

Orbit Reader Q20 and Q40 User Guide

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1 Introduction



The Orbit Reader Q20 and Orbit Reader Q40 are portable, refreshable braille displays and stand-alone readers with the following features:

- The Orbit Reader Q20 has a line of 20 braille cells, while the Orbit Reader Q40 has 40 braille cells with pins that arrange into the required pattern to accurately represent any six- or eight-dot braille code, in any language, and for any discipline.
- The Orbit Reader Q20 includes 20 cursor routing buttons, one for each braille cell, while the Orbit Reader Q40 includes 40 cursor routing buttons.

- Full-size, high-quality QWERTY keyboard with sculpted keys
  - Full Set of 78 keys
  - Twelve Function keys
  - Arrow keys in an inverted-T configuration
  - Keys for use with Windows and Mac computers
  - Four Thumb keys for easy navigation
- Reads the contents of files on an SD™ (Secure Digital) card or USB drive in the Stand-Alone Mode
- Remote connectivity to PCs and mobile devices for use with a screen reader
- On-board translation from text to braille and from braille to text
- On-board support for contracted braille
- On-board support for over 40 languages, including UEB, Hindi.
- Simple editing functions
- Audio and vibration indications
- Onboard utilities such as Calculator, Calendar, and Alarm
- Signage-quality braille

The key difference lies in the number of braille cells and cursor routing buttons: the Orbit Reader Q20 has 20cells, while the Orbit Reader Q40 has 40 cells.

2 How are Orbit Reader Q20 and Q40 Used?

2.1 Stand-Alone Mode

Content stored on an SD card is read in one of three ways:

- Sent by library.
- Prepared on a computer and copied to the device.
- Using onboard translation

In Stand-Alone mode, both the Orbit Reader Q20 and Q40 display the contents of files stored on an SD card (or USB thumb drive). It supports text to braille and braille to text translation on-board for English, Hindi and over 40 other languages. For English, it supports translation to and from contracted and uncontracted braille. In addition, it can be configured to translate contracted braille into other languages. Please refer to the localization section in this guide for more details.

2.2 Remote Mode

Connect the device to a computer or mobile device with a screen-reader and then do one of the following:

- Read commercially available titles on Kindle™, Adobe® Digital Editions, or Apple Books® application programs.
- Employ any accessible technology for browsing, utilities, and education.
- The screen reader translates text into Braille code of choice.

3 Transcribed Braille

There are multiple sources for files that are transcribed into high-quality braille. Below are some examples:

- National Library Service (NLS) provides professionally transcribed, formatted files through the Web Braille project.
- RNIB Reading Services offers professionally transcribed braille titles.
- National Braille Press (NBP) produces braille books, textbooks, tests, and information for adults and children.
- Louis Database lists titles produced by over 160 organizations American Printing House for the Blind (APH) transcribes textbooks for K-12 students.

4 Automatic Translation

In addition to professionally transcribed titles, you may also use dynamic translation to obtain braille.

Automatically translated braille may be appropriate for some forms of reading.

- Book share® dynamically generates braille formatted files from the titles in its library.
- Sugamya Pustakalaya is India's first and largest collection of accessible books. Users can access a collection of over 3,28,900 books, maintain their individual reading shelves online and download books in chosen formats.
- NFB-NEWSLINE® is a free audio information service, providing downloadable Braille files of up-to-the-minute content from over 400 national, international, and state newspapers.

5 Translate Braille

- The Orbit Reader Q20 and Q40 have built-in forward and reverse braille translation functionality. This is controlled by the profile selected from the menu.
  - Braille Blaster™ is a full-featured transcription software package for creating quality formatted braille.
  - DAISY™ Pipeline provides a comprehensive solution for converting text documents into accessible formats,
  - Send to Braille is a shortcut that adds braille to the Windows® Send To menu, which can convert files on your computer into unformatted BRF (Braille Ready Format) files.

6 Documentation Conventions

For consistency and clarity, we have used the following conventions in this document.

If multiple key combinations are required, the documentation indicates those keys like this: CTRL + G, Alt + F1, etc. Modifiers like the Shift key on a regular QWERTY keyboard, are keys you hold down while pressing another key. This modifies the effect of the pressed key.

The words Keys and Buttons are used interchangeably.

In the descriptions of each Menu option, this documentation indicates the default setting.

Any reference to navigation by “page” while in Stand-Alone mode only means navigation by 1000 characters (page = 1000 characters).

7 In the Box

The Orbit Reader Q20 and Q40 package typically includes the following items:

- The Orbit Reader Q20 or Orbit Reader Q40 unit
- USB Type-C cable
- AC adapter
- SD card
- A Quick-Start guide in large-print

Depending on where you have purchased the Orbit Reader Q20 or Q40 from, you may receive a different set of accessories. Check that all purchased items are in the box that you have received.

Note that some distributors may ship the unit with SD card already installed in the machine.

8 Features

Orbit Reader Q20 and Q40 have the following features:

- The Orbit Reader Q20 has 20 refreshable eight-dot braille cells, while the Orbit Reader Q40 has 40 refreshable eight-dot braille cells. Both models can display both 6-dot and 8-dot braille symbols.
- A cursor routing button above each braille cell
- Onboard forward and backward braille translation
- Bluetooth® wireless technology supports simultaneous connections to 5 devices.
- Clock function also time-stamps files when they are created or edited.
- Calculator, calendar, and alarm applications
- Audio and vibration indications
- 78-key QWERTY Keyboard
- Four Thumb keys
- USB Type-C charging and communication port
- Full-size SD card slot
- USB Host port to connect to a USB drive.
- Two rocker keys for panning
- User-replaceable rechargeable battery

9 Orientation

The orientation of buttons, keys, cells, and slots is important for understanding how Orbit Reader Q20 and Q40 operate and how you input and receive information on your braille display.

To begin with, place the device on a flat surface in front of you with the row of braille cells closest to you. This is the proper operational orientation.

9.1 Top view of Orbit Reader Q20



9.2 Top view of Orbit Reader Q40



9.3 Side view of Orbit Reader Q20 and Q40

On the right side of the device, from front to back, is the Power button (front), USB Type-C (center), and 3.5mm Audio Jack (back). The USB port has one bump below it (shown in the image below)



On the left side of the device is the standard USB A host port (shown in the picture below).



9.4 Back view of Orbit Reader Q20 and Q40

At the backside of the device, is the SD card slot. The SD card slot is a standard type with spring feedback. The SD card is inserted with the card connector fingers facing down. To remove the card, press in and remove your finger to allow the card to pop out (shown in the picture below).



9.5 Key Locations and Use of Orbit Reader Q20 and Q40

When properly oriented, the four thumb keys are closest to you. We will refer to them as Thumb Keys 1 through 4, starting from the left. These keys are used for easy navigation and control. This detailed layout ensures that users can efficiently navigate and utilize the Orbit Reader Q20 and Q40 for reading, writing, and managing files.

Above the four thumb keys there is a braille display—20 cells for the Orbit Reader Q20 and 40 cells for the Orbit Reader Q40. The panning keys are at each end of the braille display. See the Panning Keys section for more information.

For orientation purposes, there are seven slightly raised tick marks located above the braille cells on Q20 and 3 on Q20. These orientation marks are spaced at every fifth braille cell. For example, the first tick mark from the left is between the fifth and sixth braille cell.

There is a cursor routing button above each braille cell.

Refer to the following images for the key locations on the Orbit Reader Q20 and Q40. The key locations are the same for both devices.

The only difference between the Orbit Reader Q20 and Q40 is the number of braille cells and cursor routing keys. The Orbit Reader Q20 has 20 cells with 20 cursor routing keys, while the Orbit Reader Q40 has 40 cells with 40 cursor routing keys, corresponding to the number of braille cells on each device.





Moving towards the top and away from you and above the cursor buttons, is the 78-key QWERTY keyboard, having 12 function keys and arrow keys in an inverted-T configuration.

In Stand-Alone mode, the QWERTY keyboard keys are used for navigation and editing/writing.

In Remote mode, while using the display with a screen reader on a host device, like an iPhone, the QWERTY keyboard input keys can be used to input text or control the functionality of applications on the host device.

The QWERTY keyboard consists of 6 rows. Below, each key is listed in order from left to right, along with its basic usage with various devices. The layout and functionality apply to the US English keyboard layout. The description is as follows:

Top Row (Function Keys and Esc)

- **Esc** (top left): Escape key, used to cancel operations or close pop-up windows when connected to host devices. In stand-alone mode, used also to bring the menu in the editor or select various menu items.
- **F1**: Typically used for help menus or specific application functions.
- **F2**: Used for renaming files or other shortcuts.
- **F3**: Often used for search functions.

- **F4**: Used to close windows (Alt + F4 closes the current window) when connected to Windows devices.
- **F5**: Commonly used to refresh a webpage or document.
- **F6**: Used for moving the cursor to the address bar in web browsers.
- **F7**: Can be used for spell checking.
- **F8**: Used to enter Windows startup settings.
- **F9**: Used for refreshing or launching apps.
- **F10:** Activate the menu bar or mute volume.
- **F11:** Toggle full-screen mode.
- **F12:** Opens developer tools in browsers.
- **Del (top-right)**: Deletes the character in front of the cursor.

Second Row (Number Row)

- **` ~**: Grave accent and tilde key.
- **1 !**: Number one and exclamation mark when Shift is pressed.
- **2 @**: Number two and the at symbol when Shift is pressed.
- **3 #**: Number three and hash/pound sign when Shift is pressed.
- **4 $**: Number four and dollar sign when Shift is pressed.
- **5 %**: Number five and percent sign when Shift is pressed.
- **6 ^**: Number six and caret symbol when Shift is pressed.
- **7 &**: Number seven and ampersand when Shift is pressed.
- **8 *:** Number eight and asterisk when Shift is pressed.
- **9 (**: Number nine and left parenthesis when Shift is pressed.
- **0)**: Number zero and right parenthesis when Shift is pressed.
- **- _**: Hyphen/minus and underscore when Shift is pressed.
- **= +**: Equals sign and plus sign when Shift is pressed.
- **Backspace**: Deletes the character to the left of the cursor.

Third Row (Alphabet Row)

- **Tab**: Used to move between fields or indent text.

- **Q W E R T Y U I O P**: Standard letters, from Q to P.
- **[{**: Left bracket and left curly brace when Shift are pressed.
- **] }**: Right bracket and right curly brace when Shift are pressed.
- **\ |**: Backslash and pipe symbol when Shift is pressed.

Fourth Row (Alphabet and Command Keys)

- **Caps Lock**: Toggles capital letters on or off.
- **A S D F G H J K L**: Standard letters, from A to L.
- **; :**: Semicolon and colon when Shift are pressed.
- **' "**: Apostrophe and quotation mark when Shift is pressed.
- **Enter**: Confirm commands or move to the next line when typing.

Fifth Row (Alphabet and Command Keys)

- **Shift (left)**: Modifier key used for typing capital letters and accessing special characters.
- **Z X C V B N M**: Standard letters, from Z to M.
- **Comma** and less than sign when Shift is pressed.
- **. >**: Period and greater than sign when Shift is pressed.
- **/ ?**: Forward slash and question mark when Shift is pressed.
- **Shift (right)**: Same as left Shift, but on the right side of the keyboard.

Bottom Row (Modifier Keys and Navigation)

- **Ctrl (left)**: Modifier key used in keyboard shortcuts.
- **FN**: Function key, used in combination with other keys to access special functions.
- **Start**: The Windows key opens the start menu.
- **Alt (left)**: Modifier keys are often used in combination with other keys.
- **Spacebar**: Inserts space between words or characters.
- **Alt Gr (right)**: Modifier key used to access additional characters on some keys.
- **Ctrl (right)**: Same as left Ctrl, but on the right side of the keyboard.

- **Arrow Keys (Up arrow, down arrow, left arrow, and right arrow)**: arranged in an inverted T shape. Used for navigating through text or UI elements.

Special Function keys

- **Home (FN + Left arrow)**: Move the cursor to the beginning of the line or to the first item in a list.
- **Page Up (FN + Up arrow)**: Scrolls up by pages.
- **Page Down (FN + Down arrow)**: Scroll down by pages.
- **End (FN + Right arrow)**: Moves the cursor to the end of the line or to the last item in a list.
- **Pause (FN + F9)**: This key is usually for pausing a process or for system pauses on Windows.
- **Scroll Lock (FN + F10)**: Toggles the scroll lock function, which is rarely used.
- **Insert (FN + F11)**: Toggles between inserting text and overwriting text. Note: for screen reader operation, we recommend using a laptop layout which uses caps lock as the main screen reader modifier.
- **Print Screen (FN + F12)**: Captures the current screen to the clipboard.

Consumer Function keys

- **FN Lock (FN + F1):** Toggles the function key lock, which changes the behavior of the F1-F12 keys between their standard functions and the secondary functions shown on the keys.
- **Mute (FN + F3):** Mutes the system sound.
- **Volume Down (FN + F4):** Decreases the system volume.
- **Volume Up (FN + F5):** Increases the system volume.
- **Previous Track (FN + F6):** Skips to the previous track in media playback.
- **Play/Pause (FN + F7):** Plays or pauses the current media track.
- **Next Track (FN + F8):** Skips to the next track in media playback.

9.6 Panning Keys

The Panning keys are two-function rocker keys found at either end of the braille display. These keys control how you read the lines of the text: either next or

previous. Pressing on one end of the key results in one action, while pressing on the opposite end results in the opposite action.

To read the next display of text (panning forward), press the bottom part of the key (down) on either Panning key. To read the previous display of text (panning backward), press the top part of the key (up) on either Panning key.

9.7 8-Dot Braille Cells

The Orbit Reader Q20 and Q40 are six-dot braille devices with two additional dots below Dot 3 and Dot 6. These two additional dots are Dot 7 and Dot 8, which are used to indicate capitalization while reading and editing the file in 8 dot mode. These dots also indicate a selected item in the menu, text with attributes or accent marks or a cursor. Their exact use depends on the application you use with the display.

10 Getting Started

The Orbit Reader Q20 and Q40 have two modes: Stand-Alone mode and Remote mode. In Stand-Alone mode, the device is a book reader that uses an SD card or a USB drive as storage media. In Remote mode, the device works like a braille display and needs to be connected to a computer or other host with a screen reader.

This section explains how to charge, turn the device on and off, insert the SD card/USB drive, and enter and exit the menus.

10.1 Charging the Device

When you receive the Orbit Reader Q20 or Q40, it may be already charged; however, we recommend that it should be fully charged before or during first use. You can use the device and charge it at the same time, so it saves reading time. When the battery gets to 10% of its capacity, Dot 8 of the last braille cell (the 20th cell for the Orbit Reader Q20 and the 40th cell for the Orbit Reader Q40) starts blinking on and off. This behavior is normal and indicates that the battery is low.

To charge the device, use the standard USB-A to Type-C USB cable and the charger provided with the unit. Insert the small end of the cable into the USB Type-C port of the Orbit Reader Q20 or Q40. The connector should slide in smoothly without resistance; do not force it. Now insert the large end of the cable into a computer’s USB A port or the charger plug provided. Plug the charger into an AC mains outlet.

If the device is on when you connect the charger, the display shows "-- Charger connected". When you unplug the charger, it shows "-- Charger unplugged". The charger plugged and unplugged indications are displayed briefly even when the

unit is off. The language of the message depends on the language you select for system messages from the menu. By default, the language will be UEB Grade 1 (uncontracted).

For more information, see the Battery section under the Menu.
If you have charged the device for 4 hours or longer, and it does not power on, contact Customer Service at techsupport@orbitresearch.com

10.2 Power On and Off

A square Power (on/off) button is located on the right face of the device. See the Orientation section for more information.

To power on the device, press and hold the power button for 2 seconds. If for some reason the powering on process takes more time, the Orbit Reader flashes the braille cells from left to right to let you know that it is powering on.

When you turn the device on, the Orbit Reader Q20 or Q40 resumes from the place you left. If you are using the device or inserting the SD card/USB drive for the first time, the Orbit Reader Q20 or Q40 shows the first file or folder name on the SD card.

The Orbit Reader displays, “SD card [no media]" when the SD card slot is empty.

To turn off the device, press and hold the Power button for two seconds. The braille cells flash from left to right to indicate the device is powering down.

The Orbit Reader Q20 and Q40 have a low-power standby/sleep mode. Quickly tapping the Power button puts the unit in sleep mode. Tapping the Power button while the device is in sleep mode wakes the device. While editing or when connected to Bluetooth, if no keys are pressed for an hour, the unit automatically goes into sleep mode. Otherwise, the device goes to sleep after 10 minutes of inactivity. After five hours in sleep mode, the unit shuts off to conserve power.

10.3 Inserting and formatting the SD Card

The device comes with an inserted SD card with translated braille files already on it, so that you can quickly learn to use the device by reading the material.

The Orbit Reader Q20 and Q40 use standard full-size SD cards from 4GB to 32 GB in capacity. The card must be formatted as FAT32. There is no way to format a card on the device. Most cards have already formatted. However, you can format one as FAT32 on a desktop computer for use with the Orbit Reader Q20 or Q40.

To insert the SD card, find the large slot at the back.

On one of the short sides of the SD card, there are some ridges called fingers or teeth. Position the SD card with the teeth facing down. Now insert the short side with teeth into the device. The SD card should go smoothly until it gets about a quarter of an inch from being fully in the device. At this point, you feel slight resistance. The card slot works like a toaster, gently push the SD card in until you hear a click. The card is aligned with the rear edge when properly inserted.

To remove the card, press it in a little until it pops out and then gently remove it.

10.4 Inserting a USB drive

The Orbit Reader Q20 and Q40 come with a standard USB A host port. You can insert a USB flash drive and read its contents. It shows the message “-- USB drive inserted” when the flash drive is plugged in. You can copy or move content from the flash drive to the SD card and vice versa.

The Orbit Reader Q20 and Q40 can support Flash drives up to 32 GB in capacity. The drive must be formatted in the FAT32 format. It is not possible to format a USB drive on the Orbit Reader Q20 or Q40. You use a Windows or Mac computer to format the drive.

10.5 About Menus and File Names

The Orbit Reader Q20 and Q40 show internal menus and file names according to the language selected from the menu.

10.6 Entering and Exiting Menus

- To Open the menu, press Windows Key + P.
- To Exit the menu, press Backspace.
- To Move through the menu choices, press the Up or Down Arrows
- To See choices within a menu option, use the Right and Left Arrows
- To Select a menu item, press ESC.

10.7 Device Operational Modes

The Orbit Reader Q20 and Q40 have two functional modes. Stand-Alone mode and Remote mode.

Stand-Alone mode is the default operational mode and allows you to read, edit, and browse files without being connected to another device. An SD card or USB drive must be inserted in the Orbit Reader Q20 or Q40 while operating in Stand-Alone mode. See the Stand-Alone Mode section of this document for more information.

Remote mode allows you to connect the Orbit Reader to iPhone®, iPad®, and Android™ mobile devices, as well as desktop computers. In Remote mode, Orbit Reader Q20 and Q40 act as an input and output device for the remotely connected host via USB or Bluetooth. See the Remote Mode section of this document for more information.

To move back and forth between Stand-Alone and Remote modes, use the following commands:

- To switch to Remote mode: press CTRL + Right Arrow
- To switch to Stand-Alone mode: press Thumb key 1 + Thumb key 2

The Stand-Alone mode provides the following features:

- Menu
- File Manager
- Reader
- Editor

Remote mode connects in the following ways:

- Bluetooth
- USB: HID (Orbit), Braille-HID, Serial, or Mass Storage

10.8 Languages and Translation

Orbit Reader Q20 and Q40 support multiple languages. They following languages are pre-loaded on the unit:

- UEB Grade 1 (uncontracted)
- UEB Grade 2 (contracted)
- USA computer braille (8 dots)
- USA English Grade 1 (EBAE)
- USA English Grade 2 (EBAE)
- Hindi

More than 40 other languages can be loaded from the SD card. These include:

- Arabic Grade 1
- Arabic Grade 2
- French 6-dot Braille
- French 8-dot computer braille
- French Grade 2
- German Grade 1

- German 8-dot computer braille
- Spanish Grade 1
- Spanish Grade 2

You can configure the Orbit Reader Q20 and Q40 to use the same or different languages for the system messages and to read/write files. For example, you can have the system menu and messages to be in your local language while you work with UEB Grade 1 (uncontracted) files with the reader/editor or vice versa.

For this, there are language profiles that can be selected and configured from the menu. Alternatively, you can switch between different profiles using the hotkeys. Please refer to the section ‘Setting up the languages’ for more details.

While typing you need to enter the key inputs as per the language selected. For example, if you have selected UEB Grade 1 (uncontracted), you must type in UEB Grade 1 (uncontracted) only. This applies to any key input you provide such as typing for the Find command, or for renaming the file.

11 The Menu

The Orbit Reader Q20 and Q40 provide a menu for setting options, checking the battery, and changing modes of operation.

To open the menu, press the Windows + P keys. Battery Status is the first menu option displayed.

Some menu options let you select from among several choices. For example, the Sort option allows you to choose one of the various options for arranging files in the file manager. Other menu options provide information about the device, such as serial number and version. The selected option is underlined with Dots 7 8.

To scroll through the other possibilities, press the Right Arrow key. To select the option, press Enter. The Orbit Reader Q20 and Q40 respond by underlining the word with Dots 7 and 8 to indicate the choice.

To move to another menu item, press the Up or Down Arrow key. When you get to the end of the list of options and press the Down Arrow key, the Orbit Reader Q20 and Q40 move back to the top menu item. Similarly, when you press the Up Arrow from the first menu item, The Orbit Reader Q20 and Q40 move to the last item in the list. This feature allows quick access to the last few menu items and so some options that may be used frequently are located at the bottom of the menu list.

To close the menu and return to your work, press Backspace.

11.1 Setting up Languages

The Orbit Reader Q20 and Q40 come configured to support UEB Grade 1 (uncontracted), UEB Grade 2 (contracted), USA English Grade 1 (EBAE), USA English Grade 2 (EBAE), USA Computer Braille (8 dot), and Hindi. Additional language files can be loaded from the SD card. Please refer to the localization section in this guide for more details.

Note: BRF cannot be configured as the system language.

You can also configure the encoding type of the text file.

To allow easy configuration of languages and switching between languages, four language profiles (Profile 1, 2, 3, 4, and 5) are provided. Each profile has options to choose the System Language, Read/Edit Language and Editor Encoding.

11.1.1 System Language

The System Language setting allows you to set the language of the system messages and menu options.

11.1.2 Read/Edit Language

The Read/edit Language setting allows you to read or edit the content in the desired language.

Following is the list of languages that can be set as System language and/or Read/Edit language.

- Eng uncontracted (USA English Grade 1)
- Eng contracted (USA English Grade 2)
- eng_8-dot-computer (USA Computer Braille (8 dot))
- b (BRF format files)
- UEB Grade 1 (uncontracted)
- UEB Grade 2 (contracted)
- Hindi
- Additionally loaded Languages from SD card

11.1.3 Editor Encoding

The Editor Encoding setting applies to new files only and allows you to save the file in the desired encoding format. Encoding is how the data is stored internally in the text file. There are pros and cons to each of the encoding systems. If you are not sure which encoding to use, we recommend using UTF-8. More details on encoding can be found at https://en.wikipedia.org/wiki/Character_encoding

It has the following options:

- UTF-8

- Unicode-16LE
- Unicode-16BE
- ANSI

The hot keys for switching between profiles are Alt + F1, Alt + F2, Alt + F3, Alt + F4, and Alt + F5 for profiles 1, 2, 3, 4, and 5, respectively.

If you accidentally select an unfamiliar language, press Alt + F1, Alt + F2, Alt + F3, Alt + F4, and Alt + F5 restores the default profile.

11.2 Menu Availability

The menu is available for the Remote and Stand-Alone modes. Press Windows Key + P to open the menu in either mode.

To exit the menu and return to the previous mode, press Backspace.

11.3 Menu Options

Some of the Menu options have a default setting (indicated in the list below). For most of these options, you can move among alternatives by pressing the Right or Left Arrows and then pressing Select. Selected items are underlined with Dots 7 8. Refer to the specific section for further information.

- Battery
- Cursor Blink (1)
- Sort (Name: Ascend)
- Split Words (Off)
- Filter Dot 7 (On)
- Wrapping (On)
- Compress Spaces (On)
- Indents (On)
- Scroll rate (4)
- System Sound (Off)
- Navigation Sounds (Off)
- Error Sounds (Off)
- Volume (3)
- Vibration (On)
- Profile 1.
- Profile 2.
- Profile 3.
- Profile 4

- Profile 5
- Add language
- Remove language
- Version.
- Audio version.
- Serial Number.
- Reset Defaults
- Date Format (dd-mm-yyyy)
- Time format (12 hours)
- Clock Settings
- Alarm 1
- Alarm 2
- USB (HID)
- Bluetooth mode (Auto)
- Pair (Just Works)
- Mode (Stand-Alone)
- Bluetooth scan
- Manage connections
- Config thumb keys
- Maintenance Status
- Auto sleep Status
- Braille Input (OFF)

11.3.1 Battery

The Battery status menu item displays the amount of energy remaining in the battery as a percentage of the total capacity of the battery. When the battery in the Orbit Reader Q20 or Q40 gets to 10%, Dot 8 of the last braille cell (the 20th cell for the Orbit Reader Q20 and the 40th cell for the Orbit Reader Q40) on the display blinks on and off. This behavior is normal, indicating that the battery is low.

When the unit is plugged in for charging, the message "-- Charging XX%" is displayed, where XX is the remaining energy in percent.

11.3.2 Cursor Blink (1)

The Cursor Blink option works only while editing in the Edit Box or Editor mode. This option allows selecting the number of seconds between blinks. The default setting for the Cursor Blink option is one second between blinks. The setting choices are 1, 5, 15, 30, and 60 seconds, and 0 where the cursor does not blink. To select, press Select.

11.3.3 Sort (Name: Ascend)

The Sort menu item lets you change the order in which files on the SD card or USB drive are displayed using the built-in File Manager. The sorting categories are Name, Date, Size, and Last Read.

Additionally, you may sort files within the selected category in ascending or descending order. After selecting a category, press the Right Arrow until you reach either Ascend or Descend in the list and press the Select button. The Orbit Reader displays the files in the selected order. The default setting for this menu item is Ascending (A to Z). To return to the File Manager, press Backspace from Stand-Alone mode.

11.3.4 Split Words (Off)

The default setting for Split Words is Off. In the default setting, the Reader tries to put as much content on the display as possible without splitting a word. However, if you want 20 cells of braille in Orbit Reader Q20 or 40 cells of braille in Orbit Reader Q40, no matter what the content, set Split Words to On. When Split Words are on, the Reader shows partial words. When you pan to the next 20 braille cells in Orbit Reader Q20 or the next 40 braille cells in Orbit Reader Q40, the remainder of that word appears at the beginning of the line. To select, press Enter.

11.3.5 Filter Dot 7 (On)

The default setting for Filter Dot 7 is On. The Filter Dot 7 menu item lets you turn off the Dot 7 that frequently appears in some BRL and BRF files. Dot 7 is filtered by default, but if you want to make a BRL or BRF file that uses eight-dot braille, turn this setting off. To select, press Enter.

11.3.6 Wrapping (On)

The default setting for Wrapping is On. The Wrapping option is the Orbit Reader to reflow files that are already formatted for embossing. Normally, formatted files contain line-end indicators for every 18-20 characters for the Orbit Reader Q20 and 38-40 characters for the Orbit Reader Q40, which starts a new line. This option eliminates extra space, making it easier to read on a display. To select, press Enter.

11.3.7 Compress Spaces (On)

Carriage returns, blank lines, and tabs represent extra spaces (or white space) in a document. These spaces take up a lot of room and therefore slow down reading on a braille display. The Compress Spaces option eliminates superfluous blank lines and spaces. If multiple blank lines or spaces appear in the file, they are compressed to a single space. This setting is especially useful when reading formatted text files that contain many blank lines.

The default setting for Compress Spaces is On. To select, press Enter.

11.3.8 Indents (On)

Paragraph Wrapping lets you choose if the Compress Spaces setting should be applied to the leading spaces of paragraphs or not. If Paragraph Wrapping is set to off, the paragraph is displayed with leading spaces if present, regardless of the Compress Spaces setting.

If Paragraph Wrapping is set to ON, the Compress Spaces setting is applied to the leading spaces of the paragraph. The default setting for Paragraph Wrapping is On.

11.3.9 Scroll rate (4)

Displays the current scroll rate time in seconds and lets you adjust the same.

11.3.10 System Sounds (Off)

The Orbit Reader Q20 and Q40 provide sound indications over the speaker and audio jack for different actions.

Using this menu item, you can enable and disable sound indications for system events such as start-up, shutdown, low battery and waiting events. The default setting is Off.

11.3.11 Navigation sounds (Off)

Using this menu item, you can enable and disable sound indications for navigation events.

11.3.12 Error sounds (Off)

Using this menu item, you can enable and disable sound indications for various error events.

For more information, see the Sound and Vibration section.

11.3.13 Volume (3)

You can adjust the audio volume from this menu item to a level between 1 and 10. The default setting is level 3. To select, press Enter.

11.3.14 Vibration (On)

The Orbit Reader Q20 and Q40 can provide indications via vibration in response to various user actions. These indications can be turned on or off from this menu item. The default setting for Vibration is On. To select, press Enter.

For more information, see the Sound and Vibration section.

11.3.15 Profile 1

The Profile 1 settings are configured by default for using the device with UEB Grade 1. However, it can be configured to select any of the available languages and encoding schemes. The default configurations are as follows:

- System Language: UEB Grade 1 (uncontracted)
- Read/Edit Language: UEB Grade 1 (uncontracted)
- Editor Encoding: ANSI

11.3.16 Profile 2

The profile 2 default settings are configured for using the device with the UEB Grade 2. However, it can be configured to select any of the available languages and encoding schemes. The default profile 2 configurations are as follows.

- System Language: UEB Grade 2 (contracted)
- Read/Edit Language: UEB Grade 2 (contracted)
- Editor Encoding: ANSI

11.3.17 Profile 3

The profile 3 default settings are configured for using the device with Computer Braille. However, it can be configured to select any of the available languages and encoding schemes. The default profile 3 configurations are as follows.

- System Language: US Computer Braille (8 dot)
- Read/Edit Language: BRF
- Editor Encoding: ANSI

11.3.18 Profile 4

The profile 4 default settings are configured for using the device with the language loaded from the SD card. However, it can be configured to select any of the available languages. The default profile 4 settings are as follows.

- System Language: <Languages from SD card>
- Read/Edit Language: <Languages from SD card>
- Editor Encoding: UTF-8

11.3.19 Profile 5

The profile 5 default settings are configured for using the device with Hindi language. However, it can be configured to select any of the available languages. The default profile 5 settings are as follows.

- System Language: Hindi

- Read/Edit Language: Hindi
- Editor Encoding: UTF-8

The default settings of Profile 1,2,3,4, and 5 can be changed with Right/Left Arrow keys, under the System Language, Read/Edit Language and Editor Encoding options.

For example, if you wish to have the system language as UEB Grade 1 (uncontracted) and work with BRF files, you can select Profile 3 that has the following default settings.

- System Language: UEB Grade 1 (uncontracted)
- Read/Edit Language: BRF
- Editor Encoding: ANSI

Likewise, all profiles can be configured as per the user's requirements.

Please refer to the localization section in this guide for additional information.

11.3.20 Add Language

The Add Language menu option lets you load language files from the SD card to the internal memory of your Orbit Reader Q20 and Q40. However, the language files are different for Orbit Reader Q20 and Q40, and you will need to download and install the appropriate language files for your Orbit Reader Q20 and Q40. It lets you load as many languages as the available memory permits. The unit will display a "memory full" message if the memory is insufficient. If you encounter this, you will need to remove some languages from the memory before you can load new languages.

You can scroll through the available language files on your SD card by pressing the Right or Left Arrow keys and pressing Enter to add a language.

It may take some time for the file to be loaded. The unit shows a busy indication through audio sounds and by displaying "busy" on the display.

11.3.21 Remove Language

The Remove Language menu option lets you remove language files from the internal memory of your unit so that you can make space for loading other languages.

You can scroll through the loaded languages using the Right or Left Arrow keys and press Enter to remove a file.

You can also use the “remove all” option that appears as the first item to remove all the loaded languages at once. Note that if you use this option, it removes the pre-loaded UEB Grade 1 (uncontracted) and UEB Grade 2 (contracted) languages as well. It does not remove the US English Grade 1 (EBAE), English Grade 2 (EBAE), and the US computer braille (8-dot).

If you remove a language that is currently assigned in a profile, English 8-dot computer Braille is assigned to the profile by default.

It may take some time for the file to be removed. The unit shows a busy indication through audio tones and by displaying “busy” on the display.

11.3.22 Version

The Version item in the menu displays the version number of the software on your device. You may need the version number when talking to Customer Service. For the latest version of the software, refer to the website.

Note: The software version is shown in US computer braille (8 dot) only.

11.3.23 Audio version

The Audio version item in the menu displays the version number of the audio firmware installed on your device. You may need the version number when talking to Customer Service. For the latest version of audio firmware, refer to the website.

Note: The audio firmware version is shown in US computer braille (8 dot) only.

11.3.24 Serial Number

The Serial Number item in the menu shows the serial number of the device you are using. This number is useful for service and warranty purposes.

11.3.25 Reset Defaults

The Reset Defaults item in the menu resets all your menu settings to the factory default settings. To reset the default settings, press the Enter button. This action resets defaults and takes you to the top of the Menu options list (Battery Status).

11.3.26 Date Format (dd-mm-yyyy)

Orbit Reader Q20 and Q40 support the following date formats:

- dd-mm-yyyy
- mm-dd-yyyy
- yyyy-mm-dd

The default date format is “dd-mm-yyyy.” You can change the date format using the left and right arrow keys and set the date format by pressing the Enter key.

11.3.27 Time format (12 hours)

The Orbit Reader Q20 and Q40 support the 12/24 hour' time formats. The default Time format is 12-hour format. You can change the time format using the left and right arrow keys and set it by pressing the Enter key.

11.3.28 Clock Settings

Orbit Reader Q20 and Q40 include a clock. You can check the date and time by pressing Windows + C. The date and time are also used when creating, editing, and saving a file or folder.

The default format for time and date is HH: MM DD-MM-YYYY (where HH is Hours, MM is Minutes, DD is Date, MM is Month and YYYY is Year). You can scroll through these fields with the Left and Right navigation keys. The active field (where the cursor is currently) will be underlined. Press the Enter key to modify the current field.

Press the Up Arrow key to increase and the Down Arrow key to decrease the value in the date and time fields. For instance, if the current date is 01-08-2020 and you want to change it to 01-08-2021, use the Left/Right navigation keys to move the cursor to the year field (YYYY) of the date. Press the Up Arrow key to change the years from 2020 to 2021 and the Enter key to save the changes. Press Backspace to exit from the Menu. The value in a field wrap once you reach the last valid value. For instance, minutes range from 00 to 59. So, if you press the Up Arrow key when the time is 09:59, it increases the time to 10:00.

11.3.29 Alarm 1

The Orbit Reader Q20 and Q40 provide two alarms. The first alarm can be configured from this menu item.

There are six fields to configure the alarm. You can navigate through different fields by pressing the Left and Right arrow keys and Press the Up and Down arrow keys to navigate through different choices in the field. The current field (where the cursor is placed) is underlined. Press Backspace once to save all the changes you have made in the alarm settings.

Alarm Status (OFF): Press the Right arrow key to go to Alarm status. Press Enter to enable the editing cursor. You can toggle the Alarm status between ON and OFF by pressing the Up and Down arrow keys.

Time (HH: MM): Next to the alarm status item is the time setting. Press the Right arrow key to go to the time field. The format for time is HH: MM in either 12 or 24-hours format depending on the set configurations of the menu item Time format (12 hours). Press the Up and Down arrow keys to set the values of the field and Press the Right arrow key to switch between the fields.

Repeat (Mon): Press the Right arrow key to go to the repeat field and set the desired days by pressing the Up/Down arrow key. You can choose any day from Monday to Sunday and there are two additional options: All and Once. When you set “All” the alarm rings every day and when you set “Once,” it rings only once at the next occurrence.

Ringtone (Ring 1): Press the Right arrow key to set a ringtone for the alarm and choose between Ring 1 through Ring 5 by pressing the Up and Down arrow keys. The ringtones are played as you navigate through the list.

Ringtone duration (1 to 59): Press the Right arrow key to set the alarm duration. The range of the alarm duration is 1 to 59 seconds, and the default is 20 seconds.

Snooze time (1 to 59): Press the Right arrow key to set the Snooze time. The range of the snooze time is 1 to 59 minutes. The default is 5 minutes.

The alarm rings at the time and day it has been set for even if the device is in sleep mode or completely shut off. Press Backspace to cancel the alarm or press Space to Snooze. The alarm automatically snoozes after the ringtone duration if not acknowledged. It repeats this cycle 5 times and then turns off automatically.

11.3.30 Alarm 2

The second alarm can be configured from this menu item. It has similar settings to Alarm 1.

11.3.31 USB (HID)

The USB menu selects between the four possible USB protocols: Human Interface Device (HID) (Orbit), HID Braille, Serial, or Mass Storage. The default setting for USB is HID (Orbit). To select the option, press Enter.

For more information, see the USB Connectivity section under Remote Mode.

11.3.32 Bluetooth (Auto)

There are three choices under this menu option.

- Bluetooth Auto
- Bluetooth manual
- Bluetooth OFF

The default setting for Bluetooth is Auto. If there is any screen reader activity running on the paired device, the Orbit Q20 and Q40 automatically switches to Bluetooth Remote mode. If you do not want an automatic Bluetooth connection,

switch to the manual option. To disable Bluetooth completely, select OFF. To select another option, press Enter.

For more information, see the Using the Bluetooth Connection section under Remote Mode.

11.3.33 Pair (Just Works)

The Pair menu item selects a Bluetooth pairing scheme. The Orbit Reader Q20 and Q40 use the selected scheme to respond to Bluetooth pairing requests from a host device. To select the option, press Enter.

The two choices are:

Just Works – This is the default Bluetooth pairing scheme. When using this scheme, the Orbit Reader Q20 or Q40 automatically pairs with any device that sends a pairing request.

Confirm code – This is the most secure pairing scheme. With this scheme, the Orbit Reader Q20 and Q40 respond to pairing requests by displaying a random number on both the device's braille display and the host device. To confirm the pairing request, ensure that the numbers match and then press Enter on Orbit Reader Q20 or Q40. To reject the pairing request, press Backspace.

11.3.34 Mode (Stand-Alone)

By default, the Orbit Reader Q20 and Q40 operate in Stand-Alone mode where you read and write files stored on the SD card. To specifically set the unit to another mode, select Remote, BT (for Bluetooth,) or USB. Orbit Reader tries to automatically switch to Bluetooth or USB depending on screen reader activity, but if you want to, for instance, specifically switch back to Stand-Alone mode from Remote mode, or switch the interface from Bluetooth to USB, use this option. To select the option, press Enter.

11.3.35 Bluetooth scan

To use the Orbit Reader Q20 or Q40 with various screen readers wirelessly over Bluetooth, you must first configure a Bluetooth partnership between the Orbit Reader and a computer or smartphone. You can search for Bluetooth devices from the Orbit Reader Q20 or Q40 by pressing the select button. It initiates the Bluetooth device scanning and shows the progress bar on the braille display.

Once the scanning is finished it shows the first device’s name on the display or a “No device found” message if no nearby Bluetooth device is found

You can scroll through the list of scanned devices by pressing the Up and Down arrow keys and pressing select to pair with that device. Press Backspace to go back.

For more information, see the Using the Bluetooth Connection section under Remote Mode.

11.3.36 Manage connections

The Orbit Reader Q20 and Q40 support up to five Bluetooth connections and one USB connection. This allows you to use the USB connection with your desktop computer while simultaneously setting up Bluetooth connections to your phone and tablet. The first screen reader that connects with the Orbit Reader Q20 or Q40 becomes active by default. Additionally, the device preserves all connection information when powered off.

The Manage Connections menu item shows you the list of paired Bluetooth devices and allows you to switch between different devices. The Orbit Reader Q20 and Q40 display contents from the active connection and send QWERTY keyboard inputs to the active connection.

You can quickly toggle the active connection among the paired Bluetooth devices. The Orbit Reader Q20 and Q40 highlight the active connection by underlining it. For example, if the Orbit Reader is connected to your primary computer and you receive a text message on your smartphone that you want to read and respond to using the braille display, you can switch access to the smartphone and then back to resume braille access to your computer.

Pressing the Enter key from this menu item shows the first device name from the paired devices list. Scroll through the list by pressing the Up and Down arrow keys. When scrolling, the Bluetooth device name is displayed, if available. Otherwise "Bluetooth device" will be displayed, followed by a number from 1 to 5.

Press the Enter key to make it an active connection. Press Backspace to go back.

For more information, see the Using the Bluetooth Connection section under Remote Mode.

11.3.37 Config thumb keys

The Config thumb keys item is used to map the Pan backwards, Previous line, Next line, and Pan forward commands to the thumb key of the user's choice. Users can configure all four thumb keys as per their choices.

The default configuration of thumb keys is as: Thumb key 1 is the Pan backwards key, Thumb key 2 is the Previous line key, Thumb key 3 is the Next line key, and Thumb key 4 is the Pan forward key.

11.3.38 Maintenance Status

The Maintenance Status item in the menu displays whether the current maintenance status is On or Off. If the maintenance status is On, the device will operate all pins up and down every 24 hours while in power-off mode.

11.3.39 Auto Sleep Status

The Auto Sleep Status item in the menu displays whether the current auto sleep status is On or Off. If the auto sleep status is On, the device will go to sleep mode automatically when it remains inactive for more than 10 minutes. If the auto sleep status is Off, the device will not go to sleep mode automatically.

11.3.40 Braille Input

The Braille Input option allows you to switch between input methods using either the QWERTY keyboard or Perkin's key support.
If Braille Input is ON, you can write text using Perkin's key support only.
If Braille Input is OFF, you can write text using the QWERTY keyboard.

This option is applicable only when the selected read/write language is English, excluding Computer Braille. There is no effect of this setting when the language is English Computer Braille or any language other than English.
For English Computer Braille, you can write text using the QWERTY keyboard only.
For languages other than English, you can write text using Perkin's key support only.

12 Stand-Alone Mode

Stand-alone mode is the default operational mode, allowing you to read, edit, and browse files without being connected to another device. A formatted SD card or USB drive must be inserted in the Orbit Reader Q20 or Q40 while operating in Stand-Alone mode. This card must contain the files you wish to read.

Stand-alone mode operates in the following ways:

- File Manager
- Menu
- Reader
- Editor

13 File Manager

The File Manager is where you select a file stored on the SD card or USB drive to read on the Orbit Reader Q20 and Q40. You can also create new files and folders, view the properties (such as the file size and current reading position), and copy, rename, and delete files.

When moving through the list of files, the Orbit Reader Q20 displays the first 20 characters of each file name. For the Orbit Reader Q40, it displays the first 40 characters of the file name, corresponding to the number of braille cells available on each device. You may scroll to the rest of the information about the file, such as the rest of a long file name, its size, and date, by using the panning keys to move the display window. You can change the way files are sorted in the file list using related menu options.

Each item on the file list includes the following items:

- Filename and extension
- The current reading position in the file as a count of characters
- Size in KB (kilobytes)
- Last modified time
- Protected or Unprotected

Only one column is displayed per line (with panning as necessary). Pressing Left or Right Arrow moves to the previous or next column heading (file information). Upon exiting the Reader (Backspace), you are returned to the same place and column in the File Manager.

The language of the file name is displayed according to the system language. For instance, if the file is in UEB Grade 1 (uncontracted) and the default language is also UEB Grade 1 (uncontracted), it will be displayed in UEB Grade 1 (uncontracted). But if the system language is set to a different language, and the file name is in UEB Grade 1 (uncontracted), the file name may appear unrecognizable. However, you can quickly change your profile using a hotkey to read the file name in the appropriate language.

The Orbit Reader Q20 and Q40 support two media storage devices – an external SD card and an external USB drive. You can use one or both simultaneously for reading and creating new files.

13.1 File Manager Drives

The file manager shows two drives at the top level:

- SD card

- USB drive

Pressing the Enter key opens the root of the directory of the chosen drive. When you press the Enter key on the SD card drive, it opens the root directory of the SD card and shows the list of files available on the SD card. Pressing Backspace will take you back to the top level in the file manager. Press the Down arrow key to go to the USB drive and press Enter. This opens the root directory of the external flash drive connected to the USB host port.

When there is no flash drive connected to the USB host port, the display shows “USB drive [No media].” Similarly, it shows “SD card [No media]” when there is no SD card inserted.

Inserting a flash drive into the USB Host port shows the message “USB drive inserted” and it shows the message “USB drive removed” when you remove it.

If you are browsing the contents of the flash drive and remove it from the USB Host port, the File Manager takes you to the top directory of the file manager.

You can copy files between an SD card and a USB drive using available commands.

13.2 File Manager Commands

The following are the commands which you can use in File Manager. Most of the commands for files also work for folders.

To open a file or folder, press Enter. Pressing Enter opens the file or folder.

To go to the previous or next file or folder, press Up or Down Arrow. Pressing the Up or Down Arrow moves to the previous or next file in the list.

To go back to one folder level, press Backspace. Backspace acts like a "back" key to exit the current activity. If you are already in File Manager, pressing Backspace moves back to one level where you have multiple subfolders open. If you are at the root level, Backspace does nothing. If you are in one of the columns of information, for example, size or date, then pressing Backspace returns to filename.

To move through file information, press Left or Right Arrow. This command moves you through the file information by headings. See **Error! Reference s ource not found.** section for more information.

To open the Preference Menu, press Windows Key + P. Pressing Windows Key + P opens the Preference Menu.

To scroll text, press the Left or Right Panning keys. If the file name is longer than the display, panning left or right displays more of the file name. When you get to the end of the file name, pressing the panning key moves you to the next item of file information, like position, size, date, and so on.

To make a New File, CTRL + N. The New File command starts the Editor mode with a new file in which to type. To exit the Editor, press the ESC key to open the context menu. The context menu displays the EXIT option first. Press the Enter key to exit the Editor.

To make a New Folder, press CTRL + O. The New Folder command opens the Edit Box where you may type the name of the new folder. Pressing Enter saves the new folder name and returns you to the file list with that folder selected. If you do not name the folder, press Enter names the folder as New Folder. Press Enter to exit without making a new folder.

To delete a file or folder, press DELETE. This action deletes the currently selected file(s) or folder(s). Only empty folders and unprotected files can be deleted. Confirmation is required before the file or folder is deleted. When the message "-- Confirm action" is displayed, press Enter to confirm or press Backspace to cancel.

To rename a file or folder, press CTRL + R. The Rename File command allows you to change the name of a file or folder. To use it, press the Rename command. The Orbit Reader Q20 or Q40 responds with an Edit Box containing the original file or folder name. Edit the name or type a new one and press Enter. Press ESC to exit without renaming a file or folder. Note: The key input for the file name should be entered as per the selected system language.
To write a new folder name or rename a file/folder, write a new name as per the selected read/write language, you can enter a name as follows:

- English Computer Braille: You can enter a new name using the QWERTY keyboard.
- Other Languages (Excluding English): You can enter a new name in the selected read/write language using only Perkin's key support (S D F J K L).
- English (Excluding Computer Braille) with Braille Input On: You can enter a new name in the selected read/write language using only Perkin's key support (S D F J K L).
- English (Excluding Computer Braille) with Braille Input Off: You can enter a new name using the QWERTY keyboard. While entering a name, the input will be displayed in English Computer Braille, but after pressing Enter, the name will be shown in the selected read/write language.

To cut a file, press CTRL + X. This action cuts the currently selected file(s) or empty folders from their location and places them on the clipboard to be used with the paste command.

To copy a file, press CTRL + C. The Copy File command makes a copy of the currently selected file(s) or empty folders and places it (them) on the clipboard to be used with the paste command.

To paste a file, press CTRL + V. This action pastes the file(s) or folder(s) that are currently on the clipboard into the current location in File Manager. If no file or folder is on the clipboard, no action is taken.

To mark a file, press CTRL + M. When moving multiple files, use the Mark File command to mark each file before using Cut, Copy, or Delete. To Mark a file, place an arrow on the file and press CTRL + M.
To clear a marked file, press CTRL + M again.
File Manager indicates marked files by raising Backspace and entering the first letter of the file name.

To Protect or unprotect a file, press CTRL + P. To protect a file from accidental changes, turn an arrow to the file and press CTRL + P. To remove the protected status, select the file and press CTRL + P again. To determine if a file is Protected, arrow Right or Left to the Unprotected/Protected heading.

To edit the current file, press CTRL + E. When editing the current file, the Orbit Reader Q20 or Q40 switches to Edit mode, which is indicated by a cursor at the point of input. The cursor is at the first character shown on the display when you press the edit command. As you type, everything is saved to the file. To exit, press the ESC key to open the context menu. The context menu displays the EXIT option first. Press the Enter key to exit the Editor. See The Editor section for more information.

To Edit the Last Edited File, ALT + TAB. This command reopens the last file you edited and returns the cursor to its last position in that file. “The Edit Last Edited File” command is useful for taking notes on what you read. Use the command to quickly switch back to the Editor. Then close the Editor to return to the title you are reading. This command has no effect if you are already editing a file. The device displays the error message "-- File not found" when no previous file has been opened or if the file was deleted. Press the ESC key to open the context menu. The context menu displays the EXIT option first. Press the Enter key to return it to the file you were reading.

13.3 More about Copying and Pasting Files

When copying or pasting a file that results in another file with the same name, File Manager adds an extension to indicate that the new file is a copy. For example: if you copy a book. brf to a folder that already contains a book. brf, the new file becomes book_1.brf and the original book. brf remains unchanged.

If the SD card runs out of space before a file operation is completed, File Manager shows, "-- Error copying file xxx" where xxx is the file name.

When copying a large number of files, or large files that can take some time, the File Manager displays progress messages during the copy operation.

If copying a file takes more than five seconds, File Manager displays, "-- Copying xxx (yy%)" where xxx is the name of the file and yy is the percentage complete. This percentage is updated after every 10% of progress.
For the command keys, go to the File Manager Commands table under the File Manager section.

13.4 File Movement Commands

To move to the first file, press CTRL + HOME. Pressing CTRL + HOME moves the File Manager selection to the first file in the current folder.

To move to the last file, press CTRL + END. Pressing CTRL + END moves the File Manager selection to the last file in the current folder.

To Incrementally search the file list, Type the file name quickly. To find a file quickly, type the first few letters of the file's name. The File Manager highlights the first file matching the letters you typed.

13.4.1 Supported File Types

- BRF: It is translated, formatted braille. The device displays the exact representation.
- BRL: It is Translated, unformatted braille. The device displays the exact representation.
- TXT: It is in Text format. The device displays as per the language selected.

In addition to the supported file types, the Orbit Reader Q20 or Q40 shows the contents of any file. This feature is useful, however, to examine files that do contain readable text even if it is not a supported file type. However, some files may not contain readable content.

There are several excellent braille translation systems available in the U.S. If you obtain textbooks from APH or get transcribed titles from NLS or NBP, the braille should be correct and formatted. You may also get braille translation software that produces automatically translated braille using programs like 'Libelous.' Alternatively, you can have Book Share automatically generate braille files of the titles available.

13.5 Preparing Files

To prepare BRF files for placement on the Orbit Reader Q20 and Q40, follow these guidelines:

- Determine the translation type.
- Translate the file.
- Place the file onto the SD card or use the Mass Storage protocol to copy from your desktop computer.

To copy files to the SD card, remove the card from the Orbit Reader Q20 or Q40 and place it into a card reader on your computer. Alternatively, you can connect the USB cable from the Orbit Reader to your computer and activate the Mass Storage protocol on the Orbit Reader by either pressing CTRL + J or selecting Mass Storage from the USB option in the menu. When using the Mass Storage protocol, the Orbit Reader shows up as a drive on the computer, and here, you cannot use other functions of the Orbit Reader.

13.6 File transfer (Bluetooth)

You can transfer a file from the Orbit Reader Q20 or Q40 to any paired Bluetooth device over Bluetooth. Select a file from the file manager using the Up or Down arrow keys and press Windows + CTRL + b.

For more information, see the File transfer over Bluetooth section.

14 The Reader

In Stand-Alone mode, the Orbit Reader Q20 or Q40 displays the content of files stored on an SD card and USB drive. It translates the text into the language that you select for the Read/Edit option in the menu section.

The Orbit Reader Q20 and Q40 are designed to be stand-alone readers. Placing BRF, BRL, or TXT content (see File Types section) on an inserted SD card/USB drive turns it into an on-the-go braille book reader. When first powered on, the Orbit Reader displays the contents of the first file on the SD card/USB drive. To get to the file list, press Backspace. Go to the desired file using the Up or Down Arrow key. Press Enter to open the file. Use the Left and Right Panning keys to read it. There are many other functions in reading mode such as Find, Power

Move, Bookmarks, and even a menu to set preferences. The following sections describe the commands and settings that can be used while reading.

When you turn the device on, the Orbit Reader Q20 or Q40 resumes from the last place of the last file in use. For first-time use, it displays the first file or folder on the SD card. Press Backspace to close the file and display File Manager, which shows a list of files on the SD card. If there is no SD card inserted, the message "-- No SD card" is displayed.

When you open a text file to read for the first time on Orbit Reader Q20 or Q40, the file gets translated first as per the language selected for Reading/Editing. For a large file, it may take a few seconds to complete the translation. The translation process is indicated by showing a progress bar on the display where the Dot 6 (6^{th} pin) of the first 6 cells rises in sequence repeatedly.

The Orbit Reader Q20 or Q40 stores the translated files in the SD card/USB drive so that it can be used in the future. Latency is observed only when you open the file for the first time or if the translated file is lost for some reason.

While the file translation is in progress, no other operations are allowed, and pressing any key will have no effect.

If translation is taking too much time and you wish to abort the operation, you can do so by pressing Backspace. The system will cancel the file opening operation and will take you back to the file manager.

You can switch the reading language with the help of hotkeys, even if you are in the middle of the file. Please note that if you change the language, the system will translate the file again as per the new language selected.

When you reach the end of the file, "-- End of file" is displayed by the Reader. Similarly, if you are at the beginning of the file, "-- Start of file" is displayed.

14.1 Reader Commands

While in Stand-Alone mode, the following commands are available.

To Go to the Previous or Next display, press the Panning keys. See Panning Keys section for more information.

To Go to Previous or Next Character, press the Left or Right Arrows. If you press the Right Arrow key, the next letter appears on the right side of the display.

To Go to Previous or Next Word, press CTRL + Left or Right Arrows. If you press CTRL + Right Arrow, the next word appears on the right side of the display.

To Go to the Previous or Next Line, press the Up or Down Arrows. Pressing the Previous or Next Line command moves to the previous or next carriage return in the file.

To Go to the Previous or Next Page, press PAGE UP or PAGE DOWN.
To Go to the Top or Bottom of a file, press CTRL + Home or CTRL + End. Pressing CTRL + Home moves to the top of a file; pressing CTRL + End moves to the bottom of a file. (For compatibility with other devices, CTRL + Home moves to the top and CTRL + End moves to the bottom of a file.)

To Exit the File, press Backspace. If you read a file, pressing Backspace returns you to your previous location.

To Set or Clear a Bookmark, press CTRL + M. In addition to the automatic bookmark placed when you close a file, the Orbit Reader lets you set additional bookmarks. Reader displays the message "-- Bookmark added" or "-- Bookmark cleared" if there was already a bookmark at that position.

To Go to Previous or Next Bookmark, press Shift + Left or Right arrow. The Reader responds by moving the cursor to the bookmarked position. The bookmarked location appears as the first character on the display. If there are no marks in the indicated direction, "-- No more bookmarks" is displayed.
To Power Move/Search Forward and/or back, press Window + Down or Window + UP. Press the Alt + Up arrow to move back. Press the Alt + Down arrow to move forward. See Power Move Forward and Back section for more information.

To Find Braille, press CTRL + F. Pressing CTRL + F opens an input field (Edit Box) with a cursor. By default, it shows the last search string on the display. This allows you to perform a search in a specific braille format by typing the text in the same braille format. Press Enter to begin the search. To exit the Edit Box without performing a search, press ESC. See Edit Box and Find Braille sections for more information.

To Find the Next Braille, press Alt + Down Arrow. Pressing Alt + Down Arrow repeats a previous search forward from the point in the file where you are. If there is no text in the Find Edit buffer, the Reader uses the text at the cursor. See the Find Braille section for more information.

To Find Previous Braille, press D Alt + Up Arrow. Pressing Alt + Up Arrow repeats a previous search backward from the point in the file where you are. If there is no text in the Find Edit buffer, the Reader uses the text at the cursor. See the Find Braille section for more information.

To Edit the Current File, press CTRL + E. CTRL + E to edit the file you are currently reading. Press the ESC key to open the context menu. The context menu displays the EXIT option first. Press the Enter key to exit the Editor and continue reading.

To Open a New File, press CTRL + N. CTRL + N opens a new file in the Editor for editing/notetaking. Press the ESC key to open the context menu. The context menu displays the EXIT option first. Press the Enter key to return it to the file you were reading.

To Edit the Last Edited File, press ALT + TAB. Using this command reopens the last file you edited and returns the cursor to its last position in that file. The Edit Last Edited File command is useful for taking notes on what you read. Use the command to quickly switch back to the Editor. Then close the Editor to return to the title you are reading. This command has no effect if you are already editing a file. The device displays the error message "-- File not found" when no previous file has been opened. Press the ESC key to open the context menu. The context menu displays the EXIT option first. Press the Enter key to return it to the file you were reading.

14.2 Power Move Forward and Back

The Orbit Reader Q20 and Q40 feature power move commands that provide a quick way to navigate through large sections of a file. These commands allow users to efficiently move or search for a known location within the document. A power move operates by using boundaries and moving 50% between them with each press of the key command. In essence, by using a power move to search within a file, you are drilling down to the information using a binary command. When you press Windows + Down Arrow or Window + Up Arrow, the Reader moves in the following ways:

On the first press, the cursor moves halfway between the current position and the start (Windows + Up Arrow) or end (Windows + Down Arrow) of the file, which acts as the boundaries for the power search.

Subsequent presses treat the moved-from position as the new boundary in that direction. So, if you are at the beginning of the file (or 0%) when you press Windows + Down Arrow, the Reader moves the cursor to halfway between 0% and 100%. You are now at 50%, and this becomes the new boundary. The initial boundary is at the original position of 0%. Therefore, if you press Windows + Up Arrow, you move halfway between 50% and 0% to end at 25%. Or, if you press Windows + Down Arrow, you move halfway between 50% and 100% to end at 75%.

Each time you press the Windows + up arrow or Windows + down arrow keys, the Reader shows the percentage in the first few cells of the display line and fills the rest of the cells with text at that position. This continues until you press some other key. See the Panning Keys section for more information.

14.3 Find Braille

To find specific braille text, use the Find command (CTRL + F). The Orbit Reader Q20 or Q40 responds by opening an input field (see Edit Box section) with a cursor, which is indicated by Dots 7 and 8. By default, it shows the text at the current cursor location in the edit box. Unlike Power Move, which searches by known location of text, the Find command searches the entire file for instances of the braille text you enter in the input field. If you have searched for something previously, that text appears in the Edit Box with your cursor at the end. See the Power Move Forward and Back section for more information.

To find a word, first press CTRL + F to enter the Edit Box. Type the word you wish to find, in the language selected for the reader/editor and then press Enter to start the search moving forward in the file.

As per selected read/write language, you can enter a word as follows:

- English Computer Braille: You can enter a word using the QWERTY keyboard.
- Other Languages (Excluding English): You can enter a word in the selected read/write language using only Perkin's key support (S D F J K L).
- English (Excluding Computer Braille) with Braille Input On: You can enter word in the selected read/write language using only Perkin's key support (S D F J K L).
- English (Excluding Computer Braille) with Braille Input Off: You can enter a word using the QWERTY keyboard. While entering a word, the input will be displayed in English Computer Braille, but the searched word will be shown in the selected read/write language.

To search for moving backward in the file, press Alt + Left Arrow. The word is shown as the first word on the display. If the word is not found, the message "-- Not found" is displayed. Press Backspace to clear the message. To exit the Edit Box without finding the word, press ESC.

After the word is found, to continue searching, press the Alt + right arrow to find the next occurrence (forward in the file) or the Alt + left arrow to find a previous occurrence (towards the beginning of the file).

If you are searching for text in a contracted braille file, you must type the text you want to search in contracted braille if the read/write language is other than English or English (Excluding Computer Braille) with Braille Input On.

If you are searching in a plain text file, you must type the text you want to search for in Computer Braille. See Appendix A - Computer Braille Chart for details.

You can search for terms up to 255 characters long. Searches are generally not case-sensitive. A search for the word "animal" results in finding both lowercase and uppercase versions of that word (animal/Animal). However, if you want to find words with upper case letters only, type the text you wish to find with the braille indicator for capitalization included (in contracted braille, one Dot 6 precedes a capital letter, while two Dot 6s precedes an entirely capitalized word. In Computer Braille, capital letters include Dot 7). For example, a search for the capitalized word "Animal" gives the results for "Animal" (capitalized), but not "animal" (lowercase).

Additionally, searches match both whole and partial words. Searching for "an" finds "an" (whole) and "man" (partial). To restrict searches to whole words, add a space at the beginning or end of the word. The Reader matches the space with any non-printing character such as spaces, tabs, and line feeds.

Read the section on Edit Box for editing commands and navigation functionality.

In" search files," the Reader moves from reading files to searched text and displays it at the beginning of the display line. If the text is not found, then the Reader displays "Not found" and gets back to its previous position. While searching through large documents, the Orbit Reader displays "Busy" while conducting the search.

To repeat a search moving forward towards the end of the file, press ALT + Right Arrow.

To repeat a search moving back towards the beginning of the file, press ALT + Left Arrow.

14.4 Braille Pacer (Auto-Scroll)

The Braille Pacer feature is available in the Reader and lets you set a reading pace for the display to automatically advance.

The pace can be adjusted during reading by pressing the CTRL + ALT + Up arrow to increase the speed (i.e., a faster advance rate) or the CTRL + ALT + Down arrow key to decrease the speed (i.e., a slower advance rate). Pressing these keys once increases or decreases the speed in one-second steps. You can

set the scrolling speed from 1 to 20 seconds depending upon your reading speed.

Many users might like to have finer control of the speed, and this can be achieved by pressing the space bar, Backspace, and up or down arrow keys. The fine control increases or decreases the speed in steps of one-tenth of a second.

The default speed is 4 seconds. You can review the current scroll rate from the menu, but it can be changed only while reading. The current scroll rate is not displayed when auto-scrolling. However, when the auto-scroll is stopped and the scroll rate is changed, the scroll rate will be displayed by the message “XXY sec scroll rate.” You can use all the reading navigation commands during the Braille Pacer mode as well.

To Start/Stop Braille Pacer, press Space. The rate of change is not viewable if the speed is increased or decreased while active.

To Increase/Decrease Speed by 1 Second, press CTRL + Alt + Up/DOWN arrow.

To Increase/Decrease Speed by 0.1 seconds, press CTRL + Alt + Right/LEFT arrow.

15 Edit Box

The Orbit Reader Q20 or Q40 presents a text dialog or input field called an Edit Box when you want to find text or rename a file. The Edit Box permits only one line of text. Press CTRL + F to begin a search or press CTRL + R to rename a file.

Once in the Edit Box, insert the text by typing the desired text as per the language selected for the reader/editor, and then use the Edit Box commands to navigate. The Edit Box displays a blinking cursor (Dots 7 and 8) to indicate the beginning of the text that you are searching for or editing.
When the Orbit Reader shows an edit box, it often provides default text, such as a file name or a previously entered search term. To delete or replace the selected text, type a letter, or press the backspace key. To edit the existing text in insert mode, press one of the arrow keys to move the cursor letter by letter to the position where you wish to edit.

15.1 Edit Box Commands

To Move Left or Right One Letter, press the Left or Right Arrow. Pressing the left or right arrow moves the cursor in the desired direction. When the cursor reaches the end of the edit box, it stops--it can move no further.

To Move to the Start or End of the Text, press Up or Down Arrow. Press the Up or Down Arrow to move the cursor to the beginning or end of the text.

To Backspace, press Backspace. The Backspace key deletes the letter immediately left of the cursor. Use the Backspace key in case of a typing mistake or to remove small amounts of text.

To Accept typed text, press Enter. Here, pressing Enter acts as an Enter/OK key.

To Close the Edit Box, press ESC. To close the edit box, use the Close command. In single-line controls, Close removes what you have typed. In multiple-line controls, all text is automatically saved in the editor.

16 The Editor

In addition to serving as a tool for reading braille, Orbit Reader Q20 and Q40 offer the ability to write and edit text. This feature allows you to create/edit new or existing files on the SD card.

While you are in the Editor mode, the cursor notes the current position by blinking Dots 7 8. The default setting for the cursor is 1 second. The blink of the cursor can be turned off from the Menu.

There are three ways to edit a file. Each of these three commands is available both from the Reader and the File Manager.

- Create a new file: CTRL + N.
- Edit current file: CTRL + E.
- Switch to last edited file: Alt + Tab

To insert text, type or paste the text in the cursor. You can insert any text into an open file using the keyboard The Editor adds the typed or pasted text.

To exit Editor, press the ESC key to open the context menu. The context menu displays the EXIT option first. Press the Enter key to exit the Editor. The cursor disappears, returning you to the Reader in the file you were editing.

When you exit the editor or save the file from the context menu, the back translation from braille to text is performed as per the selected language. The translation process is indicated by showing a progress bar on display where the Dot 6 (6^{th} pin) of the first 6 cells rises in sequence repeatedly. This operation cannot be canceled.

If you are exiting a new file, the editor automatically names the file with the first 40 characters of the translated text in the file. If a file already exists with that name, the Editor appends a number to it until it produces a unique name. To rename a file or to add an extension to the file name, highlight the file name in File Manager, and use the rename command. If there are Computer Braille characters that cannot be used in a filename, such as a forward slash (/) or an asterisk (*), the characters are replaced with an underscore (_). Once you exit, the new file name in the File Manager is selected. If you wish to rename the file, use the rename command (CTRL + R). If you want to give the file a specific name, write that name as the first line in the file.

Note: It is recommended that you exit the Editor before you perform a system update, reset the device, or remove the SD card. Exiting the Editor saves your work. Not exiting the Editor first could result in lost work.

16.1 Cursor Routing Buttons

A cursor routing button is located above each braille cell for positioning the cursor.

While editing a file in Stand-Alone mode, press a cursor routing button to move the cursor to that braille cell. This makes cursor navigation very convenient. Similarly, when connected in remote mode, press a cursor routing button to move the cursor to that point, or to select a link in a Web page or e-mail message.

16.2 Editor Commands

To Edit New File, press CTRL + N. Creates a new file in the Editor, ready for input.

Depending on the chosen read/write language, writing text will work differently. Below is an explanation of the various modes of operation:

- English Computer Braille: It is possible to write text using the QWERTY keyboard. NO Braille translation is performed., and text is always shown in Computer Braille.
- Other Languages (Excluding English): You can write text in the selected read/write language using Braille input mode which emulates a Perkins-style keyboard by using the S D F J K L keys.
- English (Excluding Computer Braille) with Braille Input On: You can write text in the selected read/write language using only Perkin's key support (S D F J K L).
- English (Excluding Computer Braille) with Braille Input Off:
  You can write text using the QWERTY keyboard. As you type, the text will initially be displayed in English Computer Braille on the Braille display.

When you press the SPACE or ENTER key, the previously entered text will be automatically translated according to the selected Braille table. For example, UEB grade 2.
Modifying Existing Data:
If you want to edit content which has already been translated, you can move to the word that you want to edit, long-press the cursor routing key at that word. The selected word will then be displayed in Computer Braille on the Braille display, accompanied by two short vibration indications that indicate entering a special edit mode.
You can modify the word or write multiple words using the QWERTY keyboard.
If you place the cursor on a blank line where no word is present, a blank Braille display will appear, indicated by a vibration, with the cursor blinking at the first cell. You can then enter new data on this new line using the QWERTY keyboard.
When you press Enter, the inserted text will replace the selected word in the file.
If you press ESC, the changes will be discarded, and the file will reopen in the editor without any modifications.

To Edit Current File, press CTRL + E. Opens the selected file for editing.

As per selected read/write language, you can update the existing file as follows:

- English Computer Braille: You can update the file content using the QWERTY keyboard.
- Other Languages (Excluding English): You can update the file content in the selected read/write language using only Perkin's key support (S D F J K L).
- English (Excluding Computer Braille) with Braille Input On: You can update the file content in the selected read/write language using only Perkin's key support (S D F J K L).
- English (Excluding Computer Braille) with Braille Input Off:
  - Adding Data at the End of the File:

  If you want to add data at the end of a file, you can use the QWERTY keyboard to type the desired text. When you press the SPACE or ENTER key, the entered data will automatically be converted and displayed in the selected language.
  - Modifying Existing Words in the File:

  To change an existing word in the file, first, long-press the cursor routing key at the word you want to modify. The selected word will then be displayed in

Computer Braille on the Braille display, accompanied by two short vibrations, indicating that the word is ready for editing.
You can modify this word or write multiple words using the QWERTY keyboard.
If you press the cursor routing key on a blank line where no word is present, the Braille display will show a blank screen with a vibration indication, and the cursor will blink at the first cell. You can then enter new data on this line using the QWERTY keyboard.
When you press the Enter key, the inserted text will replace the selected word in the file.
If you press the ESC key, the changes will be discarded, and the file will reopen in the editor without any modifications.

To Switch to Last Edited File, press Alt + Tab. Opens the last edited file for further editing. The device displays the error message "-- File not found" if the file has been deleted.

To Add a new line (Enter), press Enter. Pressing Enter adds a new line (enters a carriage return) at the end of a paragraph and places the editing cursor in the first cell of the next paragraph.

To Delete a character, press Backspace. Pressing Backspace deletes the character to the left of the editing cursor.

To Exit Editor, press the ESC key to open the context menu. The context menu displays the EXIT option first. Press the Enter key to exit the Editor. When you close a file, the Editor saves and returns it to the Reader or File Manager, depending on your earlier location. It automatically saves your work. If you have opened the file from File Manager, File Manager makes the new file with the current item in the list. If you edit an existing file, Reader moves the reading position to the place where the cursor was.

To Save current work, press the ESC key to open the context menu and then press CTRL + S. The Orbit Reader automatically saves files every 1 KB of data, or about 1000 characters, as you edit. However, small file increments could be lost during certain situations such as SD card removal, system updates, or device resets. Pressing the ESC key to open the context menu and then pressing CTRL + S saves the file as you deem necessary.

To Go to the next or previous character, press Left or Right Arrow. Pressing Left or Right Arrow moves the cursor to the previous or next character.

To Go to the next or previous word, press CTRL + Left or Right Arrow. Pressing CTRL + Left or Right Arrow moves the cursor to the start of the previous word or next word. This is also used to navigate between digits.

To Go to the Previous or next display, press Pan Up or Down. Pressing Up or Down on the Panning rocker keys allows you to move to the previous or next display of braille. If you press the bottom part of the rocker key, the display pans forward. If you press the top of the rocker key, the display pans backward. The editing cursor is placed at the first cell. See Panning Keys section for more information.

To Go to the Previous or next paragraph, press Up or Down Arrow. Pressing the Up or Down Arrow moves the editing cursor to the start of the previous or next paragraph. If the start of the previous or next paragraph is not on the display, then the display pans to the start of the previous or next paragraph to the first cell on the display. The editing cursor is placed in the first cell.

To Go to Start or end of paragraph, press shift + windows + home and shift+ windows + end. Pressing shift + windows + home and shift + windows + end Arrow moves the cursor to the start or end of the current paragraph. If the start or end is not on the current display, then the display pans to the start or end of the first cell of the display. The editing cursor is placed in the first cell.

To Go to the Previous or Next page, Page Up and Page Down. Pressing Page Up and Page Down moves the cursor to the previous or next page (1000 characters or form feed character).

To Go to the top or end of the document, press CTRL + Home and CTRL + End. Pressing CTRL + Home and CTRL + End moves the cursor to the top or bottom of the document.

To Find Next Braille, press ALT + Down Arrow. Pressing the ALT + Down arrow repeats a previous search forward from the point in the file where you are. If there is no text in the Find Edit buffer, the Editor uses the text at the cursor.

To Find the Previous Braille, press ALT + Up Arrow. Pressing the ALT + Up arrow repeats a previous search backward from the point in the file where you are. If there is no text in the Find Edit buffer, the Editor uses the text at the cursor.

16.3 Editor Block Text Commands

The Editor block operations depend on a selection. The selection is the text between the cursor and the location mark.

Note: The size limit for a cut/copy/paste operation is 5 KB of data.

Adding a location mark does not change the content. Marks are used for copying/cutting a selection of text. To copy or cut using marks, press ESC and then CTRL + M to place a mark. Only one mark can be placed/added at a time. Once the mark is placed, the text between the cursor and the mark can be copied (ESC and then CTRL + C) or cut (ESC and then CTRL + X). Once the text is copied or cut, the mark is cleared.
To Set or clear the Location Mark, press ESC and then CTRL + M. The editor indicates a mark by raising both Dots 7 and 8 on the character where the mark occurs. To set or clear a mark in the file, press the Mark command. If there was already a mark at the cursor, the editor shows "-- Mark cleared" on the display and removes the mark. If there is no mark, it shows -" Mark set" and adds a mark.

To Copy, press ESC and then CTRL + C. The copy command places the selected text onto the clipboard for later use in this file or another file.

To Cut, press ESC and then CTRL + X. The cut command removes the selected text from the document and places it onto the clipboard for later use. If you want to put that text somewhere else, move to the desired position, then use the Paste command.

To Paste, press ESC and then CTRL + V. To paste the contents of the clipboard before the cursor, use the Paste command.

16.4 Context Menu

The Context menu gives you quick access to functions such as cut, copy, and mark for use in the Editor.
While in Editor, press ESC to open the Context menu. There are two ways to select from the Context menu after it is open.

1. If you do not know the braille shortcuts, press the Up or Down Arrow key to scroll to your selection and press Enter.
2. If you know the braille shortcut for the command (the braille letter associated with the function), press that letter with CTRL.

    - E Exit
    - M Mark
    - C Copy
    - V Paste
    - X Cut
    - F Find

- S Save

You can also press ESC and then press CTRL + E to quickly exit the Editor. The first press opens the Context menu; the second press selects the first option in the menu, which is Exit.

17 Support for Perkins Keypad

The Orbit Reader Q20 and Q40 support the Perkins keypad, allowing users to write data in any Braille language.

The Orbit Reader Q20 and Q40 use the Perkins keyboard to rename files or folders, and it is available for the search operation, as well as in the Editor, Calculator, and Calendar applications.

For read/write languages other than English, Perkin's key support is used for writing text in all applications.

For English (excluding Computer Braille), you can enable or disable Perkin's key support through the "Braille Input" setting in the Preference menu. If Braille Input is on, Perkin's key support is enabled. If Braille Input is off, Perkin's key support is disabled.

Once the Perkins keyboard is enabled, users can use the QWERTY keys S, D, F, J, K, L, which will function as the dot keys 3, 2, 1, 4, 5, and 6, respectively. The other QWERTY keyboard commands will work as normal.

The device cannot enable the Perkins keyboard while the language is set to Computer Braille.

18 Sounds and Vibrations

The Orbit Reader Q20 and Q40 provide sound and vibration indications upon various user actions. The following table shows user actions and scenarios and their respective sound and vibration indications. These indications may also be turned off from the preferences menu. See System Sounds (Off), Navigation sounds (Off), Error sounds (Off) and Vibration (On).

18.1 Sound and Vibration Indications

- Device Power On: Power ON Sound, Single long vibration
- Device Power Off: Power OFF Sound, Two short vibrations
- Navigating through any list. E.g., File list or menu items: Navigation sound, Single short vibration.

- Navigation limits. E.g., End of the file, End of the list in the menu: Navigation limit sound, Two short vibrations.
- Error/Failure/Timeout notifications. E.g., File saving error, pairing failure, pairing timeout: Error sound, Single long vibration.
- Progress/Busy notifications. E.g., copying files, scanning Bluetooth devices: Busy sound, Single short vibration once in a second
- Low battery indication (10%): Low battery sound, Single long vibration once in a minute
- Entering sleep mode: Tick sound, Single short vibration
- Exiting sleep mode: Tick sound, Single long vibration
- Change in device mode: Tick sound, Single short vibration.
- Charger insertion/removal: Tick sound, Single short vibration
- End of line or paragraph: Line sound, Single short vibration
- Battery status is 0%: No audio, Two long vibrations (shutdown indication)

19 Remote Mode

In addition to using the Orbit Reader Q20 or Q40 as a portable reading tool and editor, it connects with host devices (i.e., computers, phones, tablets) to provide braille input/output to that device. The host device must be running software that supports Braille.

- Windows PCs - JAWS®, NVDA, Windows Narrator, System Access
- Mac® computers and iOS® devices - Voiceover
- Android devices - Talkback, Braille TTY, Amazon VoiceView

When you use the Orbit Reader Q20 or Q40 as a display for other hosts, the screen reader on that host device provides translation and other braille settings. Refer to the documentation for the specific screen reader you are using.

When you enable Remote mode, the QWERTY Keyboard will connect to the host device, and you can operate the host device using the QWERTY keyboard. The only hotkeys used with Remote mode that are not sent to the remote device are as follows:

- Pressing Thumb key 1 + Thumb key 2 to disable remote mode.

When Connecting the Orbit Reader Q20 or Q40 to an external device in remote mode using USB or Bluetooth, the Braille display and QWERTY keyboard act as one single connection. The QWERTY keyboard acts like any other external USB or Bluetooth keyboard that is connected with the external device.

This means that screen reading commands, as well as commands for operating various functions related to the operating system of the connected device, remain the same as with any USB or Bluetooth keyboard connected to it, and are not special or unique to the Orbit Reader device.

For example, if you connect the Orbit Reader device to Windows via a USB cable, and use NVDA as your screen reader, you can use traditional NVDA commands to interact with your computer. You can read the window title with the NVDA key + t, read current time with NVDA + F12, etc.

If connected to VoiceOver on iOS, you can use commands such as CTRL + Command + Left/Right arrow keys, to navigate between items on the screen, for example.

Notes

- If connected to Windows, we recommend using the laptop keyboard layout of your screen reader, since the Orbit Reader device does not include an Insert key.
- When connecting to an Apple device (a Mac computer or an iOS device), the Alt key serves as the option key, while the Windows key serves as the Command key.

19.1 Before you connect

Before you connect the Orbit Reader Q20 or Q40 to a host, it is important to set the device so that the screen reader(s) you use recognizes it. The Orbit Reader is in the process of being registered with screen readers.

19.2 Using the Bluetooth Connection

Bluetooth is a technology that wirelessly connects devices, such as the Orbit Reader Q20 or Q40, to host devices, such as phones, tablets, and computers or to peripherals such as Bluetooth keyboards. For example, when using an iPhone with Voiceover, you can control the iPhone with keys and buttons on the Orbit Reader, and you can read the entire interface in braille as you interact with it.

If the Orbit Reader is on, when you turn on the host device, it connects automatically provided the Bluetooth option in the menu is set to Automatic. When the host device enters sleep mode or is turned off, the Orbit Reader reverts to showing stand-alone content. When connected to another device through the USB port, the Orbit Reader reconnects to the screen reader on the other host device.

There are only two ways to wake up a host device:

- Pressing the Power button
- Receiving a notification

If you wish to connect to a screen reader application such as Voiceover or Talkback, initiate pairing from the host.

See the Bluetooth section for the host device you plan to use:

- Connecting iOS with Bluetooth
- Connecting Mac with Bluetooth
- Connecting Android with Bluetooth
- Connecting Windows with Bluetooth

19.2.1 Connect to Multiple Hosts

It is possible to pair the Orbit Reader Q20 or Q40 with more than one device. For example, you can pair it with both your phone and tablet. The device you use must offer a braille interface.

To use Bluetooth with multiple devices, the screen reader on each of the devices should be working with the emulation mode “Orbit Reader 20” for Orbit Reader Q20 and emulation mode “Orbit Reader 40” for Orbit Reader Q40. In other words, if you have an iPad with a software version before version 10.2, it will not recognize the Orbit Reader 20 or Orbit Reader 40. Therefore, you cannot connect to the device which is compatible with the older version.

When connecting to host devices that do not support the Orbit Reader 20 or Orbit Reader 40, you cannot connect to the device. This will ensure the proper functioning of commands between the Orbit Reader and host devices.

19.2.2 Manage Connections

You can quickly toggle the active connection between paired Bluetooth devices using the Manage connection menu item.

Access the list of connected devices by pressing hotkey command ALT + L and scroll through the list by pressing Up/Down arrow key. This list shows the name of the paired Bluetooth device. An empty slot is shown by the message "Bluetooth device" followed by a number from 1 to 5.

The Orbit Reader Q20 and Q40 support up to five simultaneous Bluetooth connections.

Press the Enter key to make the displayed connection active. The Orbit Reader displays the selected device's name with an underline. Press Backspace to go back.

When you use Bluetooth, it is possible to interrupt the activities of the Orbit Reader Q20 or Q40 by a connected host device. Each time you wake up the host device, it takes over the Orbit Reader. This behavior makes it very convenient to interact with your host device in braille, but if you use the Orbit Reader in Stand-Alone mode or connect it to a screen reader with USB, you may not want interruption when your phone wakes up. To return the Orbit Reader to what you were doing before the interruption, put the host back to sleep by tapping its Power button.

To prevent interruptions from occurring altogether, turn off Bluetooth in the Orbit Reader Q20 or Q40 menu or temporarily turn off notifications on the host device. When you are ready to resume using Bluetooth, either turn it back on from the Orbit Reader's menu or use the hotkey CTRL+ B from Stand-Alone mode on the Orbit Reader Q20 or Q40. (You can always return to Stand-Alone mode by pressing Thumb key 1 + Thumb key 2 on the Orbit Reader.)

Note: If the Orbit Reader Q20 or Q40 does not update the display after switching to a connection, unlock your host device so that it will detect the display and activate the connection.

19.2.3 Manage Bluetooth Connection Commands

To Activate Bluetooth device, Press left upper pan key +cursor routings 1 through 5, Pressing left upper pan key in conjunction with cursor routings 1 through 5 quickly switches to one of the five Bluetooth connections. To activate the USB HID Orbit device, press the left upper pan key along with cursor routing 6. This will quickly switch to HID Orbit.

To Forget selected connection, Press CTRL + Q. Pressing CTRL + Q deletes selected connection from the list, the Orbit Reader Q20 or Q40 displays "Delete success".

To Forget all connections, Press CTRL + X. Pressing CTRL + X deletes all connections from the list, the Orbit Reader Q20 or Q40 displays "Delete success".

19.3 USB

Universal Serial Bus (USB) is a technology that makes connecting devices with hosts easy. It provides some advantages over Bluetooth because it is both faster and charges the Orbit Reader simultaneously.

The Orbit Reader Q20 and Q40 support three kinds of USB connections (all with the same cable available in the box.)

- Human Interface Device - Orbit (recommended)
- Braille - HID
- Serial
- Mass Storage (for turning the Orbit Reader's SD card into a drive on your computer)

19.3.1 Human Interface Device (HID) – Orbit

When using the Orbit Reader Q20 or Q40 with a screen reader that supports HID Orbit, follow these steps:

1. Turn on the Orbit Reader. Orbit Reader displays the last braille you were reading.
2. Connect the USB cable to the host and to the Orbit Reader. "-- Charger connected" is displayed.
3. On the Orbit Reader Q20 or Q40, press CTRL + H or left upper pan key + cursor routing 6. "-- HID Orbit" is displayed. The QWERTY keyboard will connect to the host, and you can operate the host device using QWERTY keyboard.
4. Start the screen reader. Orbit responds by displaying what the screen reader is showing. If your screen reader does not support HID, see Serial below.

To switch back to Stand-Alone mode, press Thumb key 1 + Thumb key 2.
To switch to Bluetooth mode, press the left upper pan key along with cursor routings 1 to 5 to quickly switch between one of the 5 Bluetooth devices.

19.3.2 Human Interface Device (HID) – Braille

When using the Orbit Reader Q20 or Q40 with a screen reader that supports HID Braille, follow these steps:

1. Turn on the Orbit Reader. Orbit reader displays the last braille you were reading.
2. Connect the USB cable to the host and to the Orbit Reader. "-- Charger connected" is displayed.

3. On the Orbit Reader Q20 or Q40, press CTRL + Windows + H. "-- HID Braille" is displayed.

Start the screen reader. Orbit responds by displaying what the screen reader is showing. If your screen reader does not support HID, see Serial below. Switch back to Stand-Alone mode, press Thumb key 1 + Thumb key 2.

19.3.3 Serial

When using a screen reader that only supports Serial protocol, follow these steps:

1. Turn on the Orbit Reader. It displays the last material to read.
2. Connect the USB cable. "-- Charger connected" is displayed.
3. On the Orbit Reader Q20 or Q40, press CTRL + I. "-- Serial USB" is displayed. The QWERTY Keyboard will connect to the host, and you can operate the host device using QWERTY keyboard.
4. Install any necessary drivers. See the Orbit Reader Q20 or Q40 Resources page or screen reader manufacturer's support webpages.
5. Configure the screen reader. Refer to the screen reader section in this document or refer to your screen reader documents.

19.3.4 Mass Storage

To use an SD card inserted in the Orbit Reader Q20 or Q40 as a drive on your computer, follow these steps:

1. Turn on the Orbit Reader. It responds with braille from your last activity.
2. Connect the Orbit Reader to your computer using a USB cable. "-- Charger connected" is displayed.
3. On the Orbit Reader Q20 or Q40, press CTRL + J. "-- Mass storage " is displayed. The QWERTY Keyboard will connect to the host, and you can operate the host device using QWERTY The QWERTY Keyboard. Depending on your settings, the computer also responds with a notification of a new drive that is now available.
4. Use your PC to read and write files on the new drive.

To switch back to Stand-Alone mode, press Thumb key 1 + Thumb key 2. Do not switch back to Stand-Alone mode while file transfers are in progress.

Note: If you have hidden files enabled on your device, you may encounter the following files:

- .BKP-FILEHISTORY - This file contains information of the last reading position of the last 100 files that were opened on the device.
- .BKP-RECENTHISTORY - This file contains information required for software to generate the recent file list.

- .Logfile - Log file containing software debug information.

Do not delete these files. You will only see them if you have hidden files enabled.

19.4 iOS Devices

You can connect to iOS devices using Bluetooth only.

19.4.1 Connecting iOS with Bluetooth

Connecting the Orbit Reader Q20 or Q40 to an iOS device provides both braille feedback and the ability to type and control the device with the Orbit Reader's Keyboard and directional buttons.

In default configuration (Just Works), the Orbit Reader is ready to pair with iOS via Bluetooth. Follow these steps to pair with Bluetooth:

1. Turn on Bluetooth. Bluetooth can be turned on in the Menu or by pressing CTRL + B on the Orbit Reader Q20 or Q40.
2. On the iOS device, go to Settings > Accessibility > VoiceOver > Braille unless you use a version of iOS prior to 13, then go to Settings > General > Accessibility > VoiceOver > Braille.
3. Look for the name of the unit in the list of possible braille displays. It will be listed as "Orbit Reader 20" for the Orbit Reader Q20 and "Orbit Reader 40" for the Orbit Reader Q40, followed by the last four digits of the device serial number.
4. Activate the Orbit Reader device in the list to pair.

Once you pair the unit, iOS starts sending braille to the Orbit Reader, and you can use the Orbit Reader input and navigation keys to control your iOS device.

Note: VoiceOver must be on in order to send braille to the Orbit Reader Q20 or Q40.

For more information about iOS and braille displays, see Braille Displays for iOS on the Apple® Accessibility website.

19.4.2 iOS Resources

- Apple Blind and Visually Impaired User Community
- Andrea's Head Wiki
- Tech Vision Tutorials
- YouTube Videos on iPad/iPhone and Braille
- Braille Displays for iOS

- Common braille commands for VoiceOver navigation using iPhone, iPad, and iPod® touch

19.4.3 iOS Commands

19.4.3.1 iOS Navigation Commands

- To Move to previous item, press Left Arrow
- To Move to next item, press Right Arrow
- To Pan braille left, press Left arrow.
- To Pan braille right, press the Right arrow.
-

19.4.3.2 iOS General Commands

- To Select all, press CTRL + A
- To Cut, press CTRL + X.
- To Copy, press CTRL + C.
- To Paste, press CTRL + V.
- To Undo typing, press CTRL + Z.
- To Redo typing, press CTRL + Y.
- To The QWERTY Keyboard Help, press F1.

For more information on other iOS commands refer to the *link*.

19.5 Mac Computers

The Orbit Reader Q20 and Q40 can be connected to a Mac in two ways. One is to connect using the USB cable available in the box. The second is to use Bluetooth for a wireless connection.

19.5.1 Connecting to a Mac over USB

The simplest way to connect the Orbit Reader Q20 or Q40 to a Mac is to connect using a standard USB-A to Type-C USB cable. Then switch the Orbit Reader to the HID protocol by picking HID in the USB option on the menu. Next, run VoiceOver by pressing the Apple CMD key + F5. Then, attach the small end of the USB cable to the Orbit Reader Q20 or Q40 with the bumps facing down and the big end to Mac. VoiceOver automatically recognizes and starts using the display.

19.5.2 Connecting to a Mac over Bluetooth

The default configuration for pairing with a Mac through Bluetooth is ‘Just Works’”. If Bluetooth has been turned off, it can be turned on in the menu or by pressing CTRL + B on the Orbit Reader Q20 or Q40.

If the Orbit Reader is in default connection, follow these steps to pair the device with a Mac:

1. Turn on Bluetooth. Bluetooth can be turned on in the menu or by pressing CTRL + B on the Orbit Reader Q20 or Q40.
2. When VoiceOver is on, open VoiceOver Utility by pressing VO-F8
3. Go to Braille category using arrow keys, press tab once and then arrow keys until you hear Displays and then press tab again until you reach the Add (+) button.
4. A dialog box will open showing a list of devices found by the Mac. Press VO + shift + down arrow to enter the list and then press arrow keys to find the display.
5. Select “Orbit Reader 20 ” from the list for the Orbit Reader Q20 or “Orbit Reader 40 ” for the Orbit Reader Q40. VoiceOver filters the devices it detects to list only the Bluetooth braille displays that are within range of your computer and that appear to match a VoiceOver braille display driver.
6. Activate the Orbit Reader device in the list to pair. Press return key to activate or pair the display.
7. A confirmation dialog will appear asking for pairing, press tab to reach confirm button and press return there.
8.

If the Orbit Reader Q20 or Q40 does not work with VoiceOver, it is possible that you are not using the latest Mac OS. In that case, you have the following choice:

1. Check for updates. We suggest you update the latest operating system.

If the Orbit Reader Q20 or Q40 is not listed, make sure you have turned on Bluetooth in the Menu.

19.5.3 Controlling the Orbit Reader Q20 and Q40 from a Mac

To control how VoiceOver treats the display, follow these steps:

1. Open the VoiceOver Utility by pressing Command + F8 while VoiceOver is running.
2. Press arrow keys to reach Braille option.
3. Select the Braille Display tab using tab and arrow keys.

To turn on contracted braille, check the Contracted Braille box.
For the Mac documentation on connecting and using braille displays, see Apple's VoiceOver Info Guide.
For more information on other MAC commands refer to the link.

19.6 Android Devices

You can connect to Android devices using Bluetooth only.

19.6.1 Connecting to Android devices over Bluetooth

In the default configuration, the Orbit Reader Q20 and Q40 are ready to pair with Bluetooth. If Bluetooth has been turned off, it can be turned on in the menu or by pressing CTRL + B.

1. Turn on Bluetooth. Bluetooth can be turned on in the menu or by pressing CTRL + B on the Orbit Reader Q20 or Q40.
2. Turn on the Android device and turn on Bluetooth.
3. Scan for available devices in the Bluetooth section and connect your device after it appears in the list.
4. Now, Come back to home screen.
5. Now, go to settings, accessibility, talkback, talkback settings and swipe down there to braille display settings.
6. Turn on the braille display if it is off and then find the device you connected to and double tap there.
7. You will be presented with some options, from which select connect and activate. Then your braille display will successfully connect.

19.6.2 Input and Output Text with Talkback

To input text with your braille keyboard, first, enable the keyboard in your Android settings under Language and Input. If you try to use the keyboard before completing this step, you will receive a prompt to change your settings. To edit a text field, focus and activate the text field. You can then use the Up and Down Arrow keys to move in the text field.

By default, Android is set to display English Computer Braille. So, you can only write data in Android using English Computer Braille. If you want to write in other languages, add those languages to your Android Braille Keyboard settings of Talkback.

To add languages, go to Talkback settings -> Braille Keyboard -> Languages. Add your preferred language from the list, and then select that language in the “Preferred typing language” option. For more information on Talkback commands refer to the link.

19.7 Chromebooks

19.7.1 Connecting Chromebook with USB

To connect to Chromebook with USB, follow these steps:

1. Press CTRL + H to put the Orbit Reader Q20 or Q40 in Remote HID (Orbit) mode. Alternatively, Press Up Arrow + Select in the menu, and then arrow to USB.
2. Plug the Orbit Reader into the Chromebook USB port. After a few seconds, the Chromebook detects the device and turns on Chrome Vox.

For more information on Chromebook commands refer to the link.

19.8 Fire OS Tablets

To pair the Orbit Reader Q20 or Q40 with VoiceView on your Fire Tablet, follow these steps

1. Swipe down from the top of the screen with two fingers and double tap on Settings.
2. Find the Accessibility settings and double tap. Then double tap on VoiceView Screen Reader.
3. Navigate to Braille and double tap. Then double-tap Pair Bluetooth Braille Display.
4. Make sure your Orbit Reader's Bluetooth is on, and then double tap on Scan.
5. Look for the name of the unit in the list of braille displays. It will be listed as "Orbit Reader 20 " for the Orbit Reader Q20 and "Orbit Reader 40 " for the Orbit Reader Q40, followed by the last four digits of the device serial number.
6. Double tap on it to pair.

For additional information, go to the "Use a Braille Display with Your FireTablet":(https://www.amazon.com/gp/help/customer/display.html?nodeId=201829370) webpage on the Amazon Help and Customer Service site.

19.9 Windows PCs

Before connecting the Orbit Reader Q20 or Q40 with a PC, you must first decide how you wish to connect: via Bluetooth or USB. This is a personal choice. USB charges the device as you use it, so it is a good choice when your battery is low. Bluetooth does not use wires, so it is a good choice when you are on the go.

19.9.1 Connecting to Windows over USB

If your screen reader does not support HID, switch to the Serial protocol on the Orbit Reader Q20 or Q40 with the hotkey or select Serial from the USB option in the menu.

For Windows versions 7 and newer, the serial interface requires the installation of two drivers: one for the USB and one to make the USB port appear like a COM port. The only exception is Windows XP. Because it is Serial only, it can just be plugged in. The second driver is required because many screen reading programs handle braille displays like a serial device. The COM port assignment driver shows the assigned port number used to communicate with the display. Take note of the COM port number for later use. If you need to look at it later, go to the Device Manager while the display is connected and look in the section for Ports: COM and LPT. One of the COM ports is assigned to Orbit Reader Q20 or Q40. You need to use that number when you set up your screen reader.
Once the display is connected to the device you wish to use, configure the software to use the Orbit Reader Q20 or Q40.

19.9.2 Connecting to Windows over Bluetooth

When connecting the Orbit Reader Q20 or Q40 with Bluetooth, you must first choose a pairing configuration.

The default configuration is ‘Just Works.’ If the Orbit Reader is in default connection, follow these steps to pair the device:

1. On the PC, perform a Bluetooth search.
2. Select “Orbit Reader 20 ” for the Orbit Reader Q20 and “Orbit Reader 40 ” for the Orbit Reader Q40 from the list.
3. Press enters to connect the display and press enter again to close the dialog.
4. Now, press the tab on the Bluetooth window until you reach more Bluetooth settings.
5. Press enters on that option and press ctrl + tab to reach com port tab.
6. Press tab to reach the list of com ports and find the outgoing com port with your device name and remember that.

19.9.3 Non-Visual Desktop Access (NVDA)

Go to the NVDA Preferences menu and select Braille Settings from the list. From the braille display drop-down menu, select "Baum/Humanware/APH/Orbit Displays".

Now press the tab to reach port combo box and find your device. NVDA will say like Bluetooth serial: com – and your device name and serial number.
Press the tab after that and press enter on ok.

Note: NVDA works in both HID and Serial modes.

NVDA turns ‘On’ braille output when it is configured for the display. To turn ‘Off’ braille support, select "No Braille" from Braille Display options in the Braille Settings menu.

19.9.3.1 NVDA Commands

- To Move up one lihne, press Up Arrow
- To Move down one line, press Down Arrow
- To Move left one character, press Left Arrow
- To Move right one character, press Right Arrow
- To Enter, press Select

For more information on other NVDA commands refer to the link.

19.9.4 Job Access with Speech (JAWS)

To use the Orbit Reader Q20 or Q40 with JAWS, you need to install a specific driver available here http://www.orbitresearch.com/support/orbit-reader-40-support/.

When connecting the Orbit Reader to JAWS via USB, it must be set to use the USB HID protocol by pressing CTRL + H.

To connect the Orbit Reader Q20 or Q40 via USB, follow these steps:

1. Start or restart JAWS.
2. Insert + J to bring up the JAWS menu.
3. Press Enter on Options.
4. Down Arrow to Braille and press Enter.
5. Tab to Add and press Enter.
6. Arrow Up or Down to Orbit Reader 20 or 40 and press Space to check the box and select it.
7. Tab to the Next button and press Enter.
8. Select USB.
9. Tab to the Next button and press Enter.
10. Select Orbit Reader 20 or 40 as a primary device.
11. Tab to the Finish button and press Enter.
12. Restart JAWS.

Alternative Steps for connecting over Bluetooth:

1. Press CTRL + B.
2. Follow steps 1-7 of the USB connection.
3. Select the COM port where the Orbit Reader Q20 or Q40 is connected (check more Bluetooth settings for COM port or use COM port you saved from previous steps).
4. Follow steps 9-12 of the USB connection.

To turn off braille support, follow these steps:

1. Insert + J to bring up the JAWS menu.
2. Press Enter on Options.
3. Down Arrow to Braille and press Enter.
4. Up Arrow to No Braille Display.
5. Tab to Ok and press Enter.
6. Restart JAWS.

Note: For a longer description of any of the following commands, turn JAWS keyboard Help ‘on’ by pressing Insert + 1 and type the command. Quickly type the command twice to get an even longer description. Press Insert + 1 again to exit the JAWS keyboard Help mode.

19.9.4.1 Jaws Commands

19.9.4.1.1 Navigation commands

- To Move display to the left, press Left
- To Move the display to the right, press Right.
- To Move display up one line, press Up.
- To Move display down one line, press Down.
- To Beginning of file, press Home.
- To End of file, press End.
- To Page Up, press Page Up
- To Page Down, press Page Down
-

19.9.4.1.2 Editing Commands

- To Backspace (acts as shift key when typing braille characters), press Backspace.
- To Enter, press Enter
- To Delete current character, press Delete
- To Select all, press CTRL + A
- To Select previous page, press Page Up

- To Select the next page, press Page Down
- To Copy to clipboard, press CTRL + C.
- To Cut to clipboard, press CTRL + X.
- To Paste clipboard, press CTRL + V.
- To Undo, press CTRL + Z.

19.9.4.1.3 Windows Commands

- To Start menu, press Windows button.
- To Escape, press ESC.
- To Minimize all applications, press Windows + M.

19.9.4.1.4 JAWS Commands

19.9.4.1.5 Cursor Routing Key Commands

To Move PC cursor to any cell, press Any cursor routing.

For more information on other JAWS commands refer to the link.

19.9.5 Dolphin Supernova Screen Reader

To connect Orbit Reader Q20 or Q40 to Dolphin Supernova Screen Reader, the device must be connected by a Standard USB-A to Type-C USB cable and set in HID protocol mode.

To connect the Orbit Reader via USB, follow these steps:

1. Press Ctr l+ H to activate HID Orbit mode on Orbit Reader Q20 or Q40
2. Click on Supernova's Control Panel
3. Press ALT key to open the Menu bar.
4. Now press left/right arrow keys to navigate to Braille menu
5. Now press the down arrow to go to the General preferences menu and click on it.
6. Here the dialog box will open. It will contain 3 Tabs.
7. Here click on Braille display tab. Now here you will see "No Braille display" and "Orbit Reader 20" display for Orbit Reader Q20 or "Orbit Reader 40" display for Orbit Reader Q40. Select "Orbit Reader 20" or "Orbit Reader 40" and click on OK button.

Note: While connecting the Orbit Reader Q20 or Q40 with Dolphin Supernova Screen Reader first time, steps 1 to 7 are required to follow. After that Dolphin Supernova Screen Reader automatically connects with Orbit Reader once the HID Orbit mode activated by Space 2 7 on Orbit Reader Q20 or Q40.

20 File transfer over Bluetooth

You can transfer a file from the Orbit Reader device to any paired Bluetooth device over Bluetooth except for iOS and Mac.

20.1 Send a file from the Orbit Reader Q20 or Q40

Go to a file in the file manager and browse to the file you wish to send. Press Windows + CTRL + b command to send the file to the Bluetooth device.

Orbit Reader Q20 or Q40 opens the list of paired devices. Scroll through device names from the list using Up and Down arrow keys and press Select.

It shows the progress message “Sending, XXX, YY%,” where XXX is a file name, YY is the percentage. Once the file transfer is completed, it shows the message “File transfer complete.” You can cancel the file transfer by pressing Esc. It shows the message “File transfer aborted.” In case the host device cancels the file transfer, it shows the message “File transfer canceled.”

In case of any error in the file transfer, it shows the “File transfer error.”

20.2 Receive a file on the Orbit Reader Q20 or Q40

When the Orbit Reader Q20 or Q40 receives a file transfer request from the host Bluetooth device, it shows the notification “XXX, YYY, ZZZ”, where XXX is a file name, YYY is the device name and ZZZ is the size of the file.

Press Enter to accept the file receive request or Esc to reject it.

It shows the progress by displaying “Receiving XXX, YY%,” where XXX is the file name and YY is the percentage received. Once the file transfer is completed, it shows the message “File transfer complete.” You can cancel the file transfer by pressing Esc. It then shows the message “File transfer aborted.” In case the host device cancels the file transfer, the Orbit Reader shows the message “File transfer canceled.”

In case of any error in the file transfer, the Orbit Reader shows the message “File transfer error.”

The Orbit Reader Q20 or Q40 stores the received file in the “Bluetooth” directory available at the root of the SD card. You cannot change this directory.

21 Calculator

The Calculator can perform the four fundamental arithmetic operations.

Press CTRL + T keys from stand-alone mode to open and close the calculator application. It shows the message “Calculator” for 2 seconds and starts blinking the cursor on the first cell of the display when the calculator is launched.

You can now start typing digits (0 to 9), mathematical operators (+, -, *, /), decimal point, and equals sign. The Calculator gives an error indication in the form of vibration or audio on inserting invalid input.

While entering the expression, you must enter using the language that is set as “read/write language.” As per selected read/write language, you can enter expressions as follows:

- English Computer Braille: You can enter expressions using the QWERTY keyboard’s number and mathematical operator keys.
- Other Languages (Excluding English): You can enter expressions in the selected read/write language using only Perkin's key support (S D F J K L).
- English (Excluding Computer Braille) with Braille Input On: You can enter expressions in the selected read/write language using only Perkin's key support (S D F J K L).
- English (Excluding Computer Braille) with Braille Input Off: You can enter expressions using the QWERTY keyboard’s number and mathematical operator keys. While entering expressions, the input will be displayed in English Computer Braille, but the result and all previous operations will be shown in the selected read/write language.

When you type any digit or operator, it moves the cursor to the next cell. Press Backspace to remove the last digit/operator. Once the entire display is full, you can review the previous display by pressing Left/Right keys or pan keys. (Total number of input digits and operators is limited to 255 entries for a single operation and a maximum of 15 digits are allowed per operand).

Press Enter key to perform the calculation and display the answer. It stops blinking when the answer is shown. On pressing Enter key on the answer, it repeats the previous operation on the answer.

Dot 8 at the last cell indicates the answer is longer than 20 digits in Orbit Reader Q20 or 40 digits in Orbit Reader Q40. Press Pan keys to review the remaining answer.

To review the last 10 operations, press CTRL + Y or CTRL + Z.

Exit the Calculator to go to previous or other modes or preference menu. The calculator application exits automatically when you turn off the device or it goes into sleep mode.

21.1 Basic calculator functions

21.1.1 Addition

Type any digits, then press '+' sign to add the addition operator and then type digits again. For example, 4+2

21.1.2 Subtraction

Type any digits, then press '-' sign to add the subtraction operator and then type digits again. For example, 4-2

21.1.3 Multiplication

Type any digits, then press '*' sign to add the Multiplication operator and then type digits again. For example, 4*2

21.1.4 Division

Type any digits, then press '/' sign to add the division operator and then type digits again. For example, 4/2

Press Enter key to display the answer.

Press CTRL + K to clear the last operand typed into the display (CE – Clear Entry) and press CTRL + Delete to clear the display and any partial calculation (AC – All Clear)

The Calculator shows the following errors messages:

- Divide by zero: "Cannot divide by zero."
- Zero divided by Zero: "Result is undefined."
- Pressing Select key without entering the second operand: "Syntax error."

21.2 Memory operations

The memory operations allow you to store and recall the results of calculations.

The calculator memory is set to 0 until you press M+ (CTRL + Up) or M- (CTRL + Down). Each time you press M+, the number on the display is added to the number stored in the calculator memory. Each time you press M-, the number on the display is subtracted from the number in the calculator memory. To recall the number in the calculator memory, press MR (CTRL + Left). To clear the memory, press MC (CTRL + Right).

21.3 Calculator Commands

- To Open/Close Calculator, press CTRL + T.
- To do Addition, press Plus
- To do Subtraction, press Minus
- To do Multiplication, press Multiplication
- To do Division, press Division
- To Backspace, press Backspace
- To Clear Entry, press CTRL + K.
- To All clear, press CTRL + Delete.
- To enter Decimal point, press CTRL + Dot key.
- To enter Pi key(Displays the value of pi) press CTRL + slash key.
- To do M+ (Memory Plus), press CTRL + Up arrow.
- To do M- (Memory minus), press CTRL + Down arrow.
- To do MR (Memory recall), press CTRL + Left arrow.
- To do MC (Memory clear), press CTRL + Right arrow.
- To do History navigation, press CTRL + Y / CTRL + Z.

Note: shortcut only available when read/write language is set to Computer Braille

22 Calendar

The Orbit Reader Q20 and Q40 include a calendar.

Press CTRL + L to open or close the calendar. The first thing you see is the month and year. For example, “"Jul 2021". Now press the Down arrow key once, and you will see the name of the days. For example, “Su Mo Tu We Th Fr Sa.”

Now, press the down arrow key once, and you will see the date numbers on the braille window. For example, " 1 2 3". Pressing down arrow again shows July 4 through 10, and continuing to press down arrow will scroll down through the weeks of July and then into August, etc. Similarly, if you can press up arrow to see the previous week.

At this point, as you navigate using the down arrow key today’s date is shown highlighted with raised Dot 7 and 8.

Please note that the Letter sign, capital sign and number sign shall not be displayed along with month, year, and weekdays titles if the System language selected is to be other than the English Computer Braille.

22.1 Appointments

You can also add and view appointments for a specific day.

22.1.1 View, Edit and Create appointments.

You can quickly jump to a specific date using the Gotto Date command (CTRL + G). It opens an edit box displaying the current date in one of the following formats DD/MM/YYYY, MM/DD/YYYY or YYYY/DD/MM. Type in the date on which you wish to set an appointment and press ESC. While entering the date, you must enter it using the language that is set as ““read/write language.” You can use the Left and Right arrow keys to jump between the date fields that you wish to type in.

Once the date is entered, Press the ESC key to jump directly to the appointment for the date.

If you wish to do it manually then you first need to scroll to the line where your desired date is shown and then start using the right arrow key to focus on the date for which you want to set up or edit an appointment. Suppose you want to set up an appointment on July 24, 2021. You would arrow down through the month of July until you reach the row where July 18 through 24 is shown. You will see that the cells representing July 23 have dots 7-8 raised to indicate that July 23 is the current date.

Now, press the right arrow. On the cells representing July 18, the first date shown in the braille window, dots 7 and 8 are raised underneath the number 8. So, you would press the right arrow 6 times to focus on July 24, the date on which you wish to add an appointment.

Pressing the Enter button Assuming you have no appointments on or later July 24, you receive the following message:

-- No Appointments

If you press Backspace at this point, you will be returned to the display showing July 18 through 24.

To create the new appointment you want for July 24, press CTRL + ALT + Q. You should see the date and time displayed with dots 7-8 raised below the first digit. Use the right arrow key to navigate to that part of the display you wish to change, such as the hour or minute. Press the right arrow repeatedly until you pass the time area and type the information about the appointment. You can correct any mistakes here using backspace. Press Enter to add the appointment. What you now see is the date, time, and text of the appointment.

Press Enter if you still want to make changes. If you are done, press Backspace to get back to the display of July 18 through 24. None of the dates are highlighted.

If you want to see the appointments you might have created for the period July 18 through 24, you must first ensure that one of the dates in the window is highlighted—that is, has dots 7-8 raised beneath the last digit. If no date is highlighted, nothing happens when you press the Select button. With a date highlighted, you either see “No Appointments” or you are presented with a list of the appointments you have already created. Use the up or down arrows to move between the appointments in the list. You can press CTRL + Q to delete the appointment or enter to edit the appointment.

22.1.2 Modify

You can also modify the existing appointment. Press Enter key on any day. It shows the list of existing appointments and press Enter key to get the cursor on the first field of that appointment and you can change any field by pressing Up/Down arrow key.

Enter to confirm the modifications.

Appointment changes can be discarded by pressing the CTRL+ d.

22.1.3 Delete appointment

You can also delete the existing appointment. Press Enter key on any day. It shows the list of existing appointments and Press CTRL + Q to delete that appointment.

This action deletes the appointment currently showing. Confirmation is required before the appointment is deleted. When the message "Confirm action" is displayed, press Enter to confirm or press Backspace to cancel.

An alarm rings at its programmed time and day of the appointment. Press Backspace to acknowledge the ringing alarm.

22.2 Calendar Commands

The following are the commands for the calendar application.

- To open/close calendar, press CTRL + L.
- To Go to Previous or Next Week, press Up or Down Arrows You can navigate in the calendar by weeks. Pressing Down arrow key goes the next week and pressing Up arrow key goes to the previous week.
- To Add a new appointment, press CTRL+ ALT + Q.
- To Delete appointment, press CTRL + Q.
- To Go to Date, press CTRL + G.

23 Key Lock Command

The Key Lock command prevents accidental key presses. The command is to hold CTRL + Windows + l for two seconds or more. Pressing and holding these same keys again, unlocks the keys. You can also unlock the keys by turning the device off and then on again.

24 System Alerts

System alerts, such as — “Battery low" are indicated by periodic cycling of Dot 8 in the last cell of the device.

Alerts are seen by invoking the Menu or the Editor Context Menu. Pressing Enter causes the next alert to appear if there is any. The alert is removed from the alert list once it has been displayed.

If no more alerts are in the list, the first Menu or Editor Context Menu item appears. Pressing Backspace clears all pending alerts and puts you back on the first Menu or Editor Context Menu item.

If the alert message length is longer than 20 characters in Orbit Reader Q20 or 40 characters in Orbit Reader Q40, you can navigate through the message using Panning keys. If you are already in Menu or Editor Context Menu when an alert appears, you can review the alert by pressing Space key.

25 Reboot the Device

If the Orbit Reader Q20 or Q40 suddenly does not respond to button presses, and you know that the battery is not fully discharged, then you may try rebooting the device by pressing the lower Right Panning key + Thumb 3. There is no indication of the reset event. The unit is in power-off condition after reset and needs to be powered on before it can be used.

26 Device Upgrade Procedure

26.1 Device Firmware Upgrade

New versions of the firmware for the Orbit Reader Q20 and Q40 are released from time to time, containing improvements, bug fixes, and new features. This section describes the procedure for updating the Orbit Reader Q20 and Q40 firmware.

There are two ways to upgrade the firmware of the Orbit Reader Q20 and Q40: either using a Windows PC and a USB cable or using an SD card containing the update file.

The USB upgrade method requires a Windows PC, but the upgrade process is simple and quicker, but the SD card upgrade method only requires a computer to download the update file and put it on the SD card; then no computer is required to perform the actual upgrade.

There are two parts to the upgrade procedure:

1. Download the firmware package.
2. Upgrade the Orbit Reader Q20 or Q40

The process for downloading the firmware package is common to either upgrade method.

26.1.1 Download firmware package

1. Go to the Orbit Research Support webpage http://www.orbitresearch.com/support/orbit-reader-q40-support/
2. For the most current version, select Download Most Recent Firmware. The firmware for both the Orbit Reader Q20 and Q40 models is the same. https://www.orbitresearch.com/orbit-reader-q40-firmware-download/
3. Select Firmware Upgrade Package “OR Qwerty - Target Software vB1.01.00.XXrYY”.
4. Save the zip file to your PC.

When the download is complete, follow these steps:

1. Open the folder on your computer where the firmware zip file was downloaded. This is usually your Downloads folder.
2. Right-click on the file and choose "Extract all" OR select the file by arrowing to it, pressing the application key and choosing "Extract All" from the Context menu.
3. Follow the dialog steps to extract the zip file to a folder of your choice.

When finished, your chosen folder should contain a folder named after the version of the release, for example, OR-40_XX.XX.XX. Make a note of the location of this folder for use in the next section of this document.

For information about bugs, fixes, and additions to the software, see the latest version's Release Notes on the Orbit Research Firmware package shared by the customer support team.

26.1.2 Using the Windows PC Upgrade Utility

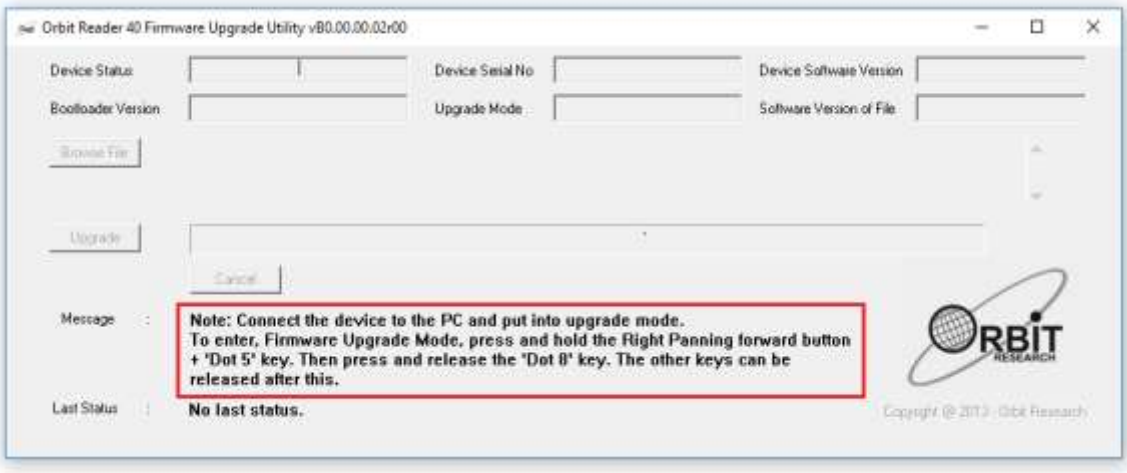
The following is required to perform the upgrade to the Orbit Reader Q20 and Q40 with a PC:

1. The Orbit Reader Q20 or Q40 unit
2. Standard USB-A to Type-C USB cable

3. A PC running Windows XP or later.
4. The Orbit Reader 40 Upgrade Utility file found in the Orbit Reader firmware package folder (see Download firmware package).
5. Orbit Reader Q20 or Q40 Release Bin files found in the Orbit Reader firmware package folder (see Download firmware package).

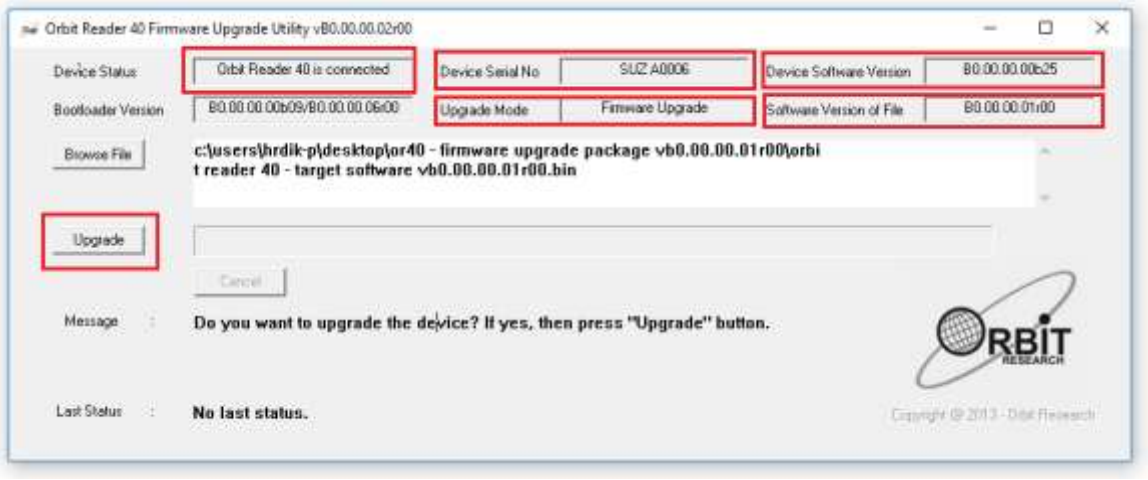
To upgrade the firmware, follow these steps:

1. Make sure the Orbit Reader Q20 or Q40 is turned off.
2. Connect the Orbit Reader to the PC using the USB cable.
3. In the Release folder on your PC, run the Orbit Reader 40 Firmware Upgrade Utility. If you receive an error message, see the Troubleshooting section. Assuming no errors, the program displays the message, “Note: Connect the device to the PC and put it into upgrade mode. To enter, Firmware Upgrade Mode, press and hold the Right Panning forward button + Thumb 2' key. Then press and release the 'Thumb 3' key. The other keys can be released after this” in the message field.

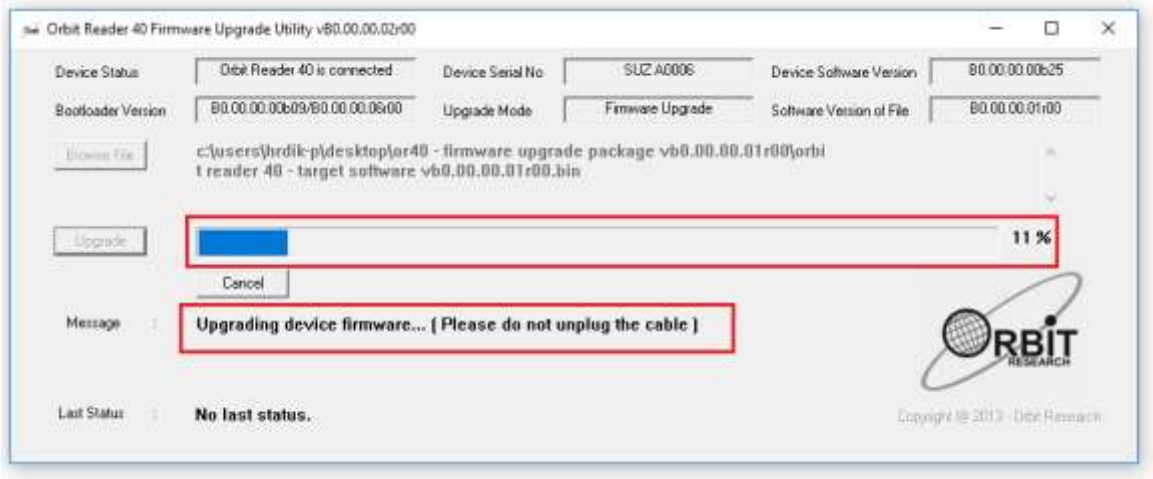


4. Press and hold down the Right Panning forward button + Thumb 2, then press Thumb 3. The utility shows the message “Orbit Reader 40 is connected” in the Device status field. It shows the message “Do you want to upgrade the device?” in the message field at the bottom of the dialog.
5. Release Thumb 3 first, then release the Right Panning key and Thumb 2. This switches the Orbit Reader Q20 or Q40 to Upgrade mode. You should hear a tone on your PC.

6. The utility shows the device serial number and the software version of the device at the top right corner of the window. If the serial number is blank, repeat steps 4 and 5.
7. Activate the Browse button found in the dialog.
8. Browse and select the firmware bin file from your PC. The file is in the folder you unzipped previously.
9. Once the file is selected, the dialog shows the software version of the selected file. A dialog box will also display the information that the current file selected is firmware binary.



10. Activate the Upgrade button. The utility starts upgrading the device. The device will emit a single vibration pulse at 2 second intervals.



11. Do not unplug the cable. Wait for the message “Device upgrade has been completed” on the upgrade utility or until the Orbit Reader reboots and shuts down.

12. The Orbit Reader device is upgraded. Turn on the Orbit Reader device to start using the device.

To check for a successful upgrade of the Orbit Reader Q20 or Q40, press Windows + P to open the Orbit Reader device preference Menu and arrow to "Ver" in the list. The version number of the firmware release should match the number shown in the upgrade utility.

26.1.3 Using an SD card to Perform the Upgrade

The following are required to perform the upgrade to the Orbit Reader Q20 and Q40 from an SD card:

1. Orbit Reader Q20 or Q40 unit.
2. Orbit Reader Q20 or Q40 Release Bin files found in the Orbit Reader firmware package folder of the download package (see Download firmware package).
3. Your SD card should have a FAT32 file system.

To upgrade the firmware, follow these steps:

1. Copy the binary file “OR Qwerty - Target Software vB1.01.00.XXrYY.bin” from the download package to the root folder of the SD card. Use either the Orbit Reader device Mass Storage Mode or remove the SD card and put it in a card reader. When completed, insert the SD card into the Orbit Reader Q20 or Q40. Make sure that your SD card contains only one binary file. Remove the other binary files from the SD card.
2. Turn off the Orbit Reader device. The unit should be turned off before the upgrade is started.
3. Press and hold the Right Panning forward button + Thumb 1, then turn on the Orbit Reader Q20 or Q40; it will show the message “Preparing…”. Now you can release all the keys. Typically, it will take about 40 to 50 seconds to prepare.
4. The device will emit a single vibration pulse at 2 second intervals.
5. Once preparation is complete, the Orbit Reader should show the message “Upgrading firmware..” Progress is shown by blinking 2 cells of dot 6 at the end of the message.
6. Typically, it will take 2.5 to 3 minutes to upgrade the firmware. Do not remove the SD card during the upgrade.
7. When the upgrade has completed, the Orbit Reader will show the message “Upgrade complete” for a few seconds and then the device will automatically reset itself and turn off.
8. The Orbit Reader device is upgraded. Turn on the Orbit Reader device to start using the device.

To check for the successful upgrade of the device, press Windows + P to open the Orbit Reader device preference Menu and arrow to "Ver" in the list. The version number of the firmware release should match the number in the name of the bin file.

26.2 Audio Firmware Upgrade

The audio section of the Orbit Reader Q20 or Q40 contains separate firmware which can be updated independently. Some device firmware upgrades may require the audio firmware to also be upgraded, but this is not always the case. The firmware release notes for the device firmware will specify when an audio firmware upgrade is required. Care should be taken to ensure that compatible versions of the audio and device firmware are loaded on to the unit, else the audio functions may not work as expected.

26.2.1 Download the Audio Firmware Package

To download an Audio Firmware Upgrade Package for the Orbit Reader Q20 and Q40:

1. Go to the Orbit Research Support webpage http://www.orbitresearch.com/support/orbit-reader-40-support/
2. For the most current version, select Download Most Recent Audio Firmware from http://www.orbitresearch.com/support/orbit-reader-40-support/orbit-reader-40-audio-download/
3. Select OR-40 Audio Firmware Upgrade Package vB1.00.00.XXrYY.
4. Save the zip file to your PC.

When the download is complete, follow these steps:

1. Open the folder on your computer where the firmware zip file was downloaded. This is usually your Downloads folder.
2. Right-click on the file and choose "Extract All" or select the file by arrowing it, pressing the application key and choosing "Extract All" from the Context Menu.
3. Follow the dialog steps to extract the zip file to a folder of your choice.

When finished, your chosen folder should contain a folder named after the version of the release, for example, OR-40_XX.XX.XX. Make a note of the location of this folder for use in the next section of this document.

26.2.2 Upgrade to the Audio Firmware

The procedure to upgrade the audio firmware is same as the procedure for upgrading the device firmware (see the section Device Firmware Upgrade).

Please make sure that the audio firmware version you have downloaded is compatible with the firmware version installed on your device. You will be able to

find this information from the release notes in the audio firmware package or the device firmware package.

When upgrading using the Windows upgrade utility, you will need to browse and locate the audio firmware binary (.bin) file instead of the device firmware binary file. After you select a valid audio firmware binary file, the upgrade utility will show “Audio Upgrade” in the “Upgrade mode” field.

Similarly, when upgrading through the SD card, you will need to copy the audio firmware binary file to the root directory of the SD card instead of the device firmware binary file. Please be sure to remove the device firmware binary file from the root directory of the SD card while performing the audio firmware upgrade.

The rest of the process remains the same.

26.3 Troubleshooting

1. In case the unit freezes up or does not accept any commands at all, you can perform a recovery operation by following the steps suggested below.
    a. Try a different key combination to upgrade (see below).
    b. Make sure that you have the binary file “OR Qwerty - Target Software vB0.00.00.XXrYY.bin” into the root directory of the SD card.
    c. Press and hold the Right pan lower + Thumb 1 keys + the Power button and wait for the message “Preparing…”. If you do not get any message within 4 or 5 seconds, press and release the Thumb 3 key and then release the other keys.
    d. Wait for about a minute. The Orbit Reader device should start upgrading and show the message “Upgrading firmware.”
    e. Typically, it will take 2.5 to 3 minutes to upgrade the firmware.
    f. The Orbit Reader device shows the “Upgrade complete” message after completion of a successful firmware upgrade for 5 to 8 seconds and then the device will automatically reset/shut down itself.
2. If the Orbit Reader device does not show the message “Preparing,” make sure you had pressed the keys in the correct sequence. Press and hold the Right pan lower + Thumb 1 keys and without releasing them, press the power key to turn on the device.
3. If you are not sure at what stage of the upgrade process you are, you can always start from the first step. Just reset the Orbit Reader Q20 or Q40 by pressing Thumb 3 and the Right pan down key.

4. While upgrading through the SD card, make sure you have either the device firmware binary or the audio firmware binary only in the root directory. Do not copy both files to the SD card at the same time.
5. Please make sure your audio firmware is compatible with the device firmware version. You will be able to find this information from the release notes in the audio firmware package or the device firmware package.

27 Localization

The following are the steps to be followed for configuring a language other than English.

1. The localization language files are different for Orbit Reader Q20 and Q40. Download the new files from the following website links for your language.
   For Q20: https://www.orbitresearch.com/orbit-reader-q20-localization-download/
   For Q40: https://www.orbitresearch.com/orbit-reader-q40-localization-download/
2. If the desired language file is not there, you can request it by writing to us at techsupport@orbitresearch.com.
3. Copy the file on the SD card that you are using with the device. The file can be copied externally through a card reader or putting the device into Mass Storage mode.
4. Go to the Preference menu item “Add language” to check the file you copied. If you have multiple language files in the SD card, you can scroll through them using the Left/Right Arrow key.
5. Go to the file of your choice and press Select to load file to internal memory.
6. It may take some time for the file to be loaded. The unit shows busy indication through audio tones and displaying “busy” on the display.
7. You can load multiple languages following the same process (If you encounter “Memory full” error while adding languages, you need to remove some languages before you can load new languages. Please refer to the “Remove language” section for more details on how to remove languages.)
8. Go to the Profile settings for the profile of your choice among profile 1, 2, 3, 4 or 5 in preference menu.
9. Go to the sub-menu called “system language” and press Enter. If you have multiple language files in the internal memory you can scroll through them using the Left/Right Arrow key.
10. Go to the file of your choice and press Enter. Press Backspace to exit the system language setting.
11. Now Go to the Read-write menu item which is next to the system language.

12. Go to the file of your choice and press Enter. Press Backspace to exit the read-write language setting.
13. Press Backspace to exit the menu.
14. Press ALT + F1, ALT + F2, ALT + F3, ALT + F4 or ALT + F5 to activate the profile 1, profile 2, profile 3, profile 4 or profile 5, respectively.

28 Troubleshooting

28.1 Orbit Reader Q20 or Q40 does not power on or seems to freeze.

If the Orbit Reader Q20 or Q40 does not power on or seems to freeze, try these options in the following order:

Option 1: Plug in the device

1. Plugin the unit with the supplied AC wall connector and cable to ensure that the battery is charged. This is the most reliable power source.
2. Let the unit ‘charge’ for at least an hour or more.
3. Hold the Power button for at least two seconds. If the unit is on, it should turn off. If it is off, it should come on.

Option 2: Check SD card

1. Remove the SD card.
2. Hold the Power button for two seconds.

Option 3: Unplug the device

1. If the unit is plugged in, unplug the power cord.
2. Hold the Power button for at least two seconds.

Option 4: Reset device

1. Press the Reset command (Thumb 3 + right-bottom Panning key). Note: On reset, the unit is unresponsive, and there is no change to the display.
2. Hold the Power button for at least two seconds.

Option 5: Remove the battery

Note: Use this option as the last resort.

1. Call customer service for guidance on safely removing the battery.
2. Leave it out for a few minutes.
3. Reconnect it, then try the options again.

If none of the options works and the device does not come on, contact Customer Service at techsupport@orbitresearch.com.

28.2 Exercising the Pins

If you experience issues with the pins, you may exercise the pins following the steps described below.

1. Power On the unit.
2. Enter test mode (Press and hold Thumb 1 key + tap power button 5 times).
3. The unit shows the unit serial number.
   .
4. Make a note of pins that are misbehaving if any.
5. Press the CTRL + UP arrow key, this will automatically toggle all the pins up and down. This may also help to recover the pins if they are stuck due to nominal dust in the pin movement path.
6. Allow the exercise to run for 4-5 minutes only and press Thumb 2 to stop the process.
7. Restart the device and check if the stuck pins have recovered.

28.3 Generating a debug log

If you encounter any unexpected behaviour with system software, you can generate log and share it with us to help us diagnose the issue. The debug log can be generated by following the steps described below.

1. Charge the unit till the battery level is above 10%.
2. Power On the unit.
3. Insert the SD card into the SD card slot of the unit.
4. Make sure you are in local mode. Press Select + left to go into the local mode.
5. Press ALT + CTRL+ Windows + shift + s key.
6. A file named “. Logfile_ [Unit serial number].txt" (e.g., Logfile_SUA00051) will be generated in the SD card.
7. Press CTRL + J key to switch unit to mass storage/media device mode or simply attach the SD card.
8. Copy “. Logfile_ [Unit serial number].txt " to PC and email to us at techsupport@orbitresearch.com.

29 Battery Use and Replacement

The Orbit Reader Q20 and Q40 include a rechargeable Lithium-Ion capacity battery. It charges fully in about three hours under optimal conditions. A full battery charge lasts about three days of typical use. You can check the battery status in the Menu.

When the battery in Orbit Reader Q20 or Q40 gets to 10% capacity, Dot 8 of the last braille cell (the 20th cell for the Orbit Reader Q20 and the 40th cell for the Orbit Reader Q40) starts blinking and sound and vibration indications are also provided.

The battery in Orbit Reader Q20 or Q40 should last several years. Gradually, the battery begins discharging faster than usual as its capacity declines. When the duration of time that the battery holds charge becomes inconveniently short, it is time for a replacement.

To replace the battery, follow these steps:

1. Obtain a replacement battery. Use only the battery designed for the Orbit Reader Q20 and Q40. Batteries are available from our website or by calling us.
2. Remove the battery door screws.
3. Remove the battery door.
4. Carefully unplug the connector. Do not pull the wire. Use the connector instead.
5. Insert a new battery.
6. Replace the cover and screws.

To dispose of batteries properly, call the recycling center at 1-800-822-8837.

30 Orbit Reader Q20 and Q40 Cleaning Tips

Due to exposure to natural elements such as dust and oils, the Orbit Reader Q20 or Q40 should be cleaned periodically.

The following are some tips to keep your Orbit Reader Q20 or Q40 clean:

- Cleaning should be performed with the unit switched off and with all pins in the down position.
- Use a vacuum cleaner with a soft tip attachment to remove dust from the pin area.
- Use a lint-free cloth to wipe the cells.
- The cloth may be moistened with water.
- Avoid using the following:
  - Paper towels, cotton swabs or materials that can release fibers.
  - Alcohol or ammonia-based cleaners
  - Canned or compressed air

31 General Specifications

- Dimensions (WxHxD): 6.936 x 1.385 x 11.62 inch (176.18 x 35.18 x 295.20 mm)
- Weight: 2.645 lbs. (1200 grams)
- Braille Cells: 40 eight-dot braille cells; Refresh rate < .75 sec

- Braille Input Keys: Full-size, high-quality QWERTY keyboard with sculpted keys
    - Full Set of 78 keys
    - Twelve Function keys
    - Arrow keys in an inverted-T configuration
    - Keys for use with Windows and Mac computers

- Additional Keys: Power on/off button, 2 panning keys rocker type, and 20 cursor routing keys in Orbit Reader Q20 or 40 cursor routing keys in Orbit Reader Q40
- Supported File Formats: .txt,. brl, .brf, .bra
- OS Support: Windows - NVDA, JAWS, Dolphin Supernova, System Access, Microsoft Narrator, Mac OS X - Voiceover, iOS - Voiceover, Android - Talkback, Fire OS - VoiceView, Chrome OS - Chrome Vox, Linux/Unix - BRLTTY
- Bluetooth Connections: Up to 5 simultaneous connections
- Interfaces and Ports: 1x USB Type C port, for host interface, firmware upgrade, and battery charging, 1x USB Standard-A port for connecting USB flash drives.
- Bluetooth 5.0, Class 2, Flash Media Slot, 1x SD card (4GB to 32GB capacity)
- Battery: User-replaceable, rechargeable Lithium-Ion battery
- Battery Life on a full charge: 3 days of typical use
- Charging Method: PC charger - Charge over USB Port – 5V, 500 mA Max, Wall charger - Charge over USB Port – 5V, 1000 mA Max; USB BC1.2 compliant charger required
- Environmental Conditions: Operating Temperature: 5 °C to 45 °C, Operating Humidity: 10% - 70% relative humidity, Storage Temperature: -15 °C to 70 °C
- Storage Humidity: 5% - 90% relative humidity

32 Appendices

32.1 Appendix A – Links for Remote mode commands

Screen Reader	Command link
Voiceover for macOS	Appendix A. Commands and Gestures (apple.com)
Voiceover for iOS	Use VoiceOver on iPhone with an Apple external keyboard - Apple Support (IL)
Talkback commands	Use Talkback keyboard shortcuts - Android Accessibility Help (google.com)
Chromebook commands	Use the built-in screen reader - Chromebook Help (google.com)
JAWS commands	JAWS Hotkeys – Freedom Scientific
NVDA commands	NVDA command key quick reference (nvaccess.org)

32.1.1 IOS Commands:

The modifier is a key or set of keys you press with one or more other keys to enter VoiceOver commands. You can set the modifier to be the Caps Lock key, or the Control and Option keys pressed at the same time.

1. Go to Settings



> Accessibility > VoiceOver > Typing > Modifier Keys.

2. Choose the modifier for VoiceOver commands: the Caps Lock key or the Control and Option keys.

This modifier is abbreviated as “VO” below.

32.1.1.1 VoiceOver keyboard commands

Description	Keystroke
Turn on VoiceOver Help	VO + K

Turn off VoiceOver Help	Esc (Escape)
Select the next or previous item	VO + Right Arrow or VO + Left Arrow
Activate the selected item	VO + Space bar
Touch and hold the selected item	VO + Shift + M
Read from the current position	VO + A
Read from the top	VO + B
Pause or resume reading	Control
Copy the last spoken text to the clipboard	VO + Shift + C
Search for text	VO + F
Mute or unmute VoiceOver	VO + S
Go to the Home Screen	VO + H
Move to the status bar	VO + M
Open the notifications screen	Move to the status bar (VO + M), then Option + Up Arrow
Open Control Center	Move to the status bar (VO + M), then Option + Down Arrow
Open Search	Option + Up Arrow
Open the App Switcher	VO + H + H
Open the Item Chooser	VO + I
Change the label of the selected item	VO + /
Start, stop, or pause an action	VO + Hyphen
Swipe up or down	VO + Up Arrow or VO + Down Arrow
Turn the rotor left or right	VO + Command + Left Arrow or VO + Command + Right Arrow
Adjust the setting specified by the rotor	VO + Command + Up Arrow or VO + Command + Down Arrow
Turn the screen curtain on or off	VO + Fn + Hyphen (or VO + Globe key + Hyphen, depending on your keyboard)
Return to the previous screen	Esc

32.1.1.2 Quick Nav using the arrow keys.

Turn Quick Nav on or off	Left Arrow + Right Arrow
Select the next or previous item	Right Arrow or Left Arrow
Select the next or previous item specified by the rotor	Up Arrow or Down Arrow
Select the first or last item	Control + Up Arrow or Control + Down Arrow
Tap an item	Up Arrow + Down Arrow
Scroll up, down, left, or right	Option + Up Arrow, Option + Down Arrow, Option + Left Arrow, or Option + Right Arrow

Adjust the rotor	Up Arrow + Left Arrow or Up Arrow + Right Arrow

32.1.1.3 Single-key Quick Nav for web browsing

Description	Keystroke
Heading	H
Link	L
Text field	R
Button	B
Form control	C
Image	I
Table	T
Static text	S
ARIA landmark	W
List	X
Item of the same type	M
Level 1 heading	1
Level 2 heading	2
Level 3 heading	3
Level 4 heading	4
Level 5 heading	5
Level 6 heading	6

32.1.1.4 Text editing

Description	Keystroke
Go forward or back one character	Right Arrow or Left Arrow
Go forward or back one word	Option + Right Arrow or Option + Left Arrow
Go up or down one line	Up Arrow or Down Arrow
Go to the beginning or end of the line	Command + Left Arrow or Command + Down Arrow
Go to the beginning or end of the paragraph	Option + Up Arrow or Option + Down Arrow
Go to the previous or next paragraph	Option + Up Arrow or Option + Down Arrow
Go to the top or bottom of the text field	Command + Up Arrow or Command + Down Arrow
Select text as you move	Shift + any of the insertion point movement commands above
Select all text	Command + A
Copy, cut, or paste the selected text	Command + C, Command + X, or Command + V

Undo or redo last change	Command + Z or Shift + Command + Z

32.1.2 Talkback Commands:

32.1.2.1 Default Keymap

32.1.2.1.1 Navigation

Description	Keystroke
Navigate to next item	Alt + right arrow
In continuous reading mode, this shortcut fast-forwards the text.	
Navigate to previous item	Alt + left arrow
In continuous reading mode, this shortcut rewinds the text.	
Navigate to above item	Alt + up arrow
Navigate to below item	Alt + down arrow
Navigate to first item	Alt + CTRL + left arrow
Navigate to last item	Alt + CTRL + right arrow
Navigate to next window	Alt + CTRL + down arrow
Navigate to previous window	Alt + CTRL + up arrow
In a split screen view, this shortcut moves your focus between 2 open apps. Otherwise, it moves focus between the navigation bar, main screen, and status bar.	
Navigate to next word	Alt + shift + CTRL + right arrow
Navigate to previous word	Alt + shift + CTRL + left arrow
Navigate to next character	Alt + shift + right arrow
Navigate to previous character	Alt + shift + left arrow
Click the focused element	Alt + enter
Touch and hold the focused element	Alt + shift + enter

32.1.2.1.2 Global actions

Description	Keystroke
Back	Alt + backspace
Home	Alt + CTRL + h
Recent apps	Alt + CTRL + r
Notifications	Alt + CTRL + n
Play or pause media	Alt + shift + space
Next reading control	Alt + shift + CTRL + down arrow

Previous reading control	Alt + shift + CTRL + up arrow
Adjust reading control up	Alt + shift + up arrow
Adjust reading control down	Alt + shift + down arrow

32.1.2.1.3 Other actions

Description	Keystroke
Read from top	Alt + CTRL + enter
Read from next item	Alt + shift + CTRL + enter
Show Talkback Menu	Alt + space
Show actions	Alt + CTRL + space
Show installed languages	Alt + CTRL + l
Search the screen for an item	Alt + CTRL + /

32.1.2.1.4 Text navigation

Description	Keystroke
Move to next word	Alt + shift + CTRL + right arrow
Move to the previous word	Alt + shift + CTRL + left arrow
Move to next character	Alt + shift + right arrow
Move to previous character	Alt + shift + left arrow

32.1.2.1.5 Chrome web page navigation

Use these shortcuts to move to the next or previous element on a page.

Description	Keystroke
ARIA landmark	Next: Alt + d
	Previous: Alt + shift + d
Button	Next: Alt + b
	Previous: Alt + shift + b
Checkbox	Next: Alt + x
	Previous: Alt + shift + x
Combo box	Next: Alt + z
	Previous: Alt + shift + z
Control	Next: Alt + c
	Previous: Alt + shift + c
Editable field	Next: Alt + e
	Previous: Alt + shift + e
Focusable item	Next: Alt + f
	Previous: Alt + shift + f
Graphic	Next: Alt + g
	Previous: Alt + shift + g
Heading	Next: Alt + h
	Previous: Alt + shift + h
Heading level 1, 2, 3, 4, 5 or 6	Next: Alt + [1-6]

	Previous: Alt + shift + [1-6]
Link	Next: Alt + l
	Previous: Alt + shift + l
List	Next: Alt + o
	Previous: Alt + shift + o
List item	Next: Alt + l
	Previous: Alt + shift + l
Table	Next: Alt + t
	Previous: Alt + shift + t

32.1.2.2 Classic Keymap

32.1.2.2.1 Navigation

Description	**Keystroke**
Move to next item	Alt + shift + right arrow
Move to previous item	Alt + shift + left arrow
Move to first item	Alt + shift + up arrow
Move to last item	Alt + shift + down arrow
Click focused element	Alt + shift + enter

32.1.2.2.2 Global actions

Description	**Keystroke**
Back	Alt + backspace
Home	Alt + CTRL + h
Recent apps	Alt + CTRL + r
Notification	Alt + CTRL + n
Play or pause media	Alt + shift + space
Select the next reading control	Shift + CTRL + arrow down
Select previous reading control	Shift + CTRL + arrow up
Adjust reading control up	CTRL + arrow up
Adjust reading control down	CTRL + arrow down

32.1.2.2.3 Navigation settings

Description	**Keystroke**
Next navigation setting	Alt + shift + =
Previous navigation setting	Alt + shift + -

32.1.2.2.4 Other actions

Description	**Keystroke**
Search the screen for an item	Alt + shift + /

Show Talkback menu	Alt + shift + g

32.1.3 JAWS Commands:

32.1.3.1 General Keystrokes

Description	Keystroke
Go Back to a Page	ALT + LEFT ARROW or BACKSPACE
Go Forward a Page	ALT + RIGHT ARROW
Read Address Bar	INSERT + A
Next Link	TAB
Prior Link	SHIFT + TAB
Open Link	ENTER
List Frames	INSERT + F9
List Links	INSERT + F7
List Headings	INSERT + F6
Heading at Level	1 through 6
Virtual HTML Features	INSERT + F3
JAWS Find Next and Previous	F3 and SHIFT + F3
Assigning Custom Label	CTRL + INSERT + TAB
ARIA Drag-and-Drop	WINDOWS Key + CTRL + EQUALS
ARIA Live Region Text Filter	WINDOWS Key + CTRL + DASH
Open Flexible Web Wizard	INSERT + SPACEBAR followed by X
Temporarily Toggle Smart Navigation	INSERT + X

32.1.3.2 Tabbed Browsing Quick Keys

Description	Keystroke
Open a New Tab	CTRL + T
Open a New Tab from the Address Bar	ALT + ENTER (on address bar)
Switch to the Next Tab	CTRL + TAB
Switch to the Previous Tab	CTRL + SHIFT + TAB

Switch to a Specific Tab Number	CTRL + n, where n is a digit from 1 through 8
Switch to Last Tab	CTRL + 9
Close Current Tab	CTRL + W or CTRL + F4
Close All Tabs	ALT + F4
Close Other Tabs	CTRL + ALT + F4
Open Links in a New Tab in the Background	CTRL + ENTER
Open Links in a New Tab in the Foreground	CTRL + SHIFT + ENTER

32.1.3.3 Navigation Quick Keys

Tip: If you press and hold SHIFT before pressing one of the following Navigation Quick Keys, you can move to the previous instance of that element, for example, press A to move to the next radio button, press SHIFT + A to move to the previous radio button.
In addition, if you press and hold CTRL + INSERT while pressing keystrokes with an asterisk (*) next to them, JAWS displays a list of those elements on the page.

Description	**Keystroke**
Next Radio Button	A*
Next Button	B*
Next Combo Box, List Box, or Tree View	C*
Next Different Element	D
Next Edit Box	E*
Next Form Control	F
Next Graphic	G*
Next Heading	H
Next Item in a List	I
Jump to Line	J*
Next Place Marker	K*
Next List	L*
Next Frame	M
Skip Past Links	N
Next Article	O*
Next Paragraph	P*

Move to Main Region	Q
Next Region	R*
Next Same Element	S
Next Table	T*
Next Unvisited Link	U
Next Visited Link	V
Next Check Box	X*
Next Division	Z*
Next Tab Control	APOSTROPHE*
Next Separator	DASH
Next Clickable Element	SLASH*
Next Mouse Over Element	SEMICOLON*
Next Element	SHIFT + PERIOD
Previous Element	SHIFT + COMMA

32.1.3.4 Forms

Description	**Keystroke**
Enter Forms Mode	ENTER
Exit Forms Mode	NUM PAD PLUS
List Form Fields	INSERT + F5
First Form Field	INSERT + CTRL + HOME
Next Form Field	F
Prior Form Field	SHIFT + F
Last Form Field	INSERT + CTRL + END
Next Radio Button	A
Prior Radio Button	SHIFT + A
List of Radio Buttons	CTRL + INSERT + A
Next Button	B
Prior Button	SHIFT + B
List Buttons	CTRL + INSERT + B
Next Combo Box, List Box, or Tree View	C
Prior Combo Box, List Box, or Tree View	SHIFT + C

List Combo Boxes, List Boxes, or Tree Views	CTRL + INSERT + C
Next Edit Box	E
Prior Edit Box	SHIFT + E
List Edit Boxes	CTRL + INSERT + E
Next Check Box	X
Prior Check Box	SHIFT + X
List Check Boxes	CTRL + INSERT + X

32.1.3.5 Tables

Description	**Keystroke**
List keystrokes for table navigation	INSERT + SPACEBAR, followed by T, and then QUESTION MARK
Next Table	T
Prior Table	SHIFT + T
Select Table	F8
Next Row	WINDOWS KEY + ALT + DOWN ARROW
Prior Row	WINDOWS KEY + ALT + UP ARROW
Read Row	WINDOWS KEY + COMMA or WINDOWS KEY + NUM PAD 5
Next Column	WINDOWS KEY + ALT + RIGHT ARROW
Prior Column	WINDOWS KEY + ALT + LEFT ARROW
Read Column	WINDOWS KEY + PERIOD
Next Cell in Row	ALT + CTRL + RIGHT ARROW
Prior Cell in Row	ALT + CTRL + LEFT ARROW
Cell Below in Column	ALT + CTRL + DOWN ARROW
Cell Above in Column	ALT + CTRL + UP ARROW
Jump to Table Cell	CTRL + WINDOWS KEY + J
Return to Previous Cell	CTRL + WINDOWS KEY + SHIFT + J

32.1.3.6 Place Markers

Description	Keystroke
Set Temporary Place Marker (Permanent Marker for Word)	CTRL + WINDOWS Key + K
Add, Delete, Edit, or Rename Permanent Place Markers	CTRL + SHIFT + K
Move to the Next or Prior Place Marker	K or SHIFT + K
Read Text at Place Markers 1 through 4	Number Row Keys 7 through 0
Move to Place Marker 1 through 4	SHIFT + number row keys 7 through 0
Return to Place Marker in Word	ALT + WINDOWS Key + K
Select Text from Place Marker to Cursor Position	INSERT + SPACEBAR followed by M

32.1.3.7 Frames

Description	Keystroke
Next Frame	M
Prior Frame	SHIFT + M
List Frames	INSERT + F9

32.1.3.8 Elements

Description	Keystroke
Next Same Element	S
Prior Same Element	SHIFT + S
Next Different Element	D
Prior Different Element	SHIFT + D
Next Element	SHIFT + PERIOD
Prior Element	SHIFT + COMMA
Select Entire Element	F8
Display Entire Element	SHIFT + INSERT + F1
Display Detailed Element Information	CTRL + SHIFT + INSERT + F1
Activate Mouse Over	INSERT + CTRL + ENTER

32.1.3.9 Reading Text

Description	Keystroke

Say Character	CAPS LOCK + COMMA
Say Character Phonetically	CAPS LOCK + COMMA twice quickly
Say Prior Character	CAPS LOCK + M
Say Next Character	CAPS LOCK + PERIOD
Say Word	CAPS LOCK + K
Spell Word	CAPS LOCK + K twice quickly
Say Prior Word	CAPS LOCK + J
Say Next Word	CAPS LOCK + L
Say Line	CAPS LOCK + I
Spell Line	CAPS LOCK + I twice quickly
Say Prior Line	CAPS LOCK + U
Say Next Line	CAPS LOCK + O
Say Sentence	CAPS LOCK + H
Say Prior Sentence	CAPS LOCK + Y
Say Next Sentence	CAPS LOCK + N
Say Paragraph	CAPS LOCK + CTRL + I
Say Prior Paragraph	CAPS LOCK + CTRL + U
Say Next Paragraph	CAPS LOCK + CTRL + O
Say to Cursor	CAPS LOCK + SHIFT + J
Say from Cursor	CAPS LOCK + SHIFT + L
Say All	CAPS LOCK + A
Rewind During Say All	LEFT ARROW
Fast Forward During Say All	RIGHT ARROW
Say Color	CAPS LOCK + 5
Increase Voice Rate During Say All	PAGE UP
Decrease Voice Rate During Say All	PAGE DOWN
Temporarily Increase Voice Rate When Not in Say All	ALT + CTRL + PAGE UP
Temporarily Decrease Voice Rate When Not in Say All	ALT + CTRL + PAGE DOWN
Permanently Increase Voice Rate When Not in Say All	ALT + WINDOWS Key + CTRL + PAGE UP
Permanently Decrease Voice Rate When Not in Say All	ALT + WINDOWS Key + CTRL + PAGE DOWN

Start Skim Reading	CAPS LOCK + CTRL + DOWN ARROW
Change Skim Reading Preferences	CAPS LOCK + CTRL + SHIFT + DOWN ARROW
Toggle Full Speech, Speech on Demand (default), or Mute Speech	CAPS LOCK + SPACEBAR, followed by S
Toggle Speech on Demand or Mute Speech (Full Speech must be disabled)	CAPS LOCK + SPACEBAR, followed by SHIFT + S

32.1.3.10 Informational

Description	**Keystroke**
Interrupt Speech	CTRL
Say Font	CAPS LOCK + F
Say Window Title	CAPS LOCK + T
Say Window Prompt and Text	CAPS LOCK + TAB
JAWS Find	CAPS LOCK + CTRL + F
JAWS Find Next	CAPS LOCK + F3
JAWS Find Previous	CAPS LOCK + SHIFT + F3
Say Top Line of Window	CAPS LOCK + SHIFT + Y
Say Bottom Line of Window	CAPS LOCK + SHIFT + N
Say Selected Text	CAPS LOCK + SHIFT + A
Get Application Version	CAPS LOCK + CTRL + V

32.1.3.11 For Cursors and Mouse

Description	**Keystroke**
PC Cursor	CAPS LOCK + SEMICOLON
JAWS Cursor	CAPS LOCK + P
Touch Cursor	CAPS LOCK + SHIFT + SEMICOLON
Route PC Cursor to JAWS Cursor	CAPS LOCK + APOSTROPHE
Route JAWS Cursor to PC Cursor	CAPS LOCK + LEFT BRACKET
Left Mouse Button	CAPS LOCK + 8
Right Mouse Button	CAPS LOCK + 9
Drag and drop	CAPS LOCK + CTRL + 8
Restrict JAWS Cursor	CAPS LOCK + R

32.1.3.12 For Dialog Boxes

Description	Keystroke
Say Default Button of Dialog Box	CAPS LOCK + E
Read Window from Top to Bottom	CAPS LOCK + B
Read Word in Context	CAPS LOCK + C
Say Current Control Hot Key	CAPS LOCK + SHIFT + COMMA
Open Combo Box	ALT + DOWN ARROW
Close Combo Box	ALT + UP ARROW
Announce Progress Bar Status	CAPS LOCK + TAB

32.1.3.13 For Help

Description	Keystroke
JAWS Command Search	CAPS LOCK + SPACEBAR, followed by J
Context Sensitive Help	CAPS LOCK + F1
Keyboard Help	CAPS LOCK + 1
JAWS Help for Applications	CAPS LOCK + F1 twice quickly
Hot Key Help	CAPS LOCK + CTRL + SHIFT + H
Windows Key Help	CAPS LOCK + W

32.1.3.14 Miscellaneous

Description	Keystroke
JAWS Window	CAPS LOCK + CTRL + SHIFT + J
Refresh Screen	CAPS LOCK + ESC
Quick Settings	CAPS LOCK + V
Run JAWS Manager	CAPS LOCK + F2
Shut Down JAWS	CAPS LOCK + F4
Window List Dialog	CAPS LOCK + F10
Select a System Tray Icon Dialog	CAPS LOCK + F11
Say System Time	CAPS LOCK + F12
Graphics Labeler	CAPS LOCK + G
Auto Graphics Labeler	CAPS LOCK + CTRL + G

Pass Key Through	CAPS LOCK + 3
Virtualize Window	ALT + CAPS LOCK + W
Virtualize Current Control	CAPS LOCK + SHIFT + V
Select Scheme	ALT + CAPS LOCK + S
Select Language	CTRL + WINDOWS Key + L
Select Voice Profile	CAPS LOCK + CTRL + S
Read Columns 1 through 10 of a List View	CAPS LOCK + CTRL + n, where n is a value from 1, 2, 3, through 0
Copy Selected Text to FS Clipboard	CAPS LOCK + WINDOWS Key + C
Show Speech History	CAPS LOCK + SPACEBAR followed by H
Toggle Audio Ducking	CAPS LOCK + SPACEBAR followed by D
Toggle Default Mode (used for troubleshooting)	CAPS LOCK + SPACEBAR followed by z
Toggle Screen Shade	CAPS LOCK + SPACEBAR, followed by F11

32.1.3.15 For Frames

Description	**Keystroke**
Frame Get Top Left	CTRL + SHIFT + LEFT BRACKET
Frame Get Bottom Right	CTRL + SHIFT + RIGHT BRACKET
Frame Set to Window	CTRL + SHIFT + LEFT BRACKET twice quickly

32.1.3.16 For JAWS Tandem

Description	**Keystroke**
Ends JAWS Tandem Session	INSERT + ALT + T
Toggle Between Target and Controller Desktop (Controller User only)	INSERT + ALT + TAB
Toggle Video on or Off on Controller (Controller User only)	INSERT + CTRL + SHIFT + V

32.1.3.17 For Research It

Description	**Keystroke**

Open Research It	CAPS LOCK + SPACEBAR, followed by R
Launch Research It Is using the Primary Lookup Source	CAPS LOCK + WINDOWS Key + R

32.1.3.18 For Convenient OCR

Description	**Keystroke**
Acquire image from camera or scanner	CAPS LOCK + SPACEBAR, followed by O, and then A
Recognize the currently selected image file	CAPS LOCK + SPACEBAR, followed by O, and then F
Recognize current PDF document	CAPS LOCK + SPACEBAR, followed by O, and then D
Recognize current application window	CAPS LOCK + SPACEBAR, followed by O, and then W
Recognize entire screen	CAPS LOCK + SPACEBAR, followed by O, and then S
Recognize currently selected control	CAPS LOCK + SPACEBAR, followed by O, and then C
Cancel recognition while in progress	CAPS LOCK + SPACEBAR, followed by O, and then Q
Announce help message for OCR commands	CAPS LOCK + SPACEBAR, followed by O, and then QUESTION MARK

32.1.3.19 For Mouse Echo

Description	**Keystroke**
Toggle Mouse Echo	CAPS LOCK + SPACEBAR, followed by E, and then O
Speak Character	CAPS LOCK + SPACEBAR, followed by E, and then C
Speak Word	CAPS LOCK + SPACEBAR, followed by E, and then W
Speak Line	CAPS LOCK + SPACEBAR, followed by E, and then L
Speak Paragraph	CAPS LOCK + SPACEBAR, followed by E, and then P
Announce help message for Mouse Echo commands	CAPS LOCK + SPACEBAR, followed by E, and then QUESTION MARK

32.1.3.20 For Touch Cursor

Description	Keystroke
Touch Cursor	CAPS LOCK + SHIFT + SEMICOLON
Next Element	RIGHT ARROW or TAB
Prior Element	LEFT ARROW or SHIFT + TAB
Next Element by Type	DOWN ARROW
Prior Element by Type	UP ARROW
Cycle Through Element Navigation Types	PAGE UP or PAGE DOWN
First Element	CTRL + HOME
Last Element	CTRL + END
Say Current Element	CAPS LOCK + I
Say All with Touch Cursor	CAPS LOCK + DOWN ARROW
Route Touch Cursor to Focused Element	CAPS LOCK + APOSTROPHE
Route Touch Cursor to JAWS Cursor	CAPS LOCK + SHIFT + APOSTROPHE
Route JAWS Cursor to Touch Cursor	CAPS LOCK + SHIFT + LEFT BRACKET
Text Review	CAPS LOCK + ENTER
Advanced Navigation	CAPS LOCK + A

32.1.3.21 Windows Keystrokes – General

Description	Keystroke
Get Help	F1
Open the Start menu	CTRL + ESC
Open Windows Explorer	WINDOWS KEY + E
Open Run Dialog	WINDOWS KEY + R
Find File or Folder from Desktop	F3
Minimize All Applications	WINDOWS KEY + M
Switch Between Open Applications	ALT + TAB
Quit the Active Application	ALT + F4

32.1.3.22 For Windows and Menus

Description	Keystroke
Open the Application Control Menu	ALT + SPACEBAR
Move to Current Application's Menu Bar	ALT
Choose a Menu Item	ENTER
Move Between Menus	ALT, ARROW KEYS
Cancel or Close a Menu	ESC
Cancel or Close a Cascading Menu	ALT
Open a Child Window Control Menu	ALT + DASH
Close a Child Window	CTRL + F4
Open the Context Menu	APPLICATIONS KEY or SHIFT + F10

32.1.3.23 For Dialog Boxes

Description	Keystroke
Move Through Dialog Controls	TAB
Move Backward Through Dialog Controls	SHIFT + TAB
Move to Another Page	CTRL + TAB
Reverse Direction Through Pages	CTRL + SHIFT + TAB
Select or Deselect in List View	SPACEBAR or CTRL + SPACEBAR
Toggle a Check Box On/Off	SPACEBAR

32.1.3.24 For Reading Text

Description	Keystroke
Move One Character Left	LEFT ARROW
Move One Character Right	RIGHT ARROW
Move One Word Left	CTRL + LEFT ARROW
Move One Word Right	CTRL + RIGHT ARROW
Move to Beginning of Line	HOME
Move to End of Line	END
Move One Paragraph Up	CTRL + UP ARROW
Move One Paragraph Down	CTRL + DOWN ARROW
Scroll Up One Screen	PAGE UP

Scroll Down One Screen	PAGE DOWN
Move to Beginning	CTRL + HOME
Move to End	CTRL + END

32.1.3.25 For Editing Text

Description	**Keystroke**
Copy	CTRL + C
Cut	CTRL + X
Paste	CTRL + V
Read Clipboard Contents (Desktop or Laptop Layout)	WINDOWS KEY + INSERT + X or WINDOWS KEY + CAPS LOCK + X
Virtualize Clipboard Contents (Desktop or Laptop Layout)	INSERT + SPACEBAR followed by C or CAPS LOCK + SPACEBAR followed by C
Undo	CTRL + Z
Delete Current Character	DELETE
Delete Prior Character	BACKSPACE
Select One Character Left	SHIFT + LEFT ARROW
Select One Character Right	SHIFT + RIGHT ARROW
Select One Word Left	CTRL + SHIFT + LEFT ARROW
Select One Word Right	CTRL + SHIFT + RIGHT ARROW
Select to Beginning of Line	SHIFT + HOME
Select to End of Line	SHIFT + END
Select to Beginning	CTRL + SHIFT + HOME
Select to End	CTRL + SHIFT + END
Select All	CTRL + A

32.1.3.26 For Windows Explorer

Description	**Keystroke**
Delete files	DELETE
Rename a file or folder	F2
Open Properties for Selected File or Folder	ALT + ENTER

Refresh a window	F5
Switch between panes	TAB and SHIFT + TAB
Go up one level	BACKSPACE

32.1.4 NVDA Commands:

Note: Many of these commands use the NVDA key. The NVDA key is the insert key (Fn + F11). NVDA can also be configured to use the caps lock key as the NVDA key.

32.1.4.1 Global commands

Description	**Keystroke**
Stop speech	CTRL
Pause or resume speech	Shift
toggle keyboard Help	NVDA + 1
Show NVDA menu	NVDA + n
Quit NVDA	NVDA + q
Toggle Speech mode	NVDA + s
Say time	NVDA + f12
Say date	NVDA + f12 (pressed twice
Report status bar	NVDA + End
Speak application name and App module	NVDA + CTRL + f1
Say battery status	NVDA + Shift + b
Toggle report dynamic content changes	NVDA + 5
Toggle caret moves review cursor	NVDA + 6
Toggle focus moves the navigator object	NVDA + 7
Pass the next key through	NVDA + f2
Report text in the clipboard	NVDA + c
^Save configuration	NVDA + CTRL + c
reset configuration	NVDA + CTRL + r

32.1.4.2 Change Settings (found in the settings dialogues)

Description	Keystroke
Toggle speak typed characters	NVDA + 2
Toggle speak typed words	NVDA + 3
Toggle speak command keys	NVDA + 4
Toggle speak punctuation	NVDA + p
Toggle mouse tracking	NVDA + m
Toggle announcement on progress bar updates	NVDA + u
Move to the previous voice setting	NVDA + CTRL + left Arrow
Move to the next voice setting	NVDA + CTRL + right Arrow
Increase current voice setting	NVDA + CTRL + up Arrow
Decrease the current voice setting	NVDA + CTRL + down Arrow
Teter braille display to focus/review cursor	NVDA + CTRL + t

32.1.4.3 Show dialogues.

Description	Keystroke
Show general settings dialog	NVDA + CTRL + g
Show synthesizer selection dialog	NVDA + CTRL + s
Show voice settings dialog	NVDA + CTRL + v
Show keyboard settings dialog	NVDA + CTRL + k
Show mouse settings dialog	NVDA + CTRL + m
Show object presentation settings dialog	NVDA + CTRL + o
Show virtual buffer settings dialog	NVDA + CTRL + b
Show document formatting settings dialog	NVDA + CTRL + d
Show Python console (useful for developers)	NVDA + CTRL + z

32.1.4.4 Focus navigation.

Description	Keystroke
Report current focused object	NVDA + Tab
Speak title bar	NVDA + t

Spell title bar	NVDA + t (pressed twice)
copy title bar to the clipboard	NVDA + t (pressed trice)
Speak foreground window	NVDA + b

32.1.4.5 Caret navigation

Description	**Keystroke**
Report current selection	NVDA + Shift + up Arrow
Report current line	NVDA + up Arrow
Say all	NVDA + down Arrow
Say formatting information	NVDA + f

32.1.4.6 Navigation in tables

Description	**Keystroke**
Move to the next cell in the row	Alt + CTRL + right Arrow
Move to the previous cell in row	Alt + CTRL + left Arrow
Move to the next cell in the column	Alt + CTRL + down Arrow
Move to the previous cell in the column	Alt + CTRL + up Arrow

32.1.4.7 Navigator object navigation

Description	**Keystroke**
Say the current navigator object	NVDA + CTRL + I
Spell current navigator object	NVDA + CTRL + I (pressed twice
Copy the current navigator object	NVDA + CTRL + I (pressed trice
Say Navigator objects current dimensions	NVDA + ;
Set navigator to the parent object	NVDA + Shift + i
Set navigator to first child	NVDA + Shift + ,
Set navigator to the previous object	NVDA + CTRL + j
Set navigator object to next object	NVDA + CTRL + I
Do default Aktion on the navigator object	NVDA + Enter
Move the mouse to navigator object	NVDA + Shift + 7

Move navigator object to mouse	NVDA + Shift + 8
Move review cursor to caret cursor	NVDA + -
Move caret cursor to review cursor	NVDA + Shift + -
Set navigator to current focused object	NVDA + CTRL + -
Press left mouse button	NVDA + Shift + 7
Press right mouse button	NVDA + CTRL + Shift + 8
Say all with review cursor	NVDA + /
Activate flat review mode at review cursor position	NVDA + Alt + 7
Activate object review cursor at flat review position	NVDA + Alt + j

32.1.4.8 Reading objects

Description	**Keystroke**
Move review cursor to previous character	NVDA + m
Move review cursor to the start of the line	NVDA + Shift + u
Say current character at the review cursor	NVDA + ,
Move review cursor to the next character	NVDA + .
Move review cursor to the end of the line	NVDA + Shift + o
Move review cursor to the previous word	NVDA + j
Say current word at the review cursor	NVDA + k
Move review cursor to the next word	NVDA + l
Move review cursor to the previous line	NVDA + u
Move review cursor to the first line	NVDA + 7
Say current line at the review cursor	NVDA + i
Move review cursor to the next line	NVDA + o
Move review cursor to the last line	NVDA + 9
Mark review cursor position to start copying	NVDA + F9

Retrieve text from start mark and copy till the included character	NVDA + F10

32.1.4.9 Virtual Buffer commands

Description	Keystroke
Toggle browse/focus mode	NVDA + space
Move to parent virtual buffer	NVDA + CTRL + Space
Show find dialog	NVDA + CTRL + f
perform find next	NVDA + f3
Show elements list dialog	NVDA + f7
Refresh virtual buffer	NVDA + f5
Toggle screen layout	NVDA + v

32.1.5 Chromebook

32.1.5.1 Choose text with your cursor.

Turn screen reader on or off	CTRL + Alt + z
Activate Chrome Vox on tablets	Volume down + Volume up (hold for 5 seconds)
Read a page (cursor's position description)	Search + k or Launcher + k
Choose text with your cursor (read text under cursor)	Search + o + o or Launcher + o + o
Turn on Speak text under the mouse	(Not specified)
Move cursor around screen to hear text aloud	(Not specified)

32.1.5.2 Move to different tabs and windows.

Opening a new window	CTRL + n
Open a new window in Incognito mode	Shift + CTRL + n
Open a new tab	CTRL + t
Open a file in the browser	CTRL + o
Close the current tab	CTRL + w
Close the current window	Shift + CTRL + w
Reopen the last closed tab or window	Shift + CTRL + t
Go to tabs 1-8 in the window	CTRL + 1 through CTRL + 8
Go to the last tab in the window	CTRL + 9
Go to the next tab in the window	CTRL + Tab
Go to the previous tab in the window	Shift + CTRL + Tab

Switch quickly between windows	Alt (hold), then tap Tab to desired window
Open the least recently used window	Shift + Alt (hold), then tap Tab to desired window
Go to previous page in browsing history	Alt + Left arrow
Go to the next page in browsing history	Alt + Right arrow
Open webpage in a new tab	Type URL, then Alt + Enter
Dock a window on the left	Alt + [(left square bracket)
Dock a window on the right	Alt +] (right square bracket)
Maximize window	Alt + =
Minimize window	Alt + - (minus)
Switch windows between screens (with monitor)	Search + Alt + m or Launcher + Alt + m
Open tabs menu	CTRL (hold), then tap Forward or Back to select tab
	Search + Shift + Volume up or Launcher + Shift + Volume up

32.1.5.3 Move through a page with keyboard shortcuts.

Next button	Search + b (or)
	Launcher + b
Previous button	Search + Shift + b (or)
	Launcher + Shift + b
Next character	Search + Shift + Right arrow (or)
	Launcher + Shift + Right Arrow
Previous character	Search + Shift + Left arrow (or)
	Launcher + Shift + Left arrow
Next checkbox	Search + x (or)
	Launcher + x
Previous checkbox	Search + Shift + x (or)
	Launcher + Shift + x
Next combo box	Search + c (or)
	Launcher + c
Previous combo box	Search + Shift + c (or)
	Launcher + Shift + c
Next editable text area	Search + e (or)
	Launcher + e
Previous editable text area	Search + Shift + e (or)
	Launcher + Shift + e
Next focusable item	Tab
Previous focusable item	Shift + Tab
Next form field	Search + f (or)
	Launcher + f
Previous form field	Search + Shift + f (or)

	Launcher + Shift + f
Next graphic	Search + g (or)
	Launcher + g
Previous graphic	Search + Shift + g (or)
	Launcher + Shift + g
Next group	Search + CTRL + Down arrow (or)
	Launcher + CTRL + Down arrow
Previous group	Search + CTRL + Up arrow (or)
	Launcher + CTRL + Up arrow
Next heading	Search + h (or)
	Launcher + h
Previous heading	Search + Shift + h (or)
	Launcher + Shift + h
Next Level 1 Heading	Search + 1 (or)
	Launcher + 1
Previous Level 1 Heading	Search + Shift + 1 (or)
	Launcher + Shift + 1
Next Level 2 Heading	Search + 2 (or)
	Launcher + 2
Previous Level 2 Heading	Search + Shift + 2 (or)
	Launcher + Shift + 2
Next Level 3 Heading	Search + 3 (or)
	Launcher + 3
Previous Level 3 Heading	Search + Shift + 3 (or)
	Launcher + Shift + 3
Next Level 4 Heading	Search + 4 (or)
	Launcher + 4
Previous Level 4 Heading	Search + Shift + 4 (or)
	Launcher + Shift + 4
Next Level 5 Heading	Search + 5 (or)
	Launcher + 5
Previous Level 5 Heading	Search + Shift + 5 (or)
	Launcher + Shift + 5
Next Level 6 Heading	Search + 6 (or)
	Launcher + 6
Previous Level 6 Heading	Search + Shift + 6 (or)
	Launcher + Shift + 6
Next landmark	Search + ; (semicolon) (or)
	Launcher + ; (semicolon)
Previous landmark	Search + Shift + ; (semicolon) (or)
	Launcher + Shift + ; (semicolon)

Next line	Search + Down arrow (or)
	Launcher + Down arrow
Previous line	Search + Up arrow (or)
	Launcher + Up arrow
Next link	Search + L (or)
	Launcher + L
Previous link	Search + Shift + L (or)
	Launcher + Shift + L
Next object	Search + Right arrow (or)
	Launcher + Right arrow
Previous object	Search + Left arrow (or)
	Launcher + Left arrow
Next table	Search + t (or)
	Launcher + t
Previous table	Search + Shift + t (or)
	Launcher + Shift + t
Next visited link	Search + v (or)
	Launcher + v
Previous visited link	Search + Shift + v (or)
	Launcher + Shift + v
Next word	Search + CTRL + Shift + Right arrow (or)
	Launcher + CTRL + Shift + Right arrow
Previous word	Search + CTRL + Shift + Left arrow (or)
	Launcher + CTRL + Shift + Left arrow
Go to the top of page	Search + CTRL + Left arrow (or)
	Launcher + CTRL + Left arrow
Go to the bottom of page	Search + CTRL + Right arrow (or)
	Launcher + CTRL + Right arrow
Start reading from current location	Search + r (or)
	Launcher + r
Jump to details	Search + a + j (or)
	Launcher + a + j

32.1.5.4 Move through a page with your touch screen.

Next word	Two-finger swipe right
Previous word	Two-finger swipe left
Go to the top of page	Two-finger swipe up
Start reading from current location	Two-finger swipe down
Click focused item	Tap twice

Stop speech	Two-finger tap
Next line	Swipe down
Previous line	Swipe up
Next character	Swipe right
Previous character	Swipe left

32.1.5.5 Move to different cells in a table.

First cell in the table	Search + Alt + Shift + Left arrow (or Launcher + Alt + Shift + Left arrow)
Last cell in the table	Search + Alt + Shift + Right arrow (or Launcher + Alt + Shift + Right arrow)
First cell in current row	Search + Alt + Shift + CTRL + Left arrow (or Launcher + Alt + Shift + CTRL + Left arrow)
Last cell in current row	Search + Alt + Shift + CTRL + Right arrow (or Launcher + Alt + Shift + CTRL + Right arrow)
First cell in current column	Search + Alt + Shift + CTRL + Up arrow (or Launcher + Alt + Shift + CTRL + Up arrow)
Last cell in current column	Search + Alt + Shift + CTRL + Down arrow (or Launcher + Alt + Shift + CTRL + Down arrow)

32.1.5.6 Select and click.

Move through selectable items, like links and tabs	Tab
Move backward through selectable items	Shift + Tab
Click	Enter, or Search + Space (or Launcher + Space)
Select text	Search + s. At the end of your selection, press Search + s again (or Launcher + s. At the end of your selection, press Launcher + s again)

32.1.5.7 Get information about a page or your Chromebook.

Hear title of current page	Search + a, then w (or Launcher + a, then w)
Hear the URL of current page	Search + a, then u (or Launcher + a, then u)

Hear current date & time	Search + a, then d (or Launcher + a, then d)
Hear how much battery your Chromebook has left	Search + o + b (or Launcher + o + b)

32.1.5.8 Change the voice or language.

Change language	Press and hold Search, then press the letter o twice. Or press and hold Launcher, then press the letter o twice.

32.1.5.9 Slow down, speed up, or stop spoken feedback.

Slow down	Search + Shift + [(left square bracket) (or Launcher + Shift + [(left square bracket))
Speed it up	Search + [(left square bracket) (or Launcher + [(left square bracket))
Stop speaking	CTRL

32.1.5.10 Change pitch of the Chrome Vox voice.

Higher frequency	Search +] (right square bracket) (or Launcher +] (right square bracket))
Lower frequency	Search + Shift +] (right square bracket) (or Launcher + Shift +] (right square bracket))
Use Chrome Vox keyboard shortcuts	
Type shortcuts faster	To turn on Sticky Mode, quickly press the Search or Launcher key twice. To stop, press the Search or Launcher key twice again.

32.1.5.11 Use the Chrome Vox menu.

Open the Chrome Vox menu	Press Search + . (period) or Launcher + . (period). If on touchscreen, tap screen with 4 fingers.
Navigate the Chrome Vox menu	Use left or right arrow keys to switch menus. On touchscreen, swipe left or right. Press up or down arrow then Enter to open item.

Turn Braille captions on/off	Search + a, then b (or Launcher + a, then b)
Hide the Chrome Vox menus	Esc
Show Heading list	Search + CTRL + h (or Launcher + CTRL + h)
Show Landmark list	Search + CTRL + ; (semicolon) (or Launcher + CTRL + ; (semicolon))
Show Links list	Search + CTRL + L (or Launcher + CTRL + L)
Show Form list	Search + CTRL + f (or Launcher + CTRL + f)
Show Table list	Search + CTRL + t (or Launcher + CTRL + t)

32.1.5.12 Change spoken feedback settings.

Open Search options	Search + o, then o (or Launcher + o, then o)
Find in page	Search + / (forward slash) (or Launcher + / (forward slash))
Start reading from current location	Search + r (or Launcher + r)
Turn earcons on or off	Search + a, then e (or Launcher + a, then e)
Hear punctuation marks as you type them	Search + a, then p (or Launcher + a, then p)
Hear letters as you type them	Search + a, then t (or Launcher + a, then t)
Ignore the next key press	Search + Shift + Esc (or Launcher + Shift + Esc)

32.1.5.13 Learn more about Chrome Vox

Open the Chrome Vox context menu	Search + m (or Launcher + m)
Open Search tutorial	Search + o, then t (or Launcher + o, then t)
Turn on Learn Mode (Hear the names of the keys on your keyboard)	Search + o, then k. Your keyboard will say the name of any key or key combination you press and explain what the keyboard shortcut does. (Or Launcher + o, then k. Your keyboard will say the name of any key or key combination you press and explain what the keyboard shortcut does.)

Turn off Learn Mode	CTRL + w
Open update notes	Search + o, then n (or Launcher + o, then n)
Take screenshots or record your screen	Shift + CTRL + .
Send feedback or get help using Chrome Vox	
Chatting with other people	Join the Chrome Vox-Discuss group
Send us feedback about Chrome Vox	Turn on Chrome Vox, press and hold Search, then press a + i. Or press and hold Launcher, then press a + i.

32.1.6 Mac OS

32.1.6.1 General Commands

Description	Keystroke
Turn VoiceOver on or off	Command-F5
Lock and unlock the VO (Control and Option) keys	VO-;
Open VoiceOver Utility	VO-F8
Open the VoiceOver Help menu	VO-H
Open the VoiceOver Quick Start	VO-Command-F8
Open VoiceOver online help	VO-?
Start keyboard help	VO-K
Hear a description of the item in the VoiceOver cursor	VO-Shift-N
Open the Commands menu	VO-H-H
Open the Find menu	VO-Shift-F
Close a menu or rotor, stop an action, or exit a mode	Escape
Tell VoiceOver to ignore the next key combination you press	VO-Tab
Open the verbosity rotor	VO-V
Magnify the item in the VoiceOver cursor	VO-}
Shrink the item in the VoiceOver cursor	VO-{
Temporarily hide or show the VoiceOver cursor and the caption or braille panels	VO-F11
Hide or show the caption panel only	VO-Command-F10
Resize or move the caption panel	VO-Shift-F10

Hide or show the braille panel only	VO-Command-F9
Resize or move the braille panel	VO-Shift-F9
Tile visuals (dim the screen, highlight the caption or braille panel, and show the item in the VoiceOver cursor in the center of the screen)	VO-F10
Enable or disable the Num Pad Commander	VO-Clear
Enable or disable the Keyboard Commander	VO-Shift-K
Enable or disable the Trackpad Commander	Press the VO (Control-Option) keys and rotate two fingers on the trackpad clockwise (enable) or counterclockwise (disable)
Turn the screen black (screen curtain)	VO-Shift-F11
Cycle through speech settings (rate, pitch, volume, intonation, voice)	VO-Command-Right Arrow or Left Arrow
Change the current speech setting (rate, pitch, volume, intonation, voice)	VO-Command-Up Arrow or Down Arrow
Press and release mouse button	VO-Shift-Space bar
Interaction commands	
Interact with an item	VO-Shift-Down Arrow
Stop interacting with an item	VO-Shift-Up Arrow
Perform the default action for the item in the VoiceOver cursor	VO-Space bar
Select a menu or list item	VO-Return
Select multiple items	VO-Command-Space bar
Perform a sticky mouse down or mouse up	VO-Command-Shift-Space bar
Click the item under the mouse cursor	VO-Shift-Space bar
Open or close a disclosure triangle	VO-\
Read a row in a table	VO-R
Read a column in a table	VO-C-C
Read the column header in a table	VO-C
Read row and column numbers in a table	VO-Shift-T
Sort a column in a table	VO-
Interact with scroll bars	VO-Shift-S
Resize a window or an object	VO-~
Move a window or an object	VO-`
Stop scrolling or resizing	Escape

32.1.6.2 Interaction commands

Description	Keystroke
Interact with an item	VO-Shift-Down Arrow
Stop interacting with an item	VO-Shift-Up Arrow
Perform the default action for the item in the VoiceOver cursor	VO-Space bar
Select a menu or list item	VO-Return
Select multiple items	VO-Command-Space bar
Perform a sticky mouse down or mouse up	VO-Command-Shift-Space bar
Click the item under the mouse cursor	VO-Shift-Space bar
Open or close a disclosure triangle	VO-\
Read a row in a table	VO-R
Read a column in a table	VO-C-C
Read the column header in a table	VO-C
Read row and column numbers in a table	VO-Shift-T
Sort a column in a table	VO-
Interact with scroll bars	VO-Shift-S
Resize a window or an object	VO-~
Move a window or an object	VO-`
Stop scrolling or resizing	Escape

32.1.6.3 Navigation commands

Description	Keystroke
Move up	VO-Up Arrow
Move down	VO-Down Arrow
Move to previous	VO-Left Arrow
Move to next	VO-Right Arrow
Move to the top of the visible area	VO-Home
Move to the bottom of the visible area	VO-End
Move to the top of the area	VO-Shift-Home
Move to the bottom of the area	VO-Shift-End
Move to the top of a window, the first item in the Dock, or the first item on your desktop	VO-Command-Home
Move to the lower-right corner of a window, the last item in the Dock, or the last item on your desktop	VO-Command-End
Move to the front of the window where the VoiceOver cursor is located and make it active	VO-Shift-F2

Close the window where the VoiceOver cursor is located	VO-Command-F2
Open the Item Chooser	VO-I
Move to the Dock	VO-D
Move to the desktop	VO-Shift-D
Move to the menu bar	VO-M
Move to the first status menu in the menu bar	VO-M-M
Open the Spotlight menu	VO-M-M-M
Open a shortcut menu	VO-Shift-M
Jump to a linked item	VO-J
Temporarily disable or enable the cursor tracking options you selected in VoiceOver Utility	VO-Shift-F3
Move VoiceOver cursor to keyboard focus	VO-Shift-F4
Move keyboard focus to VoiceOver cursor	VO-Command-F4
Move VoiceOver cursor to mouse cursor	VO-Shift-F5
Move mouse cursor to VoiceOver cursor	VO-Command-F5
Jump command (used with the next four commands)	VO-Shift-J
Jump to the edge of an area	VO-Shift-arrow keys
Jump to the visible edge of an area	VO-arrow keys
Jump to the area that precedes a horizontal or vertical splitter	VO-[
Jump to the area that follows a horizontal or vertical splitter	VO-]
Find text	VO-F
While finding text, I cycle through search item history	VO-Up Arrow or Down Arrow
Navigate in given direction, wrapping when necessary	VO-Command-Shift-arrow keys
Set or remove a hot spot	VO-Shift-[number key]
Open the Hot Spot Chooser	VO-[number key]-[number key]
Jump to a hot spot	VO-[number key]
Hear a description of a hot spot	VO-Command-[number key]
Monitoring a hot spot	VO-Command-Shift-[number key]

32.1.6.4 Orientation commands

Description	**Keystroke**

Hear the application summary	VO-F1
Open the Application Chooser	VO-F1-F1
Hear the window summary	VO-F2
Open the Window Chooser	VO-F2-F2
Describe the item in the VoiceOver cursor	VO-F3
Describe the size of the item in the VoiceOver cursor	VO-Command-F3
Describe the position of the item in the VoiceOver cursor	VO-Command-F3-F3
Describe the item that has the keyboard focus	VO-F4
Describe the location of the insertion point	VO-F4-F4
Describe the item under the mouse cursor	VO-F5
Describe the location of the mouse in x, y coordinates	VO-F5-F5
Describe the location of the mouse	VO-F5-F5-F5
Describe the selected item	VO-F6
Read everything in the VoiceOver cursor	VO-A
Read everything visible in the window or the Dock, or on your desktop	VO-Shift-W
Repeat the last spoken phrase	VO-Z
Copy the last spoken phrase to the Clipboard	VO-Shift-C
Save the last spoken phrase and the crash log to a file on the desktop for troubleshooting	VO-Shift-Z

32.1.6.5 Search commands

Description	Keystroke
Find	VO-F
Find the next searched text	VO-G
Find the previous searched text	VO-Shift-G
Find the next list	VO-Command-X
Find the previous list	VO-Command-Shift-X
Find the next bold text	VO-Command-B
Find the previous bold text	VO-Command-Shift-B
Find the next style change	VO-Command-C
Find the previous style change	VO-Command-Shift-C
Find the next italic text	VO-Command-I
Find the previous italic text	VO-Command-Shift-I
Find the next color change	VO-Command-K
Find the previous color change	VO-Command-Shift-K
Find the next font change	VO-Command-O

Find the previous font change	VO-Command-Shift-O
Find the next table	VO-Command-T
Find the previous table	VO-Command-Shift-T
Find the next underlined text	VO-Command-U
Find the previous underlined text	VO-Command-Shift-U
Find the next control	VO-Command-J
Find the previous control	VO-Command-Shift-J
Find the next different item	VO-Command-D
Find the previous different item	VO-Command-Shift-D
Find the next item that is the same type as the current item	VO-Command-S
Find the previous item that is the same type as the current item	VO-Command-Shift-S
Find the next graphic	VO-Command-G
Find the previous graphic	VO-Command-Shift-G
Find the next heading	VO-Command-H
Find the previous heading	VO-Command-Shift-H
Find the next link	VO-Command-L
Find the previous link	VO-Command-Shift-L
Find the next heading of the same level	VO-Command-M
Find the previous heading of the same level	VO-Command-Shift-M
Find the next plain text	VO-Command-P
Find the previous plain text	VO-Command-Shift-P
Find the next visited link	VO-Command-V
Find the previous visited link	VO-Command-Shift-V
Find the next misspelled word	VO-Command-E
Find the previous misspelled word	VO-Command-Shift-E

32.1.6.6 Text commands

Description	**Keystroke**
Read all the text from the VoiceOver cursor to the end of the text	VO-A
Select all text in the VoiceOver cursor	VO-Shift-A
Start and stop text selection in a text field	VO-Return
Speak text attributes	VO-T
Add a hot spot in text	VO-Shift-1
Jump to a hot spot in text	VO-1
Read paragraph in VoiceOver cursor	VO-P
Read next paragraph	VO-Shift-Page Down
Read previous paragraph	VO-Shift-Page Up

Read sentence in VoiceOver cursor	VO-S
Read next sentence	VO-Command-Page Down
Read previous sentence	VO-Command-Page Up
Read line in VoiceOver cursor	VO-L
Read next line	VO-Down Arrow
Read previous line	VO-Up Arrow
Read words in VoiceOver cursor	VO-W
Read next word	VO-Right Arrow
Read previous word	VO-Left Arrow
Read character in VoiceOver cursor	VO-C
Read next character	VO-Shift-Right Arrow
Read previous character	VO-Shift-Left Arrow
Move to first visible word	VO-Home
Move to the last visible word	VO-End
Move to beginning of text, scrolling if necessary	VO-Shift-Home
Move to end of text, scrolling if necessary	VO-Shift-End
Add new tab stop	VO-Space bar
Delete the current tab stop	VO-Delete
Interact with tab stop	VO-Shift-Down Arrow
Read current words and characters in VoiceOver cursor	VO-F3
Read total number of lines and visible lines in a document	VO-F3-F3

32.1.6.7 Web commands

Description	**Keystroke**
Move to the next column	VO-Command-Y
Move to the previous column	VO-Command-Shift-Y
Move to the next frame	VO-Command-F
Move to the previous frame	VO-Command-Shift-F
Move to the next auto web spot	VO-Command-N
Move to the previous auto web spot	VO-Command-Shift-N
Move to the next web spot	VO-Command-]
Move to the previous web spot	VO-Command-[
Open the Web Item rotor	VO-U
Read from current location on a webpage to the end of the page	VO-A
Read from beginning of a webpage to the current location	VO-B
Read link address (URL)	VO-Shift-U

Read webpage statistics	VO-Shift-I
Remove a web spot	VO-Command-Shift-{
Set a web spot	VO-Command-Shift-}
Set the sweet spot	VO-Command-Shift-}-}
Turn grouping of items within a table on or off	VO-=

32.1.6.8 VoiceOver standard gestures

Description	Keystroke
Enable the Trackpad Commander and VoiceOver gestures	VO-Two-finger rotate clockwise
Disable the Trackpad Commander and VoiceOver gestures	VO-Two-finger rotate counterclockwise
Turn the screen curtain on or off	Three-finger triple-tap
Mute or unmute VoiceOver	Three-finger double-tap
Force the VoiceOver cursor into a horizontal or vertical line	Hold down the Shift key and drag horizontally or vertically
Move the VoiceOver cursor to the next item	Flick right
Move the VoiceOver cursor to the previous item	Flick left
Move content or the scroll bar (depending on Trackpad Commander setting)	Three-finger flick in any direction
Go to the Dock	Two-finger double-tap near the bottom of the trackpad
Go to the menu bar	Two-finger double-tap near the top of the trackpad
Open the Application Chooser	Two-finger double-tap on the left side of the trackpad
Open the Window Chooser	Two-finger double-tap on the right side of the trackpad
Jump to another area of the current application	Press Control while touching a finger on the trackpad
Speak the item in the VoiceOver cursor or play a sound effect for blank areas	Touch (includes tap or dragging)
Select an item	Double tap anywhere on the trackpad
Start interacting with the item in the VoiceOver cursor	Two-finger flick right
Stop interacting with the item in the VoiceOver cursor	Two-finger flick left
Scroll one page up or down	Three-finger flick up or down

Escape (close a menu without selecting)	Two-finger scrub back and forth
Increase or decrease the value of a control	Flick up (increase) or flick down (decrease)
Read the current page, starting at the top	Two-finger flick up
Read from the VoiceOver cursor to the end of the current page	Two-finger flick down
Pause or resume speaking	Two-finger tap
Describe what is in the VoiceOver cursor	Three-finger tap
Change how VoiceOver reads text (by word, line, sentence, or paragraph)	Press Command while touching a finger on the trackpad
Change the rotor settings	Two-finger rotate
Move to the previous item based on the rotor setting	Flick up
Move to the next item based on the rotor setting	Flick down

32.2 Appendix B - Creating Hindi files with Orbit Reader Qwerty

- Writing Multi-Braille characters

The key inputs for multi-braille Hindi characters (such as, 'ड़' 'ढ़' 'ऋ' 'ॐ') have to be typed as a consecutive input without any other key press operation in between. It may lead to the undesired character in the file otherwise.

- Writing Numbers

The number sign (Dot 3 4 5 6) must be preceded by a space character except for the start of the file or a new line, otherwise it will take the character ण.

The software considers entries between the number sign and space or any non-digit characters as digits only.

- Writing coma and colon

The user must insert Space or a New line after inserting a comma (Dot 2) and colon (Dot 2 5), otherwise it will take 'Devanagari avgraha' and 'Devanagari yangaa' respectively.

- Writing question mark

The user must insert a space after Dot 2 3 6 to insert it as a question mark, otherwise it will be an opening double inverted comma.

- Writing double quotation mark (closing)

The user must press Dot 3 5 6 with Dot 8 to insert a closing double inverted commas, otherwise it will be considered as 'Devanagari Jha'.

- Writing exclamation mark

The user must press Dot 2 3 5 with Dot 8 to insert an Exclamation mark (!), otherwise it will be considered as 'Devanagari faa (फ)'

- Known Limitations

It is not possible to enter a full stop or period in the file as it inserts Devanagari Danda (।) for Dot 2 5 6.

32.3 Appendix C – Trademark Notices and Attribution

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32.3.1 Hardware Limited Warranty

Warranty obligations for the Orbit Reader Q20 or Q40 are limited to the terms set forth below:

Orbit Research warrants this hardware product against defects in materials and workmanship under normal use for a period of ONE (1) YEAR from the purchase by the original purchaser ("Warranty Period"). If a hardware defect arises and a valid claim is received by Orbit Research LLC within the Warranty Period, at its option and to the extent permitted by law, Orbit Research will either:

Repair the product free of charge (or) replace it with a product that is manufactured from new or serviceable used parts and is at least functionally equivalent to the original product.

A replacement product or part assumes the remaining warranty of the original product thirty (30) days from the date of replacement or repair; whichever provides longer coverage. Parts provided in fulfillment of its warranty obligation must be used in products for which the warranty service is claimed.

32.3.2 EXCLUSIONS AND LIMITATIONS

This Limited Warranty applies only to the hardware product manufactured by Orbit Research LLC that can be identified by the “Orbit Research" trademark, trade name, or logo affixed to it. Orbit Research is not responsible for damage arising from failure to follow instructions relating to the product's use.

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2. Damage caused by operating the product outside the permitted or intended uses described by Orbit Research LLC
3. Damage caused by service (including upgrades and expansions) performed by anyone who is not a representative of Orbit Research
4. A product or part that has been modified to alter functionality or capability without the written permission of Orbit Research
5. The serial number has been removed or defaced.

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, STATUTORY, EXPRESS OR IMPLIED.

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OBTAINING WARRANTY SERVICE

Please access and review the online help resources referred to in the documentation accompanying this hardware product before seeking warranty service. If the product is still not functioning properly after making use of these

resources, please send an e-mail to: techsupport@orbitresearch.com**,** for instructions on how to obtain warranty service. You must follow ORBIT RESEARCH warranty procedures.

ORBIT RESEARCH will maintain and use customer information in accordance with its Customer Privacy Policy.

If your product is capable of storing software programs, data, and other information, you should make periodic backup copies of the information contained on the product's hard drive or other storage media to protect the contents and as a precaution against possible operational failures. Before you deliver your product for warranty service, it is your responsibility to keep a separate backup copy of the contents and disable any security passwords. IT IS POSSIBLE THAT THE CONTENTS ON THE DEVICE BEING SERVICED WILL BE LOST OR REFORMATTED IN THE COURSE OF WARRANTY SERVICE, AND ORBIT RESEARCH IS NOT RESPONSIBLE FOR ANY DAMAGE TO OR LOSS OF PROGRAMS, DATA, OR OTHER INFORMATION CONTAINED ON THE MEDIA OR ANY PART OF THE PRODUCT SERVICED.

Your product will be returned to you configured as originally purchased, subject to applicable updates. You will be responsible for reinstalling all other software programs, data, and passwords. Recovery and reinstallation of software programs and user data are not covered under this Limited Warranty.

32.4 Appendix C - FCC Information

FCC Notice
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to the radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Caution
To ensure continued compliance follow the installation instructions and this device must be installed with a computer or peripheral device certified to comply with Part 15 of the FCC rules for the Class B limits. Use shielded interface cables only. Use the power adapter that is supplied with the device to charge its internal battery pack.
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

33 Further Information

For the latest information, specifications, troubleshooting tips, software upgrade instructions, care and use information, warranty information, and more detailed instructions, please contact the distributor from where you purchased your Orbit Reader Q20 or Q40.

For further questions or concerns not covered in this User Guide, please contact the distributor from where you purchased your Orbit Reader Q20 or Q40.