

#### Short Reference for the Braille Wave

Version 4.2

Please also review the detailed User Manual, which is included in printed (not Braille) format and in daisy format on the enclosed CD.

On the right side of the housing you will find the main power switch. If you flip it towards you, the device is turned on. Please note that you must remove the insulating strip from one of the two battery compartments in the base of the unit before powering up the Braille Wave for the first time. Located behind the power switch is the outlet for connecting the power supply.

There are two ports on the left side of the unit. The first is a telephone port, which is used for connecting the Braille Wave to the PC. The round port located behind it is used for connecting the optional external keyboard. If your Braille Wave includes the wireless Bluetooth technology, you will also find a small sliding switch on the left side of the housing, more towards the front. When you slide this switch towards yourself or the front, the Bluetooth interface is activated. If the slider is farther back, then the Braille Wave communicates via its serial interface.

At the front, you will find a row of three keys centered close to the edge. From left to right, these are the abort or Escape key [ESC], the wide Space bar [SPC], and the Enter key [Enter]. A little further back you will find eight function keys in another centered row, arranged in two groups of four. These function keys are also used for Braille input, they correspond to the usual Braille keyboard layout and would be left to right as follows: 7

3 2 1 4 6 5 8

Behind these function keys are located 40 ergonomic Braille display elements with integrated cursor routing keys. The cursor routing keys, referred to as CR keys, which are integrated as part of each Braille cell, enable you to place the cursor directly at the text position of that Braille cell.

The key to be used to move back within the text while reading is located left of the Braille display cells and will be represented as [L] from now on.

The key to the right of the Braille cells is used for reading in the forward direction, and will be represented below as [R]. These two reading keys are mounted on the housing so that they are flush with the Braille cells.

You find a list of important functions an there corresponding key combinations in the following tables:

#### Navigating the Menu System

Function	Keys	
One menu item to the left	L or SPC+7 or SPC+1	
One menu item to the right	R or SPC+8 or SPC+4	
First menu item within one level	SPC+1 2 3	
Last menu item within one level	SPC+4 5 6	
Move up one menu level	ESC	
Select or move down one menu level	Enter	
Toggle check box	SPC or Enter or CR keys	
Select menu item directly	Hotkeys	
Return to suspended Editor	SPC+123456	



# **Editor Functions**

Function	Keys
Abort operations, cancel markings	ESC
Read text	L or R
Start automatic reading	SPC+R
Change automatic reading speed	L or R, if automatic reading is active
Manual scrolling	SPC
Halt automatic reading	CR keys
Delete character at cursor position	SPC+4 5
Backspace	Chord b (SPC+1 2)
Cursor to top of file (Home)	SPC+1 2 3
Cursor to end of file (End)	SPC+456
Cursor to beginning of line	SPC+1 3
Cursor to end of line	SPC+4 6
Cursor to beginning of next sentence	SPC+5
Cursor to beginning of previous sentence	SPC+2
Cursor to next word	SPC+6
Cursor to previous word	SPC+3
Move cursor left	SPC+7
Move cursor right	SPC+8
Move cursor one line up	SPC+1
Move cursor one line down	SPC+4
Direct cursor placement	Cursor Routing Keys
Mark beginning of block	SPC+Enter or press CR key twice at beginning
	of block
Cut block	Chord x (SPC+1 3 4 6)
Copy block	Chord c (SPC+1 4)
Delete block (without copying)	Chord X (SPC+1 3 4 6 7), or SPC+1 2
Paste block	Chord v (SPC+1 2 3 6)
Exchange mark and cursor	SPC+7 8
Toggle insert/overstrike mode	Chord i (SPC+2 4), insert mode is default
Set mark	L+R
Jump to mark	Chord m (SPC+1 3 4)
Incremental forward search	Chord f (SPC+1 2 4)
Incremental backward search	Chord F (SPC+1 2 4 7)
Forward search and replace	Chord r (SPC+1 2 3 5)
Display character in ASCII	Chord D (SPC+1 4 5 7)
Insert current date	Chord d (SPC+1 4 5)
Insert current time	Chord t (SPC+2 3 4 5)
Save file (without closing it)	Chord s (SPC+2 3 4)
Open file from Editor	Chord o (SPC+1 3 5)
Open file in read-only mode	Chord O (SPC+1 3 5 7)
Switch to next file	SPC+568
Switch to previous file	SPC+2 3 7
Save and close file	Chord e (SPC+1 5)
Suspend Editor	SPC+1 2 3 4 5 6
Editor's Setup menu	Chord u (SPC+1 3 6)
Status display	Chord S (SPC+2 3 4 7)
Switch to PC Mode	Chord p (SPC+1 2 3 4)
Help	Chord h (SPC+1 2 5)

## Keys in PC Mode

Function
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Function	Keys
Return to menu	Hold down SPC+1 3 4 about half a second
Switch between Braille display and status module display	ESC +SPC+Enter

## **Fixed Key Functions on External Keyboard**

Function	Key/Key Combinations
Entire Braille display line to left	Page up
Entire Braille display line to right	Page down
Cursor to top of file	Ctrl+Pos1
Cursor to end of file	Ctrl+End
Toggle between insert and overstrike	Insert
Delete current character	Delete
Delete character left of cursor	Backspace
Set beginning of block	Ctrl+Enter
Copy block	Ctrl+c
Cut block	Ctrl+x
Delete block (without copying)	Ctrl+X or backspace
Paste block	Ctrl+v
Exchange mark and cursor	Ctrl+Tab
Status display	Ctrl+S
Incremental forward search	Ctrl+f
Incremental backward search	Ctrl+F
Forward search and replace	Ctrl+r
ESC function	ESC
Navigation	Arrow keys
Cursor to previous word	Ctrl+cursor left
Cursor to next word	Ctrl+cursor right
Cursor to previous sentence	Ctrl+cursor up
Cursor to next sentence	Ctrl+cursor down
Cursor to beginning of line	Pos1
Cursor to end of line	End
Set mark	Ctrl+M
Jump to mark	Ctrl+m
Switch to next file	ALT+Tab
Switch to previous file	ALT+Shift+Tab
Suspend Editor	Ctrl+Space
Save file (without closing it)	Ctrl+s
Save and close file	Ctrl+e
Help	Ctrl+h
Editor's Setup menu	Ctrl+u
Switch to PC Mode	Ctrl+p
Display character in ASCII	Ctrl+D
Open file from Editor	Ctrl+o
Open file in read-only mode	Ctrl+O
Insert current date	Ctrl+d
Insert current time	Ctrl+t

### Functions during Start up

Function	Keys
EPROM mode	Hold down dot 8 during start up
Firmware mode	Hold down dot 6 during start up



### **Screen Reader Functions**

The key assignments for the different screen readers JAWS, Hal/SuperNova and Window-Eyes on the Braille Wave are as similar as possible. In the following table, you find the assignments for JAWS for Windows. You can find the tables for Hal/SuperNova and Window-Eyes as well as the complete table for JAWS in the user manual.

Control Key/Braille Dot	Function
[7]	Activate PC cursor tracking.
[3]	Display the first line in the window (title).
[2]	Move the Braille display to the left.
[1]	Move the Braille display section one line up without changing
	the horizontal position.
[4]	Move the Braille display section one line down without changing
[6]	the horizontal position.
[5]	Move the Braille display to the right.
[6]	Display the last line in the window.
[8]	Drag the JAWS cursor to the PC cursor and activate the JAWS cursor.
[L]	If there is any text to the left of the Braille display section, it
	moves to the left, if not, it moves one line up.
[R]	If there is any text to the right of the Braille display section, it
	moves to the right, if not, it moves one line down.
[SPC + ESC + Enter]	Toggle status modules on and off.
[7 8]	Switch between structured mode, section output and speech
	output.
[3 8]	Change cursor representation (dots 7 and 8, all 8 dots, blinking and non-blinking).
[2 8]	Toggle between 6/8 dot Braille.
[1 8]	Handy Tech configuration dialog (as of Handy Tech JAWS
	Driver version 3.x)
[4 8]	Toggle between focused text on Braille display/same text as on
	screen.
[5 8]	Activate the JAWS cursor.
[2 3]	Beginning of line
[5 6]	End of line
[1 2 3]	Top of file
[4 5 6]	End of file
[3 6 7]	Speech interruption on/off
[0] to [9]	Digits 0 to 9
[3 6 7 8]	Output task bar
[ESC]	Tab
[Enter]	Shift + Tab
[ESC + Enter]	Enter
[SPC + 1 2 7]	Toggle Braille input on/off