Braille Display Input Commands

JAWS supports a series of keystrokes that allow you to input braille commands and also control your computer. Use these keystrokes with Freedom Scientific's Focus braille displays. For other braille displays, contact the manufacturer for a list of keystrokes.

Many commands listed here include the word "CHORD." To perform a chorded command, you always include the **SPACEBAR** as part of the command. For example, to perform an **L CHORD**, press **DOTS 1-2-3** with the **SPACEBAR** at the same time.

Modifier Keys

Use the modifier keys to simulate key combinations (keystrokes) that include **CTRL**, **ALT**, **WINDOWS Key**, **SHIFT**, or the JAWS Key (**INSERT**). To use these modifiers when typing a keystroke, do the following:

- 1. Hold down **DOT 8 CHORD** and then press the corresponding modifier keys in the keystroke. Modifier keystrokes are listed in the following table.
- After you create the modifier portion of the keystroke, release the keys and press the remaining part of the keystroke. For example, to perform the keystroke CTRL+SHIFT+V, you press DOTS 3-7-8 CHORD, release the keys, and then press V (DOTS 1-2-3-6).

Modifier Keys		
Key Name	Keystroke	
Function Keys (F1 through F12) For more information, see the <u>Function Keys</u> description.	DOT 1	
INSERT	DOT 2	
CTRL	DOT 3	
WINDOWS Key	DOT 4	
JAWS Key	DOT 5	
ALT	DOT 6	
SHIFT	DOT 7	

Instead of memorizing these keys by their dot position, it may be easier to learn the finger with which each key would be associated. When all of your fingers are on the braille keyboard, the layout would be:

Modifier Keys		
Key Name	Finger position	
Function Keys (F1 through F12)	Left index finger	
WINDOWS Key	Right index finger	
INSERT	Left middle finger	
JAWS Key	Right middle finger	
CTRL	Left ring finger	
ALT	Right ring finger	
SHIFT	Left little finger	

Notice that you can create a rather loose correlation between pairs of fingers in this description. For example, the left index finger is **Function** Keys while the right index finger is the **WINDOWS** key. A stronger correlation can be made with the left and right middle fingers. The left is the **INSERT** Key and the right is the **JAWS** key, both often serving the same purpose in JAWS usage. Finally, the left and right ring fingers are the **CTRL** and **ALT** keys respectively, which make these two positions easier to remember.

Once this layout is understood, it is easy to grasp that Any time a modifier key, or combination of modifier keys is used as part of a command, **DOT 8 CHORD** will always be included.

Finally, pressing any of these modifier keys with **DOT 8 CHORD** is the same as pressing and holding any of the equivalent keys on the QWERTY keyboard. The computer is waiting for the key or keys which the modifier keys will modify. So, pressing **DOTS 3-8 CHORD** is the same as pressing the **CTRL** key. Windows then waits for the key which will complete the CTRL combination, such as the letter **A** to make **CTRL+A** to select all, or the letter **C** to make **CTRL+C** to copy the selected text to the clipboard. Repetition of frequently used keystrokes such as the **CTRL** key combinations already mentioned, Windows commands such as **WINDOWS Key+M**, and JAWS commands such as **INSERT+T** should imprint these key associations firmly in your memory.

Function Keys

To simulate the function keys (**F1** through **F12**), press **DOTS 1-8 CHORD** followed by **A** through **L** (which correspond to 1 through 12). For example, to simulate the **F6** key, press **DOTS 1-8 CHORD**, then **F** (**DOTS 1-2-4**). If the function key is part of a key combination, add the appropriate modifiers while holding down **DOTS 1-8 CHORD**. For example, to simulate the keystroke **INSERT+F2**, press **DOTS 1-2-8 CHORD**, then **B** (**DOTS 1-2**).

Special Keys

Use these keystrokes to simulate certain keys that are not available on the Focus braille keyboard. These keys can be combined with the modifier keys described previously. Punctuation and other symbols will be entered using their contracted braille equivalents if Contracted Braille Translation is set to Input and Output. For your convenience, both keystrokes and braille dot patterns are provided. If no dot pattern equivalent is available, a dash appears in the table cell.

Special Keys		
Key Name	Keystroke	DOTS Pattern
ESC	RIGHT SHIFT+DOT 1 or Z CHORD	RIGHT SHIFT+DOT 1 or DOTS 1-3-5-6 CHORD
ALT	RIGHT SHIFT+DOT 2	-
APPLICATION Key	RIGHT SHIFT+DOT 2 CHORD	-
NUM PAD ASTERISK	RIGHT SHIFT+DOT 3	-
WINDOWS Key	RIGHT SHIFT+DOT 4	-
NUM PAD SLASH	RIGHT SHIFT+DOT 7	RIGHT SHIFT+DOT 7
CAPS LOCK	RIGHT SHIFT+DOT 7 CHORD	RIGHT SHIFT+DOT 7 CHORD

NUM PAD PLUS	RIGHT SHIFT+DOT 8	-
BACKSPACE	DOT 7	-
ENTER	DOT 8	-
CTRL+BACKSPACE	DOTS 1-2-3-4-5-6- 7 CHORD	-
ТАВ	DOTS 4-5 CHORD	-
SHIFT+TAB	B CHORD	DOTS 1-2 CHORD
НОМЕ	K CHORD	DOTS 1-3 CHORD
END	DOTS 4-6 CHORD	-
PAGE UP	LEFT SELECT+ROCKER BAR UP or RIGHT SELECT+ROCKER BAR UP or DOTS 2-3-7 CHORD	-
PAGE DOWN	LEFT SELECT+ROCKER BAR DOWN or RIGHT SELECT+ROCKER BAR DOWN or DOTS 5-6-7 CHORD	-
DELETE	FOR CHORD	DOTS 1-2-3-4-5- 6 CHORD
EQUALS	DOTS 1-2-3-4-5-6	-
RIGHT BRACKET	DOTS 1-2-4-5-6-7	-
LEFT BRACKET	DOTS 2-4-6-7	-
BACKSLASH	DOTS 1-2-5-6-7	-

SLASH	DOTS 3-4	-
LEFT PARENTHESIS	DOTS 1-2-3-5-6	-
RIGHT PARENTHESIS	DOTS 2-3-4-5-6	-
APOSTROPHE	DOT 3	-
DASH	DOTS 3-6	-
GRÀVE	DOT 4	-
PERIOD	DOTS 4-6	-
QUESTION MARK	DOTS 1-4-5-6	-
EXCLAMATION MARK	DOTS 2-3-4-6	-
SEMICOLON	DOTS 5-6	-
СОММА	DOT 6	-

Navigation Commands

Use these keystrokes to perform various JAWS navigation commands. Both keystrokes and braille dot patterns are provided in the table. If no dot pattern equivalent is available, a dash appears in the table cell.

Navigation Commands		
Description	Keystroke	DOTS Pattern
Say Prior Character	DOT 3 CHORD	-
Say Next Character	DOT 6 CHORD	-
Say Character	DOTS 3-6 CHORD	-
Say Prior Word	DOT 2 CHORD	-
Say Next Word	DOT 5 CHORD	-

1		
Say Word	DOTS 2-5 CHORD	-
Say Prior Line	DOT 1 CHORD or LEFT ROCKER BAR UP	-
Say Next Line	DOT 4 CHORD or LEFT ROCKER BAR DOWN	-
Say Line	C CHORD	DOTS 1-4 CHORD
Say Prior Sentence	LEFT SHIFT+RIGHT ROCKER BAR UP	-
Say Next Sentence	LEFT SHIFT+RIGHT ROCKER BAR DOWN	-
Say Sentence	LEFT SHIFT+RIGHT SHIFT+C	LEFT SHIFT+RIGHT SHIFT+DOTS 1-4
Say Prior Paragraph	RIGHT SHIFT+LEFT ROCKER BAR UP	-
Say Next Paragraph	RIGHT SHIFT+LEFT ROCKER BAR DOWN	-
Say Paragraph	LEFT SHIFT+RIGHT SHIFT+DOTS 2-3-5- 6-7-8	-
Move to Top of File	L CHORD	DOTS 1-2-3 CHORD
Move to Bottom of File	DOTS 4-5-6 CHORD	-
Say to Cursor	RIGHT SHIFT+DOTS 3-7	-

Say from Cursor	RIGHT SHIFT+DOTS 6-8	-
Say All	DOTS 1-2-4-5-6 CHORD	-
Say Top Line of Active Window	LEFT ROCKER BAR UP+RIGHT ROCKER BAR UP	-
Say Bottom Line of Active Window	LEFT ROCKER BAR DOWN+RIGHT ROCKER BAR DOWN	-
Previous Document Window	DOTS 2-3 CHORD	-
Next Document Window	DOTS 5-6 CHORD	-
Open List Box	LEFT SHIFT+RIGHT ROCKER BAR DOWN	-
Close List Box	LEFT SHIFT+RIGHT ROCKER BAR UP	-
Exit Forms Mode	X CHORD	DOTS 1-3-4-6 CHORD
Say Window Prompt and Text	G CHORD	DOTS 1-2-4-5 CHORD

Microsoft Word Navigation Quick Keys

Use these keystrokes to navigate Microsoft Word documents. Navigation Quick Keys must be enabled in order for these commands to function (**DOTS 2-8 CHORD** followed by **DOTS 1-3-5-6**). Note that you can add **DOT 7** to most of the keystrokes in the table below to move to the previous element of that type in the document. Both keystrokes and braille dot patterns are provided in the table. If no dot pattern equivalent is available, a dash appears in the table cell.

Microsoft Word Navigation Quick Keys		
Description	Keystroke	DOTS Pattern
Next Grammatical Error	Α	DOT 1
Next Bookmark	В	DOTS 1-2
Next Combo Form Field	С	DOTS 1-4
Next Endnote	D	DOTS 1-4-5
Next Edit Form Field	E	DOTS 1-5
Next Form Field	F	DOTS 1-2-4
Next Graphic	G	DOTS 1-2-4-5
Next Heading	Н	DOTS 1-2-5
Next List	L	DOTS 1-2-3
Next Spelling Error	Μ	DOTS 1-3-4
Next Comment	Ν	DOTS 1-3-4-5
Next Footnote	0	DOTS 1-3-5
Next Paragraph	Р	DOTS 1-2-3-4
Next Revision	R	DOTS 1-2-3-5
Next Section	S	DOTS 2-3-4
Next Table	Т	DOTS 2-3-4-5
Next Check Box Form Field	X	DOTS 1-3-4-6
Next Page	SPACEBAR	-
Previous Page	BACKSPACE	DOT 7

Selection Commands

Use these keystrokes to select characters, lines, and other page elements. Both keystrokes and braille dot patterns are provided in the table. If no dot pattern equivalent is available, a dash appears in the table cell.

Text Selection Commands		
Description	Keystroke	DOTS Pattern
Select Prior Character	LEFT SHIFT+DOT 3 or DOTS 3-7 CHORD	-
Select Next Character	LEFT SHIFT+DOT 6 or DOTS 6-7 CHORD	-
Select Prior Word	DOTS 2-7 CHORD	-
Select Next Word	DOTS 5-7 CHORD	-
Select Prior Line	LEFT SHIFT+DOT 1 or DOTS 1-7 CHORD	-
Select Next Line	LEFT SHIFT+DOT 4 or DOTS 4-7 CHORD	-
Select Prior Screen	LEFT SHIFT+K	LEFT SHIFT+DOTS 1-3
Select Next Screen	LEFT SHIFT+DOTS 4-6	-
Select from Start of Line	LEFT SHIFT+DOT 2 or DOTS 1-3-7 CHORD	-
Select to End of Line	LEFT SHIFT+DOT 5 or DOTS 4-6-7 CHORD	
Select from Top	LEFT SHIFT+L or L+DOT 7 CHORD	LEFT SHIFT+DOTS 1-2-3

		or DOTS 1-2-3-7 CHORD
Select to Bottom	LEFT SHIFT+DOTS 4-5- 6 or DOTS 4-5-6-7 CHORD	-
Select All	LEFT SHIFT+FOR Sign	LEFT SHIFT+DOTS 1-2- 3-4-5-6
Move To Beginning Of Line	ROCKER BAR UP+PANNING BUTTON	-
Move To End Of Line	ROCKER BAR DOWN+PANNING BUTTON	-

Braille Commands

Use these keystrokes to configure various braille functions. Both keystrokes and braille dot patterns are provided in the table.

Braille Commands		
Description	Keystroke	DOTS Pattern
Grade 2 Expand Current Word	T CHORD	DOTS 2-3-4-5 CHORD
Grade 2 Translation	DOTS 1-2-4-5-7 CHORD	DOTS 1-2-4-5-7 CHORD
Toggle Characters and Attributes	CH Sign CHORD	DOTS 1-6 CHORD
Cycle Among Braille Display Modes	M CHORD	DOTS 1-3-4 CHORD

Toggle 8/6 DOTS Braille	8 CHORD	DOTS 2-3-6 CHORD
Change Cursor Shape	SH Sign CHORD	DOTS 1-4-6 CHORD
Restrict Braille Cursor	R CHORD	DOTS 1-2-3-5 CHORD
Switch Braille Translation Table	DOTS 2-3-4-5-7 CHORD	DOTS 2-3-4-5-7 CHORD

Windows Commands

Use these keystrokes for basic editing functions in Windows.

Windows Commands		
Description	Braille Sign	DOTS Pattern
ALT+TAB	LEFT SHIFT+DOTS 4-5	LEFT SHIFT+DOTS 4-5
Paste from Clipboard	LEFT SHIFT+V	LEFT SHIFT+DOTS 1-2- 3-6
Copy to Clipboard	LEFT SHIFT+C	LEFT SHIFT+DOTS 1-4
Cut to Clipboard	LEFT SHIFT+X	LEFT SHIFT+DOTS 1-3- 4-6
Undo	LEFT SHIFT+Z	LEFT SHIFT+DOTS 1-3- 5-6
Delete	LEFT SHIFT+D	LEFT SHIFT+DOTS 1-4-5

JAWS Commands

Use these keystrokes to perform some of the more common JAWS functions.

JAWS Commands		
Description	Braille Sign	DOTS Pattern
JAWS Window	RIGHT SHIFT+J	RIGHT SHIFT+DOTS 2-4-5
Quick Settings	RIGHT SHIFT+V	RIGHT SHIFT+DOTS 1-2-3-6
List Frames	RIGHT SHIFT+9	RIGHT SHIFT+DOTS 3-5
List Headings	RIGHT SHIFT+6	RIGHT SHIFT+DOTS 2-3-5
List Links	RIGHT SHIFT+7	RIGHT SHIFT+DOTS 2-3-5-6
Open Task List	RIGHT SHIFT+DOTS 3-5-6	RIGHT SHIFT+DOTS 3-5-6
List System Tray Icons	RIGHT SHIFT+K	RIGHT SHIFT+DOTS 1-3
Say System Time	RIGHT SHIFT DOTS 1-2-3	RIGHT SHIFT DOTS 1-2-3
Drag and Drop	RIGHT SHIFT+DOTS 3-7 CHORD	-

Refresh Screen	RIGHT SHIFT+Z	RIGHT SHIFT+DOTS 1-3-5-6
Say Font	RIGHT SHIFT+F	RIGHT SHIFT+DOTS 1-2-4
Toggle Keyboard Help	QUESTION MARK CHORD	DOTS 1-4-5- 6 CHORD
Windows Keys Help	RIGHT SHIFT+W	RIGHT SHIFT+DOTS 2-4-5-6
Read Current Window	RIGHT SHIFT+B	RIGHT SHIFT+DOTS 1-2
Default Button in Dialog	RIGHT SHIFT+E	RIGHT SHIFT+DOTS 1-5
Shut DOWN JAWS	RIGHT SHIFT+4	RIGHT SHIFT+DOTS 2-5-6
Select a Voice Profile	RIGHT SHIFT+S	RIGHT SHIFT+DOTS 2-3-4
Silence Speech	LEFT or RIGHT SHIFT	-
Temporarily Increase Speech Rate	LEFT or RIGHT SHIFT+RIGHT SELECT CHORD	-
Temporarily Decrease Speech Rate	LEFT or RIGHT SHIFT+LEFT SELECT CHORD	-
Permanently Increase Speech Rate	RIGHT SELECT CHORD	-

Permanently Decrease Speech Rate	LEFT SELECT CHORD	-
Toggle Speech On Demand	RIGHT SHIFT+M	RIGHT SHIFT+DOTS 1-3-4
Repeat Last Notification	RIGHT SHIFT+N	RIGHT SHIFT+DOTS 1-3-4-5
Launch the Braille Math Editor	DOTS 3-4-6-7 CHORD	-

Cursor Functions

Use these keystrokes to select a cursor for navigating JAWS.

Cursor Functions		
Description	Braille Sign	DOTS Pattern
JAWS Cursor	J CHORD	DOTS 2-4-5 CHORD
PC Cursor	P CHORD	DOTS 1-2-3-4 CHORD
Touch Cursor	DOTS 1-2-5-6 CHORD	DOTS 1-2-5-6 CHORD
Route JAWS to PC	RIGHT SHIFT+DOTS 3-6 (MINUS Sign)	RIGHT SHIFT+DOTS 3-6
Route PC to JAWS	RIGHT SHIFT+ING Sign (PLUS Sign)	RIGHT SHIFT+DOTS 3-4-6
Braille Follows Active	DOTS 1-2-6 CHORD	DOTS 1-2-6 CHORD

Active Follows Braille	DOTS 1-2-7 CHORD	DOTS 1-2-7 CHORD
Route Braille Cursor to PC Cursor	LEFT SHIFT+DOTS 3-4- 6	LEFT SHIFT+DOTS 3-4-6
Route Braille Cursor to Active Cursor	LEFT SHIFT+DOTS 3-6	LEFT SHIFT+DOTS 3-6

Touch Cursor Functions

Use these keystrokes to navigate using the Touch Cursor.

Cursor Functions		
Description	Braille Sign	DOTS Pattern
Touch Cursor	DOTS 1-2-5-6 CHORD	DOTS 1-2-5-6 CHORD
Prior element	DOTS 1-2 CHORD	DOTS 1-2 CHORD
Next element	DOTS 4-5 CHORD	DOTS 4-5 CHORD
Say Current element	C CHORD	DOTS 1-4 CHORD
Next element by Type (specified in the navigation rotor)	LEFT or RIGHT ROCKER DOWN	LEFT or RIGHT ROCKER DOWN
Prior element by Type (specified in the navigation rotor)	LEFT or RIGHT ROCKER UP	LEFT or RIGHT ROCKER UP
Move Forward Through Navigation Types	LEFT SELECT+LEFT ROCKER DOWN,	LEFT SELECT+LEFT ROCKER DOWN,

	RIGHT SELECT+LEFT ROCKER DOWN, LEFT SELECT+RIGHT ROCKER DOWN, or RIGHT SELECT+RIGHT ROCKER DOWN	RIGHT SELECT+LEFT ROCKER DOWN, LEFT SELECT+RIGHT ROCKER DOWN, or RIGHT SELECT+RIGHT ROCKER DOWN
Move Backward Through Navigation Types	LEFT SELECT+LEFT ROCKER UP, RIGHT SELECT+LEFT ROCKER UP, LEFT SELECT+RIGHT ROCKER UP, or RIGHT SELECT+RIGHT ROCKER UP	LEFT SELECT+LEFT ROCKER UP, RIGHT SELECT+LEFT ROCKER UP, LEFT SELECT+RIGHT ROCKER UP, or RIGHT SELECT+RIGHT ROCKER UP
Move to First element	LEFT PANNING+LEFT or RIGHT SELECT or L CHORD	LEFT PANNING+LEFT or RIGHT SELECT or DOTS 1-2-3 CHORD
Move to Last element	RIGHT PANNING+LEFT or RIGHT SELECT or DOTS 4-5-6 CHORD	LEFT PANNING+LEFT or RIGHT SELECT or DOTS 4-5-6 CHORD
Activate Current element	CURSOR ROUTING BUTTON	CURSOR ROUTING BUTTON
Activate Text Review Mode	RIGHT SHIFT+DOT 7	RIGHT SHIFT+DOT 7

Turn Off Text Review Mode	RIGHT SHIFT+DOT 1 or X CHORD	RIGHT SHIFT+DOT 1 or DOTS 1-3-4-6 CHORD
Toggle Advanced Navigation	RIGHT SHIFT+DOT 3 or press and hold a cursor routing button	RIGHT SHIFT+DOT 3 or press and hold a cursor routing button

Utility Functions

Use these keystrokes for general utility functions.

Utility Functions		
Description	Braille Sign	DOTS Pattern
Run JAWS Manager	RIGHT SHIFT+2	RIGHT SHIFT+DOTS 2-3
Set Frame Top LEFT	RIGHT SHIFT+OW Sign	RIGHT SHIFT+DOTS 2-4-6
Set Frame Bottom RIGHT	RIGHT SHIFT+ER Sign	RIGHT SHIFT+DOTS 1-2- 4-5-6
Graphics Labeler	RIGHT SHIFT+G	RIGHT SHIFT+DOTS 1-2- 4-5
JAWS Find	RIGHT SHIFT+F CHORD	RIGHT SHIFT+DOTS 1-2-4 CHORD
JAWS Find Next	RIGHT SHIFT+DOTS 2-5	RIGHT SHIFT+DOTS 2-5

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