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1 Physical Description
The NLS eReader has a 20-cell braille display; an eight-key, Perkins-style keyboard; three Space keys; six display keys; four system keys; and five navigation keys.

1.1 Top
The top surface of the device includes the braille display, braille keyboard, and six display keys. Orient the device with the braille cells closest to you. Behind each cell, you will find a small round cursor routing button. You can use the routing buttons to move the braille cursor when reading and entering text and to activate items in a menu.

At each end of the braille display are three display keys. You can think of these as being arranged like a braille cell with keys D1, D2, and D3 downward on the left and D4, D5, and D6 downward on the right. These keys cannot be used to enter text but one or more of these keys is an alternate way of entering keyboard commands.

Behind the cells is the braille keyboard. The braille keyboard has the traditional six braille input keys, a Backspace key (dot 7) at the left end, an Enter key (dot 8) at the right end, and a Space key.

1.2 Front Edge
Along the front edge of the device (closest to you) is an angled front panel with eleven controls. The two outermost small round keys on each end are the System keys. They are referred to as S1 through S4, with S1 and S2 on the left and S3 and S4 on the right. The System keys perform the following functions:

- S1: Main Menu
- S2: Menu of current application
- S3: Context Menu for the currently displayed text
- S4: Book Reader, open current book at last reading position
- S1 and S4: Key Lock toggle (while the keys are locked, the display reads "keyboard locked." Pressing S1 and S4 again or the Power On button unlocks the keys.

Moving inward are two large rectangular keys. These are referred to as BL and BR. In most cases, they are both functionally equivalent to the Space key on the braille keyboard, meaning that either of them can be used with a letter to execute a keyboard command that requires use of a Space key. The only time this is not the case is when reading a book. While reading, BL and BR function as alternative panning keys, allowing you, if you prefer it, to use your thumbs to move forward or backward through a book.
In the center of the angled front panel are five navigation keys. Starting from the left and going clockwise they are N-Left, N-Up, N-Right, and N-Down, with N-Center in the middle. Each of the four directional keys has a tactile ridge on its outer edge so you can quickly identify its direction.

N-Up and N-Down are used to move between items in a menu or a list. The four directional keys can be used to move through a book.

At the bottom of the angled front panel, at each end, is a hole for attaching a lanyard. The matching holes are near the front corners of the left and right sides.

1.3 Left Side
On the left side of the device, from front to back, is the lanyard attachment point, followed by the SD Card slot. There are braille letters, sd, above the SD Card slot.

1.4 Right Side
On the right side, from front to back is the lanyard attachment point. Behind that is the small, round Power On button followed by the small, round Power Off button. Braille letters, on, are above the Power On button and braille letters, off, are above the Power Off button.

Next is the USB-C port, used to connect the eReader to a computer or the AC adapter. The last port on the right side is the USB-A port, used to connect an NLS cartridge with the provided cable, or a USB flash drive. Braille letters, usb, are centered above these two ports with the braille letter, c, above the USB-C port and the braille letter, a, above the USB-A port.

1.5 Back Edge
The back edge has nothing on it.

1.6 Bottom
On the bottom of the device are four rubber feet, one in each corner; a sticker with print information about the device; and a braille serial number.

2 Getting Started
2.1 Unpacking the eReader
The package contains the following items:

- eReader 20-cell braille display
- USB-A to NLS cartridge cable
- AC adapter with USB-A to USB-C cable
- Braille Getting Started Guide
- Print Getting Started Guide
2.2 Charging the Battery
Prior to using your eReader, make sure it is charged completely. The charging cable is the longer cable included with the eReader. To charge the battery, connect the smaller end of the charging cable (the USB-C connector) to the USB-C port located on the right side of the eReader, just behind the power buttons. It doesn't matter which direction this cable is oriented when you plug it in. This port will accept it either way.

Connect the larger end of the charging cable (USB-A connector) to the included AC adapter. Plug the AC adapter into a power outlet. The amount of battery charge remaining will be displayed whenever the unit is connected to AC power. The unit takes three to four hours to fully charge. You can use the unit for about ten hours before it will need to be charged. To extend the battery life for up to 27 hours, you can turn on the Power Save feature. The Power Save feature will be described in detail in Section 6.5.

If at any time you would like to know how much battery power is available, navigate to the Battery item on the Main Menu or press the braille number sign (dots 3-4-5-6) together with a space key. The battery level will appear on the display. Press the Enter key (dot 8) or N-Center to dismiss this message.

2.3 Conventions Used in this User Guide
There are several ways to perform common tasks. These options are outlined below.

When the user guide says, Press Enter, do one of the following:
- Press dot 8
- Press N-Center
- Press a cursor routing button

When the user guide says, navigate up or down, do one of the following:
- Press D1 or D3
- Press N-Up or N-Down

When keys are written with a hyphen between them, this means that you should press both keys at the same time. For example, D1-D4, one of the ways to go to the top of a book or list, means that you press D1 and D4 simultaneously.

2.4 Powering On and Off
On the right side of the eReader, just behind the lanyard attachment point, you will find the small, round Power On button. Once your device is charged, press the Power On button to turn
on your eReader. You will hear a sequence of three ascending tones and the word "starting" will briefly appear, followed by the words “NLS eReader Zoomax.” Then the word "starting" will reappear with a tactile loading animation while the unit is coming on. When ready to use, you will hear another sequence of three ascending tones and you will see the words “Book Reader” on the display. You will be at the top of the Main Menu.

If your device has been connected to a wireless network, or if you have an SD Card or a USB flash drive inserted, you will hear one or more additional two-tone sequences to alert you of these conditions.

To turn the unit off, press the Power Off button, which is just behind the Power On button. You will hear a sequence of descending tones and the Off Menu will appear. Press a cursor routing button over Power Off. The display will show the words "power off" and incrementing numbers will indicate the shutdown progress.

Alternatively, from the Main Menu, navigate up or down or press the letter p to reach the Power Off menu item, then press Enter. You will see the top item of the Power Off Menu, Yes—Power off. The other item on this menu, No—Do not power off is just below it. To power off, press Enter when the Yes—power off item is displayed.

2.5 Suspend Mode
To preserve the battery, the eReader will go into Suspend mode after ten minutes of inactivity. You can change this amount of time in Settings. You can also manually put your eReader into Suspend mode by selecting Suspend from the Main Menu or by tapping the Power Off button on the right side of the unit and pressing a cursor routing button over the word "Suspend" on the display. To wake the unit from Suspend mode, press the Power On button. After 2.5 hours in Suspend mode, the unit will turn itself completely off. You can also change this amount of time in Settings.

2.6 Braille Keyboard
The braille keyboard is used to write text in a search box or to enter text such as BARD login credentials or a Wi-Fi password. There are numerous keyboard commands that are composed of a braille character on the keyboard together with a space key.

There is one Space key between dots 1 and 4. There are two additional space keys, one on either side of the navigation keys on the front of the device. These are referred to as BL and BR. In most cases, they are both functionally equivalent to the Space key on the braille keyboard, meaning that either of them can be used with a letter to execute a keyboard command that requires use of a space key. The only time this is not the case is when reading a book. While reading, BL and BR function as alternative panning keys.
The keyboard commands that are paired with a space key are referred to as "chords." So, on this device, for example, the letter m with a space key, a keyboard command that will take you to the Main Menu, may be referred to as an m-chord.

Some of the keyboard commands, such as f (dots 1-2-4) for finding text while reading a book, are specific to the current activity. While others, such as Space with l (dots 1-2-3), goes to the top of a menu, list, or document at any time. You can access the Context Menu, S3, from almost anywhere on the device.

2.7 Main Menu
The Main Menu contains the following nine items:

- Book Reader
- Online Services
- File Manager
- Settings
- Device Info
- Battery (with the current charge level displayed)
- Help
- Suspend
- Power Off

Navigate up or down to move to the menu item of your choice, then press Enter to activate it. If, at any time, you would like more information about a menu item, press the N-Right key and additional text describing the menu item will be displayed. You can return to the Main Menu at any time by pressing S1, or a space key with the letter m (dots 1-3-4).

2.8 Navigating Menus, Lists, and Controls
The primary way to move among the many options on the eReader is through a series of menus. When the eReader first shows a menu, the top item of the menu will be visible on the braille display. Move through the list of menu items using the N-Down or D3 key. Many of the items on the Main Menu will take you to a lower level submenu. Access a submenu by pressing the Enter key while the Main Menu item is on the display.

There are additional features in all menus to assist you with orientation and quick navigation. From the top item of a menu, navigate up and you will find the Quick Menu. The Quick Menu has an abbreviated menu name, such as mm: for Main Menu, followed by single letters. You can activate any one of these letters by pressing the Cursor Routing button over the letter and it will open that menu item. For example, the Quick Menu at the top of the Main Menu says "mm: b o f s d b h s p." If you were to press the routing button above the letter "s," the Settings Menu would open. When the Quick Menu is visible, navigating to the right with the D5 key will provide a list of available items.
If you navigate up from the Quick Menu, you will see the name of the menu you are viewing. On the Main Menu, this is where you can also see the version number of the current software and firmware.

When you are in a list such as a list of books or a list of files, you may see a single letter I before each item. This is to indicate that you are viewing a list item. You can navigate lists using D1 and D3, N-Up and N-Down, or single letter navigation (see Section 2.10).

There are other instances where you will see a single letter at the beginning of the display. These are:

- b: button—such as an Ok button in a dialog box, which can be activated by pressing Enter
- e: edit box—which is for entering text
- s: setting—an item in the Settings Menu, which can be changed with the Space key

In the File Manager, you will see an i for items in internal storage, a u for items on a USB flash drive, or an s for items on an SD Card. These same letters are used in the Book List to indicate where a book is located.

2.9 Context Menu
The Context Menu is a special menu that can be accessed from almost anywhere in your device. It offers useful contextual functions that are relevant to what you’re currently doing on your eReader. It is similar to a context menu on a PC. If you’re looking for a specific action, or you just forgot the command, chances are you will find it in the Context Menu.

To activate the Context Menu, press S3, the small, round key on the front just to the right of BR. A menu will open and offer you a list of actions you can perform at that particular moment. Navigate up or down through this menu until you find what you are looking for, then press Enter. Otherwise, press Space with e (dots 1-5) to close the Context Menu.

2.10 First Letter Navigation
Most of the time, you can jump to an item in a menu or list by typing the first letter of that item. Doing so will automatically move the display to the first item starting with that letter. Typing the same letter twice will bring you to the second item starting with that letter, and so on. For example, if you are in the Main Menu and you wish to reach Settings, type the letter s on the keyboard.
2.11 Panning Text
When a line of text is longer than 20 characters, you will need to move the display left or right to read the rest of the text. This movement is called panning, and it is accomplished in several ways:

- Use D2 and D5, the middle keys on either end of the display
- While reading a book, use the N-Left and N-Right keys on the front
- While reading a book, use the large rectangular keys, BL and BR, on the front

The method you choose to use will depend largely on the size of your hands and what you find most comfortable.

3 Book Reader
The first item on the Main Menu is Book Reader. This application is used to read books and magazines. From the Main Menu, open the Book Reader by navigating up or down until you reach Book Reader or by pressing b (dots 1-2). When Book Reader is displayed, press Enter to open it.

The items in Book Reader can be downloaded from BARD or loaded into the eReader from external media such as an NLS cartridge, a USB flash drive, or an SD Card. The eReader supports the following file types: .brf, .txt, .rtf, .docx, .pdf, .html, and .pef. It is compatible with .zip files if the ZIP file contains an NLS braille book.

3.1 Book Reader Menu
The Book Reader Menu contains four items:

- Current book
- Book list
- Recent books
- Exit

3.1.1 Current Book
Activating Current Book will open the most recent book that you were reading. If the message, "book is empty" appears, it means that either there are no books on the device or you haven't opened any of the books that are there.

You can also open the most recent book you were reading by pressing S4 at any time. This will open the book at the exact spot where you left off.
3.1.2 Book List
All available books and magazines on your device are listed in the Book List of the Book Reader. They are organized alphabetically by title. There will be a letter i, s, or u before each book, indicating the location of that book. The letter i indicates internal storage, s indicates SD Card, and u indicates USB drive.

Press Enter on the title you want to read. For other actions, press S3 for the Context Menu. Here you will see Get Info, which will list details of the book; Delete, which will delete the book from your device; and Search, which lets you search for books or magazines on the device.

3.1.3 Recent Books
Recent Books will display a list of the ten most recent titles you have read. Pressing S3 from here will allow you to Read Book; Close Book, which removes it from your Recent Books list; or Delete Book.

3.1.4 Exit
The final item on the Book Reader Menu is Exit. You can select this item to close the Book Reader and return to the Main Menu. If you prefer, at any time, you can press S1 or Space with the letter m (dots 1-3-4) to return to the Main Menu.

3.2 Reading a Book
3.2.1 Moving through Text
There are several different key combinations to move the braille display through the text of a book. Whichever one you choose to use is a matter of personal preference.

There are three ways to move continuously through the text of a book:

- D2 and D5, the middle keys on either end of the display
- N-Left and N-Right keys on the front
- BL and BR, the large rectangular keys on the front

3.2.2 Get Current Position
You can use the Where am I? command whenever you want to know your current position within a book. To activate the Where am I? command, press the braille wh-sign (dots 1-5-6).

The display will show the current volume number, page number, line number from top of page, and character number from left margin. The Where am I? display will look something like this:

v3 p34 l22 c0
3.2.3 Autoscroll
The eReader's autoscroll feature allows you to read a book without having to continuously press keys. The braille display will advance automatically at a rate that you control. If you wish to use this feature, autoscroll must be enabled in the Settings Menu under Book Reader Settings.

To activate this feature, press the braille st-sign (dots 3-4) when inside a book. Press the st-sign again to stop autoscroll and return to manual panning.

You can change the autoscroll speed while autoscrolling within a book. To slow down the autoscroll speed, press the braille st-sign (dots 3-4) with dot 7. To make autoscroll go faster, press the braille st-sign (dots 3-4) with dot 8. Each increase or decrease of autoscroll speed changes the rate by one-quarter of a second per line. The unit will remember your last setting. When you begin autoscrolling again, it will start at the last speed you used.

3.2.4 Word Wrap
By default, the eReader does not split words at the end of the display. Sometimes this means that there is extra space at the end of some lines. If you prefer for the eReader to fill each line as much as possible, even if it means that a word will be split and the rest of a word will be at the beginning of the next 20 cells of text, you can turn Word Wrap off with a w (dots 2-4-5-6). You can turn this on or off as often as you like. You can also turn Word Wrap on or off in Device Settings (See Section 6.5).

3.3 Book Navigation
3.3.1 Go to the Beginning or End of a Book
You can easily go to the beginning or end of a book using keyboard commands. To go to the beginning of a book, press Space with l (dots 1-2-3). To go to the end of a book, press Space with dots 4-5-6.

Alternatively, you can select top or bottom from the Context Menu or you can use D1-D4 to go to the top and D3-D6 to go to the bottom.

3.3.2 Navigating by Line, Paragraph, Page, and Volume
If, at any point, you would like to move through the book by line, there are two ways to do this:

- D1 and D3, the top and bottom display keys on the left end of the display
- N-Up and N-Down navigation keys on the front
When navigating by line, you can choose whether your display moves straight down or goes back to the left edge. So, for example, if your display is currently showing cells 21-40 of a line and you move down by line, if "straight down" is in effect, then you will move to cells 21-40 of the next line. If "left edge" is in effect, you will move to cells 1-20 of the next line. You can toggle this setting with the keyboard command, k (dots 1-3). When pressed, this command will briefly display its current setting.

To go to a specific line, use the letter l (dots 1-2-3) or D1-D2-D3. The number of the line you are currently on will appear. Type in the line number you wish to access.

When you access an NLS braille book, all of the volumes of the book will be loaded. You can move forward or back by paragraph, page, or volume by using the following keys:

- Dot 1: previous paragraph
- Dot 2 or D1-D2: previous page
- Dot 3 or D4-D5: previous volume
- Dot 4: next paragraph
- Dot 5 or D2-D3: next page
- Dot 6 or D5-D6: next volume

To go to a specific paragraph, page, or volume, use the following keys. In each case, the current number of the item will be shown. Type in the desired number.

- ch (dots 1-6) or D1-D6: go to paragraph number
- p (dots 1-2-3-4) or D1-D2-D3-D4: go to page number
- v (dots 1-2-3-6) or D1-D2-D3-D6: go to volume number

In the case of pages, the number you enter may not correspond with the actual page numbers in the book. This command is counting pages from the beginning of the book. Often, page 1 is several pages into the book.

Another way to reach a specific line, paragraph, page, article, volume, or bookmark is to use the Context Menu. Press S3 and navigate down to Goto. Press Enter and you will see the list of options. Select the one you wish to use. You will see the current number. Type in your desired value and press Enter.

At any time, you can use the cursor routing buttons to move to specific points in the book. Each cursor routing button will take you to a point in increments of five percent. For example, Cursor Routing button 1 will take you to a point five percent of the way through the book. Cursor Routing button 8 will take you to a point 40 percent through the book, and so forth.
3.3.3 Navigating through a Magazine by Article

NLS magazines have special article separators and your eReader is aware of these so you can use them for navigation. You can move forward or back by article by using the following keys:

- Braille ar-sign (dots 3-4-5) with dot 7 to go back by article
- Braille ar-sign (dots 3-4-5) with dot 8 to go forward by article

To go to a specific article number, use the braille ar-sign (dots 3-4-5) or D3-D4-D5. The current article number will be shown. Type in the desired article number.

3.3.4 Skipping Blank Lines

NLS braille books downloaded from BARD or sent from your library are the same files that were used to emboss the hardcopy version of the book. Therefore, there is often a series of blank lines. In Book Reader Settings, which is accessible from the Settings Menu, condense is set to on by default. If it is off, multiple blank lines will often be displayed. You can skip to the next non-blank line with a keyboard command. Pressing t (dots 2-3-4-5) will take you to the next non-blank line, and pressing | (dots 1-2-5-6) will take you to the previous non-blank line.

3.3.5 Searching for Text

To search for text within a book, press f (dots 1-2-4) or D1-D2-D4. You will be prompted to enter the text you wish to find. Pressing the Tab key (dots 6-8) at this point will take you to other useful options. After tabbing past Ok and Cancel, you will find Match Case with a checkbox to activate it. Check this if you want your results to be the same case as your search string. Next is "After find to:" Book or List. The default here is Book. This will take you to the first found text in the book. If you change this to List, you will get a list of all the instances of found text. Next is "search where." The options here are in current book or in all books.

Type in the text, then press Enter. If you haven't chosen to see your found text as a list, then the found text will be placed at the beginning of the display. If the text of the book is displayed in contracted braille, type your search text in contracted braille. If text of your book is uncontracted, then type your search string in uncontracted braille.

To find a previous instance of the searched-for text, press f (dots 1-2-4) with dot 7 and to find the next instance of the searched-for text, press f (dots 1-2-4) with dot 8. To see a list of the search results, press f (dots 1-2-4) with dots 7 and 8. The list will show the number of results, and the volume, page, line, and percentage through the book of each.

3.4 Book Information

You can display information about the book you are currently reading by pressing i (dots 2-4). Navigate up and down to move through the list of available book information elements (title,
author, description, and subject). Use D2 and D5 to move through the text of each item on the list as needed.

3.5 Bookmarks
The eReader allows you to place bookmarks in reading material for quick return to a particular position.

3.5.1 Setting a Bookmark
To add a bookmark, press b (dots 1-2) while reading a book. A message "bookmark stored" will be displayed. Press Enter on OK to dismiss this message.

3.5.2 Go to Bookmark
You can move among the bookmarks you have set. Press b (dots 1-2) with dot 7 to move to the previous bookmark; press b (dots 1-2) with dot 8 to move to the next bookmark.

While reading a book, you can go to a specific bookmark by opening the Context Menu with S3 and pressing Enter on Bookmarks. A list of the bookmarks you have set will be displayed. Press Enter on the one you wish to go to and you will be taken to the bookmarked reading position.

3.5.3 Removing a Bookmark
To remove a saved bookmark, press b (dots 1-2) with dots 7 and 8. This will delete a bookmark that is on the same line that is being displayed. The message "bookmark deleted" will appear on the display. Press Enter on OK to dismiss this message. If there is no bookmark on the line being displayed, the message "No bookmark on this line" will be shown.

4 BARD
The second item on the Main Menu is Online Services, which contains BARD, NLS's online service for accessing books and magazines. From the Main Menu, open Online Services by navigating up or down until you reach it or by pressing o (dots 1-3-5). When Online Services is displayed, press Enter to open it.

The eReader can access BARD directly. You can view and download books from the most popular books list and the most recent books and magazines list. You can browse subject categories and search the collection. You can also download books and magazines from your wish list as well as add items to it and remove items from it.

Before you can access BARD, you must connect your device to a Wi-Fi network (see Section 6.5 for details on connecting to a Wi-Fi network) and login to your BARD account.
4.1 The Online Services Menu
The Online Services Menu has five items:

- Browse BARD: Provides access to Most Recent Books, Most Popular Books, Magazine Issues, and Previous Downloads
- Search BARD: Provides options for searching
- Wishlist: Provides access to your wish list, additional information about each item, and the opportunity to download or delete items
- User login: Provides edit boxes for your username and password to log into BARD
- Exit: Closes the BARD menu and returns to the Main Menu

4.2 Connecting to BARD for the First Time
The first time you access BARD, you will be prompted to enter your BARD username and password. You cannot log in with a temporary password. If you have a temporary password, you will need to use a web browser to create a permanent password and then log in with those credentials. Note that the eReader does not have a web browser. See Section 4.6, User Login for details on entering your login credentials. Once you have logged in successfully, you will be automatically logged in each time you open the BARD application.

4.3 Navigating Lists of Books in BARD
In BARD's lists of books, first letter navigation works a bit differently from the way it works in menus. First letter navigation works like a filter. If you type the letter b, you will see all the books with a title that begins with the letter b. If you then type an l, you will see only books with a title that begins with bl, and so forth. Press Backspace (dot 7), to clear all the letters you have entered.

4.4 Browsing BARD
The Browse BARD Menu consists of five items:

- Most Recent Books
- Most Popular Books
- Magazine Issues
- Previous Downloads
- Exit

4.4.1 Most Recent and Most Popular Books
Most Recent Books and Most Popular Books present a list of the books most recently added to BARD and the books most downloaded from BARD, respectively. Navigate up and down through the list to find your desired book. Press Enter on a book to get more information about it.
You can navigate among the title, author, and the book description. At the bottom of the list, you will find four action buttons: Download, Download and Open, Add to Wishlist, and Cancel. Downloading the book will add it to your Book List but leave you in BARD to search for additional titles. Download and Open will download the book and then open it in Book Reader. If you are planning to read the book immediately, this is a great option.

Select Add to Wishlist to add a book or magazine to your wish list. After a moment, you will see a message confirming that your addition was successful. Press Enter on OK to dismiss the message. Cancel will leave the book information page and return you to the list of books you were browsing. The book will not be added to your wish list.

Alternatively, you can press S3 for the Context Menu. Here you will find: get info for this book, download, download and open, and add to wishlist.

4.4.2 Magazine Issues
Magazine Issues brings up a list of all of the NLS available braille magazine titles. Some of the titles on this list have been discontinued, but the available issues will remain on BARD for download. Pressing Enter on any title will bring up a list of the available issues. As with books, you can press Enter for more info and the four action buttons, Download, Download and Open, Add to Wishlist, and Cancel, or you can press S3 to access the Context Menu. Note that magazines do not have as much information in their catalog record as books.

4.4.3 Previous Downloads
The last item on the Browse BARD Menu is Previous Downloads. This brings up a list of all the braille books and magazines you have downloaded from BARD. Here you can press Enter on a title for more information; access the four action buttons, Download, Download and Open, Add to Wishlist, and Cancel; or press S3 for the Context Menu with its available options.

4.5 Search BARD
The second item on the Online Services Menu is Search BARD. It contains five items:

- Book title
- Author name
- Subjects
- Keyword
- Exit

4.5.1 Book Title
Pressing Enter on Book Title brings up an edit box for you to type in part or all of the title you are seeking. The search string must start with the first word of the title excluding the initial
articles a and the. For example, if you are searching for *The Wind in the Willows*, and you type "wind," you will get *Windows of Hope*, *The Wind Blows Backward*, *A Wind in the door*, as well as *The Wind in the Willows*.

4.5.2 Author Name
Pressing Enter on Author Name brings up an edit box. Type in part or all of the name of the author you are seeking. Your search string should begin with the author’s last name. For example, if you type Lee, you will get books by Bob Lee, Darrien Lee, and Harper Lee, among others but you will not get books by Lee Child. If you want to include the author’s first name in your search, put a comma and a space after the author’s last name and then enter the first name.

4.5.3 Subjects
Pressing Enter on Subjects brings up a list of the available subjects. Press Enter on the desired subject to bring up a list of matching books.

4.5.4 Keyword
Pressing Enter on Keyword brings up an edit box. Type in the keyword you are seeking. Type in any word or words in the title, author, or annotation. For example, if you search for the word Alaska, you will get *Call of the Wild* by Jack London, *Murder on the Iditarod Trail* by Sue Henry, and *Alaska Days with John Muir* by Samuel Hall Young. If you are searching for a phrase, it is helpful to put the phrase in quotes. This will prevent unwanted search results.

4.6 Wishlist
Pressing Enter on Wishlist brings up a list of the braille books and magazines currently on your wish list. If you press Enter on a title, the book information screen is displayed. The buttons at the bottom are Download, Download and Open, Delete from Wishlist, and Cancel. Pressing S3 for the Context Menu will list the same options.

4.7 User Login
User Login is where you can enter your BARD username and password to log into BARD. If, at any time, you change your BARD login credentials using a web browser, you will be able to enter the new username and/or password here.

The username and password should both be entered in uncontracted Unified English Braille (UEB). This means that the at sign in an e-mail address is written as dot 4 then dot 1, and the period is written as dots 2-5-6. Numbers are written in the upper part of the cell preceded by a number sign; if a letter a through j follows a number, then it must be preceded by what UEB calls a grade 1 indicator, dots 5-6.
If you prefer to change the braille code that you must enter, press S3 for the Context Menu and use a cursor routing button to select among contracted UEB, uncontracted UEB, or computer braille.

5 File Manager
The third item on the Main Menu is File Manager. The File Manager allows you to browse, delete, rename, copy, cut, and paste the various books and magazines on your device. From the Main Menu, open the File Manager by navigating down until you reach File Manager or press f (dots 1-2-4). When File Manager is displayed, press Enter to open it.

5.1 File Browsing
When you open File Manager, you will see internal files. This storage location will always be present. It is the 8 GB of storage located on the eReader. If you navigate down, you may find USB files and/or SD Card files. These will appear only when a USB flash drive or SD Card is connected to the device. Press Enter to view the folders and files in one of these storage locations.

You can navigate up and down to browse through your files and folders. Folder and file names are numbered consecutively on each drive. Folder names have a / symbol before them for easy identification. Press Enter on a folder to open it. Use the N-Left and N-Right keys to navigate the folder hierarchy.

5.2 File Manager Menu
Pressing S2 brings up the File Manager Menu. It has five items:

- Sort by name
- Sort by type
- Sort by date new first
- Sort by size
- Create Directory

5.3 File Manager Commands
Pressing S3 brings up the Context Menu of file commands. There are twelve items:

- Open
- Copy
- Cut
- Paste
5.4 Auto Copy from Cartridge
When you receive a cartridge containing braille books from your library, your eReader will be able to copy books from it automatically. Connect the cartridge to the included cartridge cable. Connect the cable to the USB-A port on the right side of the unit. After a few seconds, you will hear a two-tone sequence letting you know that the cartridge has been recognized. Then, you will see a progress indicator and the message "auto copy complete." The copied books will now be in your Book List and stored in the internal files of the eReader.

If you have the Powersave feature turned on, Auto Copy from Cartridge will only function when you are in the File Manager or the Book List.

6 Settings
The fourth item on the Main Menu is Settings. From the Main Menu, open Settings by navigating up or down until you reach Settings or pressing s (dots 2-3-4). When Settings is displayed, press Enter to open it.

6.1 The Settings Menu
The Settings Menu consists of ten items.

- Book Reader Settings
- File Manager Settings
- Braille Settings
- Device Settings
- Wifi Settings
- Bluetooth Mode
- USB Mode
- Drives on Reader
- Drives on Computer
- Restore Defaults

To change an item in Book Reader, File Manager, Braille, or Device settings, press the Space key to cycle through the available options. After changing any of these settings, be sure to arrow down to the bottom of the list and press Enter on the Ok button. Details for setting options in each section are provided in the next ten sections.

6.2 Book Reader Settings
The first item on the Settings Menu is Book Reader Settings. It has ten items. In the list below, the default value for each item is listed first.

- Condense: on or off. When condense is on, multiple blank lines will be reduced to one.
- Formatting: hide or show. When hide is selected, format markers are not visible.
- Leading spaces: on or off. When set to on, spaces at the beginnings of lines in a book or magazine will be shown.
- Trailing spaces: off or on. When set to off, spaces at the ends of lines in a book or magazine will not be shown.
- Convert to lowercase: off or on. When set to on, all characters in a book or magazine will be converted to lowercase.
- Line down: left edge or keep position. When set to left edge, moving down a line will move the reading position to the left edge.
- Autoscroll: off or on. When set to off, autoscroll cannot be activated in a book or magazine. This setting must be set to on for autoscroll to be available.
- Autoscroll: 1.00. This value can be set from .5 to 3.0 in increments of 0.25. This setting controls the number of seconds a line is displayed when autoscroll is activated. Changing the speed in the Book Reader will be stored here as your new default.
- Book: contracted or uncontracted. When set to contracted, a book or magazine will be displayed in contracted braille.
- Switch D2 and D5: off or on. When set to off, D2 pans backward and D5 pans forward. Setting this to on is particularly useful for right-handed braille readers.

6.3 File Manager Settings
The second item on the Settings Menu is File Manager Settings. There is one item.

- Del confirm: on or off. When set to on, you will be prompted to confirm deletion of a file or folder.
6.4 Braille Settings
The third item on the Settings Menu is Braille Settings. There are three items:

- Braille: 6 dot or 8 dot. When set to 6 dot, braille characters will be displayed with 6 dots.
- Cursor: Underline blink, full, full blink, or underline. When set to underline, the cursor is shown as dots 7 and 8 and does not blink.
- Device: contracted or uncontracted. When set to contracted, the braille shown on the device, such as menus and so forth is contracted.

6.5 Device Settings
The fourth item on the Settings Menu is Device Settings. It has nine items.

- Bluetooth on or off. When set to on, the device will be able to make a Bluetooth connection to external devices such as smartphones.
- Device tones: on or off. When set to on, the eReader will beep to indicate certain events.
- Device vibration: off or on. When set to off, the eReader does not vibrate to indicate certain events.
- Word wrap: on or off. When set to on, the device will not break words unless absolutely necessary.
- Menu wrap: on or off. When set to on, and the bottom of a menu is reached, continuing to navigate down will wrap around to the top of the menu. This will work the same way when the top of the menu is reached.
- Message timeout: 10, 15, 2, 3, 5. Sets the number of seconds a message will be displayed. If, at any time, you would like the message to remain on the display, press Cursor Routing button 1. To dismiss it, press Cursor Routing button 20.
- Powersave: off, on. When set to off, the unit will not use power-saving features. When set to on, the unit will turn off external drives 5 minutes after they are used. When entering File Manager, the display will read "checking drives," while the external drives are being powered on. Autocopy from cartridge can only be done from the File Manager or the Book List when Powersave is set to on.
- Autosuspend: 10 minutes, 30 minutes, 1 hour, off, 5 minutes. Sets the amount of time before an idle display will go into Suspend mode.
- Autopoweroff: 2.5 hours, 5 hours, 10 hours, no power off, 1 hour. Sets the amount of time that the device is in Suspend mode before powering off.
6.6 Wifi Settings
The fifth item on the Settings Menu is Wifi Settings. This is where you can turn Wi-Fi on or off, and where you will select the Wi-Fi network that you want to use.

When you first open Wifi Settings, you will see wifi on. Navigate down and you will see a list of available networks. When the name of your Wi-Fi network is displayed, press S3, the small, round key just to the right of BR, the right spacebar on the front.

The first item that will appear is Join. Press Enter. When you are prompted for the password, enter it in uncontracted UEB. This means that the at sign in an e-mail address is written as dot 4 then dot 1, and the period is written as dots 2-5-6. Numbers are written in the upper part of the cell preceded by a number sign; if a letter a through j follows a number, then it must be preceded by what UEB calls a grade 1 indicator, dots 5-6. After you have entered your password, navigate to Ok and press Enter.

If you prefer to change the braille code, press S3 for the Context Menu and navigate up and down for the available options. Use a cursor routing button to select your preferred form of braille. Enter your password in the selected form of braille.

6.7 Bluetooth Mode
The sixth item on the Settings Menu is Bluetooth mode. Press Enter on Bluetooth mode and your device will be ready to pair with or use a Bluetooth device. See Section 9.1 for details on connecting to a Bluetooth device.

6.8 USB Mode
The seventh item on the Settings Menu is USB mode. Press Enter on USB mode and your device will be ready to connect via USB. See Section 9.2 for details on connecting to a host device via USB.

6.9 Viewing Drives
The next two items on the Settings Menu are Drives on Reader and Drives on Computer. Each is preceded by a radio button. Only one of these can be selected at a time.

Drives on Reader is the default. When Drives on Reader is selected, the drives or storage locations on your device are visible from the device itself. This is done in the File Manager.

When Drives on Computer is selected, the three possible drives on the eReader, internal storage, SD Card, and USB drive, can be viewed with a computer. On a Windows PC, go into This PC to see these drives. On a Mac, you will see circuitpy and any external drives you have connected. To see those, open Finder and choose Computer.
6.10 Restore Defaults
Restore Defaults returns Book Reader, File Manager, Braille, and Device settings to their factory defaults.

7 Device Info
The fifth item on the Main Menu is Device Info. There are five items on this menu.

- Serial number: Displays the serial number of the device.
- Battery: Displays the current battery level.
- Wifi: When connected, displays the IP address of the current Wi-Fi connection and the name of the current network.
- App update: To update the eReader's software:
  - Press Enter on App update.
  - Navigate to the desired version.
  - Press S3 and navigate down to Install and press Enter.
  - When "version installed successfully" is displayed, navigate to OK and press Enter.
  - In a few seconds, the application will restart and you will be at the top of the Main Menu.
- Exit: This menu item will take you back to the Main Menu.

8 Battery
The sixth item on the Main Menu is Battery. The current battery percentage is shown here. When the battery is charging, the word "charging" will appear on the display after the battery percentage. The Battery item on the Main Menu is informational only. Pressing Enter will do nothing.

9 Connecting the eReader to External Devices
It is possible to connect your eReader to an external device such as a computer or a smartphone. When connected to such a device running a screen reader, the eReader will display the text from the connected device. This eReader is compatible with the following screen readers: JAWS, NVDA, TalkBack, and VoiceOver, and works with any Windows, Mac, Android, or iOS device. You can connect to a compatible device either through Bluetooth, or by connecting the USB-C cable included with your eReader to the host device.
9.1 Connecting to Other Devices via Bluetooth

9.1.1 Connecting to an iPhone or iPad
To use your eReader as a braille display for an iPhone or iPad, first you will need to pair the eReader with the iDevice. Follow the steps below to do this.

- On the eReader, select Bluetooth Mode from the Settings Menu. The display will read "BT." Alternatively, from anywhere, you can tap the Power On button and press a cursor routing button over BT.

- From the iPhone or iPad, select Settings, then Accessibility, then VoiceOver, then Braille. At the very bottom of the screen, after the text "Choose a Braille Display," you will find "NLS eReader Z" followed by the last five digits of your eReader's serial number, with the indication "not paired." Double tap this and VoiceOver will say the name of the device followed by "pairing...."

- You will then be prompted to enter your device's PIN. The PIN is 1111. Enter the PIN and double tap the Pair button above the keypad on your iDevice.

- When paired, braille from the iDevice should appear on your display. If your device is paired, and you don't see braille immediately, touch the screen of your iDevice.

- If you do not see NLS eReader on your iPhone or iPad, or the device does not pair, power off both devices, turn the eReader back on, and then turn your iOS device back on. Once both device are on, repeat the pairing process from the beginning.

9.1.2 Connecting to an Android Device
In order to use the eReader as a braille display for an Android device, the device must be running BrailleBack and TalkBack (the Android screen reader). You can find BrailleBack in the Google Play store accessed from your Android device. Once it's installed, open Settings, then Accessibility, then BrailleBack. Double tap the Use BrailleBack toggle to turn it on. A confirmation screen appears, asking whether to allow BrailleBack to have full control of your device. Choose Allow. You can now set BrailleBack settings as you like.

Next, turn on your eReader by pressing the Power On button, and choose Bluetooth from the Settings Menu. On your Android device, back out of Accessibility Settings, and choose Bluetooth, then Pair New Device. Find NLS eReader Z followed by the last five digits of your unit's serial number, and double tap. Enter the pairing code 1111 and choose OK.

Once you get a message that pairing is complete, content from your Android device's screen should appear on the braille display, and you should be able to enter commands. Press Space with I (dots 1-2-3) to see the available commands for the NLS eReader Zoomax.

9.1.3 Connecting to a Mac
To connect your eReader to a Mac, do the following:

- Turn on the eReader by pressing the Power On button, and press a cursor routing button over the word Bluetooth.
With the Mac screen reader VoiceOver running, press VO (Command and Option) with F8 to bring up the VoiceOver Utility.

- Press B to select Braille in the list of settings.
- Press VO-Right Arrow until you reach Displays, and press VO-Space to select it.
- Press VO-Right Arrow until you reach Add, and press VO-Space to select it.
- Find your display in the table listing Bluetooth devices. It's called NLS eReader Zoomax followed by your eReader's serial number.
- Press VO-Shift-Down Arrow to interact with the eReader row in the table.
- Press VO-Right Arrow until you reach Pair, and press VO-Space to activate it.
- When prompted, enter the code 1111 and press Return. Your eReader is paired.
- Press Escape to leave the Device selection screen. You can now use the Assign Commands button and other controls on the braille display page to configure your eReader.
- When you're done, press Command-Q to close the VoiceOver Utility.

9.1.4 Managing Bluetooth Connections
If you wish to turn Bluetooth off while you are in the main application, press Space with t (dots 2-3-4-5). You can use this same keyboard command to turn it back on if you wish.

9.2 Connecting to a Computer via USB
To connect the eReader to a computer running Windows or Mac via a USB connection, do the following:

- Select USB mode from the Settings Menu. The display will read "USB." Alternatively, from anywhere, you can tap the Power On button and press a routing button over USB.
- Connect the eReader to a Windows or Mac computer using the included charging cable connected to the USB-C port located on the right side of the eReader.
- Select the eReader device in the braille settings of your screen reader.

Once connected, the content of your host device will be shown on your braille display.
You will also be able to use your eReader as an external keyboard to write on your host device.

10 Help
The seventh item on the Main Menu is Help. Pressing Enter on Help will take you to a short menu:

- Keyboard Commands: a complete list of keyboard commands
- User Guide: the full text of the device's user guide
- Exit

Pressing Enter on Keyboard Commands or User Guide will open the document in the Book Reader. Until you open another book or magazine, this document will be your current book.
11 Suspend and Power Off
The last two items on the Main Menu are Suspend and Power Off. Pressing Enter on Suspend brings up a menu of two items: Yes—Suspend and No—Do not suspend. This is a way for you to manually put the device into Suspend mode.

Pressing Enter on Power Off brings up a menu of two items: Yes—power off and No—Do not power off. Press a cursor routing button over whichever one you want.

12 Keyboard Commands
This chapter provides a complete list of keyboard commands used on the Zoomax eReader.

12.1 Global Keyboard Commands
Go to Main Menu: S1 or Space with m (dots 1-3-4)
Open menu of current application: S2
Open Context Menu: S3
Open current book at last reading position: S4
Keyboard lock: S1-S4
Go to Book Reader: Space with b (dots 1-2)
Go to BARD: Space with a (dot 1)
Go to Settings: Space with s (dots 2-3-4)
Go to File Manager: Space with f (dots 1-2-4)
Go to Help: Space with h (dots 1-2-5)
Go to top of menu, list, or document: Space with l (dots 1-2-3)
Go to bottom of menu, list, or document: Space with dots 4-5-6
Escape or Back: Space with e (dots 1-5)
Switch braille grade: Space with g (dots 1-2-4-5)
Battery level: Space with braille number sign (dots 3-4-5-6)
Toggle Bluetooth on/off: Space with t (dots 2-3-4-5)
Tab: dots 6-8
Shift-tab: dots 3-7
12.2 Book Reader Keyboard Commands

Pan right: D5, N-Right, or BR  
Pan left: D2, N-Left, or BL  
Move one line up: D1 or N-Up  
Line mode, left edge or straight down: k (dots 1-3)  
Previous paragraph: a (dot 1)  
Previous page: 1 (dot 2) or D1-D2  
Previous volume: ' (dot 3) or D4-D5  
Next paragraph: ` (dot 4)  
Next page " (dot 5) or D2-D3  
Next volume: , (dot 6) or D5-D6  
Go to a specific line: D1-D2-D3 or l (dots 1-2-3)  
Go to a specific paragraph: braille ch-sign (dots 1-6) or D1-D6  
Go to a specific page: p (dots 1-2-3-4) or D1-D2-D3-D4  
Go to a specific volume: v (dots 1-2-3-6) or D1-D2-D3-D6  
Previous article: braille ar-sign (dots 3-4-5) with dot 7  
Next article: braille ar-sign (dots 3-4-5) with dot 8  
Go to specific article: braille ar-sign (dots 3-4-5) or D3-D4-D5  
Start Autoscroll: braille st-sign (dots 3-4)  
Decrease Autoscroll speed: braille st-sign (dots 3-4) with dot 7  
Increase Autoscroll speed: braille st-sign (dots 3-4) with dot 8  
Where am I? braille wh-sign (dots 1-5-6)  
Go to the beginning of book: Space with l (dots 1-2-3)  
Go to the end of a book: Space with dots 4-5-6  
Find text: f (dots 1-2-4) or D1-D2-D4  
Go to previous searched text: f (dots 1-2-4) with dot 7  
Go to next searched text: f (dots 1-2-4) with dot 8  
View list of all found text: f (dots 1-2-4) with dots 7 and 8  
Get book information: i (dots 2-4)  
Set bookmark: b (dots 1-2)  
Go to previous bookmark: b (dots 1-2) with dot 7
Go to next bookmark: b (dots 1-2) with dot 8
Delete bookmark on current line: b (dots 1-2) with dots 7 and 8
Word wrap on or off: w (dots 2-4-5-6)
Next line of text: t (dots 2-3-4-5)
Previous line of text: | (dots 1-2-5-6)

12.3 File Manager Keyboard Commands
The keyboard commands in this section apply to both files and folders.
Copy: Space with c (dots 1-4)
Cut: Space with x (dots 1-3-4-6)
Paste: Space with v (dots 1-2-3-6)
Delete: Space with d (dots 1-4-5)
Info: Space with i (dots 2-4)
Rename: Space with r (dots 1-2-3-5)
Open: Space with o (dots 1-3-5)
Select: Space or Cursor Routing button 1
Unselect: Space or Cursor Routing button 20
Select All: Cursor Routing buttons 1 and 2
Unselect all: Cursor Routing buttons 19 and 20