

Bloomberg

Bloomberg Keyboard 2

Installation and Reference Guide

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Version 1.2

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Keyboard Technical Information

Description

The Bloomberg Keyboard 2 is a standard PC keyboard that has been specially designed for use with the BLOOMBERG PROFESSIONAL® service. The Bloomberg Keyboard 2 is easy to install, requiring only a USB connection to the host PC and the installation of the BSAT driver. It is powered by its connection to the host USB port, eliminating the need for an external power supply.

Keyboard Features

- The keyboard can be used with all standard PC applications
- The keyboard is equipped with keys that have been specifically designed for use with the BLOOMBERG PROFESSIONAL® service
- The keyboard is a USB audio device which has headphone and microphone jacks available as well as compact speakers for PC multimedia content ¹ (there is no onboard microphone)
- The keyboard has LED indicators for volume level, microphone mute, new message, and the keyboard lock states
- The keyboard features an integrated BSAT (Bloomberg Secure Access Technology) device based on the latest biometric technology to improve accuracy and quality of finger scans which ensure secure login to the BLOOMBERG PROFESSIONAL® service

System Requirements

- Windows 2000
- Windows XP

Software Requirements

- Bloomberg Professional, June 05 version or later

Power Requirements

- The Keyboard is powered via USB, and must be plugged directly to a PC USB port, a self-powered USB hub, or a self-powered compatible USB switchbox. The keyboard cannot be powered by a bus powered USB hub port.

¹ Speaker audio levels are internally limited to levels below what is available from the USB power source, which may cause clipping at momentary peak levels

Bloomberg Keyboard Installation

Download Software and Drivers

IMPORTANT! When installing the Bloomberg Keyboard 2, it is important that the steps of this procedure are carefully followed. The Bloomberg Keyboard 2 installation requires *Administrator* rights.

NOTE: Drivers must be properly installed before connecting the Bloomberg Keyboard 2 to your PC; therefore, do not disconnect your current keyboard or biometric device (if present) until you reach the proper step in the following instructions.

Choose one of the following options to install a new Bloomberg Keyboard 2:

Option A: For new Bloomberg installations download and install the full BLOOMBERG PROFESSIONAL[®] software, then go to step 5 of the Installation Procedure.

Option B: For existing Bloomberg installations that already have the necessary files go to step 5 of the following Installation Procedure. If you do not have the file noted in step 5, access the following URL: http://about.bloomberg.com/software/info_utilities.html and begin with step 1 of the Installation Procedure.

Installation Procedure

1. Find Bloomberg Keyboard Win NT/2K/XP keyboard software package and click Download.
2. Choose "Save this program to disk" and select the location of your choice (we recommend your desktop for easy retrieval).
3. Exit all software applications currently open on your PC.
4. Locate and double-click the `bkbdmmy.exe` file on your PC to run and expand the file.
5. Run the setup file by double clicking the `tbkinst.exe` file (C:\Blp\Wintrv\Extras\Tbk\tbkinst.exe).
6. Shut down your PC.
7. Disconnect your current keyboard and biometric device (if present) from your PC.
8. Remove the Bloomberg Keyboard 2 from its box.
9. Identify the connections at the end of the Bloomberg Keyboard 2's cable (Figure 1).
10. Connect the keyboard USB cable to the PC.
11. (Optional) If a PS/2 switchbox is being used or PS/2 is required for any other reason, connect the PS/2 cable to the desired device.
12. Power on your PC. Windows will detect and identify the new hardware that has been installed. If Windows prompts you to locate the driver files, browse to `windows/system32/drivers` for any `.sys` files requested and `windows/system32` for any `.dll` files requested.
13. Launch the BLOOMBERG PROFESSIONAL service.

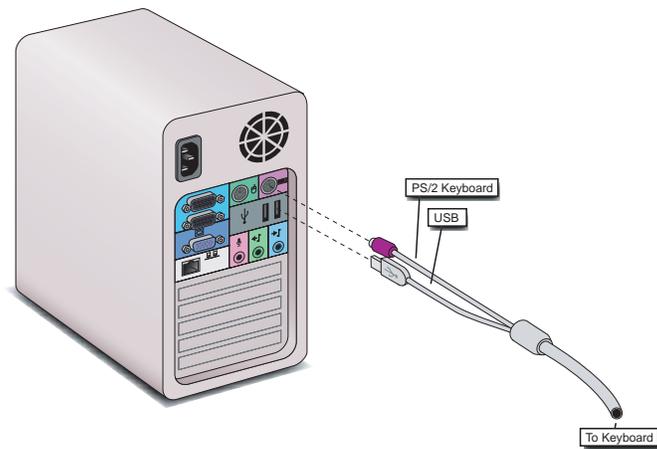
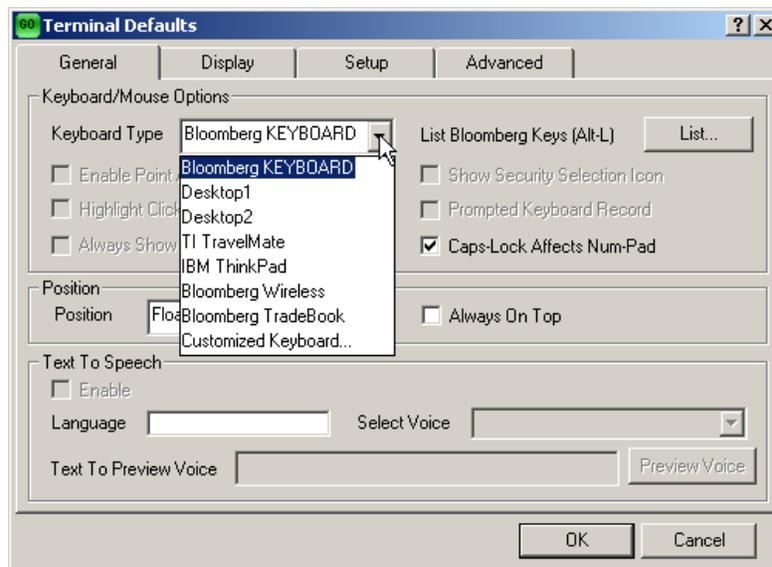


Figure 1 Cable Connections to the PC

Bloomberg Terminal Configuration

Bloomberg software has several different keyboard configurations. To setup the Bloomberg for use with the Keyboard, take the following steps:

1. Right-click the mouse over one of the Bloomberg screens on your PC. A contextual menu will appear.
2. Select the **Terminal Defaults** menu item.
3. Select the **General Tab**.
4. Select the **Bloomberg Keyboard** option under the Keyboard type drop down menu.



NOTE: You do not have to be logged into the Bloomberg to adjust this setting.

Keyboard Functions



Figure 2 Keyboard Overhead View

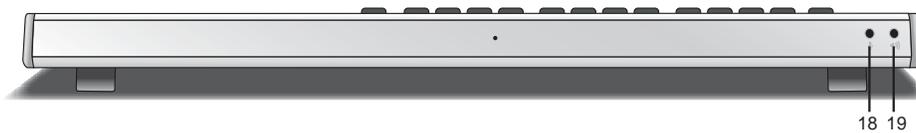


Figure 3 Keyboard Rear View

1. Speakers for PC audio output.
2. Cancel key cancels the current Bloomberg function.
3. Question key brings up the Analytics Help Desk form.
4. BLOOMBERG PROFESSIONAL® service function keys.
5. Currency and Fractional keys.
6. CONN / DFLT key starts the BLOOMBERG PROFESSIONAL® service login process.
7. Bloomberg navigation keys.
8. Message key sets focus to a BLOOMBERG PROFESSIONAL® service window and activate the message function.
9. LPAD key launches and sets focus to the Bloomberg Launchpad application.
10. LED Indicators
11. BSAT (Bloomberg Secure Access Technology) biometric device.
12. Volume up – Press repeatedly or press and hold to raise the keyboard volume.
13. Volume down – Press repeatedly or press and hold to lower the keyboard volume or double tap to mute the speakers.
14. Microphone mute sets the mute state of the keyboard microphone jack.
15. VoIP key – reserved for future use.
16. Panel key switches between BLOOMBERG PROFESSIONAL® service application windows.
17. Code key activates user programmable functions.
18. 1/8" Microphone jack
19. 1/8" Stereo Headphone jack

NOTE: Special Bloomberg function keys are disabled when the BLOOMBERG PROFESSIONAL® application is not running, or in focus.

Status LED Display

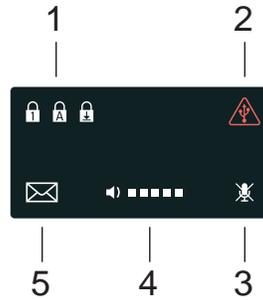


Figure 4 LED Screen

1. Num, Caps, and Scroll lock icons indicate the lock states of the keyboard.
2. The current overdraw icon illuminates if the current requirements of the keyboard exceed what the USB interface can supply. If this limit is exceeded, either through high volume, excessive bass, or lower than 8-Ohm speakers plugged into the headphone jack, this light will illuminate and warn the user to lower the volume.
3. Microphone mute icon indicates the microphone jack mute state.
4. Volume level indicates the current audio output level.
5. The message indicator will flash when you have received a Bloomberg message.

Keyboard Adjustments

There are retractable legs on the bottom of the Bloomberg Keyboard to adjust the angle of the keyboard.



Disclaimer

Bloomberg disclaims all responsibility for improper use of the keyboard and any injuries that may occur as a result of such improper use. The information provided herein is solely for educational purposes.

Tips for Safe and Effective Use of your Bloomberg Keyboard

Keyboard: Set up your keyboard so it is flat to your work surface. Utilizing a three-quarter inch support under the keyboard helps to accomplish a flat surface. The mouse should be placed directly to the side of the keyboard to prevent having to reach unnecessarily.

Chair: Adjust the height of your chair so that your feet are planted firmly on the floor and your knees are bent at right angles.

Monitor: Position your computer screen directly in front of you (about two feet away) so that the top of the screen is at or just below your line of vision.

Wrists: Wrists should be straight when typing, keeping forearms parallel to the desk and elbows at right angles. Wrists should not be rested upon the keyboard at any time during typing; instead, rest your wrists when you are not typing. Stretching before and after typing may also help.

Breaks: Take brief breaks from typing throughout the day to give your wrists a chance to “recharge.”

Keyboard Specifications

Properties		Dimension	
	Height: Stand retracted	1.6 In	4.06 Cm
	Height: Stand extended	2.09 In	5.31 Cm
	Width	21.1 In	53.59 Cm
	Depth	6.78 In	17.22 Cm
	Weight	4.44 Lbs	2.01 Kg
	Typing angles: Stand retracted	7.73°	
	Typing angles: Stand extended	13.04°	
Keyboard			
	Dual Mode keyboard (USB HID or PS/2)		
	Key Travel	3mm	
	Key Pitch	19mm	
	Switch Life	10 Million actuation switch life	
	Keyboard Layouts	US, German, French, Swiss, Spanish, Italian, UK English, Latin American, Swedish, Norwegian, Portuguese, Danish, Belgian, Cyrillic, Korean and Japanese	
Bloomberg Secure Access Technology (BSAT) Device			
	BSAT Device Properties	Height	Width
	Sensor Matrix	.26 in / 6.5mm	.26 in / 6.5mm
	Resolution	500 PPI resolution	
	Operating Temperature	0°C thru 70°C	
Keyboard I/O			
	USB Host connector (keyboard, BSAT, audio, power)		
	PS/2 host connector (optional for keyboard)		
	1/8in Microphone jack		
	1/8in Headphone jack		
Audio System			
	Speaker Properties	Frequency Response	350 -12000Hz
		Power	4 Watts Max
		Impedance	8±15% Ohms
Power Supply			
	Power from host USB port	DC 5V, 500mA	

Bloomberg Secure Access Technology (BSAT™)

Technical and Operational Details

In order to provide the most secure service possible and to safeguard the privacy of each user, Bloomberg has implemented a biometric authentication system as part of its login procedure. This enhanced security system is known as BSAT.

When a user initially enrolls his biometric data in the system, he will be prompted to place his finger onto a sensor on the Bloomberg keyboard. This sensor analyzes the general directional characteristics of the patterns of ridges and valleys on the finger of the user. The sensor analyzes these flows at a relatively coarse level. This process is a correlation-based process and not a minutiae-based process. At this level, the details of the minutiae are not captured or stored. The BSAT process generates a binary number based on general characteristics of the patterns of ridges and valleys on the user's finger.

The binary number contains 4 to 10 kilobytes of data. The vendor's software in the Bloomberg terminal encrypts this binary number using 256 bit AES encryption (the encrypted binary number is referred to herein as the "template"). Bloomberg does not have access to the key that would permit it to decrypt this template. The template is then transmitted to Bloomberg's secure servers in New York and New Jersey using 128-bit SSL and RC4 encryption technology, where it is stored for comparison at the user's desktop during future log-ins as further described below. The finger image, the general characteristics of the patterns of ridges of the user's finger, and the original binary number are **not** transmitted to New York and New Jersey. Only the template is transmitted.

Following initial enrollment, each time the user logs on to the Bloomberg system, he will be asked to enter his name and password. The system will confirm that the name and password match and, if they do, it will retrieve the corresponding stored template for this user. The template is transmitted down to the user's PC where it is decrypted. The user is then prompted to place his finger on the sensor where a new binary number is generated. An appropriate score, based on the stored data reference, is required for authentication. If the new data confirms the user's identity, he will be granted access to the Bloomberg network.

The data in Bloomberg's possession cannot be reverse engineered to generate an image of the user's fingerprint or the general characteristics of the patterns of the ridges and valleys of the finger that are enrolled to generate the original binary number. The data is worthless unless it is used in connection with a user's login and password. The template collected through the BSAT device will be destroyed when the user account is terminated.

BLOOMBERG BSAT ENROLLMENT

Enrolling with Bloomberg Secure Access Technology

The Bloomberg Keyboard BSAT device has been designed to be used with the right thumb. If you are currently enrolled with another finger we recommend you change the finger enrolled to your right thumb. Contact Global Customer support to have your BSAT enrollment reset. At the next login, you will be prompted to go through the enrollment procedure.

On entering a username and password, the user will be prompted to enter an image of his or her right thumb. Refer to Figure 2 for the proper placement of the thumb on the BSAT sensor.

To enroll using Bloomberg Secure Access Technology, take the following steps:

1. Press the **RED <DFLT>** key and enter your username and password.
2. Click "Accept" to accept the agreement.
3. Click the image of the thumb to enroll.
4. Follow the on screen instructions. It is advisable to practice the placement of your thumb, as this will assist in registration.
5. Once satisfied with thumb placement, click next to continue.



6. To continue registration, follow the on screen instructions. After completing the registration, you will be asked to verify your thumb scan.
7. One of two screens will be displayed after verification. If the registration fails, press the **GREEN <PAGE FWD>** key to repeat registration process.
8. If you have successfully registered for secure access, press the **RED <DFLT>** key to log into the BLOOMBERG PROFESSIONAL service.

Returning the Former Keyboard

When the new Bloomberg Keyboard has been installed, take the following steps:

1. Pack the former keyboard, **INCLUDING THE KEYBOARD POWER SUPPLY**, using the same container that the new keyboard was shipped in.
2. Call the RMA Office at one of the following locations that serves your local region:
 - US +212 647 6535 (New York)
 - US +877 830 6100 (Outside New York)
 - International +44 20 7330 7313

For 24-hour support, press the HELP key twice on your Bloomberg, or you may call the Global Customer Support Desk at any of the following locations:

- New York +1 212 318 2000
- London +44 20 7330 7500
- Hong Kong +852 2977 6000
- San Francisco +1 415 912 2960
- Frankfurt +49 69 92041 0
- Singapore +65 6212 1000
- Sao Paulo +55 11 3048 4500
- Tokyo +81 3 3201 8900
- Sydney + 61 2 9777 8600

Approvals

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:

- Re-orient 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 Bloomberg or an experienced radio/TV technician for help.

This Class B digital apparatus meets all requirements of the Canadian interference-causing equipment regulations.



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警告使用者：

這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。



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