

User's Guide

KeyGrabber PS/2

with USB Download Accelerator



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Getting started

Already familiar with KeyGrabber keyloggers?

⇒ Start key-logging in 2 simple steps: section **Quick start**

New to KeyGrabber hardware keyloggers?

⇒ Learn about keystroke recording first: section **Recording keystrokes**
⇒ Then learn to retrieve the recorded data: section **Viewing recorded data**

Questions or problems?

⇒ Go through the **Troubleshooting** section.

Introduction

About the product

The *KeyGrabber PS/2* is an advanced PS/2 hardware keylogger with a huge internal flash disk, organized as a file system. Text data typed on the PS/2 keyboard will be captured and stored on the internal flash drive in a special file. Recorded text data may be retrieved and analyzed on any other computer. The standard playback mode is a text menu, generated by the hardware keylogger in any text editor (such as *Notepad*). The USB Download Accelerator allows super fast data retrieve from the keylogger using a USB port. The device is 100% transparent for computer operation and no software or drivers are required for operation.

Features

- High-capacity internal flash memory, accessible as a USB removable drive
- Advanced text menu for viewing recorded keystroke data, includes Net Detective, Phrase Search, Key Filtering, Unplug Counter and more!
- Compatible with all PS/2 keyboards
- Ultra fast memory contents retrieve with the USB Download Accelerator (included with device)
- Transparent to computer operation, undetectable for security scanners
- No software or drivers required, operating system independent
- Memory protected with strong 128-bit encryption
- Multi-language menu: English, German, Spanish, and French
- Quick and easy national keyboard layout support
- Ultra-compact and discreet

Requirements

- Computer with standard PS/2 keyboard and port
- Optionally for using the USB Download Accelerator: computer with USB Mass-Storage device support

Applications

Employers:

- Monitor acceptable internet usage
- Monitor employee productivity
- Detect unauthorized access attempts
- Backup typed text
- Collect computer usage statistics

Parents:

- Monitor your family's computer activity
- Protect your child from on-line hazards and predators
- Observe WWW, E-mail, and chat usage
- Save a copy of written documents

Investigators:

- Monitor remote computers
- Retrieve unknown passwords, operating system independent
- Collect computer-related evidence
- Detect unauthorized use of computer equipment

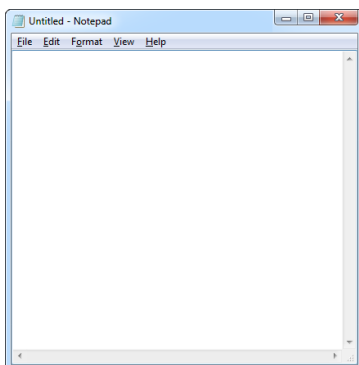
Quick start

This section contains concise information on basic keylogger handling. If you need detailed instructions, please refer to sections **Recording keystrokes** and **Viewing recorded data**.

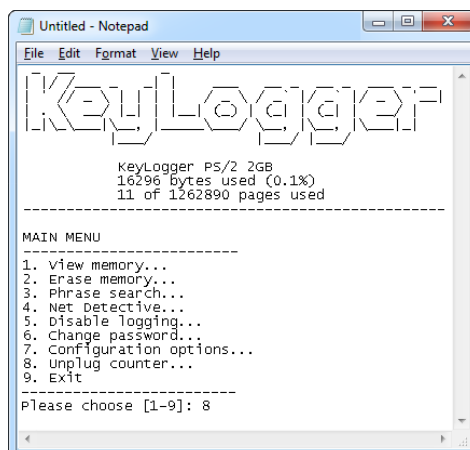
To record keystrokes, plug the device in-between the keyboard and PS/2 port.



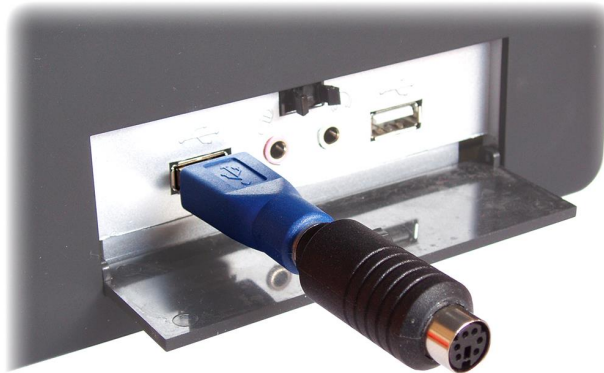
To view recorded data, plug the device in-between the keyboard and PS/2 port, and open a text editor (such as *Notepad*). Then press the 3-key combination **simultaneously** (by default K, B, D)



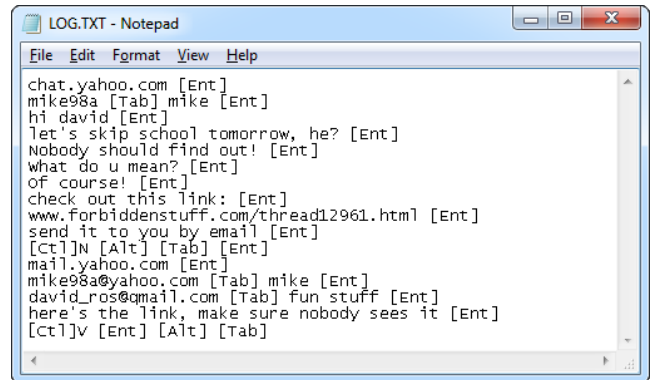
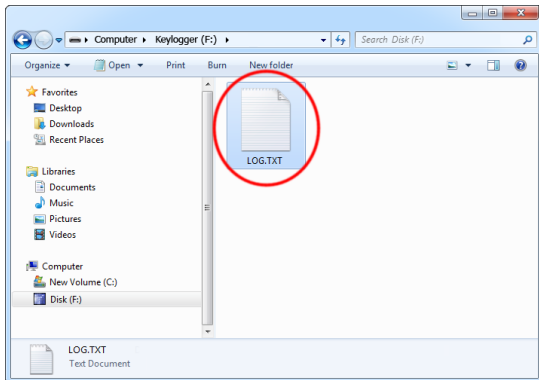
A text menu will pop up, showing available options. Use the text menu to browse recorded keystroke data.



Alternatively, to gain instant access to the entire log, connect the keylogger to a USB port using the USB Download Accelerator.



The keylogger will pop up as a removable drive, containing the file LOG.TXT. This file will contain all recorded keystroke data.



Recording keystrokes

Installation of the *KeyGrabber PS/2* in record mode is quick and easy. Simply plug it in-between the PS/2 keyboard and the PS/2 port (purple color). No software or drivers are required to operate in record mode. The *KeyGrabber PS/2* will start recording all data typed on the keyboard to the internal flash disk. Once recording starts, new data will be appended to the end of the log file. The device is completely transparent for operation of the computer.



Disconnect the PS/2 keyboard from the keyboard port (purple color).

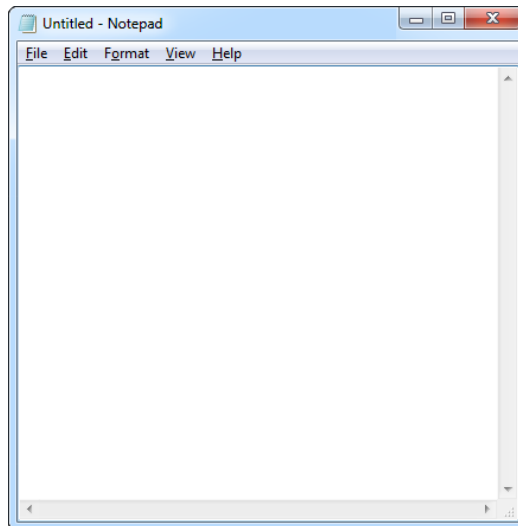


Connect the *KeyGrabber PS/2* between the keyboard and the PS/2 port. Keystroke logging will start automatically on power-up.

Viewing recorded data

Text menu

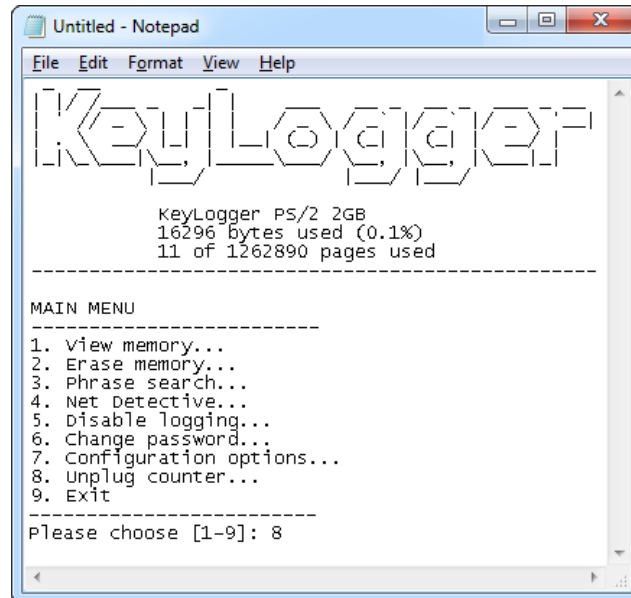
Once data has been captured, it may be retrieved on any other computer by invoking a text-menu. The hardware keylogger and PS/2 keyboard should be connected in the same way, as while recording keystrokes. A text editor is required, such as *Notepad*. Run the text editor and make it the active application.



Each device has a built-in 3-key combination (by default K, B, D). Press these 3 magic keys **simultaneously** to trigger the text-menu.



The *KeyGrabber PS/2* will respond by simulating the PS/2 keyboard and will display a text-menu in the editor window.



The displayed main menu shows a summary of memory usage in bytes and pages. The text menu offers a variety of view, search, and configuration options. Use the digit keys to browse around the menu.

Note: do not change the active application while in text-menu mode.

Text menu options

A brief description of the main menu options follows.

MAIN MENU

- | | |
|-----------------------------|-----------------------------------------|
| ----- | |
| 1. View memory... | ▶ View logged data from internal memory |
| 2. Erase memory... | ▶ Erase memory log file |
| 3. String search... | ▶ Search memory log for phrase |
| 4. Net Detective... | ▶ Search for Web & E-mail addresses |
| 5. Disable logging... | ▶ Disable/enable logging |
| 6. Change password... | ▶ Change 3-key password for menu access |
| 7. Configuration options... | ▶ Advanced configuration options |
| 8. Unplug counter... | ▶ Menu access detector (unplug counter) |
| 9. Exit | ▶ Exit menu, return to record mode |
| ----- | |
| Please choose [1-9]: | |

1. View memory...

This menu allows viewing the memory log file on a page basis. Log file pages are displayed in the text editor after selecting the start page (first, last, or manually selected page). The memory will be displayed with regard to the currently enabled national keyboard layout. Special keys are displayed using brackets, i.e. [Ent], [Esc]. To gain fast access to the entire log file, use the USB Download Accelerator.

Note: moving the PS/2 mouse during data retrieve will decrease transmission speed. Do not change the active application while retrieving data.

2. Erase memory...

Use the erase menu to delete the log file. Due to the huge memory capacity, the internal flash disk has to be erased very rarely (typically once every few years). This can also be done in flash drive mode using the USB Download Accelerator.

3. String search...

Use this menu to search the log file for a particular phrase. Phrase length is 3-16 characters. The conducted search is case-insensitive. The log file will be searched with regard to the enabled national layout. Results are displayed in local context and with occurrence page number.

Note: do not use any editing keys (arrows, backspace, delete etc.) while entering the search string.

4. Net Detective...

Use Net Detective to search for WWW, E-mail, and FTP addresses within the log file. This is an extended phrase search.

5. Disable/enable logging...

Use this menu to disable or enable keystroke logging in record mode. Text menu functionality will not be affected.

6. Change password...

Allows changing the default 3-key combination for triggering the text menu. Only letter keys are allowed. The sequence in which password characters are entered does not matter. The new password will be stored to the internal flash disk. Please memorize or note the new password, otherwise text menu access will not be possible!

7. Configuration options...

Enters the configuration sub-menu. Configuration options include:

- Special key logging. Changing the special key log level results in logging of only text, logging text and function keys, or logging text and all special keys. Logging all keys is not recommended due to large memory usage and difficult log file analysis.
- Keystroke generation speed. Enable slow keystroke speed when your computer cannot acknowledge and display characters from the keylogger fast enough. This will result in a system beep and distorted menu display. If you have a fast system, it is possible to increase keystroke generation speed for faster menu displaying.
- USB mode. This option allows disabling or enabling the USB flash drive functionality through the USB Download Accelerator.
- Layout mode. This option allows enabling or disabling the currently loaded layout. This option is intended for allowing the text data to be further processed with an external software text converter.
- Encryption. This option allows enabling or disabling flash disk encrypting. Encryption will ensure full confidentiality of the stored data, even if the device is physically tampered with. Important: toggling the encryption setting will format the entire flash disk. All data will be lost, including the configuration and layout file! The log, configuration, and layout files should be restored manually by the user.
- Language. This option allows changing the language of the text menu between English, German, Spanish, and French.

The configuration sub-menu also allows restoring the default configuration. Configuration data is stored in a special file on the internal flash disk.

8. Unplug counter...

Displays the unplug counter status, a value increased each time the keylogger is powered-up, and reset after each menu access. This tool will help you determine, how many times the computer was powered up and if the keylogger was unplugged during computer usage. If the text menu is invoked each time you use the computer, this value should always show zero. A different value indicates the computer was used without your knowledge, or the keylogger was detached at least once.

9. Exit

Exit from text menu and return to record mode. Settings will be stored. Be sure to exit playback mode using a menu option, otherwise the keylogger will remain in text menu mode.

Note: the menu is exited automatically after 5 minutes of keyboard inactivity.

Sub-menus offer more options. Most sub-menus are self-explanatory.

VIEW MEMORY

-
1. Start from first page
 2. Start from last page
 3. Start from selected page
 4. Main menu
 5. Exit
-

- ▶ Start viewing from first memory page
- ▶ Start viewing from last memory page
- ▶ Start viewing from selected page
- ▶ Return to main menu
- ▶ Exit menu, return to record mode

Please choose [1-5]:

VIEW MEMORY

-
1. Next page
 2. Previous page
 3. Jump to selected page
 4. Main menu
 5. Exit
-

- ▶ Jump to next memory page
- ▶ Jump to previous memory page
- ▶ Jump to selected page
- ▶ Return to main menu
- ▶ Exit menu, return to record mode

Please choose [1-5]:

ERASE MEMORY

-
1. Proceed - recorded data will be lost!
 2. Cancel
-

- ▶ Proceed with erasing
- ▶ Return to main menu

Please choose [1-2]:

NET DETECTIVE

-
1. WWW addresses
 2. E-mail addresses
 3. FTP addresses
 4. Main menu
 5. Exit
-

- ▶ Search memory for WWW addresses
- ▶ Search memory for E-mail addresses
- ▶ Search memory for FTP addresses
- ▶ Return to main menu
- ▶ Exit menu, return to record mode

Please choose [1-5]:

CONFIGURATION OPTIONS

-
1. Special key logging
 2. Keystroke generation speed
 3. Set USB mode
 4. Set layout mode
 5. Language options
 6. Encryption
 7. Restore defaults
 8. Main menu
 9. Exit
-

- ▶ Configure special key logging
- ▶ Change keystroke speed
- ▶ Enable/disable USB mode
- ▶ Enable/disable layout
- ▶ Text menu language
- ▶ Flash disk encryption
- ▶ Restore default settings
- ▶ Return to main menu
- ▶ Exit menu, return to record mode

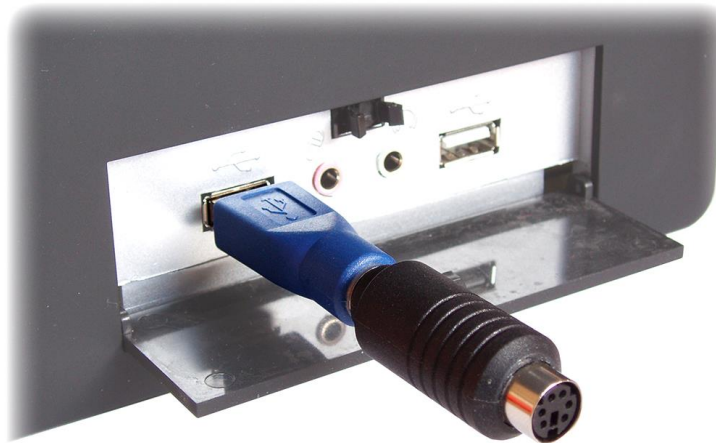
Please choose [1-5]:

USB Download Accelerator

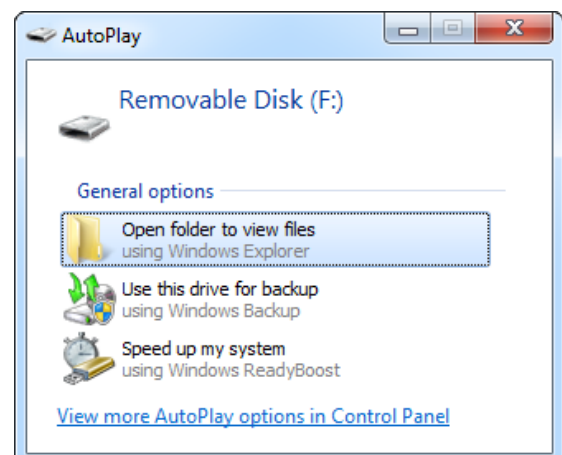
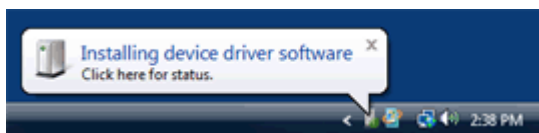
The USB Download Accelerator provides an alternative data retrieve method to the text menu. The USB Download Accelerator allows super-fast retrieve of the entire data log file by switching to flash drive mode. A USB 1.1 or 2.0 port is required.



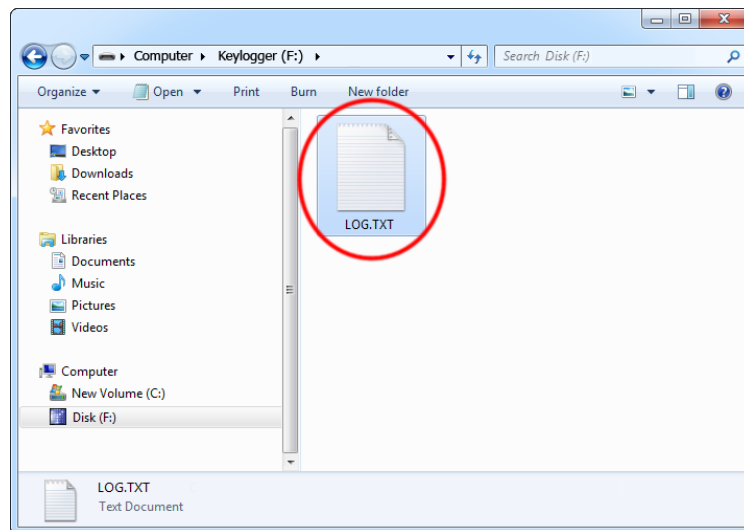
Connect the *KeyGrabber PS/2* to any free USB port, using the provided USB Download Accelerator. **Do not connect the PS/2 keyboard to the hardware keylogger.**



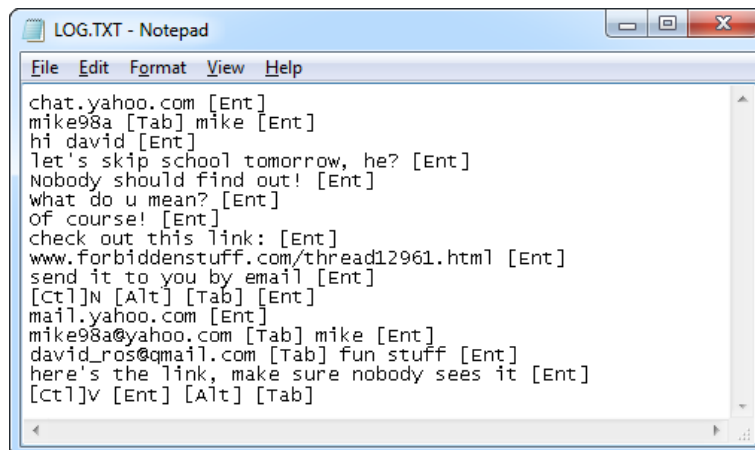
After a few seconds, the hardware keylogger will automatically get detected as a mass storage device. The operating system will use the standard built-in mass storage driver (*MS Windows 7* in the following examples).



Depending on the drive letters available, the device will be visible as a new drive, for example F:. Use the systems file manager to browse this disk (for example *Explorer*). The keyboard will be disconnected and unavailable, so the mouse must be used to browse the disk.



By default, the flash disk will contain the file LOG.TXT, containing all data captured in record mode. This file is a text log formatted in the same way as data would appear on the screen in text menu playback mode. Use any text editor to view the file LOG.TXT (for example *Notepad*). The flash drive root folder will also contain a configuration file named CONFIG.TXT.



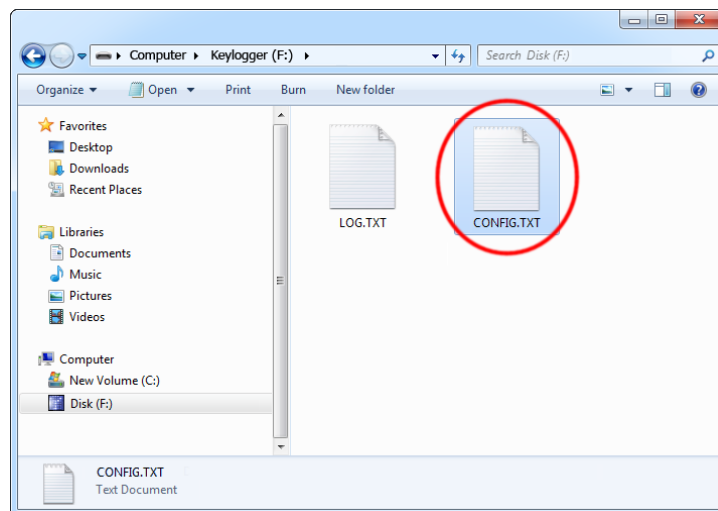
The log file may be copied to the hard drive, or examined directly from the keylogger. Fast USB data transfer allows browsing the entire file within seconds. Erasing and editing the file LOG.TXT is obsolete, because the flash disk has a huge memory worth of years of intensive typing. After viewing the log file, use the standard system disk removal procedure. For *MS Windows*, left-click on the *Safe Removal* icon in the system tray and select the appropriate drive.

Configuration options

The *KeyGrabber PS/2* may be configured through the file CONFIG.TXT, placed in the flash drive root folder. All configuration options can be set using the text menu (see section **Text Menu**). This is the recommended way of configuring the device. However, it is also possible to configure the device manually, by creating a file named CONFIG.TXT using the following template:

```
Password=KBD
LogSpecialKeys=Medium
Language=English
```

This file should be placed in the root folder of the flash drive by using the USB Download Accelerator. The new configuration will be loaded on next power-up.



A full list of available parameters with descriptions is available below.

Basic parameter list

Parameter	Values	Example	Description
Password	3-character password (default KBS)	Password=SVL	Three-character key combination for activating flash drive mode.
LogSpecialKeys	None Medium (default) Full	LogSpecialKeys=Full	Special key logging level.
DisableLogging	Yes No (default)	DisableLogging=Yes	Keystroke logging disable flag.
DisableLayout	Yes No (default) Menu	DisableLayout=Yes	National layout disable flag (see section National keyboard layouts).
DisableUsb	Yes No (default)	DisableUsb=Yes	USB flash drive mode disable flag.
Language	English (default) Deutsch Espanol Francais	Language=Espanol	Text menu language.

Advanced parameter list (use only when you know what you're doing!)

Parameter	Values	Example	Description
Encryption	Yes No (default)	Encryption=No	Flash drive encryption setting (caution: changing this value will re-format the flash drive).
KeystrokeSpeed	Slow Medium (default) Fast	KeystrokeSpeed=Slow	Keystroke generation speed.
DisableMenu	Yes No (default)	DisableMenu=Yes	Text menu disable flag.

National keyboard layouts

It is possible to enable a national layout for language-adapted keyboards, such as French, German etc. This will allow national characters to get logged properly (including those with Alt Gr), such as ö, æ, ß, ó etc. The following example demonstrates the advantages of applying the German national layout.

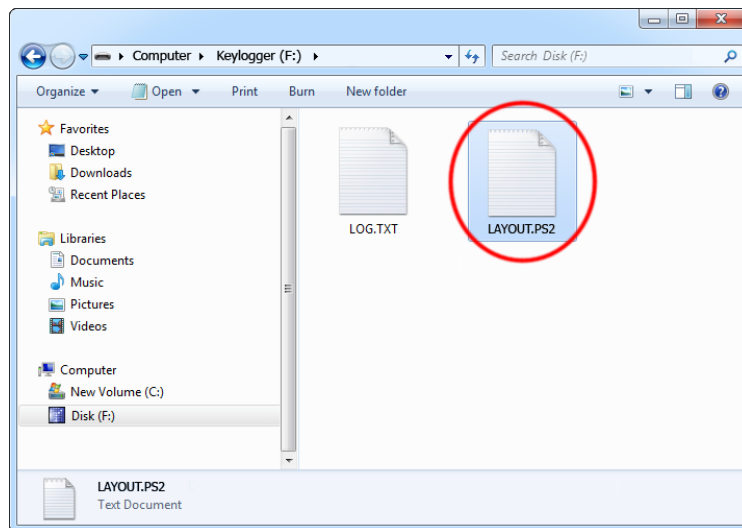
Text logged without layout

Kezlogger)PS-2 / USB=

Text logged with layout

KeyLogger (PS/2 & USB)

To enable a national layout, the appropriate layout file named LAYOUT.PS2 must be placed on the flash disks root folder. The file must be copied using the USB Download Accelerator. Layout files may be obtained from the CD-ROM attached with the device.

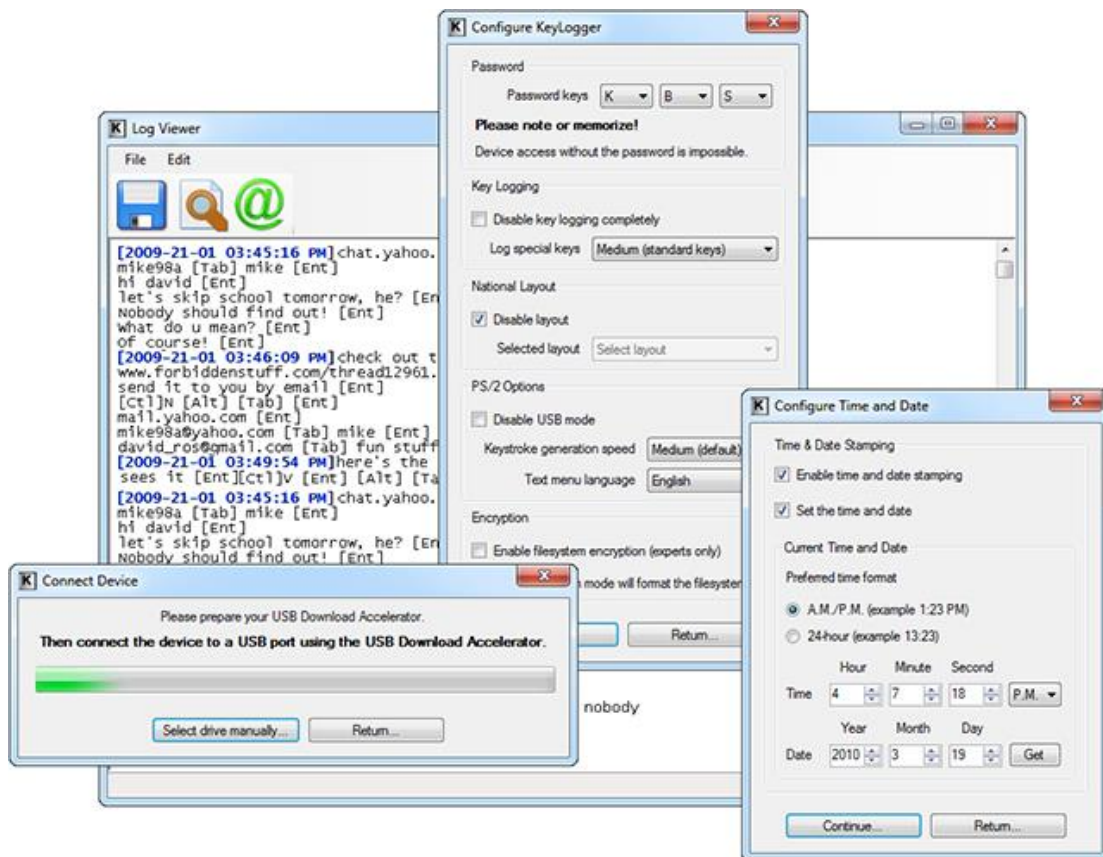


To enable the layout, safely remove the flash disk and connect the keylogger to the PS/2 port. On power-up, the layout file will be loaded automatically.

Using KL Tools

KL Tools is a free application delivered with all *KeyGrabber* series devices. *KL Tools* assists in configuring a *KeyGrabber* keylogger and retrieving the recorded data it contains. It is not necessary to operate the device, but may speed up usage by its intuitive user interface.

KL Tools is available on the CD-ROM attached with the device. Installing *KL Tools* is straightforward. Simply follow the installation wizard and answer standard questions. When initialized, *KL Tools* will ask for the device type, and assist in configuring the device and retrieving the log file. There is no special knowledge required to use *KL Tools* – simply follow the instructions displayed by the application.



Specifications

Power supply – 4.5 V – 5.5 V DC (drawn from the PS/2 or USB port)

Power consumption – 65 mA (0.33 W)

Keyboard support – PS/2-compatible keyboard

Maximum burst log speed – 500 byte/s (approx.)

Maximum continuous log speed – 100 byte/s (approx.)

Data retention – 100 years

Maximum log read speed – 150 kB/s

Dimensions inc. connectors (L x W x H) – 48 mm x 15 mm x 15 mm (1.9" x 0.6" x 0.6")

Troubleshooting

The *KeyGrabber PS/2* will **not** work with the following hardware configurations:

1. Internal laptop keyboards
2. USB keyboards (even with adapters)
3. Non-conformant PS/2 keyboards

The keyboard is not responding

The keyboard connector or the keylogger connector is not inserted firmly. Please check the connection with the PS/2 keyboard (purple color plug) and PS/2 port (purple color socket).

The keylogger does not respond to the 3-key combination

Please check the following:

1. Is the keylogger inserted between the PS/2 keyboard and the PS/2 (purple color) port?
2. Is your 3-key combination correct?
3. Are you pressing the 3 keys simultaneously? The 3-key combination will not be accepted if pressed sequentially.
4. Do you have a text editor active (such as *Notepad*)?
5. Check flash drive mode with the USB Download Accelerator. Check if the log file and configuration file exist and are readable.

Problems with logging national characters

Please check if you have downloaded the correct layout file and copied it to the flash disk root directory? If not, please check the **National keyboard layouts** section.

The menu is not displayed properly

Please check the following:

1. Do you have a slow PC? Switch to slow keystroke generation speed.
2. Are you using a standard text editor? Is it the active application? Switch to a simple text editor (such as *Notepad*).
3. Have you enabled the correct national layout?
4. Are you moving the PS/2 mouse during transmission? Do not use the PS/2 mouse while in text mode.

The USB Download Accelerator does not work

Please check the following:

1. Does your computer have a working USB 1.1 or 2.0 port?
2. Is the USB Download Accelerator inserted firmly between the keylogger and the USB port?
3. Have you left the keyboard connected to the keylogger? Disconnect the keyboard.
4. Does your operating system have built-in USB Mass Storage drivers? Older systems (for example Windows 95/98/NT) require installation of a universal mass storage driver.
5. Are you giving the device enough time to install? Flash disk installation can take up to 30 seconds, especially during first-time installation.

Problems with detecting the PS/2 keyboard during system startup

Some systems try to enumerate the keylogger as a USB device before initializing the keyboard. In certain cases on such systems, the keylogger may attempt to switch to flash drive mode, disabling the PS/2 keyboard. A simple solution to this problem is to disable USB mode through the configurations options in the text menu.

I've checked everything, nothing helps!

If you are still experiencing problems, please do the following:

1. Check if the problem appears on a different keyboard.
2. Check if the problem appears on a different computer.
3. Contact the dealer you have purchased the device from. Please supply all necessary information (keyboard model and manufacturer, OS type and version, and a short description of the problem).

List of special keys

[Esc]	-	Escape	[Prn]	-	Print Screen
[F1]	-	F1	[End]	-	End
[F2]	-	F2	[Scr]	-	Scroll Lock
[F3]	-	F3	[Up]	-	Up
[F4]	-	F4	[Dwn]	-	Down
[F5]	-	F5	[Lft]	-	Left
[F6]	-	F6	[Rgh]	-	Right
[F7]	-	F7	[Num]	-	Num Lock
[F8]	-	F8	[-N]	-	- (num)
[F9]	-	F9	[+N]	-	+ (num)
[F10]	-	F10	[.N]	-	. / Delete (num)
[F11]	-	F11	[/N]	-	/ (num)
[F12]	-	F12	[*N]	-	* (num)
[Ctl]	-	Control	[0N]	-	0 / Insert (num)
[Alt]	-	Alt	[1N]	-	1 / End (num)
[Ins]	-	Insert	[2N]	-	2 / Down (num)
[Hom]	-	Home	[3N]	-	3 / Page Down (num)
[PUp]	-	Page Up	[4N]	-	4 / Left(num)
[PDn]	-	Page Down	[5N]	-	5 (num)
[Del]	-	Delete	[6N]	-	6 / Right (num)
[Win]	-	win	[7N]	-	7 / Home (num)
[Aps]	-	Apps	[8N]	-	8 / Up (num)
[Cap]	-	Caps Lock	[9N]	-	9 / Page Up (num)
[Ent]	-	Enter	[Pwr]	-	Power
[Bck]	-	Backspace	[Slp]	-	Sleep
[Tab]	-	Tab	[wke]	-	wake

Legal disclaimer

No responsibility is taken for any damage, harm or legal actions caused by misuse of this product. The user should follow the guidelines contained in this document, otherwise no liability will be assumed. It is the user's responsibility to obey all effective laws in his/her country, which may prohibit usage of this product.

In most countries the usage of a keylogger is fully legal as long as a clear notice is displayed, informing the user of the monitored equipment about the presence of a keystroke logger. We encourage the use of this equipment only for the purpose of monitoring your own computer, especially for protecting children against online hazards. It is NOT LEGAL to use a keylogger for the purpose of intercepting third party data, especially passwords, banking data, confidential correspondence, etc. If in doubt, please seek legal advice before using a keystroke logger. A good starting point is the U.S. Department of Justice Letter on Keystroke Monitoring and Login Banners, according to which a clear notice should be displayed, warning that user keystrokes may be logged.

For more information, visit the following websites:

<http://www.keelog.com/>

<http://www.airdrivewifi.com/>

You should not use this device to intercept data you are not authorized to possess, especially passwords, banking data, confidential correspondence etc.