

BRAILLEX ELc SERIES

User's Manual

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User's Manual BRAILLEX ELc
as of: July 2019

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Introduction

Papenmeier has added three more devices to the BRAILLEX EL family. BRAILLEX EL 40c, BRAILLEX EL 60c and BRAILLEX EL 80c

All three new EL devices have the well-proven Easy Access Bar which guarantees ergonomic work and comfortable one-hand-operation.

Please read here how the Easy Access Bar works. Users who have already worked with an EL display and know about the many advantages of the Easy Access Bar may skip the following description.

The classical operation of a Braille display is done by pressing several keys on the front or the top panel. Thus, you have to take at least one hand away from the reading position of the Braille display. Sometimes, you might have to remove even both hands when it comes to operating the computer keyboard. Those additional movements take their time.

The Easy Access Bar compensates the disadvantage. By means of the Easy Access Bar, you can always access functions and commands right from your reading position in order to operate the Braille display. Often used PC keyboard functions are accessible from every hand position on the horizontal Braille display. In this way, your reading hand/s stay at their proper place. No longer will the user search or count out keys which is quite annoying. Additional hand movements or a constant re-orientation in the reading window will no more be necessary. Therefore, your work becomes much faster and more effective.

The Easy Access Bar is a long single lever (like a space bar) situated on the front side. Almost as large as the Braille display itself, the Easy Access Bar is completely integrated into the device. From every reading position, you operate the Easy Access Bar using the thumb/s of your left and your right hand. No matter on which position you are, you can push the Easy Access Bar in all four directions. Thus, the corresponding thumb makes a minimal movement while the pressure remains the same. Pushing the bar in one of the four directions, a switch or sensor will be operated which executes the desired function. The rubber profiled front of the bar gives your thumbs enough grip to activate these keys.

Among the usual functions of a Braille display, the unit with Easy Access Bar offers access to PC keyboard functions at the reading position. Many operations and settings of the screen reader software are therefore concentrated on an easily accessible position. Left- and right-handed persons are able to operate the Easy Access Bar. It is even possible to perform the operation with one hand only. The key functions of the Easy Access Bar can be set individually.

Despite all functionality, the well-proven safety and the solid-rock construction of the BRAILLEX devices stay the same. This is possible because of specific materials and a precise way of construction.

System requirements

For the operation of a BRAILLEX ELc device in connection with a PC, the following components are necessary:

- USB port on a PC or a notebook
- Operating system that supports USB devices like Windows XP, Windows 7 or newer versions
- Braille display EL 40c or BRAILLEX EL 80c
- Screen reader supporting the Braille display like JAWS for Windows

Delivery

Ships with the following components:

- Braille display
- USB connection cable
- Driver
- Manuals

Copyrights

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Size

BRAILLEX EL 40c - 298 x 92,5 x 18mm
BRAILLEX EL 60c – 426 x 92,5 x 18mm
BRAILLEX EL 80c - 555 x 92,5 x 18mm

Weight

BRAILLEX EL 40c – 640g
BRAILLEX EL 60c – 910g
BRAILLEX EL 80c – 1.170g

Installation and Connection

Please set the Braille display in working position, in front of a keyboard or notebook. Put your hands in reading position on the Braille cells. The thumbs rest on the Easy Access Bar. Correct the Braille display until you obtain the best setting for your working position.

You will find the only connection on the Braille display at the rear of the right side panel. This is a mini USB-connector. A suitable connection cable will be included in the delivery. The smaller connector has to be plugged into the port of the Braille display. By means of the USB connector data will be transferred from a PC or notebook to the BRAILLEX device. The Braille display is also supplied with power via the USB connector. That is the reason why an external power supply unit is not required.

BRAILLEX ELc units may only be used in combination with computer systems supporting USB. Microsoft Windows NT4 und DOS are not supported.

When you connect the USB cable to the switched-on PC or notebook the LED close to the USB-connector indicates that the connection between Braille display and PC/notebook is established. On the Braille display, a starting message will appear.

Front

In the front you will find the integrated Easy Access Bar. The bar has a rubber profile.

Panels

At the rear of the right side panel you will find the only Mini-USB connector.

Top

The Braille display is placed along the front line. It almost occupies the whole width of the device.

On the left and on the right side of the horizontal Braille display, you will find two rounded keys each.

Operation

Before starting to operate the BRAILLEX EL device, the user should read this manual.

The device shall only be installed by a trained person.

The device may only be used with the original accessories and in combination with the products foreseen for this purpose by F. H. Papenmeier. If a combination with other devices is necessary, those devices must comply with the relevant standards.

Powering on/off, Idle state

The BRAILLEX ELc starts automatically, as soon as the USB-connection to the switched-on PC has been established. If no key is pressed or no display change occurs, the sleep mode will be activated after five minutes.

Starting message

As soon as the Braille display is activated, it shows a starting message: e.g.:

braillex el#40 c rev #124

Display and Installation

If you want to read the computer screen on the Braille display, you need to install and run a screen reader, such as JAWS for Windows. For the braille display, the screen reader needs a driver. For some screen readers and their versions, the driver has to be installed separately. The Braille display can possibly be selected during screen reader installation.

The installation of the Braille display will be split into two parts. In the first part, the USB-driver will be installed, so that Windows can recognise the Braille display as a connected device. In the second part, the Braille display in the screen reader will be selected.

The installation of the Braille display will be performed with the operating system wizard, e.g. Microsoft Windows 7.

USB driver installation

Connect the BRAILLEX ELc to the USB port of your PC. This can certainly also be done when the system is running. For the installation of the USB driver, administration rights are required. Additionally, you need to access the drive which contains the drivers.

In case a prior model of the BRAILLEX EL series has already been connected to the PC via USB, the same connection will now be used. The installation of a new USB driver will not be required.

If you have received a driver CD or any other installation media with your BRAILLEX ELc device, please put it into the drive.

Windows XP

The operating system indicates that a new hardware with the name "BRAILLEX II USB Device" has been found. In a dialogue box, you will be asked to enter the source for the suitable driver. As a default, Windows searches for the suitable driver on CD ROM so that you can press enter to confirm the dialogue box.

Windows 7

The USB driver installation will not make a distinction between 32 and 64 bit systems.

As soon as the Braille display is connected to Windows 7 running under local administration rights and an internet connection is established, Windows 7 will download and install the signed driver independently.

If no internet connection is available or Windows upgrade cannot be performed, the installation has to be executed manually.

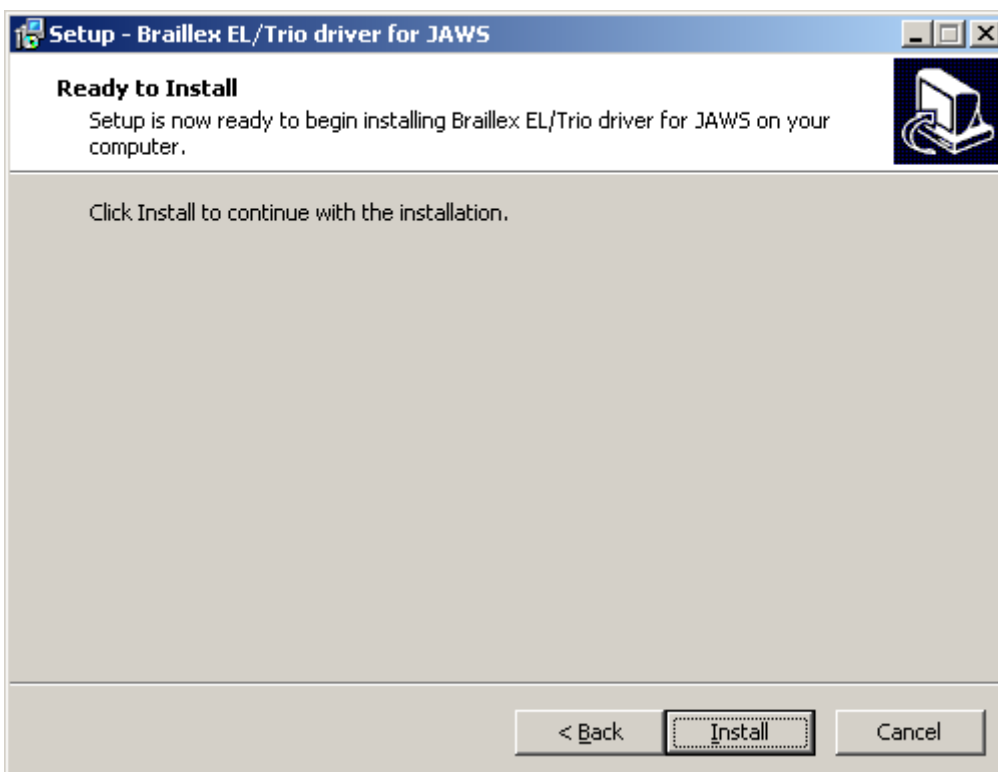
The delivery package contains signed drivers for Freedom Scientific JAWS and Dolphin Supernova.

Installation

In case the installation will not start automatically from the storage device, please run the programme „brxel-setup-544b.exe". The following pictures show the Windows XP installation.



The driver installation starts. Activate the button "Next".



After the system has been checked, the next dialogue box will appear. Activate the button "Install".

A message might appear warning you that an unsigned driver is about to install. Confirm this message by selecting you want to install anyway.



After a short while, the installation will be finished. Activate the button "Finish".

The Easy Access Bar

The Easy Access Bar of the BRAILLEX ELc series can be pushed in one step in each direction: one step to the right [1R], to the left [1L], up [1U] and down [1D]. Thus, four functions are available.

As a default, the reading window of the braille display moves in one of the four directions when pushing the Easy Access Bar. The corresponding text will be presented. The proven navigation method has been transferred from the prior models without any changes.

Example: Push the Easy Access Bar to the right in order to read forward. The reading window will display the next part of the text. This can be the rest of the same line e.g. when the Braille display is not able to present the whole content. If no content is indicated in the same line, the next line will be presented, beginning from the left.

A movement with the Easy Access Bar in one direction always shows the content on the Braille display which will be available in the selected direction. The cursor in the chosen application will not be moved.

The navigation mode as described above is the default setting of all BRAILLEX EL devices when the screen reader has been started.

BRAILLEX ELs users are also familiar with the second step of the Easy Access Bar. Because of the reduced height, BRAILLEX ELc devices no longer have the second step. Nevertheless, the functions of the second step are available. In combination with a lower routing key the Easy Access Bar can execute second step commands as well. The abbreviations for these keys are the following:

- 2nd step right [2R]
- 2nd step left [2L]
- 2nd step up [2U]
- 2nd step down [2D]

Two more working modes are available for the Easy Access Bar: The "PC Mode" and the "Combined Mode". The movements in all four directions stay the same. The effect is different, though. In "PC Mode" you move the active cursor every time you push the Easy Access Bar. In "Combined Mode" the up and down movement is performed with the cursor, the movements to the left and to the right without cursor so that the reading window can be moved within a document.

In this way, you can very quickly navigate in dialogues and list boxes. In addition to the four cursor keys, the Braille display offers the execution of the commands Enter, Escape and TAB.

Configuring the Braille display for JAWS

Depending on the installation method, BRAILLEX EL has been selected for the JAWS installation or it is already specified in the installation routine. The port with "USB" will also be set as default. Open the Braille settings of the screen reader software if you wish to verify it.

- Activate the JAWS menu with (JAWS-key) + (J).
- Select the setting "Braille" from the "Options" submenu
- In the pop-up dialogue "Braille Default Settings" you will be offered a selection of Braille displays in the first list. Beneath the title bar, you can read which one is currently active. In the list box, select "Default Braille display". This is the Braille displays JAWS is looking for during the start.
- JAWS indicates the port for the selected Braille display beneath the list box. USB should be entered here.

If no Braille display is connected, the USB port is not entered correctly, or the Braille display is defective JAWS can show a message during the start that informs about the faulty condition. Therefore, the control panel "Show Braille load errors" has to be activated.

The "Add Braille Display" button in the dialogue box "Braille Default Settings", invokes the installation wizard indicating that you can select a Braille display for the installation.

Select "Euro_Unicode" for the Braille presentation as character set.

With the button "Advanced Braille Settings" the JAWS settings for the Braille presentation will be presented in detail. This happens in the "Configuration" or "Settings" Manager".

Simple Operation

BRAILLEX ELc devices have four rounded keys on either side, two keys on the right and two on the left of the Braille cells. Consequently, the Braille display will be operated by means of the Easy Access Bar. Through the four keys, you can execute settings for the Braille display.

The functionality mainly consists of command selections. Those selections will no longer be done directly with key combinations. Instead, you can invoke them in command lists. Thus, you only have to keep very few key combinations for the Braille display in mind. The available command lists are structured in different areas which you can choose with keys one to three. Currently, three lists are offered and structured in the following areas:

Braille Attributes

This list contains a range of commands to reveal different text attributes and to change the current one.

Braille Options

Here, you will find commands that enable you to change the Braille mode, Braille presentation, Grade two translation and Braille compression.

Working Mode

In this list you can set the current working mode for the Easy Access Bar.

Keys on BRAILLEX ELc

On either side of the Braille cells, there are two rounded keys. One key is located behind the other one. With those keys you can perform several functions in order to configure the Braille display. The functions depend on the currently used screen reader. On the left side (from top to bottom) you will find Key [K1] and Key [K2]. On the right side you will find Key [K3] and Key [K4]. In the following chapters these abbreviations will be used.

- Key [K1] displays the settings for the Braille attribute presentation.
- Key [K2] displays the Braille options.
- Key [K3] displays the list of working modes
- Key [K4] does not display a dialogue box. This function switches cursor tracking on or off.

The Easy Access Bar moves the reading window across the screen. It will also control the cursor when it comes to selecting a suitable working mode.

The Easy Access Bar can be pushed in every direction. The directions indicate the designation: L, R, U, D stand for Left, Right, Up and Down. For the second step, press and hold a lower routing key pushing the Easy Access Bar in the appropriate direction: Thus, 2L, 2R, 2U, 2D stand for the second step of the Easy Access Bar in the indicated direction.

To change the working mode, you have to understand how command lists work. You might be familiar with similar JAWS setting lists. The description is about the same.

Command lists

Pressing one of these three keys, a JAWS dialogue box will pop up.

JAWS will read the title of the current setting dialog. The Braille display shows the first item in the list.

The list item is split into two columns: On the left, you will find the function or the command, e.g. "Working Mode". On the right just after the hyphen, you will see the current value / selection, e.g. "Navigation Mode".

- To select a command, push the Easy Access Bar up or down. A corresponding cursor movement will be performed.
- In order to change the value, push the Easy Access Bar in the 2nd step to the left or to the right (Routing key + Easy Access Bar left or right). The current value will be spoken and displayed. Use the space bar on the key board to change the value.
- The changes of a setting will be confirmed with (Enter). You can also push the Easy Access Bar in the 2nd step down [2D] (Routing key + Easy Access Bar down).
- To leave the dialogue without any changes, press (Esc). You can also push the Easy Access Bar in the 2nd step up [2U] (Routing key + Easy Access Bar up).
- In both cases, the dialogue box will be closed. When changes have been made in the current configuration, this will be confirmed by the message "settings saved".

Navigation with the Easy Access Bar

Use the Easy Access Bar to move the reading window of the Braille display across the screen, not depending on the cursor. In this way, you move the display up and down. Switch on "Navigation Mode" which is the default mode.

The Easy Access Bar can be pushed in every direction. In brackets, you will see the abbreviation of the function:

- 1 step up [U] moves the reading window one line up
- 1 step down [D] shows the following line on the Braille display.

Only the lines which contain text are also presented. Empty spaces between symbols on the desk top will be ignored. Graphics (icons) also containing text, can be displayed if they are named. Spaces in a line will be presented as such. JAWS always tries within a line to display the correct position of a text. When text in a line is longer than the Braille display, you have to scroll the text in its width. This is done using the Easy Access Bar:

- 1 step to the right [R] shows the next text paragraph
- 1 step to the left [L] shows the previous text paragraph

Please note that the text will be scrolled to the right or to the left by the number of Braille cells each. You can activate a word break in the Braille settings of the screen reader if you wish.

With these commands, the display can be moved up and down when there is no text in the width before or after a paragraph. Thus, the screen can be read continuously, forward or backward.

In "navigation mode" the Braille display is moved whereas the cursor remains at its position, which means you will leave your focus. Please make use of Key 4 [K4] (cursor tracking on/off) to track the cursor to the current position.

Working Modes

When navigating in the active window, you can choose between three different working modes. They influence the assignment of the Easy Access Bar:

- **Navigation Mode**
In "Navigation Mode" you just read across the screen when using the navigation keys as described above. the cursor is NOT moved. This also means that you can explore parts of the screen where the cursor can't go.
- **PC Mode**
The "PC mode" is the opposite: Instead of moving the display across the screen when pushing the Easy Access Bar, you move the cursor. Please note that as long as the active cursor moves the Braille display, this obviously also influences the Braille display position.
- **Combined Mode**
The so-called "Combined Mode" is a combination of the two modes described above. It is useful especially when it comes to reading long text documents. Whenever you press a reading key and a line border is crossed, the PC cursor is moved to the new line as well. This means that you can read a text without having to bother about screen pages.

BRAILLEX EL in Navigation Mode

Press Key 3 [K3]. Choose the command "Working Mode - Navigation Mode" from the pop-up list. Confirm with (Enter).

The Easy Access Bar moves the reading window in the desired direction.

- Up [U] moves the reading window one line up
- Down [D] moves the reading window one line down
- Right [R] moves the reading window to the right by the width of the set character number
- Left [L] moves the reading window to the left by the width of the set character number.

This means the Easy Access Bar moves the reading window without moving the cursor. As a default the width of the set character number is the cell number of your Braille display.

Additional Navigation functions with the Braille Display

To quickly navigate to the window title bar or to the status bar, please use the second step of the Easy Access Bar in "Navigation Mode":

- 2nd step up [2U] moves the Braille Display to the title bar of the active window. Additionally, the window title will be spoken.
- 2nd step down [2D] moves the Braille window to the last line of the window. This is the status bar in most cases.
- 2nd step right [2R] moves the Braille window to the end of the current line.
- 2nd step left [2L] moves the Braille window to the beginning of the current line.

BRAILLEX EL in PC Mode

Press Key 3 [K3]. Choose the command "Working Mode - PC Mode" from the pop-up list. Confirm with (Enter).

The Easy Access bar now represents the cursor cross of the PC keyboard.

- Up [U] moves the cursor one line up
- Down [D] moves the cursor one line down
- Right [R] moves the cursor one character to the right
- Left [L] moves the Cursor one character to the left

Thus, the Easy Access Bar moves the cursor exactly like the cursor keys.

- 2nd step right [2R] activates the (Tab) key.
- 2nd step left [2L] activates the (Shift) + (Tab) combination
- 2nd step down [2D] activates (Enter)
- 2nd step up [2U] performs an action which depends on the situation:
When there is a menu bar in the active window the Easy Access Bar executes the (Alt) key. Consequently, it will activate or deactivate the command menu.
When there is no menu bar as in most dialogue boxes (Esc) will be pressed. Thus, you will leave the dialogue box without any changes.

Switch to one of the two other modes if you wish to leave the "PC Mode".

Make use of the PC mode whenever you work in dialogue boxes, on the desktop or in the start menu. It is also suitable when entering data in data base masks or when reading out a spread sheet.

BRAILLEX EL in Combined Mode

Press Key 3 [K3]. Choose the command "Working Mode - Combined Mode" from the pop-up list. Confirm with (Enter).

- Up [U] moves the cursor one line up, like in "PC Mode"
- Down [D] moves the cursor one line down, like in "PC mode"
- Right [R] shows the next text paragraph when there are more characters in a line than Braille cells available, like in "Navigation Mode".
- Left [L] shows the previous text paragraph when there are more characters in a line than available Braille cells, like in "Navigation Mode".

With the help of these commands, you are able to read continuously e.g. in a text editor without moving your hand to the PC keyboard. At the bottom of the screen, the text will be scrolled automatically because the cursor follows the downward movement.

Functions with BRAILLEX EL

Mouse functions with BRAILLEX EL

You can activate mouse functions with all BRAILLEX EL devices, using the routing keys. In order to execute a mouse function, move the reading window to the line where you wish to perform a click. Afterwards, you can execute a left mouse click at this position.

Press the routing key at the desired position. The active cursor will appear on the character. A left mouse click will be performed automatically.

You can also use the routing keys to select text. Move the display to the starting point of the marker. Press and Hold Key 2 [K2] while you press the routing key at the start position. Then move the display to the end point and repeat the key combination. The text between the two points will now be marked.

The Upper Routing Key

Pressing the upper routing key, an additional function for each single character is available. By default, JAWS will read the current character and its attribute.

In some programmes, the upper routing key has a special function as well. For example, in Microsoft Word, JAWS will announce and display advanced information concerning the current character format.

Attributes

Text which does not need a specific font presentation will be declared as "regular text". The font presentation does not depend on the foreground or background colour. Font Differences are only made when the font face of the characters varies whereas the font stays the same. This difference is called "attribute". An underlined heading is such an attribute. JAWS is able to recognise and display many attributes. Sometimes, the attribute displayed for the current text depends on the programme. JAWS can recognise more attributes in Microsoft Office applications than in other programmes.

An attribute can as well be presented in the Braille display (Braille marking) as in speech. In the JAWS settings, you are able to specify whether the changes will be indicated automatically or at your command.

Example: Text which has a coloured background (highlighted) will be spoken automatically. This attribute is called highlighted colour.

Braille Marking

On the Braille display, text with attributes will be revealed specifically. Character sets with attributes will be presented with dots 7 and 8 in addition. This way of presentation is called "Braille marking". Since all five available attributes are marked in the same way you only know by then that an attribute exists and which characters it stands for. If you would like to know exactly what kind of attribute it is, use the BRAILLEX EL function to determine it.

Press Key 1 [K1] to display the list of commands for the Braille marking.

First, the list indicates the attribute at the current cursor position. This value cannot be changed. Now, select an option with the Easy Access Bar and specify the setting by pushing the bar to the left or to the right.

Attributes on the Braille display

- Use the space bar to generally switch the "Braille marking" on/off.
- Select one of the listed attributes Highlighted, Bold, Underline, Italic, or Strike Out. Switch the "Braille marking" for this attribute on/off by pushing the Easy Access Bar to the left or to the right.
- After you have switched on an attribute to be presented, the setting for the selection "Braille Marking" will change to "Changed". Next time you invoke this setting, the value "see below" will be presented. This indicates that the settings have been changed in contrast to the default value.

When JAWS has been started, the attribute "Highlighted" is usually activated. This is most common in Windows because it is used for the selector in menus and lists, for the marking in documents and for the focus presentation. The attribute is underlined with dots 7 and 8 automatically until another attribute will be activated. This also applies to other applications if the setting for a programme has not been changed explicitly in the JAWS configuration manager. Starting JAWS, the default attribute can be changed in the configuration manager.

Please note: Despite all commands for the attribute presentation in the Braille or speech will not change the text on the screen. Only the presentation on the Braille display will change.

Braille presentation

In some areas, the Braille presentation can be adjusted according to your wishes. Select the settings with Key 2 [K2] and you will see a corresponding list of commands.

The settings in this list apply to the following areas:

- Braille mode – presentation in "Line Mode" or in "Structured Mode"
- Grade 2 translation - switch on/off/set
- Marking with dots 7 + 8
- Define space presentation in reading window
- Six- or eight-dot-Braille presentation

If you would like to change the Braille options for BRAILLEX EL, please press Key 2 [K2]. Select one of the six indicated options and change the settings by means of the Easy Access Bar.

Braille mode

With the first item in the list, you change the Braille presentation between "Line Mode" and "Structured Mode".

In "Line Mode" JAWS will present the whole line of the active window. Spaces are indicated as in the original document. In "Line Mode", it is possible to navigate line by line across the screen with your Braille display.

In "structured mode" the current user interface element and its content will be presented on the Braille display. The advantage of this presentation is that the user gets additional information belonging to this user interface element. Thus, the active user interface element can be discovered quickly such as check and dialogue boxes, buttons, control panels...

Grade two translation

Text on a Braille display is usually presented in Computer Braille. Thus, the screen reader is able to present text in a Braille translation. The JAWS speech and the text on the screen will not be changed. You can change to Grade two translation at any position at any time.

When you move through a document with the cursor, you will notice the untranslated word under the cursor. By default, the current word is expanded and you can edit it easily. If you want the word under the cursor to be abbreviated as well, you will find a suitable option in the dialogue box "Braille Adaptation".

In the screen reader settings you are able to change the Braille translation method and the marking of capital letters. This can be changed for every application individually.

Spaces on the Braille display

When text in the current window is torn apart by many spaces, you can optimise the presentation. Then, you will obtain more text and less spaces. This way of presentation can only be selected in "Line Mode". In "Structured Mode" the screen layout will not be considered.

- Press Key 2 [K2].
- Search for the item "Braille Display Presentation" by means of the Easy Access Bar.
- The current setting will be announced e.g.: "as on screen". This means that all spaces can be seen on the Braille display, too.
- Choose the other option by pressing the space bar e.g.: "Collect Text". Now, all big spaces are reduced to one single space.
- Confirm the change.

Deactivating dots 7+8

In case you are bothered by dots 7 and 8 which are necessary to present Computer Braille, you can deactivate them.

- Press Key 2 [K2].
- The dialogue "Braille Settings" appears.
- The list item "Display in" indicates the current setting.
- Switch to six- or eight-dot Braille by pressing the space bar or by pushing the Easy Access Bar to the left or to the right.
- Confirm the setting with (Enter).

JAWS key assignment for BRAILLEX ELc

The following table contains the JAWS key assignment of a BRAILLEX ELc. The abbreviation "EAB" stands for "Easy Access Bar".

Key	JAWS keyname	JAWS Scriptname
EAB left	Braille F11	FHPBraillexEL1L
EAB left + routing	Braille F12	FHPBraillexEL2L
EAB up	Braille F13	FHPBraillexEL1U
EAB up + routing	Braille F14	FHPBraillexEL2U
EAB right	Braille F15	FHPBraillexEL1R
EAB right + routing	Braille F16	FHPBraillexEL2R
EAB down	Braille F17	FHPBraillexEL1D
EAb down + routing	Braille F18	FHPBraillexEL2D
K1	Braille F20	FHPAttributSettings
K2	Braille F21	FHPBrailleSettings
K3	Braille F22	FHPWorkingMode
K4	Braille F23	ActiveMovesBraille
Upper Routing keys right + K4	Braille F23+KEYPAD2+Routing	SetDirProg
Upper Routing keys left	Braille F24	FHPBraillexELDirectStart1
Lower Routing keys left	Braille F25	FHPBraillexELDirectStart2
Upper Routing keys right	Braille F26	FHPBraillexELDirectStart3
Lower Routing keys right	Braille F27	FHPBraillexELDirectStart4

Service

In case of any defect of the Braille display unit, please contact an authorized Papenmeier service centre. If you are in doubt about the service centre responsible for your area, please contact Papenmeier:

F. H. Papenmeier GmbH & Co. KG

Phone: +49 2304 946 0

Fax: +49 2304 946 246

E-mail: info.reha@papenmeier.de

If possible give a short description of the kind of disturbance.

Safety Advice

Before starting to operate the BRAILLEX EL device, the user should read this manual.

- The device may only be used in closed and dry rooms. The ambient temperature must not exceed 40° C (ca. 105° F). Do not expose the device to direct sunlight or humidity (rain).
- Repairs and maintenance may only be undertaken by Papenmeier or by authorized service centres.
- Do not expose the product to strong pressure, and do not drop any objects on the product. This might damage the product or lead to malfunctions.

Service and Maintenance

Avoid touching the device with dirty hands. You may clean the surface of the device (NOT the Braille cells) with a soft, damp cloth. Do not use any aggressive detergent or soap.

WEEE Rg. Nr.: DE 60886380

Purpose of the Device

All BRAILLEX ELc displays are intended to be used for the purpose of compensation for the visual handicap of blind people.

All BRAILLEX ELc displays comply with the requirements of the European Union Medical Devices Directive, as an **active class I medical product** intended to be used for the purpose of compensation for a handicap.

This product may only be used in home or office environments. In medical facilities, this product may only be used in office rooms.

The BRAILLEX EL devices and their original accessories comply with the relevant standards regarding the electro-magnetic compatibility (EMC) and the safety, and are marked with the CE sign.

There are no known risks for your health that might be caused by the use of this product.

General Precautions

Our products guarantee optimum safety and reduce to a minimum the strain caused through over-exertion. However, when respecting some precautions, you can contribute to avoid prejudice to your health or damage to the product.

If a cellular phone is used close to the product, a minimum distance of 30 cm (1 ft) shall be respected.

Do not expose the product to strong pressure, and do not drop any objects on the product. This might damage the product or lead to malfunctions.

In order to avoid repetitive strain injury at your hands caused through long-time use of the function elements and reading the Braille display, we suggest pauses and relaxation exercise. In specialized bookshops you also find literature on how to equip a work place in an ergonomic way and on how to avoid strain through an appropriate sitting position.

CE-Marking

The BRAILLEX EL devices and their original accessories comply with the relevant standards regarding the electro-magnetic compatibility (EMC) and the safety, and are marked with the CE sign.

FHP cannot guarantee however that these products still comply with these EMC standards if they are connected to cables or devices not produced by F. H. Papenmeier. In this case, the person(s) who connected the cables or devices are responsible for taking care that the combination complies with the required standards. In order to avoid EMC problems, you should observe the following advice:

Only connect accessories and devices marked with the CE mark.

Only use shielded connecting cables.

Technical Data BRAILLEX ELc

Maximum operating temperature: 40 °C

Size

BRAILLEX EL 40c - 298 x 92,5 x 18mm

BRAILLEX EL 60c – 426 x 92,5 x 18mm

BRAILLEX EL 80c - 555 x 92,5 x 18mm

Weight

BRAILLEX EL 40c – 640g

BRAILLEX EL 60c – 910g

BRAILLEX EL 80c – 1.170g

Package Content

BRAILLEX EL 40c

Carrying case	R#8522.000003
USB-cable (1,4m)	R#3490.000074
User's Manual	R#0090.459.00

BRAILLEX EL 60c

USB-cable (1,4m)	R#3490.000074
User's Manual	R#0090.459.00

BRAILLEX EL 80c

USB-cable (1,4m)	R#3490.000074
User's Manual	R#0090.459.00

This User's Manual or the described products within it are subject to change without prior notice.

Any implied responsibilities are expressly disclaimed. F. H. Papenmeier GmbH & Co. KG shall not, in any case, be liable for special, incidental, consequential, indirect, or other similar damages arising from any errors or misleading content in this user's manual.

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EG-KONFORMITÄTSERKLÄRUNG

(nach Medizinprodukte-Richtlinie 93/42/EWG Anhang VII)

DECLARATION OF CONFORMITY

(according to the Medical Device Directive 93/42/EEC Annex VII)

Wir, We F.H.Papenmeier GmbH & Co KG
Talweg 2
D-58239 Schwerte
Germany

erklären in alleiniger Verantwortung, dass die Medizinprodukte
declare under our sole responsibility that the medical devices

BRAILLEX EL 40c, BRAILLEX EL 60c, BRAILLEX EL 80c

(PN-flat: 1868.014.00, 1868.015.00, 1868.016.00)

(PN-concave: 1868.018.00, 1868.019.00, 1868.020.00)

der Klasse I allen Anforderungen der Medizinprodukte-Richtlinie 93/42/EWG entspricht, die anwendbar sind.
of dass I meets all the provisions of the directive 93/42/EEC which apply to it.

Angewandte harmonisierte Normen, nationale Normen oder andere normative Dokumente
Applied harmonised standards, national standards or other normative documents

- | | |
|---------------------|--|
| EN 12182 | Technische Hilfen für behinderte Menschen
<i>Technical aids for disabled persons</i> |
| EN 14971 | Medizinprodukte-Anwendung des Risikomanagements auf Medizinprodukte
<i>Medical devices-Application of risk management to medical devices</i> |
| EN 60601-1-2 | Medizinische elektrische Geräte - Teil 1-2: Allgemeine Festlegungen für die Sicherheit einschließlich der wesentlichen Leistungsmerkmale - Ergänzungsnorm: Elektromagnetische Verträglichkeit - Anforderungen und Prüfungen
<i>Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests</i> |
| EN 60950-1 | Einrichtungen der Informationstechnik - Sicherheit - Teil 1: Allgemeine Anforderungen
<i>Information technology equipment - Safety - Part 1: General requirements</i> |

Schwerte, 03.05.2012

(Ort, Datum der Ausstellung)



(Name und Unterschrift oder
gleichwertige Kennzeichnung des Befugten)

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