HP USB PS2 Washable Keyboard
User Guide

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About This Guide

This guide provides information on connecting the keyboard, maintenance and cleaning, and technical specifications.

⚠ **WARNING!** Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.

△ **CAUTION:** Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.

NOTE: Text set off in this manner provides important supplemental information.

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1 Product Features

HP USB PS2 Washable Keyboard

The HP USB PS2 washable keyboard features:

- SpillSeal® keyboard technology protection, which provides protection from liquids and dust as defined in IEC standard 60529-1, code IP66, and NEMA standard 250, code 4X
- Complies with IEC 60601-1 and EN 60601-1
- Sealed structure able to be fully washed under running water
- Waterproof exterior that protects against windblown dust, rain, splashing water and hose-directed water
- Plug and play capability when using supported Microsoft Windows operating systems. No additional software drivers are required
- PS2 or USB connection

Kit Contents

- Keyboard with USB cable
- USB-to-PS2 adapter
- Quick disconnect cable with extension to lengthen your cable
- *I/O Security Software and Documentation* CD

⚠ **WARNING!** To reduce the risk of serious injury, read the *Safety and Comfort Guide* on the CD provided with this product. It describes proper workstation, setup, posture, and health and work habits for computer users and provides important electrical and mechanical safety information.

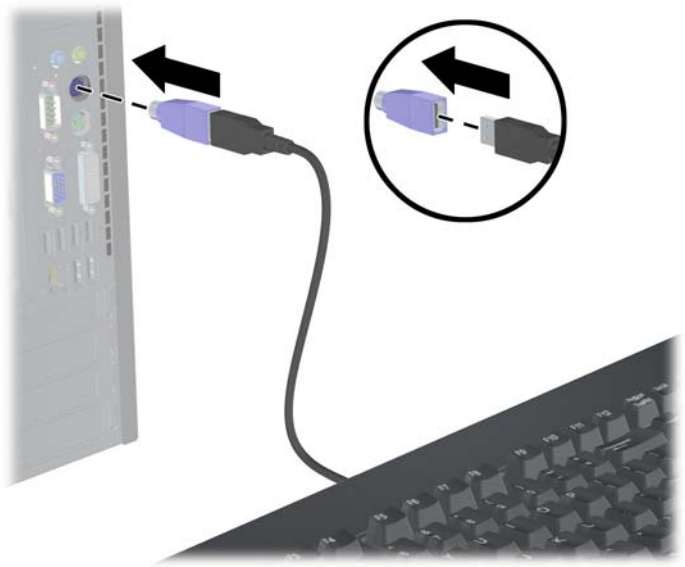
2 Connecting the Keyboard

Un-install any previous keyboard software to ensure best success.

To lengthen your keyboard cable, connect the cable extension provided in the kit.

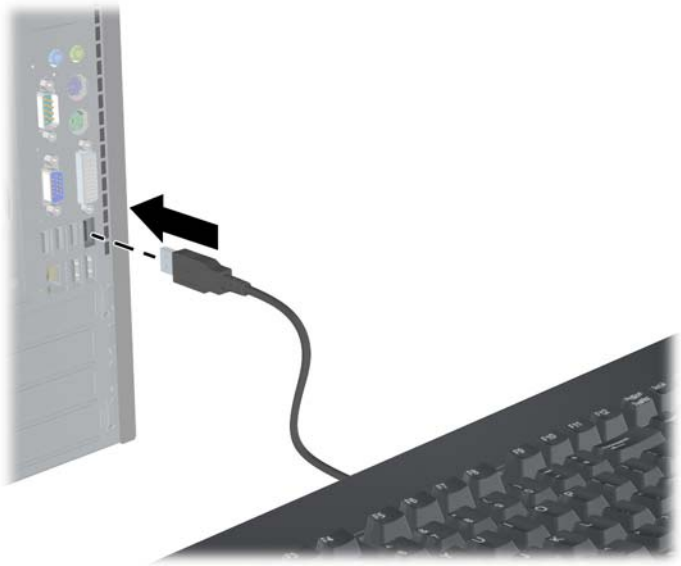
Connecting to PS2

1. Turn off the computer system.
2. Connect the keyboard cable with the PS2 connector into the PS2 connector on the rear of the computer.



Connecting to USB

1. Leave the computer system on or off.
2. Remove the PS2 adapter, if necessary, from the connector end of the keyboard cable, and then plug the USB connector into a USB connector on the computer.



3 Maintenance and Cleaning

The following solvents can be used to wash the keyboard:

- Soap
- Washing-up liquid
- Non-abrasive cleaners
- General purpose cleaners
- Bleach
- Disinfectant
- Antibacterial cleaners
- Surgical spirit

NOTE: Observe the manufacturers instructions for the preparation and use of all cleaning fluids and wear the appropriate protective clothing.

Washing the Keyboard

To protect against the build-up of dust and dirt, routinely wash the keyboard.

1. Unplug the keyboard from the computer and remove the extension cable and USB-to-PS2 adapter, if installed.
2. Wash the keyboard under running water up to a maximum of 80° Celsius / 176° Fahrenheit.
3. If the USB plug (connector) gets wet, shake dry before reconnecting.

4. Shake vigorously to drain excess liquid from the keyboard and wipe dry.

To thoroughly clean the keyboard:

1. Unplug the keyboard from the computer and remove the extension cable and USB-to-PS2 adapter, if installed.
2. Fill a washbasin or similar container with a cleaning solution.
3. Place the keyboard in the solution and actively agitate it around so that the liquid reaches every recess on all surfaces.

NOTE: The process of agitated soaking should require no more than 30 seconds to be effective.

4. Leave the keyboard in the solution for approximately 60 seconds.
5. Remove the keyboard and rinse under running water.
6. Shake vigorously to drain excess liquid and wipe dry.
7. If the USB plug (connector) gets wet, shake dry before reconnecting.

NOTE: Excess water or liquids may remain in the keyboard's switch areas. To remove the excess water, turn the keyboard over, keys side down, or position it sideways and let the water thoroughly drain from the keyboard.

Water and Dust Protection

The HP washable keyboard provides protection against ingress of water and dust to code IP66 defined in IEC (International Electro Technical Commission) standard 60529-1 and code 4X as defined in NEMA (National Electrical Manufacturers Association) standard 250.

The code IP66 defined in the IEC standard 60529 means the keyboard is protected against the ingress of dust, and that high pressure water jets from any direction will not have any harmful effects. A NEMA 4X enclosure as defined in NEMA standard 250 will provide protection against windblown dust, rain, splashing water and hose directed water.

For additional information on regulatory standards consult your legal department.

WARNING! To reduce the risk of electric shock, avoid using the keyboard with a computer in wet locations.

A Troubleshooting

Solving Common Problems

Problem	Possible Cause	Solution
Keyboard commands and typing are not recognized by the computer.	Keyboard connector is not properly connected.	Shut down the computer using the operating system. After the shutdown is complete, reconnect the keyboard to the computer and restart the computer.
When typing, letters repeat even though you do not hold the key down for very long.	Windows keyboard setting.	1. Click on **Start** > **Control Panel**. 2. Select **Keyboard** > **Speed** tab. 3. Then adjust the **Repeat Delay**. On most computers, placing the slider at one mark from the **Short** side is ideal.
Keys are stiff.	Build-up of spray solution.	Using a spray solution on the keyboard will leave a residue, which if allowed to build up, will cause the keys to become stiff. The keyboard should be rinsed thoroughly whenever the keys show signs of becoming stiff.
After plugging in the USB Keyboard the cursor will not move and / or the Keyboard will not function.	USB is not detected.	Plug the keyboard into a different USB port. Try the keyboard in another system if possible. If you have another USB device try using that in the USB port to see if it works as the port or keyboard may be faulty. If you are using a USB hub, docking station, switch box, port replicator or extension cable to connect to the keyboard, try removing and plugging the keyboard directly into the system.
Cleaning solution leaves a residue on keys.	Using cleaning sprays.	Any cleaning spray can be used but it is strongly recommended that you wash the keyboard as well. The cleaning solution can leave a residue behind, which can build up over time and effect the operation of the keyboard.

Problem	Possible Cause	Solution
Gel-based cleaning solution leaves gel deposits on keyboard.	Gel-based solution does not fully dissolve in water.	Gel-based sterilizing solutions are not suitable for cleaning the keyboard. The solution allows the possibility of gel deposits to form due to the fact that the gel has not been fully removed during the wash process. This can lead to poor hygiene and have an effect on the performance of the keyboard.
While washing the keyboard the USB connector got wet.	Water is trapped by the connector.	Shake dry the connector and any water that is trapped will be remove. It is now safe to reconnect the plug back into the computer.
Sodium Hypochlorite (NaOCl), which is used in most bleaches and cleaning agents, may damage the keyboard.	Harsh cleaning products.	Sodium Hypochlorite is normally dangerous to use above 15% solution. A solution of this chemical at this level does no damage to the keyboard.

Online Technical Support

For the online access to technical support information, self-solve tools, online assistance, community forums or IT experts, broad multivendor knowledge base, monitoring and diagnostic tools, go to http://www.hp.com/support.

Preparing to Call Technical Support

If you cannot solve a problem using the troubleshooting tips in this section, you may call technical support. Have the following information available when you call:

- Serial number of the HP accessory located on the bottom of the product
- Purchase date on invoice
- Condition under which the problem occurred
- Error messages received
- Hardware configuration
- Hardware and software you are using

B Technical Specifications

HP USB PS2 Washable Keyboard

Water and Dust Resistance	Complies with IEC standard 60529-1, code IP66, and NEMA standard 250, code 4X
Medical Safety Equipment	Complies with IEC 60601-1 and EN 60601-1
Key Layout	104 (US) and 105 (EU)
Connection Type	USB 1.1, PS2 with Adapter
Power	30mA
Operating Temperature	0~60° C
Humidity	0~95% RH
Storage Temperature	40~70° C

C Agency Regulatory Notices

Federal Communications Commission Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hewlett Packard Company may void the user's authority to operate the equipment.

Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods to maintain compliance with FCC Rules and Regulations.

Declaration of Conformity for Products Marked with the FCC Logo (United States Only)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

For questions regarding the product, contact:

Hewlett Packard Company

P. O. Box 692000, Mail Stop 530113

Houston, Texas 77269-2000

Or, call 1-800-HP-INVENT (1-800 474-6836)

For questions regarding this FCC declaration, contact:

Hewlett Packard Company

P. O. Box 692000, Mail Stop 510101

Houston, Texas 77269-2000

Or, call (281) 514-3333

To identify this product, refer to the Part, Series, or Model number found on the product.

Canadian Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Avis Canadien

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

European Union Regulatory Notice

This product complies with the following EU Directives:

- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC

Compliance with these directives implies conformity to applicable harmonized European standards (European Norms) which are listed on the EU Declaration of Conformity issued by Hewlett-Packard for this product or product family.

This compliance is indicated by the following conformity marking placed on the product:

This marking is valid for non-Telecom products and EU harmonized Telecom products (e.g. Bluetooth)	This marking is valid for EU non-harmonized Telecom products. *Notified body number (used only if applicable — refer to the product label).

Hewlett-Packard GmbH, HQ-TRE, Herrenberger Strasse 140, 71034 Boeblingen, Germany

Japanese Notice

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Product Environmental Notices

Disposal of Waste Equipment by Users in Private Household in the European Union

This symbol on the product or on its packaging indicates that this product must not be disposed of with your household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling or waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact the local city office, the household waste disposal service or the shop where you purchased the product.

Chemical Substances

HP is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements such as REACH *(Regulation EC No 1907/2006 of the European Parliament and the Council)*. A chemical information report for this product can be found at: http://www.hp.com/go/reach

Restriction of Hazardous Substances (RoHS)

A Japanese regulatory requirement, defined by specification JIS C 0950, 2005, mandates that manufacturers provide Material Content Declarations for certain categories of electronic products offered for sale after July 1, 2006. To view the JIS C 0950 material declaration for this product, visit http://www.hp.com/go/jisc0950.

2008年、日本における製品含有表示方法、JISC0950が公示されました。製造事業者は、2006年7月1日以降に販売される電気・電子機器の特定化学物質の含有につきまして情報提供を義務付けられました。製品の部材表示につきましては、www.hp.com/go/jisc0950を参照してください。

有毒有害物质/元素的名称及含量表

根据中国
《电子信息产品污染控制管理办法》

部件名称	有毒有害物质和元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
扬声器	X	O	O	O	O	O
其它 I/O PCA	X	O	O	O	O	O
机箱/其它	X	O	O	O	O	O
风扇	X	O	O	O	O	O
鼠标	X	O	O	O	O	O
键盘	X	O	O	O	O	O
内存	X	O	O	O	O	O
电缆/其它	X	O	O	O	O	O
处理器	X	O	O	O	O	O
电源	X	O	O	O	O	O
主 PCA	X	O	O	O	O	O
内部/外部介质读取设备	X	O	O	O	O	O
外部控制设备	X	O	O	O	O	O
硬盘驱动器	X	O	O	O	O	O

O：表示该有毒或有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006标准规定的限量要求以下。

X：表示该有毒或有害物质至少在该部件所用的某一均质材料中的含量超出SJ/T11363-2006标准规定的限量要求。

表中标有“X”的所有部件都符合欧盟 RoHS 法规 — “欧洲议会和欧盟理事会 2003 年 1 月 27 日关于电子电器设备中限制使用某些有害物质的 2002/95/EC 号指令”。

注：环保使用期限的参考标识取决于产品正常工作的温度和湿度等条件。

Turkey EEE Regulation

In Conformity with the EEE Regulation

EEE Yönetmeliğine Uygundur

HP Recycling Program

HP encourages customers to recycle used electronic hardware, HP original print cartridges, and rechargeable batteries. For more information about recycling programs, go to http://www.hp.com/recycle.