Keyboard provides a flexible and adaptable alternative for customers requiring features beyond the HP '04 standard keyboard. The HP Modular Keyboard enhances usability in 3 major areas: -user comfort, smartcard usage and wireless configurability:

#### Improved comfort

This new design introduces the ability to move or remove the numeric keypad. Users can place the keypad in a more optimal position on their work-surface or remove it completely to gain valuable desk real-estate. Scientific studies suggest that having the mouse placed closer to the center of the body (i.e., the space where the numeric keypad usually occupies) may help reduce muscle tension associated with prolonged shoulder abduction, and may increase comfort in the neck, shoulders and arms.

The HP Modular Keyboard also allows for improved wrist comfort as the keyboard can sit flat upon the desk (with no slope) or can be adjusted to +6° or +12° slope through the use of integrated feet. Studies suggest that typing with a keyboard set in the flat position may lead to improved wrist postures and may increase wrist comfort. See the HP Safety & Comfort Guide (<http://www.hp.com/ergo> for more information.)

#### Reprogrammable hotkeys

The new keyboard design also incorporates 6 reprogrammable hot keys for quick access to favorite web-pages, applications or data files. An additional 4 reprogrammable hot keys are provided with the numeric keypad to enable accelerated date entry and editing from within an application such as Microsoft's Excel.

All hot keys are reconfigured using the Modular Access Keyboard software applet which is a much simpler version of the previous Easy Access Keyboard software and is supported in 6 major languages (English, French, Italian, German, Spanish, Japanese).

#### Smartcard usage

The use of dual-token authentication - something you have (smartcard) plus something you know (password), is considered a major advance in improving user-access security within corporate network environments and are gaining in deployment in government agencies, healthcare companies and the finance industry. The HP Modular Keyboard can be modified to read all ISO 7816-3 class A and AB compatible smartcards through the simple attachment of the smartcard reader adapter.

The modular keyboard smartcard adapter is qualified for use with major security-infrastructure solutions including HP's ProtectTools. The HP ProtectTools Security Manager and the HP ProtectTools Smartcard Manager software are included in I/O Security Software and Documentation CD as is a sample HP's ProtectTools GPK16000 16K smartcard.

The smartcard adapter may also be deployed as a stand-alone USB device without the need for the modular keyboard.

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#### Bluetooth wireless adapter kit

The Bluetooth wireless adapter kit includes the keyboard adapter, Bluetooth mouse and USB Bluetooth transceiver enabling you to convert your HP modular keyboard to a wireless Bluetooth desktop solution. The keyboard's USB umbilical cable is completely removed and the keyboard is powered by the rechargeable batteries from within the keyboard wireless adapter. The Bluetooth mouse also incorporates rechargeable batteries that can be drip-charged via a USB umbilical from the PC chassis. The resulting Bluetooth Personal Area Network allows you to include wireless printers in addition to synchronizing notebooks, cell phones and PDA devices with the desktop PC.

The HP Modular keyboard is available in 104, 105, 106, 107 and 109-key layouts to comply with 38 local language layout requirements.

### Key Benefits

- Movable/removable numeric keypad for optimum configuration and improved comfort
- User-selectable, zero-degree slope for potential wrist-posture improvement and associated usage comfort
- Optional Smartcard reader adapter for increased network access security (via RJ11 umbilical cable to the keyboard)
- Optional Bluetooth network adapter for wireless conversion
- 6 reprogrammable hot keys on the main modular keyboard for quick access to favorite URL's, applications and data files
- 4 reprogrammable hot keys on the numeric keypad for fast data-entry and editing capabilities
- Provides optimal tactile characteristics for heavy keyboard users
- Key-mechanism lifecycle rated to 20 million keystrokes – suitable for long service life and heavy duty usage
- Incorporates a spill-drain feature to minimize damage from accidental fluid spill
- Comes with removable USB umbilical cable
- Simplified deployment and maintenance for internal IT support organizations

### Compatibility

The HP Modular Keyboard and associated adapters are compatible with the HP Compaq Business Desktop dx2000, dx6100 and dc7100 Series PCs and HP workstations xw4200, xw6200 and xw8200. The HP Modular Keyboard and smartcard adapter are also compatible with HP Compaq T5000 Series Thin Clients.

**NOTE:** The smartcard adapter and Bluetooth wireless adapter cannot be used concurrently attached to the keyboard.

### Service and Support

Your Option Limited Warranty is a one (1) year (HP Option Limited Warranty Period) parts replacement warranty on any HP-branded or Compaq-branded options (HP Options). If your HP Option is installed in an HP Hardware Product, HP may provide warranty service either for the HP Option Limited Warranty Period or the remaining Limited Warranty Period of the HP Hardware Product in which the HP Option is being installed, whichever period is the longer but not to exceed three (3) years from the date you purchased the HP Option.

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## HP Modular Keyboard and Adapters

### Technical Specifications

USB Modular Keyboard	Physical characteristics	Keys	104, 105, 106, 107, 109 layout (depending upon country)
		Dimensions (L x W x H)	18.59 x 6.73 x 0.90 in (472 x 170 x 23 mm) with numeric pad attached
		Weight	2 lb (0.9 kg) minimum
	Electrical	Operating voltage	+ 5VDC $\pm$ 5%
		Power consumption	50-mA maximum (with three LEDs ON)
		System interface	USB Type A plug connector
		ESD	CE level 4, 15-kV air discharge
		EMI - RFI	Conforms to FCC rules for a Class B computing device
		Mechanical	Microsoft® PC 99 - 2001
	Languages		38 available
	Keycaps		Low-profile design
	Switch actuation		55-g nominal peak force with tactile feedback
	Switch life		20 million keystrokes (using Hasco modified tester)
	Switch type		Contamination-resistant switch membrane
	Key-leveling mechanisms		For all double-wide and greater-length keys
	Cable length		6 ft (1.8 m)
	Environmental	Microsoft PC 99 - 2001	Mechanically compliant
		Acoustics	43-dBA maximum sound pressure level
		Operating temperature	50° to 122° F (10° to 50° C)
		Non-operating temperature	-22° to 140° F (-30° to 60° C)
		Operating humidity	10% to 90% (non-condensing at ambient)
		Non-operating humidity	20% to 80% (non-condensing at ambient)
		Operating shock	40 g, six surfaces
Non-operating shock		80 g, six surfaces	
Operating vibration		2-g peak acceleration	
Non-operating vibration		4-g peak acceleration	
Operating system support	Drop (out of box)	26 in (66 cm) on carpet, six-drop sequence	
	Drop (in box)	42 in (107 cm) on concrete, 16-drop sequence	
Operating system support	Windows® 2000, and XP		
Approvals	UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BSMI, C-Tick, MIC, USB-IF		
Ergonomic compliance	ANSI HFS 100, ISO 9241-4, and TUVGS		
Kit contents	Keyboard, numerical keypad, USB cable, I/O Security Software & Documentation CD including Modular Access Keyboard software & installation guide, warranty card, safety and comfort guide		

Smartcard Adapter for HP	Physical characteristics	Dimensions (L x W x H)	6.73 x 4.1 x 1.13 in (171 x 104 x 28.9 mm)
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## HP Modular Keyboard and Adapters

### Technical Specifications

modular keyboard	<b>Electrical</b>	Operating voltage	4.75 ~ 5.25 VDC
		Input current	100 mA Max. with LED's on
		System interface	RJ11 umbilical cable to the keyboard (Also functions a stand-alone USB device, independent of the modular keyboard)
		ESD	CE level 4, 15-kV air discharge
		EMI - RFI	Conforms to FCC rules for a Class B computing device
	<b>Smart Card Interface</b>	Microsoft PC 99 - 2001	Functionally compliant
		Smart Card Interface	<ul style="list-style-type: none"> <li>• T=0, T=1 support</li> <li>• Memory card upon request</li> <li>• Communication speed: up to 115,200 bps (DI)</li> <li>• Frequency up to 12MHz (FI)</li> <li>• Reads from and writes to all ISO7816 1,2,3,4 memory and microprocessor Class A and AB smart cards</li> <li>• Synchronous and Asynchronous mode</li> <li>• Frequency adjustable clock to speed up transaction</li> <li>• Adjustable transaction speed with Smart Card, up to 1,000 Kb/s for fast Crypto data exchange</li> <li>• Secure PIN Entry</li> </ul>
		Smart Card Connector	<ul style="list-style-type: none"> <li>• 8 contacts (ISO position)</li> <li>• Certified for 100,000 insertions</li> <li>• Sliding contact</li> </ul>
		API	<ul style="list-style-type: none"> <li>• PC/SC</li> <li>• CT-API (thru wrapper on top of PC/SC)</li> <li>• OCF upon request</li> </ul>
<b>Mechanical</b>	Cable length	2 meters (6.5 feet)	
	Microsoft PC 99 - 2001	Mechanically compliant	
<b>Environmental</b>	Operating temperature	50° to 122° F (10° to 50° C)	
	Non-operating temperature	-22° to 140° F (-30° to 60° C)	
	Operating humidity	10% to 90% (non-condensing at ambient)	
	Non-operating humidity	20% to 80% (non-condensing at ambient)	
	Operating shock	40 g, six surfaces	
	Non-operating shock	80 g, six surfaces	
	Operating vibration	2-g peak acceleration	
	Non-operating vibration	4-g peak acceleration	
	Drop (out of box)	26 in (66 cm) on carpet, six-drop sequence	
	Drop (in box)	42 in (107 cm) on concrete, 16-drop sequence	
<b>Operating system support</b>	Microsoft Windows 2000 and Windows XP		
<b>Approvals</b>	UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BSMI, C-Tick, MIC, BG Prufzert Mark, EMV, USB-IF		
<b>Ergonomic compliance</b>	ANSI HFS 100, ISO 9241-4, and TUVGS		

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## HP Modular Keyboard and Adapters

### Technical Specifications

<b>Kit contents</b>	Smartcard Adapter, installation guide, warranty card, I/O Security Software & Documentation CD including HP ProtectTools Security Manager and HP ProtectTools Smartcard Manager SW, HP ProtectTools Smartcard GPK-16000
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<b>Bluetooth USB Access Point</b>	<p>The HP USB Bluetooth Transceiver (also available as standalone kit DN630B) supports the Bluetooth 1.2 SIG specification and provides wireless local area coverage over a radius of 33 feet (10 Meters).</p> <p>The Transceiver incorporates seamless boot mode support for Bluetooth keyboards and mice—operational connectivity is automatically transitioned from an initial USB-mode to full Bluetooth mode during the PC Windows environment initialization.</p> <p>Multiple Bluetooth software stack support is also provided – The Transceiver comes configured with Widcomm Bluetooth stack support. Microsoft Bluetooth Stack support is also made available through a Device Firmware Upgrade (DFU) utility provided by HP (Microsoft Windows XP SP2 or higher is required).</p> <p>Full technical specifications are available on the separate DN630B HP USB Bluetooth transceiver Quickspec.</p>
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<b>Bluetooth Mouse</b>	<p>The HP USB Bluetooth Mouse (also available as standalone kit PA720A) supports the Bluetooth 1.2 SIG Human Interface Device specification and provides wireless mouse connectivity within the Bluetooth Personal Area Network.</p> <p>The mouse utilizes advanced power-management control software delivering up to 10-hours continuous usage from 2 rechargeable NiMH batteries. Device monitoring software alerts the user to recharge the batteries through a USB cable connection once low battery-power is detected.</p> <p>Full technical specifications are available on the separate PA720A HP USB Bluetooth transceiver Quickspec.</p>
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<b>Bluetooth Keyboard Adapter</b>	<b>Physical characteristics</b>	Dimensions (L x W x H)	6.73 x 4.1 x 0.83 in (171 x 104 x 21.3 mm)
	<b>Electrical</b>	Operating voltage	+ 5VDC ± 5%
		System interface	RJ11 umbilical cable to the keyboard USB umbilical to the PC for recharging
	<b>Mechanical</b>	ESD	CE level 4, 15-kV air discharge
		EMI - RFI	Conforms to FCC rules for a Class B computing device
		Microsoft PC 99 - 2001	Functionally compliant
		Cable length	6 ft (1.8 m)
		Microsoft PC 99 - 2001	Mechanically compliant
Acoustics		43-dBA maximum sound pressure level	

# QuickSpecs

## HP Modular Keyboard and Adapters

### Technical Specifications

<b>Environmental</b>	Operating temperature	50° to 122° F (10° to 50° C)
	Non-operating temperature	-22° to 140° F (-30° to 60° C)
	Operating humidity	10% to 90% (non-condensing at ambient)
	Non-operating humidity	20% to 80% (non-condensing at ambient)
	Operating shock	40 g, six surfaces
	Non-operating shock	80 g, six surfaces
	Operating vibration	2-g peak acceleration
	Non-operating vibration	4-g peak acceleration
	Drop (out of box)	26 in (66 cm) on carpet, six-drop sequence
	Drop (in box)	42 in (107 cm) on concrete, 16-drop sequence
<b>Operating system support</b>	Microsoft Windows 2000 and Windows XP	
<b>Approvals</b>	UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BSMI, C-Tick, MIC, USB-IF, BT 1.x	
<b>Ergonomic compliance</b>	ANSI HFS 100, ISO 9241-4, and TUVGS	
<b>Kit contents</b>	Bluetooth keyboard adapter, Bluetooth mouse, USB umbilical cable (for mouse), USB Bluetooth transceiver (for desktop PC Bluetooth access point), installation guide, warranty card, I/O Security Software & Documentation CD including the Widcomm Bluetooth for Windows Software, Broadcom Bluetooth Control Suite and DFU utility, 4 rechargeable NiMH batteries GP1600 (2 for mouse and 2 for keyboard adapter).	

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