b.book
Braillle computer
and
Note-Taker

User Manual

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What's in the box

b.book is provided with :

- a USB-C power supply with Power Delivery 60W.

- a softcase for transportation.

Physical description of b.book

Upper side

From the bottom

- 2 keys « back space » and « space » called 9 and A
- Braille display 32 cells
- On the left of the display, 2 arrow keys : move forwards / backwards
- On the right of the display, 2 arrow keys : move forwards / backwards
- Above the display, 32 routing cursor keys with 2 positions (light and hard click)
- Perkins keyboard with 8 keys
- 6 control buttons displayed as follow : 3 on the left and 3 on the right called c1 c2 c3 c4 c5 c6

Lower side

A hatch with 6 screws for the battery

Left lateral side

From the bottom

- 2 USB-3 ports
- 1 Ethernet port
- 1 micro HDMI port
- 1 USB-C port for charging
- 1 anti-theft port

Right lateral side

From the bottom

- 1 headphone jack
- 1 USB-2 port
- 1 mini USB plug to connect as a braille display
- 1 USB-2 port
- 1 SD card reader
- 1 switch button

The keys of b.book

From the top of the device, there are 2 sets of 3 keys displayed as arc of circle, on the left and right sides. These keys have a name from C1 to C6.

These keys emulate the most commonly used PC keys.

Left arc of circle
- c1 = Escape, as ESC.
- c2 = Tabulation, as tab.
- c3 = Caps lock.

Right arc of circle
- c4 = Control as Ctrl.
- c5 = Alt
- c6 = Insertion as ins.

Combinations to generate functions
- c1 + c3 = launch esysuite
- c4 + c6 = internal menu (setting of the braille display)
- c1 + c2 + c3 = beginning of the document
- c4 + c5 + c6 = end of the document

Unlike a PC keyboard, you don't need to hold the Ctrl, Alt or Inser key. A first keystroke activates the key and a second keystroke releases the key. The release will be automatic in the case of another character pressed.

To select the a complete document for example (Ctrl+a), simply press the Ctrl key, then release it and generate the braille combination for 'a'.

b.book Joysticks

The left Joystick called J1 and the right joystick called J2 have 5 positions named as below :

- Left : L
- Right : R
- Up : U
- Down : D
- Centre : C

Left Joystick 1 (J1)
- Down : D = Enter in the menu bar

Right Joystick 2 (J2)
- Left : L = Left arrow
- Right : R = Right arrow
- Up : U = Up arrow
- Down : D = Down arrow
- Center : C = Enter

Joysticks combinations

Left Joystick (J1) can be used combinate with the other joystick or with functions keys. Maintain J1 in the given position then push the function key or move J2 then release all.

- J1D + J2R = 10-dot braille functions (bramigraph) activated
- J1D + J2L = 10-dot braille functions (Bramigraph) disactivated
- J1D + backwards = reading by cutting the words at the end of the braille display.

- J1D + C6 = Display and hide text tags
- J1D + forward = reading without cutting the words at the end of the braille display.
- J1C + L1 : Bluetooth enable
- J1C + L2 : Wifi enable
- J1C + L5 : Wifi disable
- J1C + L6 : Wifi disable
- J1C + J2D : decrease the volume
- J1C + J2U : increase the volume
- J1C + J2C : Mute on/off
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The routing cursor keys of b.book

The b.book routing cursor keys have 2 positions. They allow the user to perform 2 "click" on the same cursor : a soft keystroke will allow to feel the first contact and to perform a "light click". A stronger keystroke will allow to feel the second contact and to perform a "strong click".

The "light click" allows the user to move the braille display. On the first routing cursor key of the display, a "light click" moves the braille display backwards. On any other routing cursor keys, a "light click" moves the braille display forward. This method of navigation allows the user to keep his/her fingers on the display and not to have to look for a key.

The "strong click" enables to put the cursor in a text or to validate an object displayed on the display. It is the equivalent of a mouse click on a graphical interface.

The double click is done by double-"strong click" quickly on the routing cursor key above the cell of the display on which the action needs to be performed.

General features

b.book is the integration of a PC-type computer and a braille interface made of a 32-cell Braille display and a set of control keys.

These 2 sets are connected by an internal USB link to the device.

The braille interface can be used turned off when connected to a PC. It is then able to get power from its external mini USB plug.

Starting b.book

To start b.book pull the switch on the right side.

The braille display will displays x's for 1 second then « USB plugged ».

After starting the PC, the dedicated application takes control of the braille display.

Depending on the device configuration, it may be the screen reader (Jaws, NVDA...) or Esysuite.

Use with a screen reader

Using b.book with a screen reader is no different from using a traditional braille display.

For more information, refer to the user manual of the screen reader and the driver of b.book.

Use with esysuite

Please refer to the user manual of esysuite.

10-dot braille functions (Bramigraph)

These combinations are used to generate all keys on a PC keyboard, other than characters. They are also sometimes called bramigraphs. Graph suggests that the braille dots used to generate an action, often have a graphic logic that makes it possible to simplify their learning.

Examples :

- The start function allows the user to go to the beginning of a line in an editing area, or to position at the beginning of the list. This is done using the 123A combination (dots 1 2 3 at the same time as the space). The symmetrical function, that leads to the end of a line in an editing area, or to position at the end of the list, will be carried out using the symmetrical braille dots, keeping the space, therefore 456A combination (dots 4 5 6 at the same time as space key).
- The 4 arrows can also be generated with 10-dot braille functions, although they can be used with the joystick 2, it may be more convenient to generate them as well during a series of shortcuts. Note that the 4 arrows always use the A key (space), combined with one of the 4 dots of the letter w in braille (2456). The up arrow will use the dot at the top of the w so we will type 4A, the down arrow will use the dot at the bottom of w, so we'll type 6A. The left arrow will use the left dot of the w, so we'll type 2A, finally the right arrow will be typed 5A.
- Functions from F1 to F12, will be generated using the first 12 letters of the alphabet combining with the left space, for example 19 for F1 up to 1239 for F12.

Detailed list :

Edit
9 - Correction
A - Space
9A - Enter
35A – Insert (Used as a switch => 2 presses to simulate a press/release)
36A - Delete

Browsing

123A - Beginning
456A - End
2A - Left
5A - Right
4A - Up
6A - Down
13A - Previous page
46A - Next page

Keypad
169 - 1
1269 - 2
1469 - 3
14569 - 4
159 - 5
12469 - 6
124569 - 7
12569 - 8
2469 - 9
34569 - 0
29 - ,
349 - /
359 - *
369 - -
2359 - +
3459 - Enter

Other
1245A - Escape
256A - Tabulation
235A - Caps lock+Tabulation
1346A - Print screen
14A – Pause / Break
569 - Contextual Menu

Functions
19 - F1
129 - F2
149 - F3
1459 - F4
159 - F5
1249 - F6
12459 - F7
1259 - F8
249 - F9
2459 - F10
139 - F11
1239 - F12

Switches

12349 - Start Windows menu
79 - Caps lock key locked
89 - Caps lock key unlocked
39 - Lock keypad
69 - Unlock keypad
7A - Caps lock
78A - Ctrl
178A - Ctrl pressed (not with Esysuite)
478A - Ctrl released (not with Esysuite)
8A - Alt
18A - Alt pressed (not with Esysuite)
48A - Alt released (not with Esysuite)

Uni-manual braille keyboard

Changing keyboard mode is done with b.view software.

4 Braille keyboard operating modes allow typing with one hand or even one finger.

Unimanual mode 1 :

This mode consists of typing the braille dots in several successive or combined keystrokes on the keys, then validating the sum of these keystrokes with the braille key A.

If the A key is part of the braille combination, you will need to type it in combination with another dot, then press it again to validate the combination.

Unimanual mode 2 :

This mode is a bit faster as the code validation is done automatically.

The braille keyboard is divided into 2 parts, dots 1,2,3,7,9 and dots 4,5,6,8,A. Simply type the first part of the braille combination in one or more keystrokes, then type the second part in one keystroke, then the braille combination is generated.

For braille combinations with dots only in one part, press the braille key A to validate them.

Unimanual mode 3 :

This mode of operation allows the user to enter the braille combination using only the left half of the keyboard (dots 1,2,3,7). After entering the first half of the braille combination, the second half is entered according to the following correspondence: 1-4, 2-5, 3-6, 7-8, 9-A..

Keys 9 and A are typed with one half and are taken into account.

Keys 9 or A are used to generate Correction or Space but also to approve the braille combinations that do not have the second half.

Key 4 typed alone will enter the braille combination that do not have the first half.

Unimanual mode 4 :

This mode of operation is the same as the previous one but using dots 4,5,6,8,A. To type the first half of the combination, we will use the following correspondence 4-1, 5-2, 6-3. It is the braille key 1 that will allow you to enter braille combinations without the first half.