

**enhanced**  
**vision**

*DaVinci*<sup>™</sup> 



**User Manual**

Congratulations on your purchase of the DaVinci HD Magnifier with OCR. Enhanced Vision products are designed to give you the highest quality and convenience available. The DaVinci product can enable people with low vision to read, write, see objects at any distance and have text read to them.

The unique design of this product provides the ultimate in flexibility and offers a large range of magnification with multiple viewing options that make reading easier than ever. The DaVinci is a fully integrated solution, offering the advantage of a built-in HD LCD screen and OCR. Prior to using this system, please carefully read and follow the instructions provided within this booklet. A thorough understanding of the functionality will allow you to fully benefit from the flexibility and great features of this device.

If you have any questions, please contact the eye care professional or the supplier from whom you have acquired the unit.

**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

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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, 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 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 the user's 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 the responsibility of the user to use the shielded interface cables supplied with the equipment.

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# IMPORTANT SAFETY PRECAUTIONS

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For your safety and to obtain the most benefit from the DaVinci, please read these safety precautions very carefully.

The DaVinci is designed to enlarge and enhance images 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.

The DaVinci 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 the DaVinci for a patient's individual condition. Please follow these safety precautions:

- Use the DaVinci on a stable, level surface such as a solid desk or table, according to its intended design specifications.
- Avoid placing the DaVinci on an unstable table, cart or stand. It may fall causing serious damage to the unit or bodily injury to the user.
- Use the DaVinci indoors only – it should NOT be exposed to extreme or rapid changes in temperature or humidity. Do not place the DaVinci near a radiator, heater or areas exposed to long hours of direct sunlight.
- 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.

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## To Move the DaVinci to Another Location

- Use caution if you are repositioning the DaVinci a short distance across a desk or table. Make sure you do not pull on any power cords or connector cables.

## Caring for the DaVinci

- Always turn the power OFF on the DaVinci when the system is not in use.
- Always turn the power OFF before cleaning the DaVinci.
- Clean the DaVinci with a soft dry cloth or an electrostatic dusting cloth. DO NOT use liquid cleaners on its plastic surfaces.
- Clean the camera lens and Close-up Lens as needed with the lens cloth provided within the DaVinci's packaging. (See figure 1).

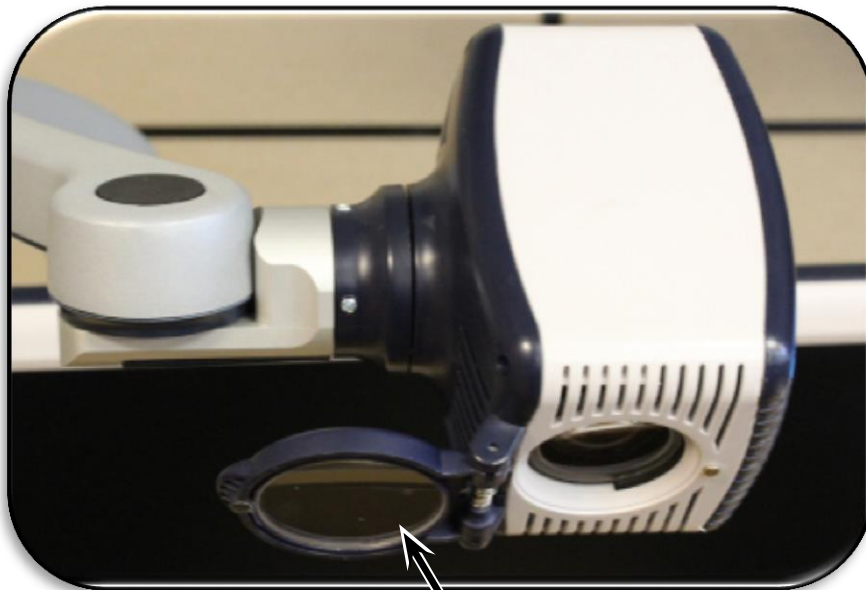


Figure 1

- 
- Follow all warnings, cautions, and instructions marked on the product.
  - The attached power 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 the DaVinci in, near or around water. The DaVinci is not designed to offer protection against contact with liquids of any kind.
  - Do not use the DaVinci near flammable liquids.
  - At least once per week, clean the DaVinci with a soft dry cloth or an electrostatic dusting wipe. No additional methods of sterilization or cleaning are recommended nor required.

- This product contains moving parts. Please use caution when moving the adjustable slide arm or when transporting the DaVinci to avoid possible injury to hands and fingers.
- To avoid personal injury or damage to the DaVinci, do not make any other type of connections to the input jacks.



## Susceptibility to Interference

There may be temporary degradation of the image when the DaVinci 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, disconnect the AC power from the electrical outlet, wait 30 seconds, and connect the AC power again.

## Compliance Warnings

- Electromagnetic compatibility: The use of accessories and cables other than those specified by Enhanced Vision may result in increased emissions or decreased immunity of the DaVinci.
- Placement of equipment: The DaVinci should not be used adjacent to or stacked with other equipment.



# DAVINCI SETUP

## 1. Unpacking and transporting the DaVinci

During unpacking and transporting, be sure to lift the DaVinci by the built-in carrying handle.

**\*\*\*Do not attempt to lift or carry the LCD by the base or the camera arm. (See Figure 1)\*\*\***



Figure 1

## 2. Setup the DaVinci.

Place the DaVinci on a flat, level surface such as a table or desk.

## 3. Connect the AC power.

Connect the attached power cord to the power supply. (See Figure 2) Connect the power cord to an available electrical outlet. (See Figure 3)



Figure 2

To offer additional protection during an electrical storm, a surge protector may also be used and is recommended. Connect the other end of the power supply to the DaVinci where it is labeled “+19VDC”



Figure 3

## 4. Turn the power on

Press the power button on the right hand side of the front panel to power the device on (See Figure 4).

Pressing the Power button on the front, right side, of the DaVinci (See Figure 4) for less than 5 seconds will put the device in Standby. Pressing the Power button again will wake the DaVinci up from Standby.



Figure 4

To turn the DaVinci off, press and hold the Power Button for more than 5 seconds or until “EV DaVinci” appears on the screen.

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# DAVINCI PACKAGE CONTENTS

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## DaVinci is comprised of the following items and features

1. 24" LCD Screen: displays high quality image
2. HD Camera: rotates 340 degrees to capture and enlarge the image
3. Carrying Handle: used for lifting the DaVinci
4. Close-up Lens: used for up close high magnification
5. Arm: rotating arm that holds the camera
6. Lock: used to lock arm from sliding horizontally
7. LED Lamp

## Accessories included:

8. 3.5mm jack for Headphones
9. Control Console: allows the user to control the DaVinci functions  
*\*Must be plugged in to use and have access to the menu items for OCR/Text-To-Speech\**
10. Power Supply
11. Power Cable
12. Lens Cloth: permits cleaning of the LCD display and lenses.

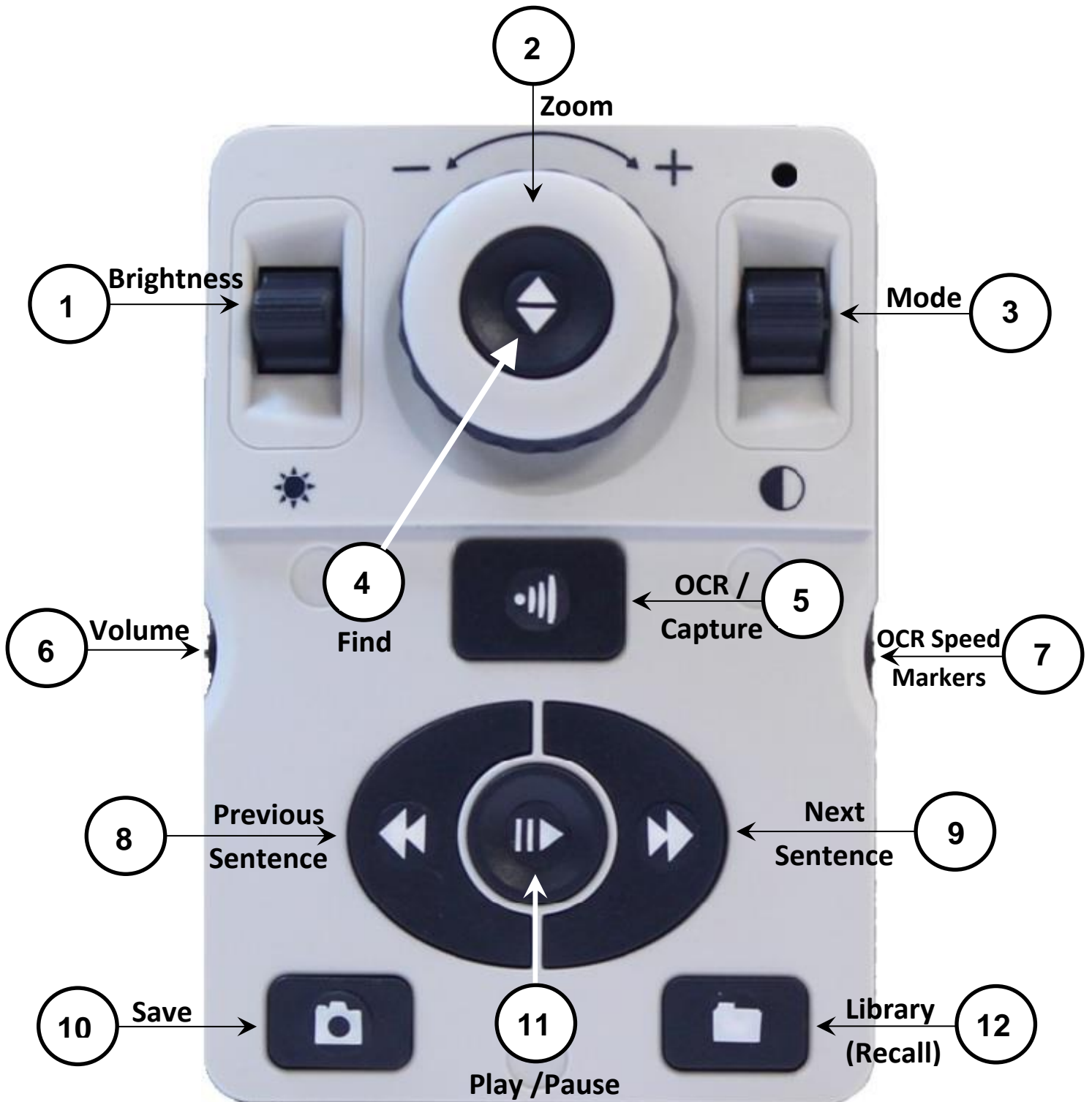
## Accessories NOT included:

13. X-Y Table: X-Y table and Mini X-Y table are available for your DaVinci, place underneath your DaVinci camera and make reading even easier!



*DaVinci Package Contents*

## DaVinci Control Console



NOTE: When the lower cover is placed on the Control Console, OCR related menu options are de-activated in the DaVinci Menus

***See the following Page for Console Controls Detail***

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# BUTTON DEFINITIONS

1. Brightness – When in desktop/live mode, press Up/Down to increase/decrease brightness

When in OCR mode, press [Brightness] Up/Down to move to the Next/Previous word. ‘Press and hold’ [Brightness] Up/Down to advance 2 words per second. **Note:** Word navigation is only available when OCR is paused.

2. Zoom Wheel – Turn clockwise/counter-clockwise to increase/decrease the magnification level. In the menu or [Recall] mode, turn clockwise/counter-clockwise to advance through the menu items or saved files
3. Mode – Press to advance through viewing modes. ‘Press and hold’ for 2 seconds to return to ‘Normal’ color from any ‘Enhanced’ color mode. Press [Mode Up] for 2 seconds for the color mode menu
4. Find – When used above Minimum Zoom, a box outline will indicate what will be displayed at that zoom level to assist with document positioning.

When used in combination with the [Mode] button, this allows one to enter the Main Menu (press “[Find] and [Mode Up]”).

When in the menu, press [Find] to select a menu item. To exit menu, press [Mode Up].

5. OCR/Capture – Press to capture an image for OCR (starts Zoning Preview if enabled in menu). Press again to exit out of OCR and back to desktop/live mode.
6. Volume – Rotate to increase/decrease volume in desktop/live mode or OCR mode
7. OCR Speed / Markers – When in OCR mode, rotate clockwise/counter-clockwise to increase/decrease OCR Playback speed (Speed 1-10 only during OCR Playback). Pressing this wheel will reset the OCR Playback speed to 5.

When in desktop/live mode, rotate clockwise/counter-clockwise to cycle through enabled markers (Column, Line & Window). Pressing this wheel will remove visible markers.

8. Previous Sentence (In OCR Mode) – Press to move to the previous sentence. ‘Press and hold’ for more than 2 seconds to move to a previous sentence, two sentences per second.

When in [Recall] - jumps to top of current list or jumps to previous bottom of list

9. Next Sentence (In OCR Mode) – Press to move to the next sentence. ‘Press and hold’ for more than 2 seconds to move to the next sentence, two sentences per second.

When in Recall - Jumps to bottom of current list or jumps to top of next list

10. Save (desktop/live mode) – ‘Press and hold’ for 2 seconds or more to save the current image. In OCR mode, ‘Pressing and hold’ for 2 seconds during OCR Playback to save the current OCR
11. Pause/Play – Toggle operation: Used to pause, or resume play, during OCR Playback
12. Library (Recall) – Enters the Image/OCR File recall menu (Press for 2 seconds)



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## Using the DaVinci

The DaVinci camera is attached to a specifically designed arm that allows the camera to slide left to right or to pivot in multiple directions.



The DaVinci LCD is mounted on to a bracket that allows the user to tilt the screen to adjust for the best viewing position.

### Button Combinations

Throughout the User Manual there will be ‘button combinations’ (e.g. Press the “[Find] and [Mode]” buttons). This indicates that the buttons should be pressed simultaneously. Control buttons, levers, etc. are enclosed in [ ].

## Distance Viewing Mode

The camera can rotate forward to capture people, objects and scenery. “Far” is displayed in the upper-right corner of the screen when changing to this viewing angle. Be sure to open the Close-up Lens for Distance Viewing (figure 1).

This Distance mode enables magnification for objects 5 feet away. In this mode, although the camera can view objects at an infinite distance, the recommended distance from camera to the distant object is within 5-30 feet to achieve maximum magnification benefit.



Figure 1

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## Self Viewing Mode

The Camera can be rotated backwards to provide you with the equivalent of a full-length mirror. “Self” is displayed in the upper-right corner of the screen when changing to this viewing angle. In this position, you can use the DaVinci to help you put on make-up, shave or perform other personal hygiene. For optimum clarity, use the Close-up Lens and position yourself between 7.5”-22” away from the Camera.

***7.5” - 22” (Recommended)***





## Desktop Mode

The Camera can be adjusted downward for reading, writing and enjoying crafts or other hobbies. This makes it ideal for classroom use. When the camera is rotated downward, “Desktop” is displayed in the upper-right corner of the screen. The DaVinci can slide freely, left or right, along the specially designed bracket mechanism. It is best to close the Close-up Lens when objects are placed 12”-19” away from the Camera for optimal viewing clarity.

***12” - 19” (Recommended)***



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## Adjusting Magnification

The DaVinci offers a large range of magnification capabilities. The following directions can be used with the DaVinci Front Panel Controls or the Control Console.



1. To adjust the magnification turn the zoom wheel located on the Control Console, or Front Panel, until you reach the desired magnification. Turning the wheel clockwise will increase magnification, and turning the wheel counter-clockwise will decrease magnification.
2. The Zoom Level will appear in the upper right corner of your monitor when you are increasing or decreasing magnification. “Max Zoom,” will appear at the maximum magnification and “Min Zoom,” will appear at the minimum magnification.

**NOTE: The extent of the magnification is dependent upon the distance of the Camera to the object.**





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## Changing the Viewing Mode

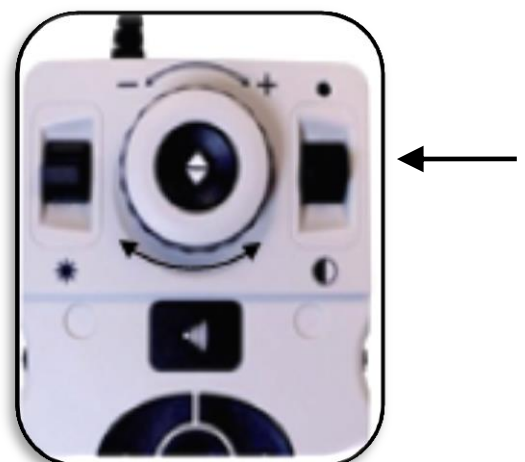
The DaVinci was designed to provide optimum viewing for people with certain visual conditions by offering a range of choices in both text and background colors. Press the [Mode]  button located on the Front Panel, or the [Mode Up/Down]  on the Control Console, to cycle between Full Color, Black and White, 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 following the instructions provided on page 21.

## Adjusting Viewing Modes

1. You can choose a viewing mode by pressing the [Mode]  button on the Front Panel, or [Mode Up/Down]  on the Control Console.
2. Each push will allow you to cycle through all seven viewing modes.

## Color Select Mode Menu

Pressing and holding the [Mode]  button for 3 seconds on the Front Panel, or [Mode Up]  for 3 seconds on the Control Console, will bring up the Color Selection Menu. Scroll through the available Color Modes by turning the [Zoom Wheel] .



Press the [Find]  button on the Front Panel (Center of Zoom Wheel), or Control Console, to select the highlighted Color Mode.

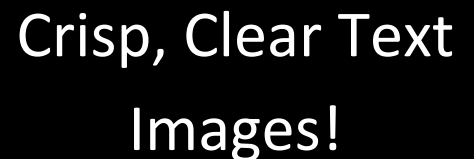
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## Viewing Modes

- **Full Color Image**  
This mode gives a true color representation of the image being magnified.
- **Black-and-White Image**  
This mode gives a black and white representation of the image being magnified.
- **Enhanced-Positive Image**  
This mode provides a white background with black text. It increases the contrast to offer crisp text images for reading.
- **Enhanced-Negative Image**  
This mode provides a black background with white text. It increases the contrast to offer crisp text images for reading.
- **Color Select 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 follow the instructions on page 21.
- **Color Select 2**  
In factory default this mode provides a black background with yellow text. To change this mode to any of the 28 available follow the instructions on page 21.
- **Color Select 3**  
In factory default this mode provides a yellow background with blue text. To change this mode to any of the 28 available follow the instructions on page 21.
- **Color Select 4**  
In factory default this mode is turned off. Follow the instructions on page 21 to turn this color mode on.
- **Color Select 5**  
In factory default this mode is turned off. Follow the instructions on page 21 to turn this color mode on.







Crisp, Clear Text  
Images!



Crisp, Clear Text  
Images!


## Changing Favorite Color Modes

The DaVinci provides 28 selectable Color Select Modes and allows selecting up to 5 favorites for use. The following directions can be used to change the favorite color modes on your DaVinci.


1. Press the “[Find]”  and “[Mode]”  buttons located on The DaVinci Front Panel, or “[Find]”  and “[Mode Up]”  on the Control Console, to enter the Menu.


Brightness
OCR Settings
Markers Setting
Zoning Preview <input type="checkbox"/>
<b>Color Mode Selection</b>
System Configuration
Primary Language
Product Information

EXIT	
BLACK & WHITE	<input checked="" type="checkbox"/>
GREEN/BLACK	<input checked="" type="checkbox"/>
YELLOW/BLACK	<input checked="" type="checkbox"/>
RED/BLACK	<input type="checkbox"/>
BLUE/BLACK	<input type="checkbox"/>
PINK/BLACK	<input type="checkbox"/>
ORANGE/BLACK	<input type="checkbox"/>
BLACK/GREEN	<input type="checkbox"/>
BLACK/YELLOW	<input type="checkbox"/>
BLACK RED	<input type="checkbox"/>
	

2. Turn the [Zoom Wheel]  clockwise until “Color Mode Selection” is highlighted

3. Press the [Find]  button to select the “Color Mode Selection” sub menu.

4. Turn the [Zoom Wheel]  until the desired Color Select Mode is highlighted.

5. Press the [Find]  button to select or deselect the highlighted color mode.

6. Once 5 Color Select Modes have been selected no other color modes can be selected. To choose another Color Select Mode, deselect one of the 5 Color Modes previously selected.

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## Using Line Markers, Windowing, & Column Markers-

### Column Marker, Line Markers and Windowing (Live/Desktop Mode ONLY)


Line Markers can be used as a reading guide by providing horizontal lines across the screen.

Windowing can be used as a reading guide by only displaying a portion of the screen.

#### Turning Markers On/Off:









Rotating the [Marker Wheel]  on the Control Console will allow you to toggle through the Marker Options:

*Off • Column Marker (if enabled) • Line Marker • Windowing*

- Column Marker can be removed from the rotation by accessing the Menu and deselecting it. (No black box)
- Column Marker is only available when Control Console is plugged in.
- Clear Markers from the screen by Pressing the [Marker Wheel] 

### Adjusting Line Markers and Windowing (Column Marker is not adjustable):

#### To adjust the position of the Marker:

1. Press the “[Find]”  and “[Mode]”  buttons located on the Front Panel, or “[Find]”  and “[Mode Up]”  on the Control Console, to enter the Menu.
2. Turn the zoom wheel until “Markers Setting” is selected. Then press the [Find]  button on the DaVinci Front Panel, or Control Console, to select.
3. When this option is selected it will be highlighted RED. Turn the [Zoom Wheel]  clockwise to highlight “Marker Position”. Press the [Find]  button to select (it will be highlighted in RED). Then turn the [Zoom Wheel]  clockwise/counter-clockwise to move the Line Markers or Visible area up/down.

#### Shortcut Key on Control Console:









Press and hold the “[Marker Wheel] and press [Brightness Up/Down]”





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## To adjust the size between the Line Markers or size of the Windowing:

1. Press the “[Find]  and [Mode]”  buttons located on the Front Panel, or “[Find]  and [Mode Up]”  on the Control Console, to enter the Menu.
2. Turn the zoom wheel until “Markers Setting” is selected. Then press the [Find]  button to select.
3. When this option is selected it will be highlighted RED. Turn the [Zoom Wheel]  clockwise to highlight “Marker Size”. Press the [Find]  button to select (it will be highlighted in RED). Then, turn the [Zoom Wheel]  clockwise to increase/decrease the size between the line markers or the size of the visible window.

### Control Console Shortcut:

Press and hold the [Marker Wheel] and turn the [Zoom Wheel] clockwise/counter-clockwise.










+



*(Right EDGE of Console)*


---

## Adjusting the Brightness

1. Press the “[Find]  and [Mode]”  buttons located on the Front Panel, or “[Find]  and [Mode Up]”  on the Control Console, to enter the Menu.
2. “Brightness” should already be highlighted. Press the [Find]  button to select the brightness adjustment option.
3. Turn the [Zoom Wheel]  clockwise to brighten the display or counter-clockwise to dim the display.
4. Once the desired brightness is set, press the [Mode]  button to exit the Menu or wait 10 seconds for the Menu to exit automatically.

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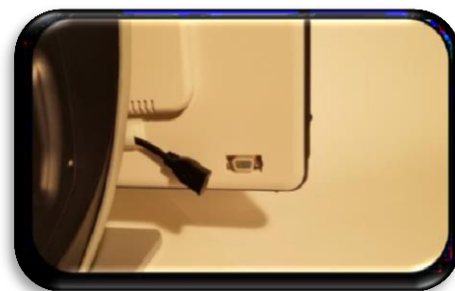
## Adjusting the Volume of your DaVinci in CCTV mode




On the Control Console you can turn the [Volume Wheel]  (Left EDGE of Console) to increase or decrease the volume.

A message on the top right corner of the screen will display the volume level when adjusting the volume. The DaVinci provides up to 10 volume levels.

## VGA/HDMI Toggle

At the back of the DaVinci is a and HDMI Dongle and VGA port which allows for a computer signal to be attached to the DaVinci display. This port makes it possible to use the DaVinci display as a computer monitor to save desk space.




- To toggle from the camera image to the computer channel image press the “[Find]  and [Pause/Play]”  buttons on the Control Console to toggle through CCTV, VGA and HDMI Video Channels.
- To toggle from the computer image back to the camera image, press the [Find]  button on the DaVinci Front Panel or Control Console.

## Auto-config while in PC Input Mode

Pressing [Mode]  while in PC Input Mode will automatically adjust the Position of the PC image

## Turning the Camera Head Light On/Off in PC Input Mode

Press [Brightness Up/Down]  to turn On/Off the Camera Head LED.

- When using the DaVinci Display as a computer monitor, the controls for the camera (e.g. Zoom, Mode, & Marker) will not work for the computer image.
- Using the DaVinci LCD as a computer monitor is similar to attaching a typical computer monitor to your computer, or connecting a secondary display to your laptop. Refer to your computer or laptop user manual on how to connect a display. The DaVinci LCD supports resolutions up to 1920 x 1080



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

# OCR/TEXT-TO SPEECH MODE

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## Using the OCR


The Davinci provides users with the ability to scan a document placed underneath the camera and read it aloud. OCR/Text-to-Speech is only available in Desktop Mode and when the DaVinci Control Console is plugged in. While in Desktop Mode, place the document under the DaVinci camera as straight as possible.

- If the document contains multiple columns, place the desired column in the middle of the screen. Using the “Column Marker” will help in locating the column the DaVinci will read aloud (see page 22)
- Turning the “Deskew” option on will allow for a larger margin of error for a document that is not perfectly straight. (see page 28)


1. Press the [Capture]  button on the DaVinci Control Console.
  - This will take a snapshot of the document and process it for OCR.
2. After the DaVinci has completed the processing step it will begin to read the document aloud.
3. To exit OCR/Text-to-speech Mode back to Desktop Mode, press the [Capture]  button on the DaVinci Control Console.

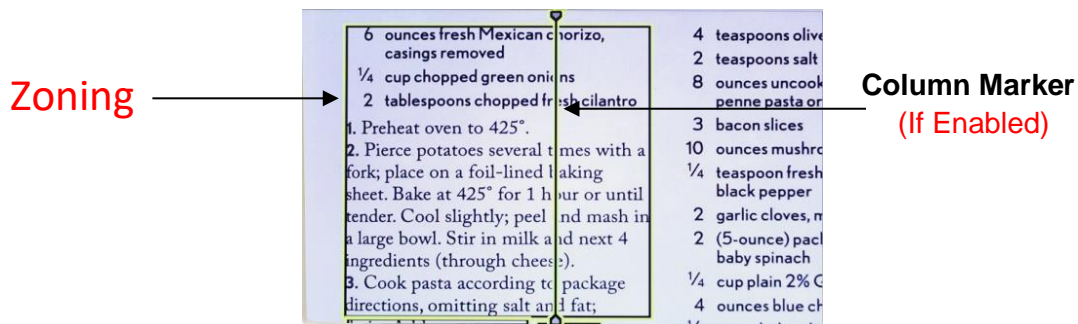



## Zoning Preview


When enabled, this feature allows you to see what the OCR function is going to read when the [Capture]  button is pressed on the Control Console. If you need to adjust the source material, you can do so and the OCR function will redisplay an adjusted zoning preview before reading it.

### Using Zoning Preview


1. While in Desktop Mode, place the document under the DaVinci camera as straight as possible.
2. Press the [Capture]  button on the DaVinci Control Console. The DaVinci will say “Position Document”. Once you have the document positioned as you desire, and DaVinci detects no movement, DaVinci will say “Selecting Text”. DaVinci will then display the ‘Zoning Preview’.



**NOTE:** It is important to let each of the above steps (Position Document and Selecting Text) complete “prior” to pressing the [Capture]  button the 2<sup>nd</sup> time – pressing it too soon can result in the Zoning Preview being bypassed.


If you are satisfied with the Zoning Preview, press the [Capture]  button on the Control Console again. DaVinci will process the document for OCR Playback.

If you are not satisfied with the ‘Zoning Preview’, simply reposition the document – DaVinci will automatically repeat the process and display the new Zoning Preview.

Once you are satisfied with the way DaVinci is going to ‘Zone’ your material, press the [Capture]  button on the Control Console again. DaVinci will process the document for OCR Playback.


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## Adjusting Volume (OCR Playback Mode)



- To increase/decrease the volume, turn the [Volume Wheel]  (Left EDGE of Console).

*\*Note: CCTV and OCR mode volume levels are independent from each other.*


## Adjusting Reading Speed

- To increase/decrease the speed that the OCR will read the document aloud, turn the [OCR Speed/Marker Wheel]  (Right EDGE of Console).

## Skip to Next or Previous Sentence



- To skip to or go back to the previous sentence, press the [Previous Sentence]  or [Next Sentence]  button on the Control Console. 'Press and hold' for more than 2 seconds to move to a previous/next sentence, two sentences per second.

## Skip to Next or Previous Word

- To skip to, or go back to, the next/previous word, press [Brightness Up/Down]  to move to the Next/Previous word. 'Press and hold' [Brightness Up/Down] to advance 2 words per second.

**\*Note:** Word navigation is only available when OCR is paused.\*

## Pause/Play

- Press the [Pause/Play]  button on the Control Console to pause OCR Playback.
- Press the [Pause/Play]  button again to resume OCR Playback.

## Using Headphones with the DaVinci

On the left hand side of the DaVinci LCD monitor, there is an available 3.5mm input jack for use of standard headphones.

*\*Note:* Sound from the DaVinci speakers will not be available while the headphone jack is in use.

*\*Headphones are not included with DaVinci*

## OCR Menu Settings-

### Male Voice/Female Voice

Set the DaVinci to read aloud or prompt in a Male or Female Voice.

### Deskew

While activated, the DaVinci will automatically adjust a document when it is not positioned straight under the camera.

### Progress Bar

Enables/Disables the visibility of a progress bar when the DaVinci is processing a document to Text-To-Speech.


Brightness
OCR Settings
Markers Setting
Zoning Preview <input type="checkbox"/>
Color Mode Selection
System Configuration
Primary Language
Product Information

EXIT	
Male Voice	<input type="checkbox"/>
Female Voice	<input checked="" type="checkbox"/>
Deskew	<input type="checkbox"/>
Progress Bar	<input checked="" type="checkbox"/>
1. English(American)	<input checked="" type="checkbox"/>
2. Français (Canadian)	<input type="checkbox"/>
3. Italiano	<input type="checkbox"/>
4. Español (Castilian)	<input type="checkbox"/>
5. Español (Mexican)	<input type="checkbox"/>
6. Deutsch	<input type="checkbox"/>

## Saving and Recalling Files

The DaVinci has the ability to save files from CCTV or OCR modes. This will allow the user to take a snapshot of a document, save it, and view it at a later time.

### Saving a File

1. Place a document underneath the camera head and set the desired Color Mode and Zoom level.
2. Press and hold the [Save]  button on the DaVinci Control Console for 2 seconds. When the file is saved the DaVinci will display “IMAGE SAVED” (while in CCTV Mode). If the storage space is full, the DaVinci will display “DEVICE FULL” with a voice prompt (if enabled)

The DaVinci will name that file by the month, day, year, time, and mode it was saved at.


**mm.dd.yyyy – hh:mm [OCR/IMG]**

\*In CCTV mode, if you save more than one file consecutively within a minute, the previous image saved will be overwritten.


\*\*In OCR mode, if you save more than one file consecutively within a minute, the DaVinci will display “Already Saved”





## Recalling a Saved File

1. Press and hold the [Recall]  button on the Control Console for 2 seconds.
2. The DaVinci will enter the Recall menu displaying a list of available files.




If the storage space is empty, the DaVinci will display “NO FILES” with a voice prompt (if enabled).

3. Use the [Zoom Wheel]  on the DaVinci Front Panel or Control Console to navigate through the list of files. When a file on the list is highlighted, it will display a preview of that file on the right side of the screen.





4. Pressing the [Find] button on the highlighted file will display the image in full screen and begin to read aloud if saved in OCR mode.
5. Pressing the [Previous Sentence]  or [Next Sentence]  buttons will allow you to quickly navigate through various pages of saved Image (IMG) and Text-to-Speech files (OCR).

*\*\* Please note: all files are grouped in two formats:\*\**

6. Yellow for Image files (IMG) and Green for Text-to-Speech (OCR) files. If an Image (IMG) file is selected you can change the Color Mode if you desire by pressing the [Mode]  button
7. To exit the Recall menu back to CCTV mode, press the [Capture]  button on the DaVinci Control Console.
8. To exit the full screen display back to CCTV mode, press the [Capture]  button on the DaVinci Control Console.

## Downloading to a Saved File


*Recommended using an empty 1GB (minimum) External USB/ Mass Storage Drive*


1. While in the Recall menu use the [Zoom Wheel]  on the DaVinci Front Panel or Control Console to navigate to a file.
2. Press the [Pause/Play]  button on the DaVinci Control Console on the desired file.

**\*\*\*At this point insert a USB (or Mass Storage Device) to the USB port on the back on the DaVinci\*\*\***

3. A sub menu will appear next to the selected file allowing you to “CANCEL” “DELETE”. or “DOWNLOAD”



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4. Use the [Zoom Wheel]  on the DaVinci Front Panel or Control Console to select “DOWNLOAD”. (At this stage the storage device is already connected to the DaVinci.)





5. Press the [Find]  button on the DaVinci Front Panel or Control Console while “DOWNLOAD” is highlighted to select, and then wait for the “Download Complete” prompt before removing the storage device.



### Downloading ALL Saved Files

*Recommended using an empty 1GB (minimum) External USB/ Mass Storage Drive*


1. While in the Recall menu Press and Hold the [Pause/Play]  button for about 10 seconds on the DaVinci Control Console. A sub menu will appear with the options to “CANCEL”, “DELETE ALL”, or “DOWNLOAD ALL”.
2. Insert a USB (or Mass Storage Device) to the USB port on the back on the DaVinci
3. Use the [Zoom Wheel]  on the DaVinci Front Panel or Control Console to select “DOWNLOAD ALL”. Wait for the “Download Complete” prompt before removing the storage device.

### Deleting a Saved File

1. While in the Recall menu use the [Zoom Wheel]  on the DaVinci Front Panel or Control Console to navigate to a file.
2. Press the [Pause/Play]  button on the DaVinci Control Console on the desired file.
3. A sub menu will appear next to the selected file allowing you to “CANCEL” “DELETE”. or “DOWNLOAD”
4. Use the [Zoom Wheel]  on the DaVinci Front Panel or Control Console to select “CANCEL” or “DELETE”.
5. Press the [Find]  button on the DaVinci Front Panel or Control Console while “CANCEL” is highlighted to return to the Recall menu.









Press the [Find]  button on the DaVinci Front Panel or Control Console while “DELETE” is highlighted to delete the selected image. The DaVinci will display “IMAGE DELETED” when the file has been successfully deleted and return to the list of files. Press the [Mode]  button to exit the Recall menu.

### Deleting All Files

While in the Recall menu - Press and Hold the [Pause/Play]  button on the DaVinci Control Console for 10 seconds. A submenu will appear allowing you to “Cancel” or “Delete All”

# System Configuration Settings

## System Configuration

1. Press the “[Find]”  and [Mode]”  buttons located on the DaVinci Front Panel, or “[Find]”  and [Mode Up]”  on the Control Console, to enter the Menu.
2. Turn the [Zoom Wheel]  clockwise until “System Configuration” is highlighted.
3. Press the [Find]  button to select the “System Configuration” sub menu. To select an option, turn the [Zoom Wheel]  to highlight the desired option. Press the [Find]  button to select/deselect that option. A black box next to that option indicates that the option is ON.

Brightness
OCR Settings
Markers Setting
Zoning Preview <input type="checkbox"/>
Color Mode Selection
System Configuration
Primary Language
Product Information

EXIT	
Beep	<input checked="" type="checkbox"/>
Voice Prompt ON	<input type="checkbox"/>
Set Clock	
24 Hour Clock	<input type="checkbox"/>
Day Light Saving	<input type="checkbox"/>
Color: Auto	<input type="checkbox"/>
Color: Normal	<input checked="" type="checkbox"/>
Color: Warm	<input type="checkbox"/>
Color: Cold	<input type="checkbox"/>
Screen Saver	<input type="checkbox"/>
System 50Hz	<input type="checkbox"/>






### Beep






When this feature is enabled a ‘beep’ sound is played each time a button is pressed on the Control Console or Front Panel.

### Voice Prompt On

When this feature is enabled Menu items and System prompts will be verbalized. When this feature is disabled OCR read-back will still work but no Menu or System prompts will be verbalized.

### Set Clock










1. Press the “[Find]”  and [Mode]”  buttons located on the DaVinci Front Panel, or “[Find]”  and [Mode Up]”  on the Control Console, to enter the Menu.
2. Turn the [Zoom Wheel]  clockwise until “System Configuration” is highlighted.

- 
3. Press the [Find]  button to select the “System Configuration” sub-menu. Turn the [Zoom Wheel]  clockwise to highlight ‘Set Clock’ and press the [Find]  button to select it (Red highlight). Once selected, the hour will be blinking.
  4. Turn the [Zoom Wheel]  clockwise/counter-clockwise to adjust the hour. Once the hour is set as desired, press the [Find]  button to advance to the next item (minutes).
  5. Repeat step 4 to set each item in the Set Clock area as desired.

Once the current Time & Date have been set you can choose to enable/disable the ‘24 Hour Clock’ format, ‘Daylight Saving Time’ and ‘Date Format’ options.

## Adjusting the White Balance



The color white is often affected by the lighting used in a room. The DaVinci White Balance selection allows you to achieve optimum clarity.

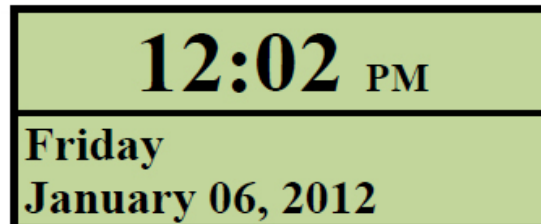
1. Press the “[Find]  and [Mode]  buttons located on the Front Panel, or “[Find]  and [Mode Up]”  on the Control Console, to enter the Menu.
2. Turn the [Zoom Wheel]  clockwise until “System Configuration” is highlighted.
3. Press the [Find]  button to select the “System Configuration” sub menu.
4. Choose between Auto, Normal, Warm, or Cold by highlighting the desired White Balance.
  - “Color: Auto” – Automatically adjusts to the lighting in the room
  - “Color: Normal” – Casts a balanced tone
  - “Color: Warm” – Casts a red tone
  - “Color: Cold” – Casts a blue tone
5. Press the [Find]  button to select the desired setting.
6. Press the [Mode]  button on the DaVinci Front Panel, or [Mode Up]”  on the Control Console, to exit the menu.



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## DaVinci Screen Saver

When the Screen Saver feature is turned on, the DaVinci will display the date and time on the entire screen if there is no activity for 10 minutes. Any movement under the camera, changing the camera position, or pressing any button on the DaVinci or Control Console will return the DaVinci back to its previous state. It is possible to manually display the screen saver by pressing “[Pause/Play]  and [Save]  “.



## System 50Hz - EU/International

When this feature is ENABLED it eliminates ‘screen flicker’ which can occur when DaVinci is used with EU/International systems (which commonly default to 50Hz).







## Language Setting

The DaVinci supports multiple languages that can be set in the Primary Language menu.

### Setting the Primary Language

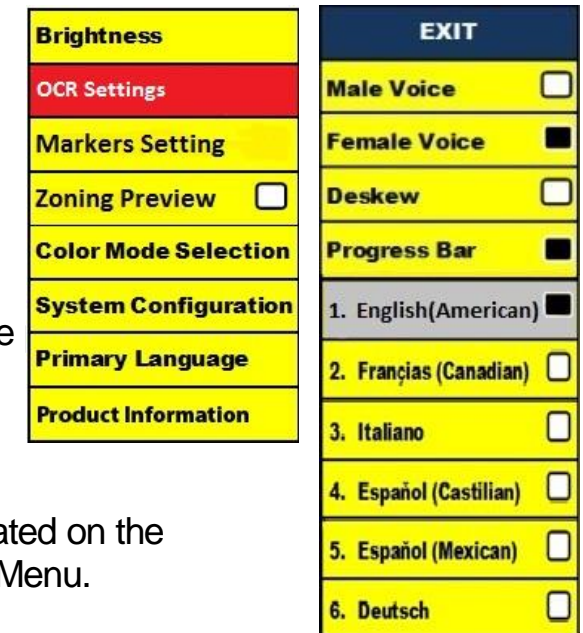
The primary language that is set will be the main language for the DaVinci. The prompts that will be displayed on the DaVinci will be in the language that the user selects in this menu.






1. Press the “[Find]”  and “[Mode Up]”  buttons located on the DaVinci Front Panel or Control Console to enter the Menu.
2. Turn the [Zoom Wheel]  clockwise until “Primary Language” is highlighted.
3. Press the [Find]  button to select the “Primary Language” sub menu. To select an option, turn the [Zoom Wheel]  to highlight the desired language. Press the [Find]  button to select that option. A black box next to that option indicates that that option is ON.




### Setting the OCR Language

The DaVinci is capable of reading text aloud in multiple languages. By default, the DaVinci will only read text aloud written in the same language that is set in the Primary Language menu.



By selecting an additional OCR Language, other than the set primary language, DaVinci will be able to read aloud text written in that additional language.



1. Press the “[Find]”  and “[Mode Up]”  buttons located on the DaVinci Front Panel or Control Console to enter the Menu.
2. Turn the [Zoom Wheel]  clockwise until “OCR Settings” is highlighted.

3. Press the [Find]  button to enter the “OCR Settings” menu options. To select an additional OCR Language, turn the [Zoom Wheel]  to highlight the desired language. Press the [Find]  button to select that option. A black box next to that option indicates that it is ENABLED. The Primary Language will already be selected and the user will not be able to deselect that option. Multiple languages can be set at one time.

\*\* Languages may vary upon region and can change with future updates.

## Product Information

The Product Information will display the technical information of the DaVinci and also allows the user to restore the DaVinci back to its factory settings.



1. Press the “[Find]  and [Mode]”  buttons located on the DaVinci Front Panel or Control Console to enter the Menu.

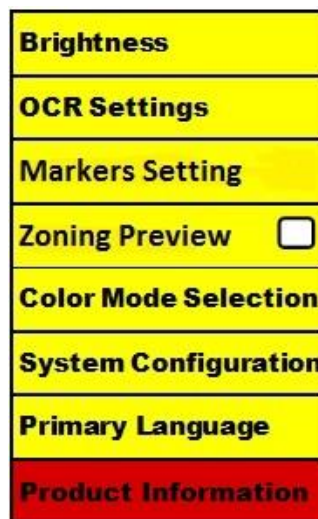
2. Turn the [Zoom Wheel]  clockwise until “Product Information” is highlighted.

3. Press the [Find]  button to display the “Product Information” sub menu.

4. While in this menu you can:

a. Check the firmware versions and other software related version numbers.

b. Restore the settings of the DaVinci by rotating the [Zoom Wheel]  clockwise to “Factory Restore”, then press the [Find]  button.



\*\* When resetting the DaVinci to its factory settings, the Male/Female voice and Primary Language preference will remain the same.

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# TROUBLESHOOTING

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## **The DaVinci is taking a long time to process the document for Text-to-speech.**

- Disabling the “Deskew” and “Auto Language” in the menu will increase the processing speed.

By disabling “Deskew”, the document must be placed under the DaVinci camera as straight as possible.

When “Auto Language” is disabled, the DaVinci will only read text that is the same as the setting in “Primary Language”. For Example, in a multi-language written document, the DaVinci will only read the English text when “Primary Language” is set to “English” and “Auto Language” is set to OFF.

## **The images seem to be out of focus.**

- Make sure the LED Lamp on the DaVinci Camera is ON. Making sure there is sufficient ambient lighting will assist in creating a better image.
- Make sure the Close-up Lens is free of any fingerprints or debris. The DaVinci is will not power on.
- Make sure the connection from the DaVinci is securely connected to a working outlet.

## **Resetting the Davinci**

- If the Davinci becomes unresponsive you can ‘reset’ it by pressing the [Find] and [Power] Button simultaneously. Any setting changes you have made will be retained.

## **Firmware Update**

To keep your Davinci up to date visit our software support page at: <http://www.enhancedvision.com/support/software.html>

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# DAVINCI SPECIFICATIONS

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## Product

- Dimensions:  
24" LCD: 22.25" H x 22.75" W x 19.75" D (65.1cm H X 57.8cm W x 50.2cm D)
- Product Weight:  
24" LCD: 21.4 lbs (9.7 Kg)

## Display

- Type: 24" Standard Diagonal LCD
- Average lifetime: 40,000 hours
- Resolution: 1920 x 1080 (24" model)
- Response Rate: 1.5 milliseconds (24" monitor) All monitor specifications subject to change without prior notice

## Magnification range

24" LCD: 2x (minimum) - to 77x (maximum)

- 24" Field of View (Reading Mode): 6.75mm (1/4") (min); 257mm (9.63") (max)
- 24" Working Distance (Reading Mode): 18 inches

## Default Color Modes

- Color, black & white, high contrast positive/negative, and 3 digital color selects (black background with green text, black background with yellow text, and yellow background with blue text).

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## **Power Supply**

- Input voltage/current: 120-240 VAC / 0.5-0.3A (nominal)
- Output voltage: 19 VDC
- Frequency: 50/60 Hz
- Power usage: 30W

## **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*

# WARRANTY STATEMENT

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## Enhanced Vision DaVinci Warranty Policy

Enhanced Vision products are designed to give you the highest quality image, convenient features, ease of use and reliable service. **The DaVinci has been inspected and tested prior to shipping.** Enhanced Vision warrants the DaVinci 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 the DaVinci 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.**

**\*\*\*NOTE: Please completely fill out and send in the enclosed warranty registration card.\*\*\***



# OTHER ENHANCED VISION PRODUCTS

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## 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



## 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.

Magnification: 2X to 10X



## 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

(With extended zoom up to 25x)







## Merlin ultra HD

Merlin ultra HD's 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)



## Merlin elite

### See and hear the difference!

Merlin elite is a high performance desktop video magnifier (CCTV), featuring 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 (min) - 70x (max)



## Merlin LCD

Merlin LCD is a video magnifier that offers the greatest value and picture quality available. Boasting an ergonomic design, this flexible desktop magnifier allows you to pivot and adjust the screen for your most comfortable viewing position.

Magnification: 2.4X to 85X





## Acrobat HD Ultra

ACROBAT HD LCD is a complete system featuring a 3-in-1 Sony 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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## Transformer



Transformer is the most flexible and portable solution for reading, writing and viewing magnified images at any distance. Compatible with popular magnification software and the latest Windows operating systems. Transformer's unique design is perfect for work, home or school. Weighs less than 3 pounds. Battery operated up to 4 hours. 28 custom color select modes.

Magnification 2.4X to 30X (based on 17"screen)



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## Contact Information:

**(US Office) Phone:** (714)465-3400

**Fax:** (714)374-1821

**(UK Office) Phone:** +44 (0)115 9442317

**Fax:** +44 (0)115 9440720

**(DE Office) Phone:** +49 (0) 6078 969827-0

**Fax:** +49 (0) 6078 969827-33

[www.enhancedvision.com](http://www.enhancedvision.com)

## Technical Support:

Main Toll Free (800) 440-9476 ext. 3

Local Phone: (714) 465-3400 ext. 3

E-mail: [evsupport@enhancedvision.com](mailto:evsupport@enhancedvision.com)



# **enhanced vision**

DaVinci is a high performance desktop video magnifier (CCTV), featuring 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 with vibrant colors. Experience the joy of reading with our new text-to-speech feature. DaVinci will read any printed text aloud with just the push of a button.

For more information, please visit [www.enhancedvision.com](http://www.enhancedvision.com).

**[www.enhancedvision.com](http://www.enhancedvision.com)**

**(800) 440-9476 (US Office, toll free)**

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Product specifications subject to change without prior notice.