# Monarch FAQ

## Monarch Hardware

### Q: Why was it named the Monarch?

A: When students are taught to read correctly on paper braille, the gestures their hands perform to track and meet in the middle is often regarded as the “butterfly” method of learning to read. This is how Monarch got its name.

### Q: How big is the Monarch display area?

A: The Monarch has an approximate display area of 96x40 equidistant pins, utilizing 480 braille cells.

###  Q: What are equidistant pins?

A: The Monarch utilizes nine pins instead of the traditional six pins to allow for crisper tactile graphics resolution. When first trying out the Monarch, the user will notice a slight spacing between braille characters, but testing has shown that this becomes an insignificant change as the user grows accustomed to the technology.

### Q: What is Dynamic Refresh?

A: The Monarch display will not refresh properly while touching the tactile surface. However, the device uses the dynamic refresh feature to sense where your fingers are located, and when touch has been lifted, it will automatically refresh the display. Holding down the Action button between keys 1 and 4 will also perform a manual refresh.

###  Q: What is a Membrane?

A: The Monarch display has a cover or "membrane" which protects the mechanical pins underneath. Each new device is supplied with five replacement membranes. Testing has shown that there may be an initial identification from users that a membrane is there, but similar to equidistant pins, users notice the membrane less as they become accustomed to the technology.

### Q: Can I order extra membranes?

A: Yes, these will be available soon on the APH website. You will be able to find more info on the Meet Monarch page on aph.org.

### Q: How can I find the serial number of my Monarch?

A: From the Main Menu, press Space + I then navigate to Model. Press Enter and you will find the information listed there. It is also located on the back of the device on a braille label.

### Q: Can the Monarch connect to a monitor or display?

A: Yes, the Monarch has an HDMI port on the right side to allow connections to any standard monitor or television with HDMI input.

### Q: What is the difference between power off and sleep mode?

 A: Pressing the Power button on the left side of the Monarch once will put the Monarch into sleep mode, and pressing the Power button again will "wake" the device up. To turn off the Monarch completely, press and hold the Power button for three seconds and select "Power Off" when the "Tablet Options" notification screen comes up.

### Q: What do the vibrations/blinking lights mean on the Monarch when a power cable is plugged in?

A: When the Monarch is completely out of battery, you may see a rapid blinking light as it charges enough to turn on. Typically when you plug your Monarch in to charge, you will feel a vibration if the Monarch is turned on, telling you the unit is successfully charging. If powered off, you will see a charging screen appear that shows the percentage and an image of a battery charging.

### Q: What is Point-And-Click?

A: The Monarch tactile display contains a touch sensor slightly above the display. This sensor tracks the location of your fingers and allows you to interact with tactile elements on the surface. The Point-And-Click feature allows you to interact with items by, for example. routing your cursor in a document or choosing a location to zoom in to on a graphic. To execute a Point-And-Click, make sure only one finger is touching the display with all other fingers lifted. Touch the location where you want to take action on the tactile surface. With your other hand, single or double click the action button quickly. The action button is the circular button between dots 1 and 4. If done correctly, you will see the action taken on the location you were touching.

### Q: How long is the average battery life?

A: Up to 24 hours with standard usage. It is recommended to turn the Monarch off completely when you don’t plan on using the device for a while.

### Q: Does the Monarch have two volume settings?

A: Yes. Pressing Enter with dot 1 or dot 4 lowers and raises the speech volume. Pressing Enter with dot 2 or dot 5 lowers and raises the media volume.

### Q: Is the Monarch supportive of users who are DeafBlind?

A: Monarch is multimodal meaning it provides all feedback in braille, speech, and haptics.

### Q: How much storage space is on the Monarch?

A: 160 GB

### Q: What version of WIFI and bluetooth does the Monarch have?

A: WIFI 802.11ac – 2.4GHz and 5GHz. Bluetooth 5.1.

### Q: What are the dimensions of Monarch?

* A: Width
	+ 403.5mm (15.89in)
* Depth
	+ 266.5mm (10.49in)
* Thickness
	+ 35.5mm (1.40in)
* Weight
	+ 2.1 kg (4.65lbs)

## Monarch Software

### Q: What software is the Monarch using?

A: The Monarch is an Android-based device and utilizes KeySoft as the interface. If you have used any of HumanWare’s BrailleNote or Brailliant products, you may be familiar with KeySoft.

### Q: What are supported filetypes that can be opened using the Monarch?

A: The following filetypes are supported:

* APK
* BRL
* BRF
* Doc
* Docx
* EBRF
* EPUB
* JPG
* PDF images
* PDF documents
* PNG
* TXT
* APK

### Q: What files can I open in Braille Editor?

A: BRF and BRL files

### Q: What files can I open in Keyword?

A: TXT, PDF documents, Doc, Docx

### Q: How do I load a textbook onto my Monarch?

A: Currently you can open a BRF textbook in the Braille Editor app, or if you have an EPUB or Daisy textbook, these can be opened in the Victor Reader app. In 2025, eBraille textbooks will be available from APH and will be able to be read in the Victor Reader app. eBraille files have all the navigation capabilities of an EPUB file while retaining all the spatial formatting of paper braille.

### Q: When using the Word Processor, how many documents can I have open at once?

A: The Monarch can have up to 10 documents open at once. To toggle between two documents, press Space plus dots 1-2-5-6. If needed, you can add additional opened files by pressing Backspace + O (Dots 1-3-5) and using Space with dots 1-2-5-6 to switch between them. Before you shut your Monarch down completely, ensure you have closed your files.

### Q: What's the difference between Braille Editor and the word processor, KeyWord?

A: The Braille Editor is used to create, edit, or read braille documents such as BRF or BRL files. This is a great tool for students to take notes and work out spatial math problems. It basically works as an electronic braille writer. It is also a great way to read BRF books! Remember – this app has no braille translation built in. What you braille is what you get, so files created in the Braille Editor cannot be immediately translated to print for a sighted teacher.

KeyWord, on the other hand, is a full Microsoft Word style word processor. It can open .doc or .docx files, and anything typed in braille will be translated to print when you export the .docx file for a teacher who reads visually. KeyWord also includes a built-in math equation editor, similar to Microsoft Word on a PC. A student can open the equation editor, type their math content in Nemeth or UEB math, and when they close the equation editor, the braille math will be converted to print for a sighted classroom teacher when they open the file. Inversely, if a sighted teacher uses the equation editor in Microsoft Word to create a math assignment and sends it to a student using a Monarch, the math created in the equation editor will be shown as Nemeth or UEB math depending on the student’s preference, enabling them to independently complete STEM worksheets.

### Q: What is the KeyMath graphing application on the Monarch?

A: KeyMath is based on the Desmos graphing calculator. It can solve calculations from very simple to truly advanced. Nemeth, UEB math, or French math can be entered and converted to print. By pressing Enter with the letter G, the user can generate an instant tactile graph that they can explore on the tactile display. From there, if the graph and equations need to be copied into an accompanying Word document as a homework or test answer, pressing Backspace + E will export the content to the clipboard where it can be pasted in the KeyWord application.

### Q: How do I export graphs I've made in KeyMath?

A: When using the KeyMath Desmos-powered graphing calculator, a user can copy a graph onto the clipboard and paste it into a KeyWord .docx file (for a math assignment, as an example). Upon creating the graph, press Backspace + E (Dots 1-5) to copy that image to the clipboard. Open the .docx file in KeyWord, position your cursor where you want to paste the graph, and press Backspace + V. On the Monarch, you will see the braille math of the equation, but when a teacher opens the file in Microsoft Word, the image will be available visually. These commands can be found in the Context menu by holding the square button on the front edge of the Monarch.

### Q: What services can I connect to using the Victor Reader App?

 A: Bookshare, NFB Newsline, and Project Gutenberg are widely used in the U.S. There are many international options for locating books.

### Q: Can I add my own graphics that were not made by a tactile graphics artist?

 A: Yes, the Tactile Viewer app opens most tactile graphics created by users in a PDF format. Simply load the file onto a USB drive and transfer to the Monarch to view.

### Q: How can I send a file from my Monarch?

A: Currently the best way to provide your file to a sighted teacher or classmate is to save this file on a thumb drive and give them the thumb drive to open your file. To do this…

* 1. Open the file manager and find your folder where the desired file is located. Press Enter on that folder to open it.
	2. Navigate to the file you want to copy and press Backspace + Y (Dots 1-3-4-5-6) to copy it to the clipboard.
	3. With your thumb drive inserted, press Space + D to jump back to the drive list, navigate to your thumb drive in the list, and press Enter.
	4. Navigate to the folder you want to paste the file into, and press Enter to open it.
	5. Once in the desired location on your thumb drive, press Backspace + A to complete the action or navigate down to the “Copy” button to complete the transfer.

### Q: How can I switch between a book and a tactile graphic quickly?

A: The Monarch allows you to quickly toggle between two open apps by double pressing the square button on the front edge of the device, just like pressing Alt + Tab on a PC.

### Q: How will I get new apps on my Monarch?

A: New apps will be installed via the KeyUpdater app. You will be notified of pending updates when you are connected to WIFI.

### Q: Why does the internet browser say "Beta"?

A: Currently the internet browser "Ecosia" is still in a testing phase. Users may experience issues related to browsing, braille, speech, and website compatibility as we continue to improve how our browser operates. The main function of the beta browser now is to provide a way to connect to WiFi when connecting to the network requires the use of an internet portal.

### Q: I've never played Chess before; how do I learn Monarch Chess?

A: To help you mater the Point-And-Click gesture, we have developed the Monarch Chess app. It is located in your All Applications menu off the Main menu. Open Monarch Chess, and you will find a full Chess tutorial that will teach you the rules of the game.

### Q: Can I play Chess online with friends?

A: Not at this time, but this is something we hope to add in the future.

Q: Can the Monarch use a screen reader such as JAWS, VoiceOver, or NVDA?

A: APH and HumanWare are currently partnering with screen reader providers, and we expect the Monarch to be supported by 2026.

### Q: Does the Monarch have access to the Android Store?

A: Because the Monarch is a purpose-built specialized device, it is not Google Certified with the PlayStore.

### Q: Where can I download new apps for the Monarch?

A: When apps become available from APH, HumanWare, or our partner developers, they will be available on the KeyUpdater app found on the All Applications menu.

### Q: Can you disable speech output?

A: Yes, toggle speech with Backspace + Enter + S (Dots 2-3-4).

### Q: Can you emboss/print from the Monarch?

A: Yes, you can emboss or print from within KeyWord.

### Q: How do I sign In to Bookshare?

A: Open the Victor Reader app and select “Manage Libraries.” Select the book provider option and then choose Bookshare from the list. You will be prompted to sign in with your email and password. Once successfully signed in, you will see a new Bookshare item on the Victor Reader menu at the end. Select it and you can search the library with a WiFi connection.

### Q: How do I sign in to NFB Newsline?

A: Similar to signing into Bookshare, from the Victor Reader menu, choose Manage Libraries. Select “Magazine Providers” and choose the NFB Newsline option. Enter your username and password, and you will see NFB Newsline added to the end of your Victor Reader menu.

### Q: Can I listen to BARD audiobooks?

A: Not at this time. We are looking to add NLS Bard as a new library in the future.

### Q: Can I watch YouTube?

A: Yes, you can access YouTube via the internet browser.

### Q: How can I view a PowerPoint presentation on my Monarch?

A: We are working to add PowerPoint file support to the Monarch in the future. Currently you can save a PowerPoint file in outline form as a Microsoft Word file and open that file in the Word Processor.

### Q: Can I view an Excel document?

A: Not at this time, but this is an app we are hoping to add in the future,

### Q: How will a text PDF open?

A: Accessible PDFs can be opened via the Word Processor app.

### Q: Is there a music player and can I play it in the background?

A: No, there is no music player at this time.

## Troubleshooting and Miscellaneous

### Q: How do I connect to WiFi?

A: Follow the instructions below:

* 1. From the device’s Main Menu, press Enter + Q (Dots 1-2-3-4-5) to open the Quick Settings screen
	2. Select Network and Internet and press Enter
	3. Select Internet and press Enter
	4. Ensure the WIFI checkbox is checked by pressing Enter with it selected. You should see that WIFI is turned on when a full cell appears in the box next to Wi-Fi.
	5. Navigate down to your desired network name and press Enter on it.
	6. If a password is needed, type it now using computer braille and press Enter.
	7. If your organization uses a web portal to connect to the internet rather than a password, you should see a webpage appear instead of a password field. Navigate to your username / password field on the webpage and press Enter to activate them to fill in the information.
	8. Once connected, you will see the word “Connected” next to your network name in the list.

### Q: Is there a command for commonly used keystrokes?

A: Throughout the KeySoft system, you can always find relevant key commands by accessing the Context menu. To access the Context menu, hold the square button on the front edge of the device or press Space + M (Dots 1-3-4).

### Q: What should I do if an app stops working?

A: In the event an app crashes or is not functioning correctly, our first recommendation that usually fixes the problem is to completely close and reopen the app. To remove an app from the recent apps list, tap the square button on the front edge of the device to open the Recent Apps list, navigate to the malfunctioning app, and close it by pressing Backspace + dots 2-3-5-6.

### Q: What is a Factory reset and why would I use it?

A: A factory reset is the "last resort" option of troubleshooting a Monarch, which will reset the device to the default settings when the device was shipped originally. All personal data will be removed from the device during this process. To complete a factory reset:

1. From the Main Menu navigate to "All Applications"
2. In All Applications navigate to "Settings."
3. In Settings navigate to "System."
4. In System navigate to "Reset Options"
5. Choose Reset to "Factor Default."

### Q: How do I adjust Braille grade/language tables?

A: The Monarch allows for multiple language profiles to be created. This is specifically valuable for students or users who are multilingual or learning another language. To set up a language profile, open the Options menu by pressing Space + O (Dots 1-3-5). The first option is “Configure Language Profile.” Select this and press Enter. The Monarch by default has one language profile called “Primary Language Profile.” Select this item and press Enter to change many aspects of the language profile, including the text-to-speech language and voice, the preferred braille codes, etc.

## Q: My Monarch arrived in uncontracted braille, how do I change this to contracted?

A: Open the Options menu and activate the “Configure Language Profile” item. Activate the Primary Language Profile, and select the item called “Literary Braille Table.” Ensure this is set on English UEB Duxbury Grade 2.

### Q: How do I submit an issue report?

A: If you find an issue with your Monarch, please contact our customer service Monarch team at monarchsupport@aph.org or (833) 447-8444.

### Q: How can I manually refresh the screen?

A: If your Monarch’s display is not refreshing properly, you can force the entire display to refresh by removing your hands from the display and holding the circular Action button between dots 1 and 4 for 2 seconds.

### Q: Who do I contact for customer support for the Monarch?

A: You can contact our Monarch Support team at (833) 447-8444 or monarchsupport@aph.org.

### Q: Where can I locate training materials for the Monarch?

A: You can find support and training material from the APH Monarch website found at https://www.aph.org/meet-monarch/ or through APH’s free training resource the Hive found at https://aphhive.org/#/catalog/course/3190. Attending training courses on the APH Hive also offers the opportunity to receive ACVREP credit.

### Q: What information should I provide to my IT department regarding the Monarch?

A: Depending on your IT administrator and requirements, it is suggested to explain the Monarch as:

* + An Android tablet style device running Android 13
	+ The Monarch stays up to date with all of Google’s security patches
	+ The Monarch has a web browser but is not Google Certified, meaning it does not have access to the Google Play store
	+ If the school requires the student to access the network via a web portal, this can be done through the Monarch’s web browser

### Q: What should I expect from future software updates for the Monarch?

A: HumanWare and APH will be constantly working to update the Monarch with new apps, features and fixes. All updates can be installed through the KeyUpdater app. The easiest way to do this is with a WiFi connection.

### Q: What warranty comes with the purchase of the Monarch?

A: Monarch comes with a 2-year manufacturer warranty. Extended care packages can be purchased for additional warranty coverage.

### Q: What should I do If liquid is spilled on the display?

A: The Monarch’s protective membrane will protect the braille cells from liquid spills. However, it is important that you wipe the spill off as quickly as possible.

### Q: How do I clean my Monarch?

A: A slightly damp cloth can be used to wipe off the device including its tactile display.

### Q: Can I fly with the Monarch?

A: Yes, Monarch can travel in carry-on luggage.

### Q: I am in a math class. Is it possible for my math teacher to provide me worksheets that I can access on my Monarch?

A: Using the Microsoft Word equation editor, a math teacher can create a worksheet in Microsoft Word. They can save that file as a .docx file ,and if you open that file on your Monarch, all the print math created in Word will convert to your preferred braille math code, which you can read in braille. If you need to add math content into the document (e.g., equations, graphs, etc.), you can insert these by entering Math Mode with Enter + M. In Math Mode, you can type your math using your preferred braille math code, and when finished, press Enter + M again to toggle Math Mode off. The math content created will convert to print when saved as a .docx file in KeyWord. Note: if using Monarch connected to a visual display, the newly created math content will show up as braille symbols until you enter the Print Preview mode with Enter + V.

### Q: I am a teacher, and it would be helpful if I could see the braille content on the visual screen. Is this possible?

A: Monarch has a visual braille setting that can be enabled. Do the following to toggle it on/off:

* 1. Press Space + O (dots 1-3-5) to open the Options menu.
	2. Choose Miscellaneous Settings.
	3. Toggle Visual Braille Output to On.
	4. You will now see the braille dots overlay along with a representation of where the student is touching.

### Q: I am seeing $P and $L in my documents representing new lines and paragraphs. Can these be turned off?

A: Yes. To turn off those characters, do the following:

* 1. Press Space + O (Dots 1-3-5) to open the Options menu.
	2. Select Braille and Navigation Settings.
	3. Choose Format Markers Rendering.
	4. Select No Format Markers.

### Q: What age is right for the Monarch?

A: The Monarch can assist a student with a wide variety of tasks. We have found that with younger students in the first or second grade, using the Monarch to complement paper braille activities has been well received. Showing a student a graphic on paper, and then comparing it to the experience of seeing a graphic on the Monarch can create a technological relationship. In addition, having a student read books or material on the Monarch teaches them the same reading skills as if they were reading on paper braille.

We have seen students in fifth grade and above take off with the Monarch and use all its features from reading novels to solving complex math equations.

### Q: I'm trying to load a book, but I keep getting an error:

A: If there is an error when trying to import a book, it is most likely that the Monarch has never connected to the internet. To resolve this, the Monarch must connect to the internet at least once.