smart reader HD OCR

User Manual

Smart Reader HD User Manual Outline

Congratulations on your purchase of Smart Reader HD with OCR (Optical Character Recognition) from Enhanced Vision.

The *Smart Reader HD* is a fully integrated solution, offering the advantages of a built-in camera, long lasting battery and OCR. *Smart Reader HD* enables individuals with low vision to retain the joys of reading by listening along or viewing with an attached monitor in color, enhanced high-contrast positive or negative modes. With easy-to-use On-Board buttons and dials, you can enlarge or reduce the text in seconds, change viewing options for easier visibility and much more.

Prior to using this system, please carefully review and follow the instructions provided within this booklet. Your *Smart Reader HD* is ready to use right out of the box. By reviewing all *Smart Reader HD* features and controls before use and following the directions carefully, you'll be able to enjoy all the great benefits from your purchase. Enhanced Vision products are designed to give you the highest quality image, OCR accuracy, convenient easy-to-use features and years of reliable service. Thank you for choosing the Enhanced Vision *Smart Reader HD*.

Product enhancements and revisions are an integral part of what we do here at Enhanced Vision. Please visit -
http://www.enhancedvision.com/low-vision-product-line.html
and select your Enhanced Vision Product. You will find the most up-to-date version of the User Manual at the bottom of the page

FCC COMPLIANCE NOTICE

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. 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 radio or television reception, which can be determined by turning the equipment off and on, you are 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 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.

Unauthorized changes or modification to this system can void your authority to operate this equipment.

If your Low Vision device has an option to connect to a TV, it must be used with shielded interface cables in order to meet FCC emissions limits for Class B digital devices. It is your responsibility to use the shielded interface cables supplied with the equipment.

TABLE OF CONTENTS

SAFETY AND CARE

To ensure your safety and obtain the most benefit from Smart Reader HD, please review these safety precautions carefully.

Smart Reader HD is designed to enlarge and enhance text and read print aloud in order to improve the quality of life for people who are visually impaired. The extent to which this product can improve the ability to see images depends on a person's individual condition and level of visual impairment.

Smart Reader HD is not designed to restore vision, correct eye conditions or halt degenerative vision loss. An eye care professional can determine the usefulness and suitability of Smart Reader HD for a patient's individual condition.

Precautions for Use
• Follow all warnings, cautions, and instructions marked on the product.
• Use Smart Reader HD on a stable, level surface such as a solid desk or table, according to its intended design specifications.
• Avoid placing Smart Reader HD on an unstable table, cart or stand. It may fall causing serious damage to the unit or bodily injury.
• Use Smart Reader HD indoors only – it should NOT be exposed to extreme or rapid changes in temperature or humidity. Do not place Smart Reader HD near a radiator, heater or areas exposed to long hours of direct sunlight. These conditions may cause damage to the unit's electronics or optics.
• At least once per week, clean Smart Reader HD with a soft dry cloth or an electrostatic dusting cloth. DO NOT use liquid cleaners on its plastic surfaces. No additional methods of sterilization or cleaning are recommended or required.
• Do not use Smart Reader HD near flammable materials or liquids.

Additional Electrical Safety Precautions
• The power supply cord is a disconnect device for electrical equipment. The socket-outlet should be installed near the equipment and be easily accessible.
• This product is equipped with a 3-wire grounding type plug as a safety feature. This plug has a third (grounding) pin and can only be plugged into a grounding-type power outlet. If necessary, contact an electrician to replace your power outlet with a grounding-type power outlet.
• Do not use Smart Reader HD in, near or around water. Smart Reader HD is not designed to offer protection against contact with liquids of any kind.

• Use only the power supply provided with your *Smart Reader HD*. Using unauthorized power supplies may cause serious damage to *Smart Reader HD's* electronic components and will void the warranty.

• Always place the power cord away from traffic areas to avoid damage of power supply.

• Prevent the risk of electrical shock by NOT attempting to disassemble the unit. Please refer all service to an authorized repair facility.

• Please ensure that you make connections that match those shown on page 10.

Additional Mechanical Safety Precautions

Your *Smart Reader HD* features a retractable Camera Arm. Please review the expected range of motion of the camera arm. Please do not attempt to forcibly reposition or adjust the camera arm outside of the ranges demonstrated in Figure below or ever lift the Smart Reader HD by the camera arm. Improper handling may cause damage to the device.

Figure 1 Camera Range of Motion

Transporting Smart Reader HD

• Use caution if you are repositioning Smart Reader HD a short distance across a desk or table. Make sure you do not pull on any power cords or connector cables.

• Disconnect and secure all power and video cables before moving the unit.

• Carry the unit only by the carrying handle located on the back. **Do not carry *Smart Reader HD* by the Camera Arm.**

• Please secure the camera arm with the transportation strap as shown on the next page.

Caring for *Smart Reader HD*

• Always turn the power OFF by closing the Camera Arm.
• Ensure that your Smart Reader HD is completely OFF before cleaning.
• Clean Smart Reader HD with a soft dry cloth or an electrostatic dusting cloth. DO NOT use liquid cleaners on its plastic surfaces.
• The protective insert covering the camera and LED lamp can be cleaned as needed with the lens cloth provided within the packaging of Smart Reader HD.

*Figure 1 Smart Reader HD Carrying Handle*

Susceptibility to Interference

There may be temporary degradation of the image when Smart Reader HD is subjected to a strong radio frequency field, electro-static discharge or transient electrical noise. An electro-static discharge (caused by static electricity) may cause the screen to go blank. If this happens, close the camera arm, disconnect the AC power from the electrical outlet and power down the unit, wait 30 seconds, and connect the AC power again.

Battery-Only Mode-Power Supply Disconnect Switch

For maximum power savings you may opt to disable the potential for battery charging. On the rear panel of the Smart Reader HD you will notice a switch as shown in Figure 2. If the switch is set to the 0 position battery charging will be disabled (similar to physically disconnecting the plug) and your battery will not charge nor will device power on when the battery is empty even when connected to DC Power.   If the switch is set to 1 you will be able to charge as normal. Please ensure your device is set correctly for your needs. **Please note that this is not an On/Off Switch but a Power Supply Disconnect Switch.**

Figure 2 Battery Charging

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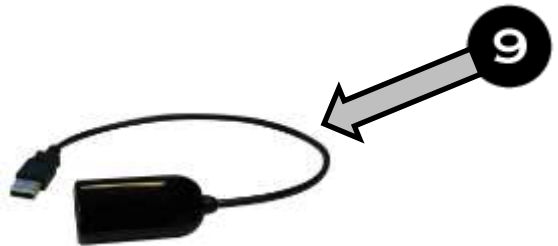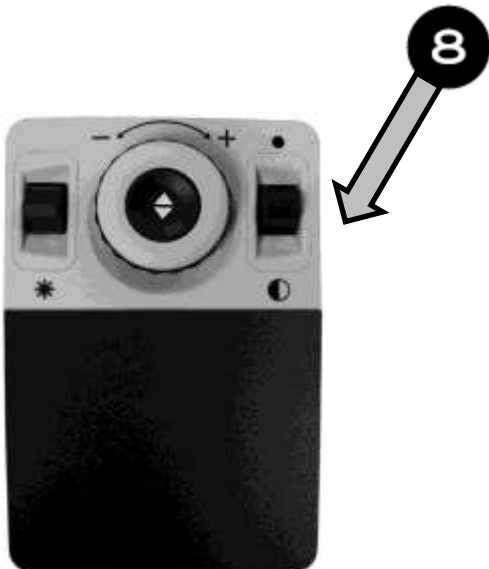
Smart Reader HD Packaging & Accessories

Take a few moments to familiarize yourself with the items included with your *Smart Reader HD*:

1. Smart Reader HD Main Unit

Accessories included:

2. Smart Reader HD Transportation Strap: Wrap this around your Smart Reader HD for Transportation to ensure that the unit remains in the powered OFF State and so that the camera arm doesn't become damaged if opened by accident.

3. Smart Reader HD Power Cord (**power cord style may vary based upon country**)

4. Smart Reader HD 19V power supply

5. HDMI Cable: For connecting Smart Reader HD to a Television or Monitor with an available HDMI Port.

6. Lens Cloth: permits cleaning of the LED Lights or Camera Lens

Optional Accessories:

7. Smart Reader HD Carrying Case: A convenient and safe place to keep your Smart Reader HD for when you're traveling.

8. Control Console & Console Cover: This allows for an alternate way to control The Smart Reader HD functions. Can be used in cover on or cover off configuration for simple and advanced features.
*Must be connected to Smart Reader HD to use.

9. Smart Reader HD USB Hub: This hub allows you to have multiple USB peripherals plugged into Smart Reader HD simultaneously such as the Control Console, USB Microphone or USB Flash Drive for use with our File Import/Export feature.

Optional Accessories Not Pictured:

Headphones (Not Pictured): On the left-hand side of Smart Reader HD, there is an available 3.5mm input jack for use of standard headphones.
Note: Sound from Smart Reader HD speakers will not be available while the headphone jack is in use.

Microphone (Not Pictured): Use this to Record a Custom Voice Tag while saving files.

Setting Up Smart Reader HD

1. Find a steady and level location, such as a table or desk, where you will be comfortable using Smart Reader HD. Carry Smart Reader HD only by the handle on the backside of the unit for a secure grip. **DO NOT lift Smart Reader HD unit by the camera arm**. Gently place it on the table or desk (see Transporting Smart Reader HD Page 7).

2. Connect the power cord to the power supply (Figure 1 Power Supply). Connect the power cord to an available electrical outlet (See Figure 2 connecting to an outlet). Connect the other end of the power supply to Smart Reader HD where it is labeled "19VDC" (Also Shown Figure 3 Rear Panel Connections). To offer additional protection during an electrical storm, a surge protector may also be used and is recommended.

Figure 1 Power Supply

3. To turn Smart Reader HD on, simply open the camera arm by pressing slightly on the head of the retracted camera arm. If you are using an attached display, a Smart Reader HD Logo will appear along with a sequence of startup beeps that indicate that the device is starting up. If you are connected to a display via "HDMI" you will see what is referred to as "Live OCR Preview".

Figure 2 connecting to an outlet

4. Optional Peripherals such as a USB Hub, Flash Drive, Control Console or Microphone can be connected to the USB port on the back of your Smart Reader HD labeled "USB".

5. **IMPORTANT: To maximize the life of your Smart Reader HD always connect the device to wall power after running down to Critical Battery or Fully Shut down the device by closing the camera arm at which point it will announce "Powering Down".**

Figure 3 Rear Panel Connections

Using Smart Reader HD for the First Time

Smart Reader HD is an OCR product that can function in a variety of modes. The unit consists of the Software, Camera and Mechanical assembly/chassis.

The Smart Reader HD has a built-in 8 hour battery. It is recommended that you allow your Smart Reader HD to fully charge at least 4 hours prior to use. Once the device is connected turn the unit on corresponding with the following section. This will turn on your Smart Reader HD.

Turning Smart Reader HD On & Off

Smart Reader HD features a unique Power On and Off mechanism that is controlled by opening or closing the Smart Reader HD Camera Arm. To turn the unit on simply apply light pressure to the camera arm as indicated in the arrow below in "Figure 1" and then release, afterwards the camera arm will automatically extend as shown in "Figure 2". To turn Smart Reader HD OFF simply press down on the area marked by the arrow in "Figure 2" until the arm locks into position shown in "Figure 1". A startup and shutdown beep will play during each sequence.

Note-Startup time averages around 45 seconds. When you hear "Ready to Scan" the device is ready for use.

Figure 1 Smart Reader HD Off Position

Figure 2 Smart Reader HD On Position

Button Combinations and Press & Hold Functions

Some Features on Smart Reader HD are accessed through a combination of buttons on your device. Throughout the User Manual there will be references to these 'button combinations' (e.g. Press "[Previous Line] and [Save]"). This indicates that the buttons should be pressed together. Control buttons, levers, etc. are enclosed in [ ]. Long press functions are normally accessed by pressing a single button or combination of buttons for a duration of 5 seconds.

Smart Reader HD Basic On Board Controls

See the following Page for Basic On Board Controls in Detail

Basic Smart Reader HD Basic On Board Controls

1. **Capture** – Pressing either of the two orange capture buttons in the "Ready to Scan" or Live OCR Preview mode (when connected to a display) performs OCR and begins reading. Pressing again from OCR Readback or anywhere else (Library, Menu, etc) will return you back to the "Ready to Scan" or Live OCR preview mode preparing for the next scan.

2. **Save** – Depending on your current target, this button is used to save Pictures and OCR Scans (Page or Book).

    a. **Save a Picture -** While on OCR Preview Mode/"Ready to Scan" press and hold this button for 5 seconds to save a Picture.

    b. **Save an OCR Scan**- While in OCR Readback press and hold this button for 5 seconds where you will be prompted to save a single Page, Book or add pages to a book (Append).

3. **Library/Recall** – Press and Hold 5 seconds to Enter or Exit the Library where saved files are stored. A quick press will also return one level in the library carousel.

4. **Previous Line** – While in OCR mode pressing this key navigates back one line of text.

5. **Next Line** – While in OCR mode pressing this key navigates forward one line of text.

6. **Volume Wheel** – Rotate the wheel to increase/decrease system volume. Also pans horizontally when viewing a Picture in the Library.

7. **Speed Wheel** – Rotate the wheel to increase/decrease system reading speed. Also used to cycle through selections in the system menu or pans vertically when viewing a Picture in the Library

8. **Pause/Play**- Press to confirm a menu selection or Pause/Resume playback in OCR mode.

Smart Reader HD Advanced Key Combinations

- **Menu** [Previous Line] + [Save] – Use this feature to enter and exit into the System Menu where you can adjust individual Smart Reader HD settings, Reference the Help File, Watch an Introduction Video, View your Library or Import/Export files to/from your device.

- **Camera LED ON/OFF Toggle** [Next Line] + [Recall] – A quick simultaneous press turns the LED light on or off.

- **Previous word** [Play/Pause] + [Previous Line] – While in OCR Readback Mode use this key combination to navigate the word highlight one word at a time to each previous word.

- **Next word** [Play/Pause] + [Next Line] – While in OCR Readback Mode use this key combination to navigate the word highlight one word at a time to the next word in sequence.

- **Cycle Color Modes** [Next Line] + [Speed Wheel] – In OCR Readback Mode press in Next Line while simultaneously rotating speed wheel in either direction to cycle through available color modes.

- **Brightness/Zoom** [Previous Line] + [Volume Wheel]– This key combination is used both to adjust brightness on the Preview screen as well as Zoom during OCR Readback Mode.

    - **Adjust Brightness-** While in OCR Preview Mode press [Previous Line] while simultaneously rotating [Volume Wheel] to increase/decrease brightness.

    - **Adjust Zoom-** While in OCR Readback mode press in [Previous Line] while simultaneously rotating [Volume Wheel] to increase/decrease the size of your text.

- **Time/Date & Clock** [Save] + [Library/Recall]- This key combination is used to invoke the built-in clock and time and date annunciation feature.

Additional Smart Reader HD long key press functions

- **Start of Document/Previous Page** – Press and hold [Previous Line] key to navigate to the start of a document when reading a single page or navigate to the previous page if you are reading a multi-page book.

- **End of Document/Next Page** – Press and hold [Next Line] key to navigate to the end of a document when reading a single page or navigate to the next page if you are reading a multi-page book.

- **Table Mode Scan**- The table mode scan strictly reads all the contents of a target document in a strict left to right format making it ideal for reading documents formatted in a "Table" such as receipts, bank statements, etc. Press and Hold Capture for 5 seconds to perform a table mode scan at which point you will hear "Processing Table Mode" to let you know that the feature was activated successfully.

- **Delete item from Library-** If you want to delete an item from the library, enter into the library or library carousel and press and hold Pause/Play for 5 seconds over the target document or picture you would like to delete.

- **Factory Reset** [Previous Line] + [Save]- Press and hold to a minimum of 5 seconds to restore all the default settings of your device including color modes, volume, reading speed, brightness etc.

Smart Reader HD Modes of Operation Overview

Smart Reader HD Modes

Smart Reader HD has two main "Modes" of operation that can be changed/configured by the presence of an external display connected to the HDMI port on the back of your unit. Your Smart Reader HD can be used as a fully featured OCR Scanning and Readback unit in Standalone mode or with an attached display such as a television or computer monitor in Display Mode.

1. Display Mode - This mode applies when a display device (such as a monitor or television) is connected to the base unit through the HDMI Port. In this mode you will have access to a visual menu for settings and configuration. When you are using your Smart Reader HD with an attached television or monitor the "Display Mode" visual features will be available for your use.

2. Standalone Mode - This mode applies when no display device is connected to the base unit. In this mode we have optimized the menu and annunciations to be fully navigable through sound. After scanning a book or document the OCR results are played back as speech through the front speaker in the base of the unit. You will notice that some of the Smart Reader HD features with strictly visual utility such as color mode adjustments will be filtered out for users who do not have a visual display.

Display Mode
Optional Control Console sold separately

Standalone Mode

Introduction to OCR

Your first OCR Scan

Smart Reader HD provides you with the ability to scan a document placed underneath the camera and read it aloud. You may find it easier to become acquainted with the features and controls in the display mode but the instructions provided in the following sections work for standalone mode as well. When you are ready to use your OCR for the first time follow the steps below:

1. Place the document under the Smart Reader HD camera and position the text within the indicated guide frame or within the left and right boundaries of Smart Reader HD unit base.

    > *Please note- Smart Reader HD supports multiple orientations for documents when they are scanned as long as it is viewable within the guide frame or aligned with the Smart Reader HD Unit base.*

2. Press either [Capture] button on the top of the Smart Reader HD.

    - You will hear a camera shutter sound which indicates the system has taken a snapshot of the document and will begin processing it for OCR.

3. After Smart Reader HD has completed the processing step it will begin to read the document aloud. You will be able to make various adjustments to your OCR Read-back features including Volume, Color Mode, Reading Speed and more.

    > *Please Note-If you are in Text Modes the readback operation begins automatically. Full page Picture mode requires that you choose your "Zone" with our zone identifier feature and then Press [Pause/Play]. Zones are highlighted by using the [Next Line] or [Previous Line] buttons.*

4. To exit OCR/Text-to-speech Mode, Press either [Capture] button on the top of the unit.
5. This will return you to OCR camera mode and you are now ready to scan another document.
6. Now that you have completed your first scan you may want to change some of your settings.

Using Smart Reader HD in Display Mode

Using the OCR Modes with a Display

If you are using the device with a monitor you will have a variety of options on how your OCR appears after a scan. There are 3 modes to choose from called "Full Page Picture Mode", "Full Page Text Mode" and "Single Line Text Mode". You will learn more about these modes in the following pages. After powering on your device will announce that it is "ready to scan" which is your cue to place your target document within the "Guide Frame" which shows the entire viewable area of your camera and what will be read to you.

OCR Readback & Text-to-Speech (TTS) Modes

Full Page Picture Mode- This mode is typified by showing the actual photo of your target OCR Scan. A word highlight will display on each word while reading back to you. Magnification occurs on this document similar to the OCR Preview.

The Zone Mode will display the picture as it appeared in the OCR Preview/Guide frame with the addition of the Zone Identifier Graphics you have selected (Boxes are enabled by Default). This divides the target material into different "Zones" or blocks of text that you can highlight and navigate to using the [Next/Previous Line] Keys while at minimum zoom.

OCR readback will not engage automatically in this mode since you are given the option of choosing where you start reading. When you have highlighted the desired area simply press the Play button. Pressing [Capture] at any time will return you to the OCR Guide Frame.

Full Page Picture Mode and Zone Identifiers

Full Page Text Mode- This mode strictly displays text with no pictures and provides a clear and crisp version Full Page View of digital text displayed in a word wrapped column like format. Magnification changes will dynamically adjust your material to ensure that it will always extend the entire width of the screen.

The page will be displayed in Full Page Text mode during OCR Readback. The word highlight will be displayed at the current reading position and all of the Navigation features will be available. Pressing the [Capture] Key will immediately exit from this mode and return you to the OCR Preview Guide Frame.

For navigation purposes the full page text mode it is organized into separate lines which can be navigated by word with [Play/Pause] + [Next/Previous Line] or one line at a time via a single button press of the [Next/Previous Line] keys or optionally these can be held down to quickly navigate line by line. The word highlight is displayed based on your selected color mode.

Specific terminology is used to describe flowers and their parts. Many flower parts are fused together; fused parts originating from the same whorl are connate, while fused parts originating from different whorls are adnate; parts that are not fused are free. When petals are fused into a tube or ring that falls away as a single unit, they are sympetalous (also called gamopetalous). Connate petals may have distinctive regions: the cylindrical base is the tube, the expanding region is the throat and the flaring outer region is the limb. A sympetalous flower, with bilateral symmetry with an

Full Page Text Mode

Single Line Text Mode- This mode displays the target text in a Single Line View of digital text displayed in a word wrapped format that emphasizes making the text as large as possible for the screen.

The word highlight will be displayed at the current reading position and will always be located in the center of the screen. All of the OCR Navigation features will be available. Pressing the [Capture] Key will immediately exit from this mode and return you to the OCR Preview Guide Frame.

For navigation purposes the Single Line text mode is organized into lines that fill the entire screen which can be navigated one word at a time. The word highlight is displayed based on your selected color mode.

Specific terminology is used to

Single Line Text Mode

Table Mode- This is a special mode designed to facilitate accurate readings of table formatted documents such as bank statements, receipts, etc. It will read the document in a strictly left to right and top to bottom reading order. **To engage this option simply press and hold the "Capture" button for greater than 5 seconds. You will hear "Processing Table Mode".** Table mode is activated for a single OCR scan only and will appear in the Full Page Text Mode or Single Line Text mode only.

Configuring the Smart Reader HD with On Board Controls

Settings you can change while device is in use

The following section lists all of the features you can change while your device is in OCR Readback or OCR Preview mode and does not require you to enter the menu to make changes. This gives you a more convenient way to change commonly used settings.

Adjusting Magnification

Smart Reader HD offers a range of magnification capabilities to increase the size of the digital text or magnify the size of the image and test in full page picture mode.

To adjust the magnification while in OCR Readback mode press the [Previous Line] + Rotate [Volume Wheel] to zoom, until you reach the desired magnification. Turning the wheel clockwise will increase magnification, and turning the wheel counter-clockwise will decrease magnification.

The Zoom Level will appear in the upper corner of your monitor when you are increasing or decreasing magnification. An indicator will display when the user is at the maximum magnification or minimum magnification. The upper magnification limit is different depending on which OCR mode you use.

On Board Control for Magnification Adjustment

Press and hold the [Previous Line] and rotate the [Volume Wheel] Clockwise to Increase magnification or Counter-Clockwise to decrease magnification

 +

Changing the Viewing Mode

Smart Reader HD was designed to provide optimum viewing for people with certain visual conditions by offering a range of choices in both text and background colors. Press the [Next Line] button located on the Smart Reader HD Base and Rotate the [Speed Wheel] on the right hand side, to cycle between Full Color, Black and White, Enhanced Positive, Enhanced Negative, and up to 5 of your favorite color select modes. The 5 favorite color select modes can be modified to any of the 28 color select options by changing your preferred color modes as mentioned on page 34.

Adjusting Viewing Modes

By rotating the [Speed wheel] while the [Next Line] Button is pressed will allow you to cycle forward or backward through all of the selected viewing modes.
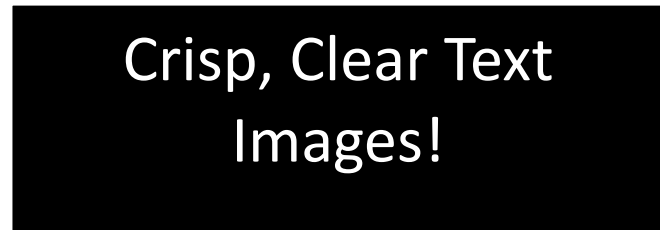
Viewing Modes

(Full Page Picture Mode Only)

This mode gives a black and white representation of the image being magnified.
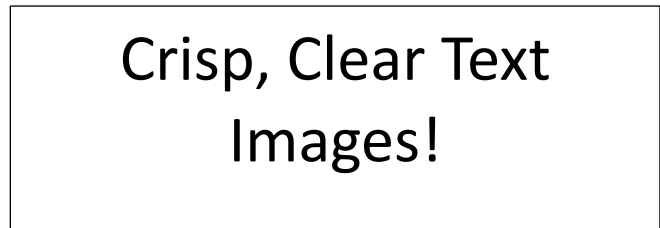
Factory Default Enhanced-Positive Image

This mode provides a white background with black text. It increases the contrast to offer crisp text images for reading.

Factory Default Enhanced-Negative Image

This mode provides a black background with white text. It increases the contrast to offer crisp text images for reading.

Factory Default Color 1

In factory default this mode provides a black background with green text. This is one of the most commonly used color combinations. To change this mode to any of the 28 available please review page 34 under preferred color modes.

Factory Default Color 2

In factory default this mode provides a black background with yellow text. To change this mode to any of the 28 available please review page 34 under preferred color modes.

Factory Default Color 3

In factory default this mode provides a blue background with yellow text. To change this mode to any of the 28 available please review page 34 under preferred color modes.

User Defined Color 4

In factory default this mode is turned off. Review page 34 to turn this color mode on.

User Defined Color 5

In factory default this mode is turned off. Review Page 34 to turn this color mode on.

On Board Control for Changing the Viewing Mode

Press and hold the [Next Line] and rotate the [Speed Wheel] Clockwise to cycle the next color mode or Counter-Clockwise to cycle to previous color mode.

Adjusting the Volume

1. On the Smart Reader HD unit base on the left hand side you can find the [Volume Wheel] and rotating this clockwise/counterclockwise to increase or decrease the volume during OCR Readback or on OCR Preview.

Volume Wheel

2. Optionally it can be adjusted via the Audio Sub Menu in the system Menu.

Adjusting the Brightness

1. Brightness can be adjusted in the OCR preview window using the following button combination.
2. Optionally it can also be adjusted via the Display Sub menu in the system Menu.

On Board Control for Changing the Brightness In OCR Preview

Press and hold the [Previous Line] and rotate the [Volume Wheel] Clockwise to increase brightness or Counter-Clockwise to decrease brightness

Smart Reader HD Console Configuration

Control Console Introduction

The Control Console and included Console Cover is an optional accessory and sold separately that offers an alternative way to control the Smart Reader HD.   Familiarizing yourself with the Console will be helpful because how you configure the console will affect your user experience. Read on to learn more.

Smart Reader HD Dynamic Controls

The Control Console for Smart Reader HD has an intelligent design that allows you to customize features on demand and switch between two control types which we have defined as "Basic" Mode & "Advanced" Mode. These two control methods are changed by taking the control console cover and either placing it onto the console or removing it. Smart Reader HD will detect the change and you will notice accessibility of certain buttons and features for your Smart Reader HD will also change when the Cover is ON or the Cover is OFF.   This enables you to quickly and easily switch between a Basic Control Scheme for ease of use and the Advanced Control Scheme which has a diverse range of features. You should also notice that the functions of certain keys will change depending on which scheme you are using. For beginning users we recommend initially starting with the Basic Mode and then as you become more comfortable graduate to using the Advanced Mode with Advanced Features.

Removing the Control Cover:
While you are in Basic Mode you can remove the Control Cover at any time, this enables the advanced features and controls.

Placing the Control Cover:
If you are using Advanced Controls and want to return to Basic, place the Cover ON and it will return you to the Live Preview with the Basic Mode control scheme.

Figure 1 Console Cover

Basic Controls

One of the great features of Smart Reader HD is the ability to make the product simple to use. This is achieved by placing the console cover over Smart Reader HD (demonstrated in the "Basic Controls Enabled" figure shown to the right).   The OCR button configuration changes to a more basic format that still provides you with all of the essential features that you will need to begin a document scan. If you are excited to begin reading right away, simply place the Control Cover on Smart Reader HD Console and press the button in the center of the Zoom Wheel to start and press it again to exit.

*Some Configurable & Advanced options are not available while using the Basic Mode control scheme.

Advanced Controls

Smart Reader HD has a lot to offer when it comes to customization which is covered in the rest of this manual. If you have used the Basic Mode Control Console Settings and are comfortable with it, you may start by trying out some of the advanced features that are available.

If you see a feature that you would like to use, remove the Control Console Cover (see the "Advanced Controls Enabled" figure). This enables features such as saving, zone identifiers, line navigation, and much more.   For details on these features please refer to their respective pages and how they are used.

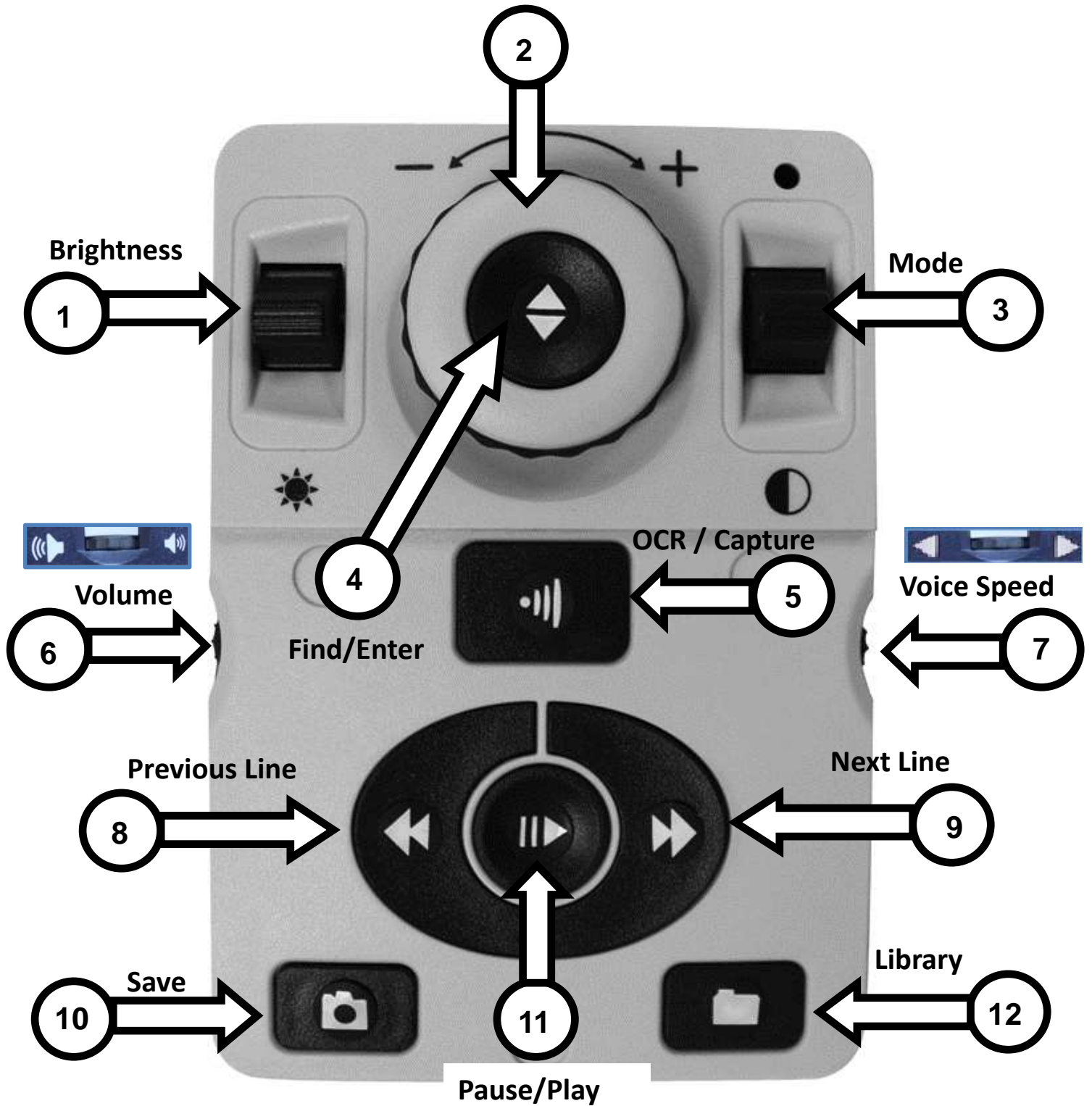# Smart Reader HD Basic OCR Control Console

Zoom Wheel

2

Pause/Play

3

− +

Color Mode

4

1 | **Capture**

Volume

6

Voice Speed

5
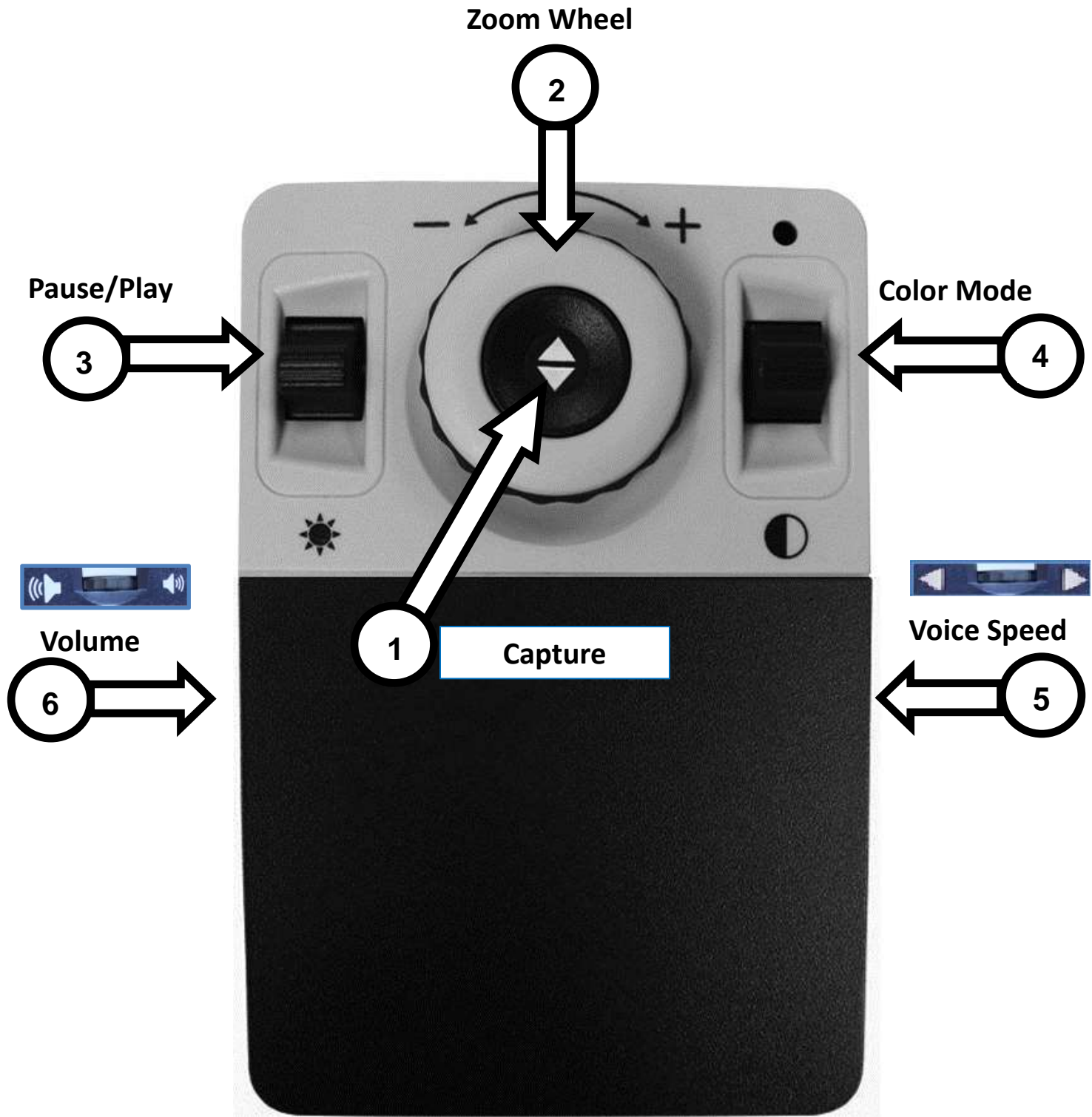
See the following Page for Basic Console Controls in Detail

BASIC OCR CONTROL CONSOLE BUTTONS DEFINED

1. **Capture –** While in OCR mode press this button to capture an Image for Optical Character Recognition (OCR). Device will begin reading back to you. Press again to return to OCR mode.

2. **Zoom Wheel –** Turn clockwise/counter-clockwise to increase/decrease the zoom level.

3. **Pause/Play** – Press Up/Down to Pause and Resume OCR Reading after performing an OCR Capture.

4. **Color Mode –** Press Mode Up/Down to toggle through different color viewing modes.

5. **Voice Speed –** When in OCR mode, rotate to increase/decrease OCR Playback speed. When pressing in like a button it will reset reading speed to default value.

6. **Volume –** When in OCR Mode and reading, rotate to increase/decrease system volume. When pressing in like a button it will reset volume level to default.

Smart Reader HD Advanced OCR Control Console

Zoom Wheel

2

− +

Brightness

1

Mode

3

OCR / Capture

Volume

6

4

Find/Enter

5

Voice Speed

7

Previous Line

8

Next Line

9

Save

10

11

Library

12

Pause/Play

See the following Page for Advanced Console Controls in Detail

1. **Brightness** – When in OCR Preview, press Up/Down to increase/decrease brightness. While in OCR Readback Mode the Brightness control is used to navigate by word (When OCR readback is paused).

2. **Zoom Wheel** – Turn clockwise/counter-clockwise to increase/decrease the zoom level (Zoom is Possible only while in OCR Readback)

3. **Mode** – Press Mode Up/Down to toggle through different color viewing modes.

4. **Find/Enter** – This is used to make a selection in various menus. This includes the Library and System Menu etc.

5. **OCR/Capture** – Press to capture an image for OCR. Press again to exit out of OCR and back to the OCR Guide Frame.

6. **Volume** – Use this control to adjust the volume during readback.

7. **Voice Speed** – When in OCR mode, rotate the speed dial clockwise/counter-clockwise to increase/decrease OCR Playback speed.

8. **Previous Line or Zone (In OCR Mode)** – Press to move to the previous line while reading or to move to the previous Zone while in Zone Overview.

9. **Next Line or Zone (In OCR Mode)** – Press to move to the next line while reading or to move to the next Zone while in Zone Overview.

10. **Save (In OCR Mode Only)** – 'Press and hold' for 2 seconds after performing an OCR Scan (Either while paused or during OCR Playback) to save the current OCR File. Perform the same operation while viewing the OCR Guide Frame to save the image as a picture.

11. **Pause/Play** – Toggle operation: Used to pause, or resume play, during OCR Playback.

12. **Library** – Press and Hold Library for 2 seconds to enter and exit the Library. Rotate Zoom Wheel to Navigate. Press the Library Key briefly to return one level while the Find/Enter key to select your target.

Smart Reader HD System Menu Overview

System Menu

Once Smart Reader HD has been set up and turned on, you have the option to personalize your Smart Reader HD settings to your own preferences. While in OCR Preview press [Save] and [Previous Line] to access your Smart Reader HD system menu. Then turn the [Speed Wheel] in single increments to scroll through your available options. Smart Reader HD will announce each potential item as you turn the Speed Wheel. Use the [Pause/Play] button on Smart Reader Base to make a selection.

The list of available choices is provided below.

1. **Introduction**
2. **User Settings**
3. **Product Settings**
4. **Factory Settings**
5. **Library**
6. **Help**
7. **Exit**

System Menu

Introduction Video

An introduction video has been included with your Smart Reader HD that will give you a brief overview of the main features in an easy to view format.   Use your On-Board Controls to Pause, Play or exit the video playback. To play the video from the Main Menu select it and press the [Pause/Play] Key.

Introduction

Exit from Introduction Video and Return to Menu

Use [Previous Line] and [Save]

 +

To skip forward or backward 10 seconds in the Video

Use [Previous Line] Or [Next Line]

 OR

Pausing the Video

Press the [Pause/Play] Button while video is playing to Pause

Resuming the Video

Press the [Pause/Play] Button while video is paused to Play

User Settings

The User Settings Menu contains all of the configurable options to fine tune your user experience which is divided into 4 Sub-Menus. With On-Board Controls Use [Speed Wheel] to navigate and [Pause/Play Key] select while in these menus.

EXIT
Audio
Display
Time & Date
OCR Text Recognition

User Settings

Adjusting Audio Settings

The Audio Submenu allows you to set your audible features and preferences. Audible features consist of Sounds and Voices. Sounds include hardware and mechanical sounds such as button clicks and chime sounds. The Audio menu has 4 options which are shown below:

|	
EXIT	
All Audio	☐
Volume	09
Sounds	
Voice	

1) All Audio (ON/OFF) –The user can enable or disable all audible sounds and voices quickly. When this is toggled on all the default voices and sounds will be available and when it is toggled off all sounds will be turned off and Audio Submenu options will be greyed out.

2) Volume (1-10) – Sets the default volume level for all Audio (1 to 10). User can use the speed wheel via on board controls to increase or decrease the volume to a suitable option in this menu. Audio feedback will be in the form Volume 1, Volume 2, etc. Pressing the center of the Volume wheel on Optional Control Console will reset to default volume.

3) Sounds – This Sub-Menu has 3 items where you can turn on or off the following:
   a. All Sounds (ON/OFF) – This Enables or Disables Button Clicks and Chime Sounds.
   b. Button Clicks (ON/OFF) – This Enables or Disables the Button Click Sound exclusively.
   c. Chime Sounds (ON/OFF) – This Enables or Disables the Chime Sound and startup beep sound.

EXIT	
All Sounds	■
Button Clicks	■
Chime Sound	■
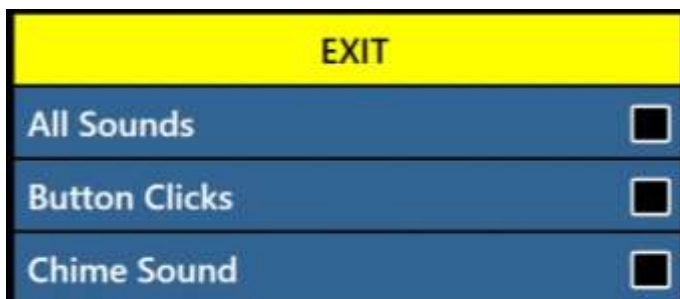
4) Voice – User has the option to turn all voices off, adjust speed and control male/female voice readback options.

   a. All Voices (ON/OFF) – Enables or disables all of the voice prompts on the system.
   b. Menu Voice (ON/OFF) – Enables or disables all of the voice prompts in the system menus only.
   c. Message Voice (ON/OFF) –Enables or disables voice prompts for all of the On-Screen messages that display.
   d. Alerts and Warnings include system TTS messages that warn user of certain system conditions such as "No files Found" or "Document Saved". It also includes OCR messages such as, "Please align your document inside the frame".
   e. Voice Gender (Male/Female) – Allows user to select the gender of the annunciations voice if it is available in the selected language. If available you can toggle this choice, otherwise only one selection will be displayed.
   f. Voice Speed (Speed Level) – Allows user to select from various voice speeds. Pressing the center of the Speed wheel on Optional Control Console will reset to default value during OCR Readback Mode.

EXIT	
All Voices	■
Menu Voice	■
Message Voice	■
Alerts & Warnings	■
Voice Gender	
Voice Speed	03
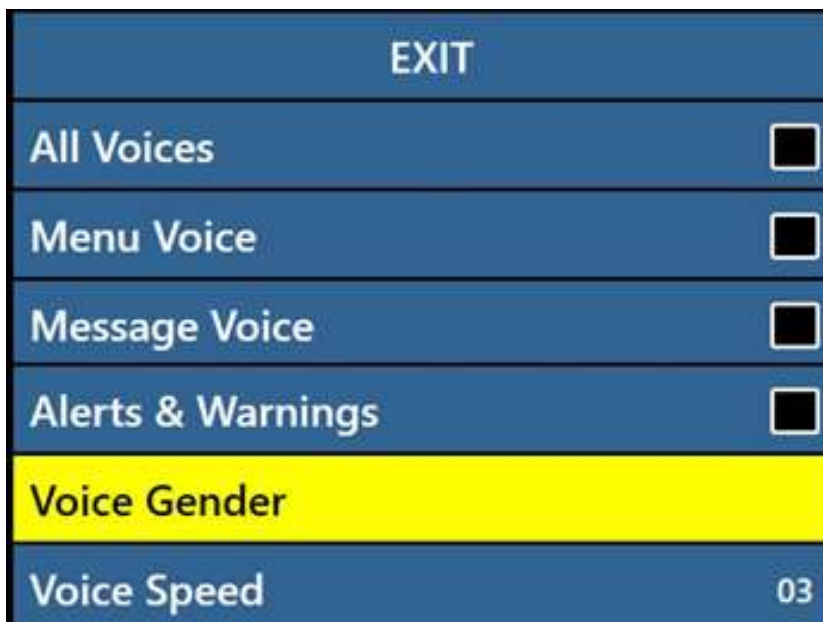
Display Features (Only available if connected to external monitor)

The User can select their preferred display and visual settings using this menu. Display Settings control all graphical user interfaces, icons and visuals that can be viewed on Smart Reader HD and consists of the following options:

1) Screen Messages (ON/OFF) – These are system and software notifications, warnings and alert messages that are displayed to inform the user of various conditions such as when lights are turned on "Lights ON" or when saving a file, "Saving...", Export Complete, Factory Settings Restored etc. The user can turn all such display messages ON or OFF.
2) Brightness (1-10) – user can select the preferred Brightness level for the LCD display and User Interface.
3) Icons & Visuals – Allows user to Enable or Disable the display of icons such as lights ON/OFF icons or panning icons when in Preview/live or Freeze mode.
4) Preferred Color Modes – This option allows you to select preferred color modes. The device comes pre-loaded with several color defaults but can be changed according to your preference.
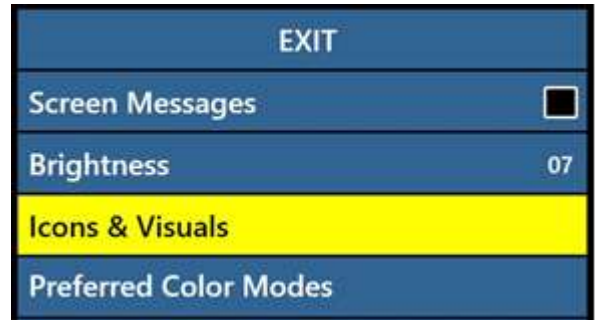
Display Features

Time & Date Settings

Smart Reader HD remembers the current time & date once it is set. To set the current time/date:
1) Enter the Menu by pressing the [Save] and [Previous Line] buttons on Smart Reader Base.
2) Rotate the [Speed Wheel] clockwise until User Settings >> Time & Date is highlighted or spoken.
3) Press [Pause/Play] to select 'Time & Date' sub menu.
4) Rotate the [Speed Wheel] clockwise until 'Set Time & Date' is highlighted.
5) Press [Pause/Play] to select 'Set Time & Date.
6) Rotate the [Speed Wheel] clockwise or counter-clockwise to change the setting and then Press [Pause/Play] to continue through Hours, Minutes & Date etc.
7) Repeat steps 5 & 6 until all of the time/date values are set correctly.
8) You can invoke the Clock at any time simultaneously pressing [Save] + [Library] Keys.
9) Press [Next Line] to finish setting the clock and return to the menu.

OCR Text Recognition Settings

Please note if you are connected to an external monitor all of these options will be available however if you are using the device in standalone mode only you will only be able to access OCR Tune and OCR Attributes.

1) Guide Frame – This is the color of the boundary while in OCR Mode. It is used to help you position your text before an OCR Scan.
2) Zone Identifier – When in full page picture mode, the scanned text in your document will be broken up into blocks called "Zones". These zones can be changed to display as Rectangular boxes or Numbers.
3) Zone Boundary Color – This determines the color of the Zone Identifier features mentioned above.
4) Reading Highlight – This is the color of the box around the word currently being read in OCR readback Mode.
5) OCR Tune – This determines the processing sound that occurs after an OCR Scan. You have 4 options to choose from.
6) OCR Attributes – This tab allows you to optimize your OCR Processing. You are given two choices between Faster Processing Times or Higher OCR Accuracy depending on your preference.
   a. "High Performance" uses a processing method designed to provide an OCR Result relatively quickly.   If your target document is using Normal Fonts and is not very complex this method will suit your needs.
   b. "High Precision" is designed to achieve more accurate results but will do so more slowly when compared with High Performance Mode.   If you are concerned with overall accuracy of your OCR Scan results or have a complex document with smaller fonts it is recommended that you use High Precision.
7) OCR Modes-
   a. Full Page Picture Mode- This mode displays the actual picture of your OCR scan and organizes them into "Zones".
   b. Full Page Text Mode- This mode displays a digital text version of your OCR Scan with pictures taken out. It fully covers the screen in a column format.
   c. Single Line Text Mode- This mode displays a digital text version of your OCR Scan with the pictures taken out. It covers a single line on the screen and features the largest text magnification level.
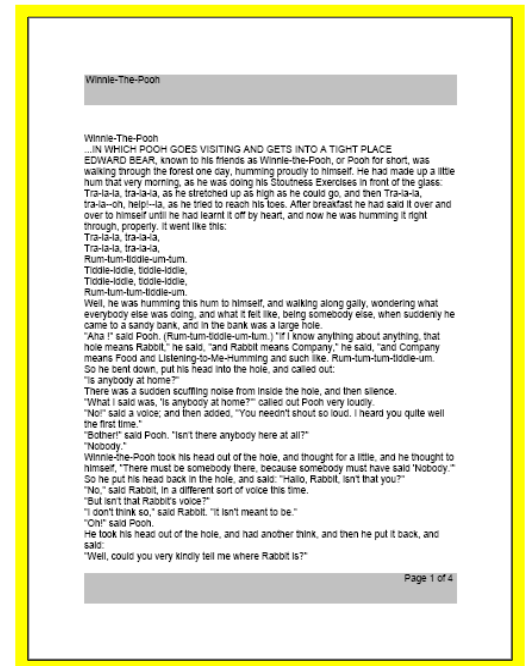
Product Settings

This menu allows you to change some of the various system settings such as Screensaver or Languages

Languages & Setting the Primary Language (English-US by default)

This menu sets the primary language for Smart Reader HD. All the text and prompts will be displayed in the selected language. To change your Language Preference follow these steps.
1. While in the User Settings Sub-Menu Press "[Save] and [Previous Line]" located on Smart Reader HD Control Console to enter the Menu.
2. Turn the [Speed Wheel] clockwise until "Languages" is highlighted.
3. Press the [Pause/Play] button to select the "Languages" sub menu. To select an option, turn the [Speed Wheel] to highlight the desired language. Press the [Pause/Play] button to select that option. A black box next to that option indicates that the option is ON.

Auto Language
The Auto Language Detection feature will allow you to select options from a list for the purpose of allowing multiple languages to be automatically detected and read without having to reset the language frequently in the menu when utilizing our OCR Feature.

This feature works by identifying portions of a particular text in a document and then recognizing them with the appropriate language specific characters. Once processing is complete Text-To-Speech begins in the desired language from those that are enabled in the Auto-Language list.

The Auto-Language feature is strongly recommended for those who read multi-lingual materials or swap between a variety of languages frequently. If you only tend to read in a single language it is recommended that you leave this feature disabled for the best OCR Result.

Screen Saver

The screensaver sub-menu has 5 options you can configure. You can adjust the overall screensaver time or toggle on which type of Screen Saver you would like to view. The screen saver is activated after a certain time interval where the device is not in use.

- Set Screen Saver Time - This option configures how long the device must remain idle until it enters into Screensaver Mode.   The Options are 5, 10, 20 & 30 minutes.
- Off – This enables or disables image display on the screensaver.
- Company Logo – This enables or disables the Enhanced Vision animated Logo as a screensaver.
- Pictures – This enables or disables the system using your saved pictures and cycling through them as a screensaver
- Default – This enables or disables the system utilizing a pre-selected gallery of high quality images as a screensaver.
- Clock- This enables a time & date display just like a digital clock.

Factory Settings Menu

This menu is used to check the status and revision numbers of your device or to make it "Factory Fresh" in regards to the original configuration at the time it left the Enhanced Vision Factory.

Product Information

This submenu contains important system information such as the Software Version, Language Group, Product Number etc.

Reset Factory Settings

Selecting this option returns your system to the "Factory" default conditions and resets any custom settings or changes you have made as a user.

Please note that this <u>will not delete</u> any of your saved images, pages or books.

Library Menu

The Library function stores all of your saved pictures, pages and books. To enter into the library you may do so via the system menu or OCR mode by pressing and holding the [Library] button on the Smart Reader HD Base or Optional Control Console. Items are saved into the library as either a Picture or a Document.

- Picture – To save something as a picture simply press the "Save" button while you are in OCR Preview/"Ready to Scan" mode.
- Page – To save an Item as a Document simply press and hold the save key while device is in OCR Readback Mode. When prompted if you would like to save as a page or book, simply choose Page.
- Book – To save an Item as a book simply press and hold the save key while in OCR Readback Mode then choose New Book or Append to Book and choose whether you would like to append more pages or not by selecting the green (Yes) or red (No) checkmark accordingly. For more information on appending pages to books please see page 42.

Library

| EXIT |
| --- |
| View Pictures |
| View Documents |
| Import Files |
| Export Files |
| Export all Pictures |
| Export all Documents |
| Delete All Pictures |
| Delete All Documents |

Library Sub-Menus

When you navigate to the Library Menu via the Library button you will be provided with Sub Menus for Pictures and Documents. Selecting "Pictures" takes you to the Display List whereas selecting "Documents" will take you to the Pages and Books Sub Menu.

Documents Sub-Menus

The Documents tab is subdivided further into both Page (Single Page Documents) and Book (Multi-Page Documents).
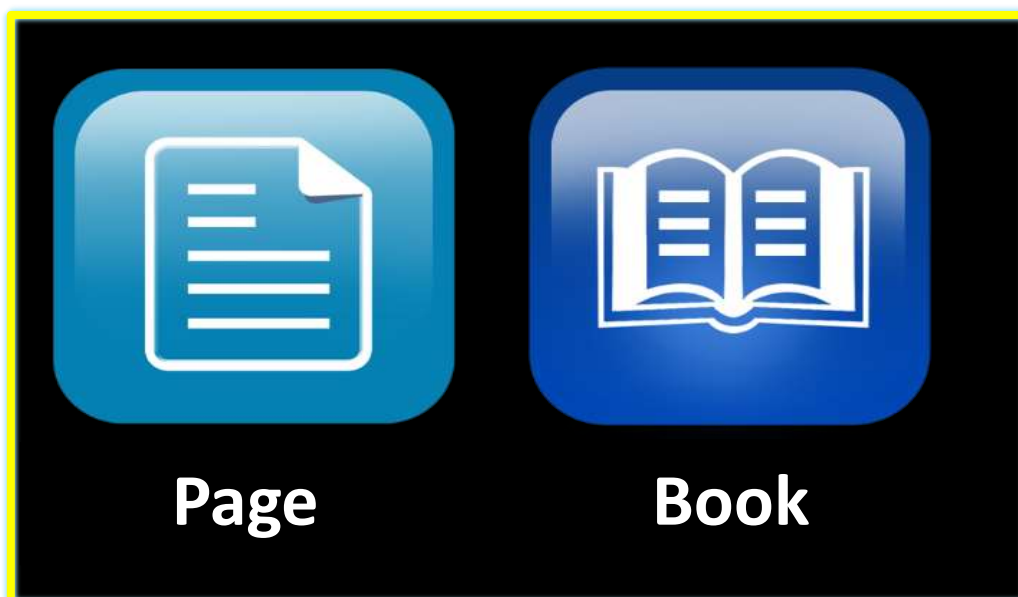
Library Features in depth

Navigating Smart Reader HD Display List

Once you enter your library you will enter the "Display List" which will show you a preview of your Book, Page or Picture. Use the [Speed Wheel] to cycle through all of your saved documents. You should also notice previews for the next and previous items will change as you navigate between the different options. Press [Pause/Play] to make a selection and proceed to OCR Readback for Books and Documents or Picture Viewing Mode for Pictures.
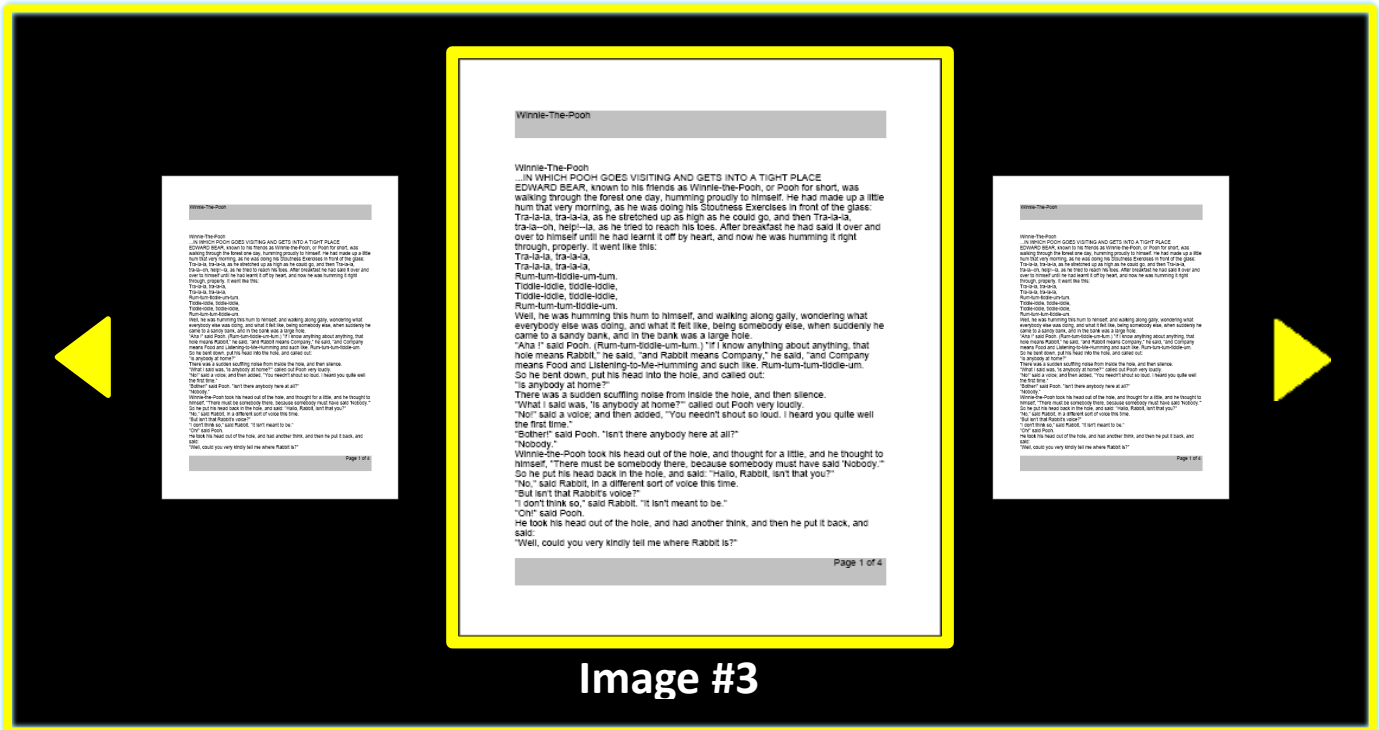

Image #3

Library Display List

Deleting a Single Item from the Display List

While in the Library Display List or while viewing any type of saved image simply press and hold the [Pause/Play] button for 5 seconds. A garbage pail icon will display indicating that the image has been deleted.

On Board Shortcut to Delete an Image:
Press and Hold [Pause/Play] for 5 seconds while in the Library carousel highlighting the file you want to remove.

Pause/Play Button

Navigating A Book (Next and Previous Pages)

In order to navigate all the pages in a book you will need to utilize the following shortcut to simulate turning the page. This is done by Pressing and Holding the [Next Line] or [Previous Line] button or 5 seconds when in OCR Readback Mode.

Next and Previous Page Shortcut

Press and hold the "[Next Line] or [Previous Line]" for 5 Seconds   Or

Appending a page to a book

There are times when you may wish to add additional pages to an existing book. To do this simply scan a page as normal via either [Capture] button and save as normal. Using the [Speed Wheel] highlight the Book option and then choose the "Append to Book" function. You will then be prompted via the Library Carousel to choose the book you would like to Append to. Subsequent pages will be added one scan at a time until you indicate that you would not like to add any more pages.

Picture Viewing Mode

All of the same Color Modes & Magnification options are available in picture viewing mode with the addition of Panning which allows you to navigate within the image. This is accomplished by using the side scroll wheels on the main unit or control console. Please review the sample below. When the image is magnified The Left-Side Scroll Wheel controls the movement Left and Right, whereas The Right-Side Scroll Wheel controls the movement Up and Down. By pressing in the respective wheels on the Optional Control Console it will reset the pan to the center point of your image.

Pan Around a Magnified Image Using the Side Wheels:

(Left EDGE of Base)

(Right EDGE of Base)
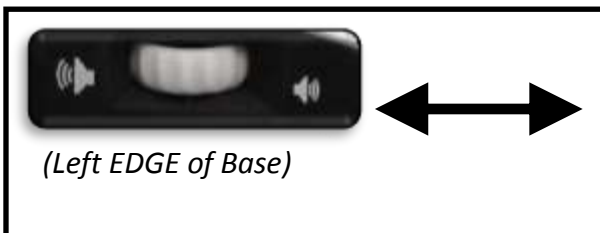
Exporting Files to USB Drive

Smart Reader HD has the option to export your files and documents to a USB Flash drive. It is mandatory that you connect a USB Flash Drive to the available empty USB port in the back of your Smart Reader HD or use the optional 2-port USB Hub. There are three different ways to export files that are listed below along with the instructions for each method.

- **Export Files – Exports one file at a time as selected by the user.**
    1. Enter into the System Menu >> Library >> Export Files.
    2. You will be presented with the File Type display list and Export option
    3. Choosing export will take you to the rest of the library sub menus and then the file carousel.
    4. After highlighting an individual file you would like to export in the carousel simply Press and Hold the [Save] button for at least 2 seconds.
    5. Upon Activation the Save Icon will appear indicating that the image has been saved.
- **Export All Pictures – This option automatically exports all of your saved images**
    1. Enter into the System Menu >> Library >> Export All Pictures.
    2. Upon Activation the Save Icon will appear indicating that you are downloading the images.
    3. A completion chime will be heard and it will be safe to remove the drive.
- **Export All Documents – This option automatically exports all of your saved documents (Pages & Books)**
    1. Enter into the System Menu >> Library >> Export All Documents.
    2. Upon Activation the Save Icon will appear indicating that you are exporting the images.
    3. A completion chime will be heard and it will be safe to remove the drive.

Saving Icon

Exporting Files from the Library in a desired format

You can transfer your saved Smart Reader HD files off of your device into a variety of formats (Depending on language) which include .txt, .rtf, .jpg, .pdf and .doc. This is done by connecting an available flash drive to one of the available USB ports in the rear of Smart Reader HD. While the drive is connected simply access the Export Files menu shown below and select the formats you would like to transfer in. Then simply select "Export".

EXIT	EXIT	
View Pictures	.TXT	■
View Documents	.RTF	☐
Import Files	JPG	☐
Export Files	.PDF	☐
Export all Pictures	.DOC	☐
Export all Documents	Export	
Delete All Pictures		
Delete All Documents		

Deleting Images

Smart Reader HD has the option to delete your files and documents from the internal storage system. There are three different ways to delete files that are listed below along with the instructions for each method.

- **Delete Single File – Delete one file at a time as selected by the user.**
    1. At any point while viewing a single image in the Library the user may delete an image.
    2. Press and Hold the [Pause/Play] Button via on board control for at least 5 seconds or with the Control Console use the Right hand side scroll wheel button and press in.
    3. Upon Activation the Delete Icon will appear indicate that the image has been deleted.

- **Delete All Pictures – This option deletes all of your saved images**
    1. Enter into the System Menu >> Library >> Delete All Pictures.
    2. Upon Activation the Delete Icon will appear indicating that you are deleting all the images.
    3. A completion chime will be heard and it will be safe to remove the drive.

- **Delete All Documents – This option automatically deletes all of your saved documents (Pages & Books)**
  1. Enter into the System Menu >> Library >> Delete All Documents.
  2. Upon Activation the Delete Icon will appear indicating that you are deleting the images.
  3. A completion chime will be heard indicating that all documents have been deleted.

Delete Icon

Importing Files from a USB Drive

Smart Reader HD has the option to import your files and documents from a USB Flash drive to be read, viewed or stored on your device. It is mandatory that you connect a USB Flash Drive to the available empty USB port in the back of your Smart Reader HD. Please copy the files you would like to import from your Computer prior to insertion. Supported file formats are as follows: .TXT, .RTF, .JPG, .PDF, .DOC.

**Import Files – Imports one file at a time as selected by the user in chosen formats.**

1. Enter into the System Menu >> Library >> Import Files.
2. Select the file formats you would like to appear in the Display list.
3. Cycle through the Carousel Menu and all available files will appear. They will have a unique graphic icon which shows the file format at a glance.
4. Press the [Pause/Play] key to view a picture or begin OCR readback of a text file.
5. Press and Hold the [Save] button for at least 2 seconds to save the file to your Smart Reader Internal memory.
   a. Please note that Single Page documents are stored in the Pages Section of the library, Multi-Page documents will be stored in the Books Section of the Library and Photos will be stored in the Picture Gallery.
6. Upon Activation the Save Icon will appear indicate that the image has been saved.

Help Menu (only available via connected external display)

The Help Menu Contains a list of all of the available shortcuts and key presses to access your Smart Reader HD features.

Press [Pause/Play] to enter into the Help Menu, all 4 pages of the quick start guide can be navigated by using the [Previous Line] and [Next Line] keys

You can always press the "Menu Shortcut" [Save] + [Previous Line] button shown below to exit from the Quick start Guide/Help Menu.
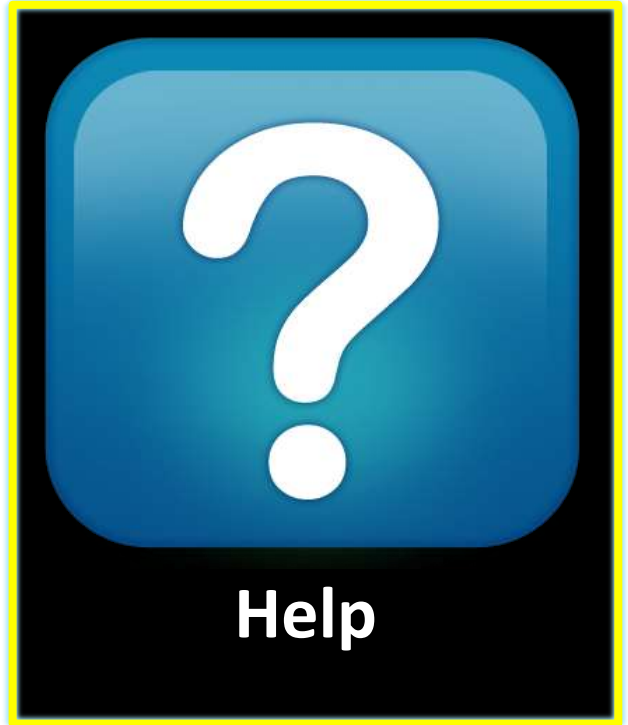
Help

Exiting from the Help Menu
Press and hold the "[Save] and press [Previous Line]" On Smart Reader Base

Help Menu

Smart Reader HD Power States

Shut Down

When your Smart Reader HD is not in use you may want to Power it OFF. Shutting down your device saves battery power but you will have to wait for it to power back up.

1. Locate the Smart Reader HD Camera Arm.
2. Place your fingers on the top middle of the arm.
3. Gently press the camera arm down into the locking mechanism located in the center of the unit.
4. A message will indicate that the device is shutting down as well as a beep indicator that will let you know when the device is shutting down.
5. **Always remember to Shut down or Connect your Smart Reader HD to DC power after receiving the Critical Low Battery Indicator.**

Battery Charge/Usage Time and Status Announcements

Using a Rechargeable Battery

Your Smart Reader HD includes an 8-hour rechargeable battery that can be continuously charged even while the unit is in operation. It is recommended to leave the unit connected with the included Power Supply when the unit is not in use to maintain a continuous charge on the battery. This way, your Smart Reader HD will always be ready for portable use.

It is not possible to overcharge the included battery.

Important Points When Using Battery Power

- The rechargeable battery should be fully charged prior to the first use.
- In order to charge please ensure that the rear panel switch is set to "1" as shown.
- To Fully charge your Smart Reader HD leave it connected to power adapter for at least 4 hours.
- When fully charged your Smart Reader HD battery should last approximately between 8 or more hours.

Checking Current Battery level in the Product Info Screen

You can check the current battery level in the product info screen.

- Enter into the System menu via [Previous Line] + [Save]
- Use the [Speed Wheel] and the [Pause/Play] to navigate to the Factory Settings Menu Option.
- Then select the "Product Information" sub menu
- The device will announce important details about your system status including your current battery level.
- If you are using an attached display it will show this visually alongside the audio announcement.

Tips & Tricks

Improving OCR Accuracy

-To improve the accuracy of your Smart Reader HD ensure that whenever you begin a document capture the lighting in the room is evenly distributed over your target document. (Avoid Hotspots)

-Flatten out books (especially if it has a large spine) or other materials with an observable curvature.

-For optimal OCR Readback please position your material within the guide frame in its entirety. You can rotate your target material in any orientation to ensure that it fits completely within these boundaries.

 -Turning ON or OFF the LED can sometimes improve your accuracy on some materials.

-Try changing from High Performance to High Precision mode in the OCR Attributes menu in the User Settings Menu. The High Precision mode is tuned to make the fewest errors during OCR Processing and you should notice a big improvement on problematic documents.

-For small OCR Targets such as a business card or letter try placing a clean white sheet of Paper in the background to eliminate any distracting patterns that may exist in the background.

Multiple Orientations

-Did you know that your Smart Reader HD supports all available viewing angles (Portrait and Landscape)? If your target document is too large or unusually shaped you can reposition it at another angle this enables you to get the perfect fit within the guide frame.

 System Restart

-In the event that your system exhibits any odd behavior you can reset the device by closing the camera arm and letting it sit closed for approximately 30 seconds. The unit should detect this and shut down even if it becomes "Stuck".

-Additionally there is secret button in the back that can be used to recover from a catastrophic failure, please contact technical for additional information.

User Menus

-Smart Reader HD is a feature rich system that comes with a lot of configurable options. You can customize your User Interface, System Sounds or System Display items to suit your preference. Once you are familiar with the system try changing or configuring these options to develop the perfect user experience customized to fit you!

Troubleshooting

Smart Reader HD will not power on

-Make sure the power supply from Smart Reader HD is securely connected to a working outlet. Push the Smart Reader Camera Head to the ON position. You should hear a series of tones indicating that the unit is starting up.

-Make sure the two parts of the power supply cord are securely connected.

-Ensure the power supply cord is completely plugged into the DC 19V IN jack on the back of the Smart Read HD stand base paying attention to the pin orientation.

-Check the power strip/surge protectors ON/OFF switch and circuit breaker if *Smart Reader HD* is plugged into one.

-Ensure that the battery charging switch is in the ON Position.

The images seem to be out of focus and/or my OCR result is poor.

-Clean polarizing filter on the underside of the OCR camera with the nonabrasive lens cleaning cloth provided with your *Smart Reader HD (avoid using cleaning solutions)*.

-Make sure the target material is steady and flat. It might take a few moments for the camera to achieve focus after motion has stopped.

-Alternate the Smart Reader HD LED Camera Lamp ON or OFF. Always ensure there is even ambient lighting which will assist in creating the best possible image free of hot spots.

Smart Reader HD is taking a long time to process the document for Text-to-speech.

-If the device is not responding to these button presses you can close the camera head to begin the shutdown process.

-Ensure that the material is not glossy or try relocating the Smart Reader HD to an area with different lighting conditions.

- For small OCR Targets such as a business card or letter try placing a clean white sheet of Paper in the background to eliminate any distracting patterns that may exist in the background.

Replacement LED lamps

Your *Smart Reader HD* comes equipped with a LED lamp designed to provide years of trouble-free service. However, in the unlikely event that the LED needs replacement, contact your place of purchase or Enhanced Vision at (800)440-9476 for instructions or assistance on replacing the LEDs.

Firmware Update

To keep your *Smart Reader HD* up to date visit our software support page at: http://www.enhancedvision.com/support/software.html. If you have any questions or require technical assistance with your product, please call (800) 440-9476, Monday – Friday, from 8 a.m. to 5 p.m. PST.

Smart Reader HD Specifications

Product Measurements
- L: 9 1/16 in, W: 4 ½ in (Arm Closed), H: 9 ½ in (Arm Closed)

Camera
- High Definition 13MP Sensor

Product Weight:
- 4 lbs (1.8 Kg)

Power Supply

- Input voltage/current: 120-240 VAC / 0.3-0.5A (nominal)

- Output voltage: 19 VDC

- Frequency: 50 OR 60 Hz

Equipment Classification (IEC 601-1):

- Type of Protection: Class 1
- Degree of Protection: Type B
- Mode of Operation: Continuous
- Operating temperature range: 0-40°C / 32-104°F
- Storage/transport temperature range: 0-60°C / 32-140°F

Warranty: 2 Years

*Product specifications subject to change without notice.

OCR Storage Capacity

•The file size of an OCR scan varies based on text density. 1000 full page scans at minimum can be stored on Smart Reader HD.

WARRANTY STATEMENT & CONTACT INFORMATION

Warranty Statement
Enhanced Vision *Smart Reader HD* Warranty Policy
Enhanced Vision products are designed to give you the highest quality image, convenient features, ease of use and reliable service. **Smart Reader HD has been inspected and tested prior to shipping.** Enhanced Vision warrants Smart Reader HD against defects in material and workmanship under normal use for **two years** from the date of original purchase. Enhanced Vision, at its option, will at no charge either repair the product or replace it during the warranty period. There are no other expressed or implied warranties accompanying this product.

This warranty does not cover: a) Defects or damage from misuse, use in other than normal and customary manner, accident or neglect; b) Defects or damage from improper operation, maintenance, installation, adjustment, alterations or modification; c) Defects or damage from spills of food or liquid; d) All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal use; e) Damage due to operation of Smart Reader HD with equipment not supplied by Enhanced Vision.
• You must provide proof of purchase, bearing the date of purchase, in order to receive warranty service.
• Anyone using this product does so knowingly assuming certain risks, due to the need to utilize vision enhancement devices.
• A 2-year extended warranty option is available within 12 months from the date of purchase. Please contact Enhanced Vision for detailed information.

Service Process
In the event that technical support or repair service is needed, please contact your local Enhanced Vision representative or the Enhanced Vision warranty service center.
If warranty service is required, please contact Enhanced Vision at (800)440-9476 Monday through Friday, between 8 a.m. and 5 p.m. Pacific Standard Time (PST) to request a return authorization number.
Warranty repairs will not be accepted without a valid return authorization number. You may wish to keep the original product packaging in case warranty service is required. The manufacturer cannot provide packaging for warranty repairs.

OTHER ENHANCED VISION PRODUCTS

DaVinci Pro

DaVinci Pro is a high performance desktop video magnifier (CCTV), featuring Full HD, text-to-speech (OCR) and a 3-in-1 camera. With HD you will experience high definition color and contrast giving you a beautiful, crystal clear picture and vibrant colors. Experience the joy of reading with our new text- to- speech feature. DaVinci Pro will read any printed text aloud with the push of a button.

Magnification: 24" LCD: 2X (min.) - to 80X (max.)

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Pebble-mini

Pebble-mini's ultra-compact design makes it the ideal hand-held magnifier whether you're home or on the go. Easily read prescriptions, mail, labels, price tags, menus and so much more. 3.0"LCD screen. Freeze frame and image capture. 28 available viewing modes.

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Magnification: 2X to 10X

Pebble HD

Pebble HD boasts a new HD camera providing a crisp, clear, colorful, high definition picture. A new ergonomic lightweight compact design makes it the perfect companion whether at home or on the go. Carry Pebble HD in your purse, pocket, or clip it on your belt with the included carrying case.

Magnification: 1.25X – 13.5X

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OTHER ENHANCED VISION PRODUCTS

Merlin elite
See and hear the difference!

Merlin elite is a high performance desktop video magnifier (CCTV), featuring Full HD and text-to-speech (OCR). High definition color and contrast provides a beautiful, crystal clear picture and vibrant colors. Merlin elite's unique design allows for a wide field of view, displaying more text on the screen.

Magnification: 2.4x - 70x

Merlin Ultra HD

Merlin ultra's Full HD camera technology produces an even truer, more natural image. Easily read books and magazines, read and write letters, manage your financial records, view color photos, do crossword puzzles, and even pursue a favorite hobby.

Magnification:
20" LCD: 1.9x (min) to 51.2x (max)
22" LCD: 2.1x (min) to 55.9x (max)
24" LCD: 2.3x (min) to 61.2x (max)

Acrobat HD-mini ultra

Acrobat HD-mini ultra is a portable battery operated full HD CCTV. Full HD gives you a beautiful crystal clear picture and vibrant display. A generous 13.3" display offers a large field of view, allowing you to see more on the screen.

Magnification: 1.3X to 65X

OTHER ENHANCED VISION PRODUCTS

Transformer HD

Transformer HD with Built-in Wi-Fi is a high performance portable video magnifier (CCTV), featuring a Sony® Full HD 1080p 3-in-1 camera for reading, writing, and viewing magnified images at any distance. Wi-Fi Capability, and optional Full Page Text-to-Speech (OCR) makes it a perfect solution for school, work or home

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Acrobat HD Ultra

Acrobat ultra HD LCD is a complete system featuring a 3-in-1 Sony Full HD camera with a 22", 24", or 27" high resolution HD LCD producing maximum picture detail for clear, vivid color display. The adjustable arm, tilting screen, and rotating capability allows the camera to be positioned at any angle for optimal viewing. A built in handle allows for easy transport.

Magnification: 1.8X to 70.9X

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Amigo HD

Amigo HD is a truly portable desktop magnifier. Optimal viewing is achieved with a tilting 7 inch viewing screen. Amigo HD provides 1.4x to 14x digital magnification and the lightest weight in its class. Amigo HD has an integrated battery and can be taken anywhere.

Magnification: 1.4x – 14x

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enhanced vision

Smart Reader HD is a high definition desktop CCTV –
featuring Full Page text to speech (OCR). *Smart Reader HD*
will read any printed text aloud with just the push of a
button. Listen or Read along. For more information,
Please visit www.enhancedvision.com.

www.enhancedvision.com
(800) 440-9476 (US Office, toll free)
(714) 465-3400 (US Office)
+44 (0) 115 9442317 (UK Office)
Fax + 49 (0) 6078 96982733 (DE Office)
Tel. + 49 (0) 6078 9698270 (DE Office)

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