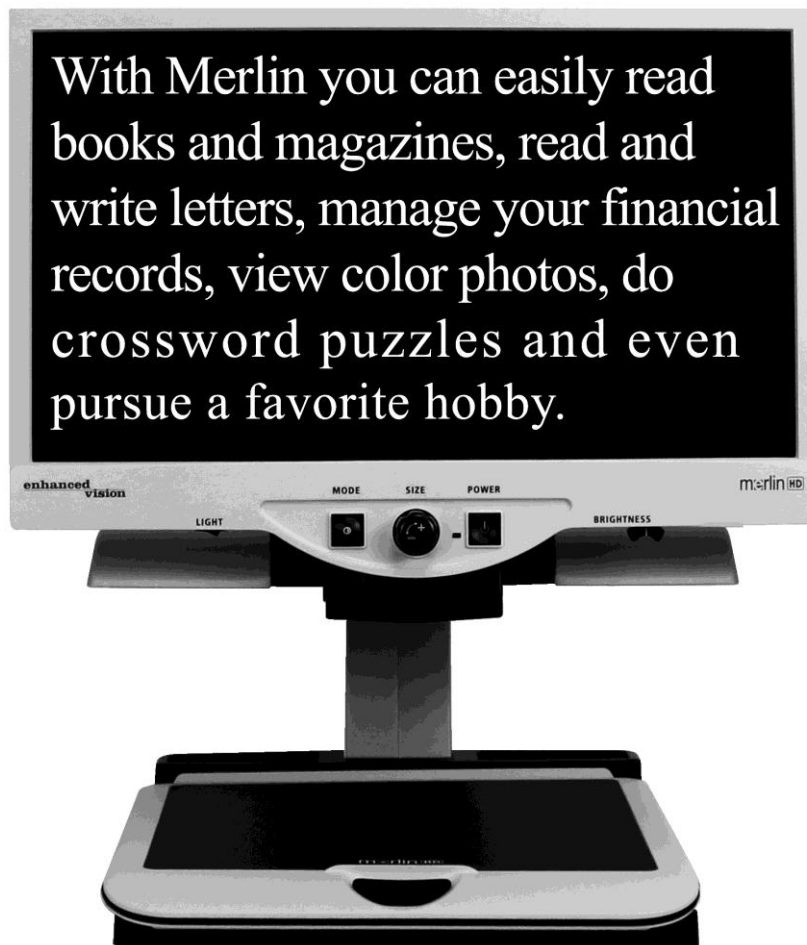


# merlin<sup>®</sup> HD



## User Manual

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Congratulations on your purchase of Merlin HD from Enhanced Vision. Merlin HD is a full-color, auto-focus video magnifier system designed to enhance the lifestyle of the visually impaired. With the LCD monitor's adjustable arm, Merlin HD can provide the user with the ultimate flexibility in the position of the screen.

Merlin HD enables individuals with low vision to read, write, view photos, enjoy crafts and hobbies, and more – in color, black-and-white, or enhanced high-contrast positive or negative viewing modes. Merlin HD also includes 3 different preset color combinations for both text and background to provide improved viewing when reading. An additional 25 color combinations are available and can be programmed. With easy-to-use buttons that are also distinguishable by touch, you can enlarge or reduce the image in seconds, change-viewing modes for easier visibility, and establish preset buttons to your favorite viewing image sizes.

Please read this booklet and familiarize yourself with Merlin HD's features and operation before using this system. Your Merlin HD is ready to use right out of the box. By reviewing all Merlin 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, convenient and easy-to-use features and years of reliable service. Thank you for choosing the Enhanced Vision Merlin HD.

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## 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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## SAFETY AND CARE

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To obtain the most benefit from your Merlin HD, please read these safety precautions very carefully.

Merlin HD is designed to enlarge and enhance images in order to offer improvement in the quality of life for people with visual impairment. The extent to which Merlin HD can improve the ability to see images depends on a person's individual condition and level of visual impairment.

Merlin 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 Merlin HD for a patient's individual condition.

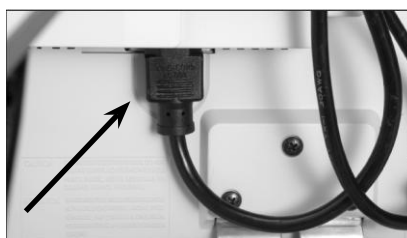
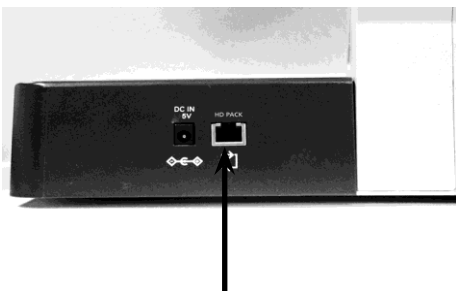
### **Precautions for Use**

- Follow all warnings, cautions, and instructions marked on the product.
- Use the Merlin HD on a stable, level surface such as a solid desk or table, according to its intended design specifications.
- Avoid placing the Merlin HD on an unstable table, cart or stand. It may fall causing serious damage to the unit or bodily injury to the user.
- Use the Merlin HD indoors only – it should NOT be exposed to extreme or rapid changes in temperature or humidity. Do not place the Merlin 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 the Merlin HD with a soft dry cloth or an electrostatic dusting wipe. DO NOT use liquid cleaners on its plastic surfaces. No additional methods of sterilization or cleaning are recommended nor required.
- Do not use the Merlin HD near flammable materials or liquids.

---

## Additional Electrical Safety Precautions

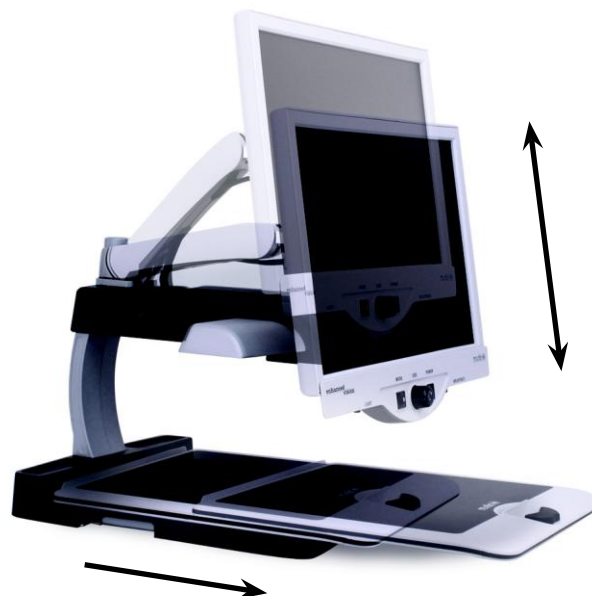
- The power supply cord is a disconnect device for electrical equipment. The socket-outlet should be installed near the equipment and be easily accessible.
- This product is equipped with a 3-wire grounding type plug as a safety feature. This plug has a third (grounding) pin and can only be plugged into a grounding-type power outlet. If necessary, contact an electrician to replace your power outlet with a grounding-type power outlet.
- Do not use the Merlin HD in, near or around water. The Merlin HD is not designed to offer protection against contact with liquids of any kind.
- Use only the power supply provided with your Merlin HD. Using unauthorized power supplies may cause serious damage to Merlin HD's electronic components.
- Using any other power supply than the one provided by Enhanced Vision for the Merlin HD will void the warranty.
- Prevent the risk of electrical shock by NOT attempting to disassemble the unit. Please refer all service to an authorized repair facility.
- To avoid personal injury or damage to the Merlin HD, do not make any other type of connections to the input jacks other than those indicated in the photos below.



---

## Additional Mechanical Safety Precautions

Your Merlin HD contains moving parts. Please use caution when moving the X-Y table, adjusting the LCD monitor arm, or when transporting the Merlin HD to avoid possible injury to hands and fingers.



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## To Move Merlin HD to Another Location

- If you are repositioning Merlin 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 and lock the X-Y table before moving the unit.
- Carry the unit only by the two recessed handles located on either side of its base. **Do not carry it by the LCD monitor arm.**

## Caring for Merlin HD

- Always turn the power OFF for the Merlin HD and the monitor when the system is not in use.
- Always turn the power OFF before cleaning Merlin HD.
- The protective glass covering the camera can be cleaned as needed with the lens cloth provided within your Merlin HD's packaging.

## Susceptibility to Interference:

There may be temporary degradation of the image when the Merlin 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 black. If this happens, unplug the AC Adaptor, wait 30 seconds, and plug the cable back in.

## 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 Merlin HD.
- Placement of equipment: The Merlin HD should not be used adjacent to or stacked with other equipment.



---

## MERLIN HD AT A GLANCE

---

**Take a few moments to familiarize yourself with the components of your Merlin HD:**

1. Merlin HD
2. LCD Monitor
3. Light ON/OFF Switch
4. Viewing Mode button
5. Size (Magnification) dial
6. Merlin HD power button
7. LCD Brightness Control Lever
8. X-Y table locking lever
9. X-Y table
10. Recessed handles for carrying Merlin HD
11. LCD monitor arm
12. Merlin HD 5V power supply
13. Merlin HD Base & LCD Monitor “Y” Power Cord  
(style of power cord may vary based upon country)

**Optional Accessories:**

14. HD Pack

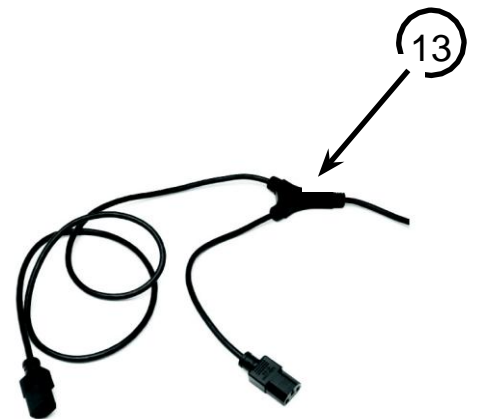
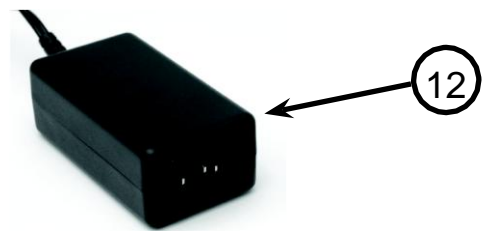
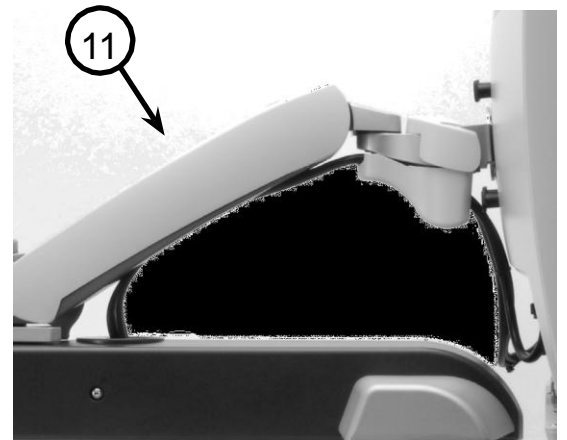
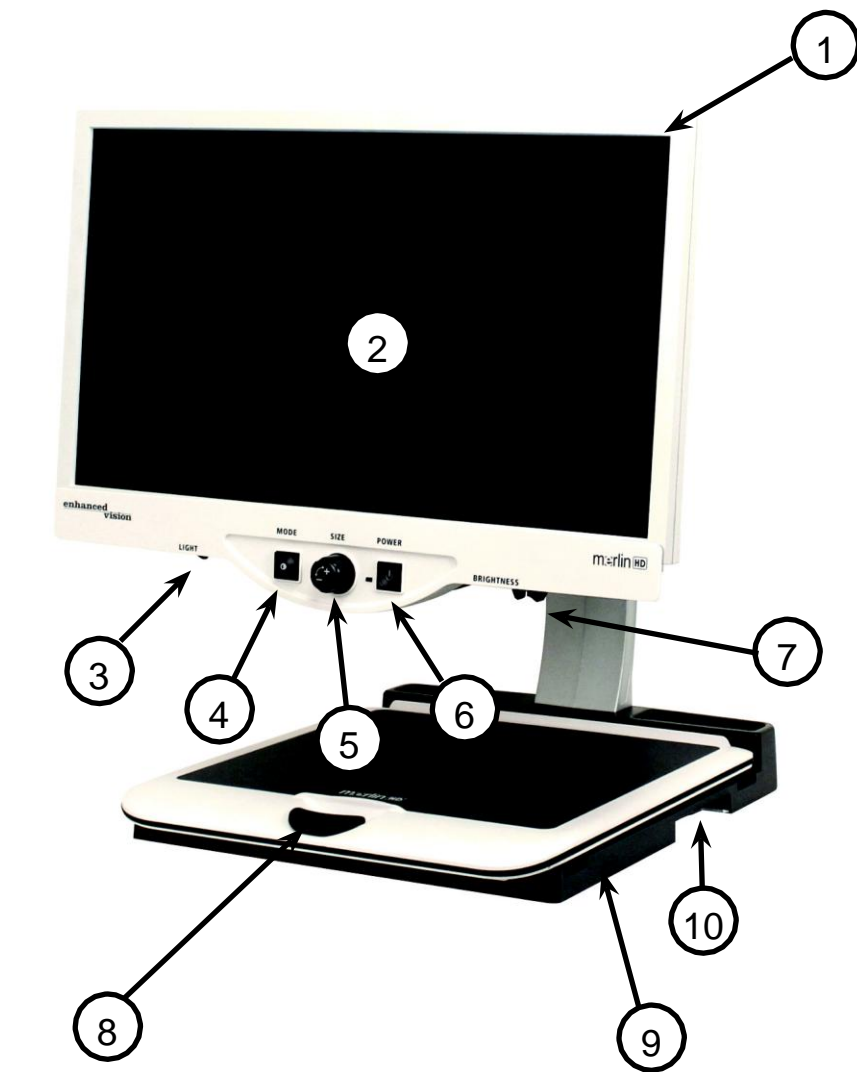




Figure 1



Figure 2



Figure 3



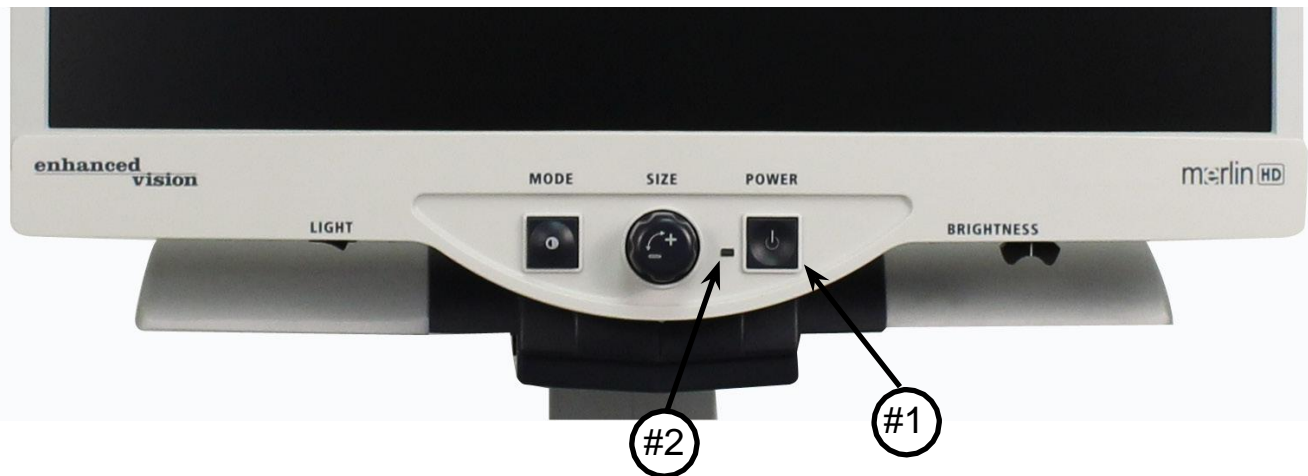
Figure 4

1. Find a steady and level location, such as a table or desk, where you will be comfortable using Merlin HD. Carry the Merlin HD only by the two recessed handles on the side of the base for a secure grip. **Do not lift the unit by the LCD monitor arm.** Place it on the table or desk (see *Figure 1*).
2. Connect the short end of the “Y” power cord to the Merlin HD Power Supply (see *Figure 2* and items #12 & #13 on page 9).
3. Connect the long end of the “Y” power cord to the monitor power input on the rear of the Merlin HD as shown (see *Figure 3*).
4. Connect the power lead from the Merlin HD Power Supply to the power input labeled “DC IN 5V” on the rear of the unit as shown (see *Figure 4*). Finally, connect the AC power plug to an available wall outlet or surge protector.

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## TURNING ON MERLIN HD

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### Merlin HD Power Button

The Power button on your Merlin HD is located on the far right of the control panel (*item #1 above*).

- Press the Power button. Notice the green light will illuminate on the Control Panel, indicating the power is ON (*item #2 above*).
- The screen should automatically come on in a few seconds.

If the green light does not illuminate or if an image does not appear on the LCD monitor, please check the power supply connections (review steps 2-4 on page 11 for details). Unit turns ON by default upon plugging it in the AC mains.

**NOTE:** If your Merlin HD is plugged into a power strip/surge protector, make sure the power switch is turned on before attempting to turn on Merlin HD. If the power strip/surge protector comes with a circuit breaker, make sure the circuit breaker has been reset before attempting to turn on Merlin HD.

---

# CHANGING VIEWING MODES

---



You can choose a viewing option by pressing the MODE button on the control panel. Each press will cycle through all 7 viewing options. These available options are:

- Full Color Image
- Black and White Image
- Enhanced Positive Image
- Enhanced Negative Image
- Color Select 1
- Color Select 2
- Color Select 3
- Color Select 4 - Off by default
- Color Select 5 - Off by default

**Crisp, Clear  
Text Images!**

Enhanced Positive

**Crisp, Clear  
Text Images!**

Enhanced Negative

## Full Color Image

This mode is used most often because it gives you a true color representation of the image that is being magnified. When Merlin HD is first turned on, it displays the image in full color.

## Black and White Image

Based on preference, you can choose the black-and-white mode.

---

## **Enhanced Positive Image**

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

## **Enhanced Negative Image**

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

## **Color Select 1**

In factory default this mode provides a blue background with yellow 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 15-17.

## **Color Select 2**

In factory default this mode provides a black background with green text. To change this mode to any of the 28 available follow the instructions on page 15-17.

## **Color Select 3**

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 15-17.

## **Color Select 4**

In factory default this mode is turned off. Follow the instructions on page 15-17 to turn this color mode on.

## **Color Select 5**

In factory default this mode is turned off. Follow the instructions on page 15-17 to turn this color mode on.



---

## USING MERLIN HD COLOR SELECT

---

Merlin HD was designed to provide optimum viewing for people with certain visual conditions by offering an extended range of choices in both text and background colors.

Merlin HD offers 28 combination of text and background colors, called color select modes. The Merlin HD offers the following:

- 28 text/background color combinations (see page 16)
- 3 factory preset color select modes (see page 13)
- 2 additional user color select modes

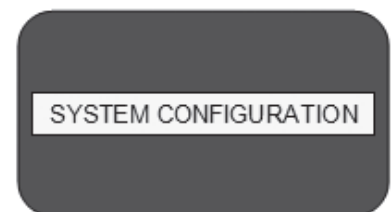
Both the preset and user color select modes can be independently programmed to your preferences, using the procedure listed below.

### How to Program a Color Select Mode



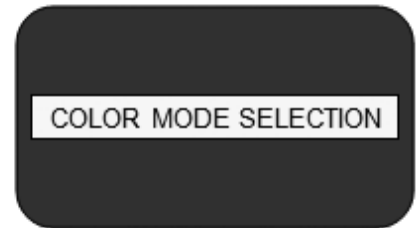
With Merlin HD turned ON, place a piece of reading material on the X-Y table so that it appears on your monitor at a magnification size that is comfortable for viewing. Follow these steps to program any of the 5 color select modes:

Step 1: Press and hold the MODE button (approximately 5 seconds) until the words “SYSTEM CONFIGURATION” appear on your LCD monitor.



Step 1

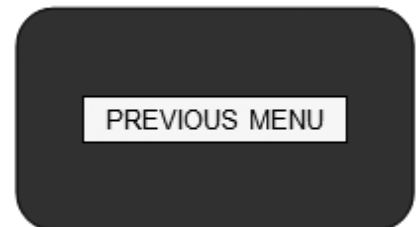
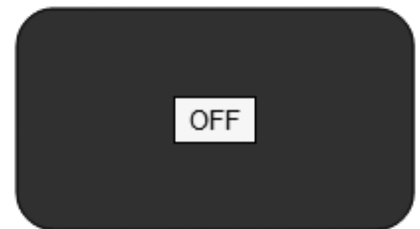
Step 2: Rotate the SIZE dial to scroll through the available menu options. Choose COLOR MODE SELECTION (see the photo at right) and press the MODE button again.



Step 2

Step 3: Rotate the SIZE dial to choose the Color Select number (1-5) you wish to program. Press the MODE button and choose one of the following options:

- a. Rotate the SIZE dial to cycle through the color combination of your choice (1-14). To access color combinations 15-28, press the MODE button first, before rotating the SIZE dial again. (Please refer to the list on next page)
- b. OR, if you want to turn OFF the current COLOR SELECT (1-5) option, select OFF by turning the SIZE dial clockwise. If no change is desired, select PREVIOUS MENU by turning the SIZE dial counter-clockwise.



Step 4: Press and hold the MODE button (~ 5 seconds) to register the color combination you've programmed into the Color Select.

Step 3b & Step 5

Step 5: When you're finished, rotate the SIZE dial all the way counter-clockwise to PREVIOUS MENU and press the MODE button. Press MODE again when EXIT appears to finishing programming.



Step 5



Using the procedure outlined on pages 14-15, the following 28 color combinations can be programmed into any of the 5 color select programs, based on your personal preferences.

Color Mode:	Background Color:	Text Color:	Notes:
#1	Black	Green	
<b>#2</b>	<b>Black</b>	<b>Yellow</b>	<b>*Default Color Select 3</b>
#3	Black	Red	
#4	Black	Blue	
#5	Black	Purple	
#6	Black	Orange	
#7	White	Green	
#8	White	Red	
#9	White	Purple	
#10	White	Blue	
#11	White	Orange	
#12	Yellow	Red	
#13	Green	Yellow	
#14	Yellow	Blue	
#15	Green	Black	
<b>#16</b>	<b>Yellow</b>	<b>Black</b>	<b>*Default Color Select 2</b>
#17	Red	Black	
#18	Blue	Black	
#19	Purple	Black	
#20	Orange	Black	
#21	Green	White	
#22	Red	White	
#23	Purple	White	
#24	Blue	White	
#25	Orange	White	
#26	Red	Yellow	
#27	Yellow	Green	
<b>#28</b>	<b>Blue</b>	<b>Yellow</b>	<b>*Default Color Select 1</b>

---

# CHANGING MAGNIFICATION

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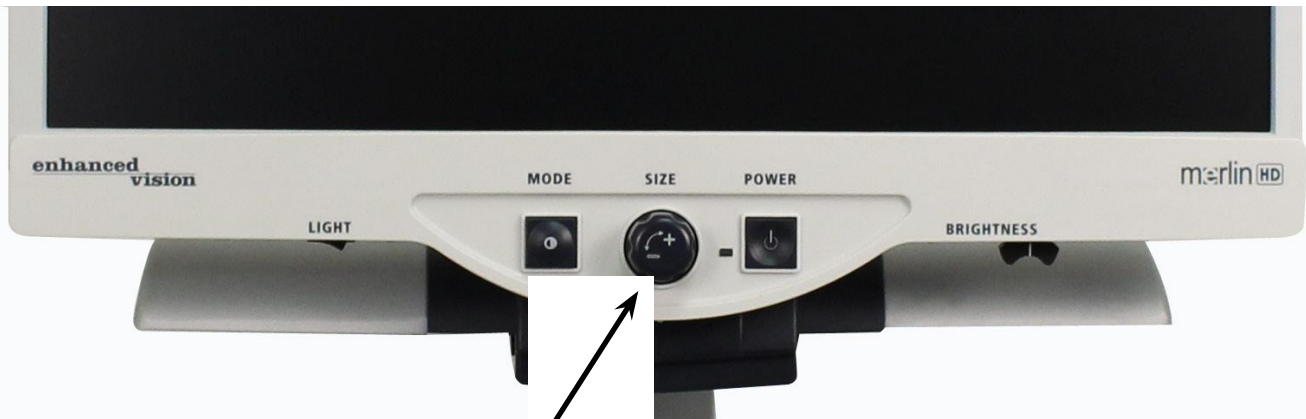


Figure 1

You can increase or decrease the size of the image by using the SIZE dial at the center of the control panel (see *Figure 1*).

There are sixteen levels of magnification available on Merlin HD.

- To increase the size of the image, turn the dial clockwise, or to the right.
- To decrease the size of the image, turn the dial counterclockwise, or to the left.

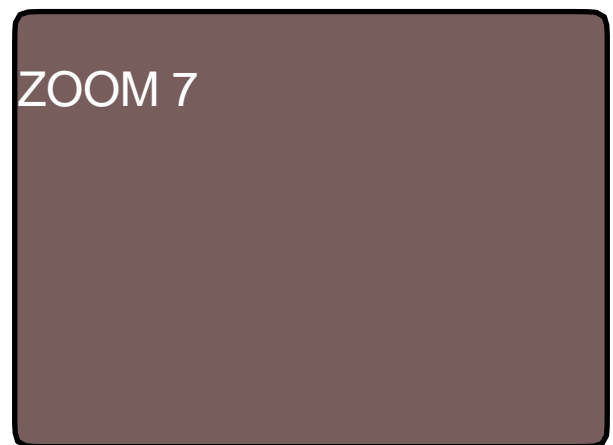


Figure 2

The size you selected will be displayed in the upper left corner of your monitor (see *Figure 2*).

---

# CHANGING BRIGHTNESS

---



Figure 1

You can increase or decrease the brightness of the image by using the brightness lever located underneath the right bottom of the control panel. (see *Figure 1*) The Merlin HD will show the most natural image quality when brightness is set in the middle in normal color mode.

- To increase the brightness, slide the lever to the right.
- To decrease the brightness, slide the lever to the left.

*An on screen display will show the level of brightness.*

*\*\*\*Note - You can also increase or decrease the LED lighting brightness setting for your specific needs. (See page 22)*

---

## LIGHT SWITCH ON/OFF

---



Figure 1

Your Merlin HD as a built-in LED lighting system for illuminating your reading material. When magnified images are displayed on your monitor, the built-in lighting system assists in providing a bright and clear image with true-to-life colors, ideal for most applications. From factory default, the LED lighting system will come on automatically when you turn on the power for your Merlin HD. However, depending on ambient lighting conditions within the room (i.e., bright sunlight), it may be helpful to turn the built-in lighting OFF in order to provide the clearest possible image. This may help reduce glare when viewing certain “glossy” or reflective images such as color photos or magazines.

- To turn the light OFF, move the rocker switch to the left. The rocker switch is located underneath the lower left hand side of the LCD monitor faceplate (see *Figure 1*).
- To turn the light ON (default setting), move the rocker switch to the right. The rocker switch is located underneath the lower left hand side of the LCD monitor faceplate (see *Figure 1*).

---

# SYSTEM CONFIGURATION MENU

---

To enter the Merlin HD System Configuration Menu:

Press and hold the MODE button (approximately 5 seconds) until the words “SYSTEM CONFIGURATION” appears on your LCD monitor.

Rotate the Size dial clockwise/counter-clockwise to navigate through the Merlin HD menu items. Press the Mode button once to select a menu item or to turn a setting ON or OFF.

Items that are ON are indicated by a filled box:



Items that are OFF are indicated by an empty box:



## **SCREEN MESSAGES**

Toggle the On Screen Display Messages On/Off

## **BLACK & WHITE**

Toggle the Black & White video mode On/Off \*NOT available for Black & White Merlin units

## **COLOR MODE SELECTION**

Toggle all Color Select video modes on/off

## **COLOR MODE SELECTION**

Enters a sub-menu to configure up to 5 color select modes

*\*note this option is NOT present for non color select enabled units*

---

## **ZOOM RANGE 1 (Default)**

2.8x to 24.8x on 24" monitor

3.2x to 27.7x on 22" monitor

2.4x to 20.1x on 20" Monitor

All Steps are optical zoom.

*Recommended option for best image quality.*

## **ZOOM RANGE 2**

2.8x to 57.8x on 24" monitor

3.2x to 64.7x on 22" monitor

2.4x to 49.2x on 20" Monitor

*Steps 1-15 uses optical zoom. Step 16 uses digital zoom.*

## **ZOOM RANGE 3**

2.8x to 57.8x on 24" monitor

3.2x to 64.7x on 22" monitor

2.4x to 49.2x on 20" Monitor

*Note: this range uses a mix of optical and digital zoom.*

## **ZOOM RANGE 4**

2.8x to 41.3x on 24" monitor

3.2x to 46.2x on 22" monitor

2.4x to 35.4x on 20" Monitor

*Note: this range uses a mix of optical and digital zoom.*

**\*Zoom range for 24" monitor is based on a 16:9 aspect ratio**

**\*Zoom range for 22" monitor is based on a 16:10 aspect ratio**

**\*Zoom range for 20" monitor is based on a 16:9 aspect ratio**

**\*Zoom Ranges subject to change**

## **LED'S**

Rotate the Size dial clockwise/counter-clockwise to navigate to the desired LED brightness. Press the Mode button once to set.

Rotate the Size dial counter-clockwise to 'Exit' and press the Mode button to exit.

---

## FEATURES MENU

To enter the Merlin HD Features Menu,  
Turn the Merlin HD ON,  
Rotate the Size dial to Level 4 then hit Mode once,  
Rotate the Size dial to Level 3 then hit Mode once,  
Rotate the Size dial to Level 2 then hit Mode once,  
Rotate the Size dial to Level 1 then hit Mode once.  
The Merlin HD will display “Features Menu”.

Press the Mode button once to select a menu item or to turn a setting ON or OFF.

### Languages

The Merlin HD can be set to 12 different languages:  
English, French, German, Italian, Spanish, Japanese,  
Swedish, Danish, Norwegian, Finnish, Polish, and Dutch.

### Product Information

The PRODUCT INFORMATION menu item, when selected, will display the unit configuration and the unit Serial Number.

---

# USING X-Y TABLE

---

## Locking the X-Y Table

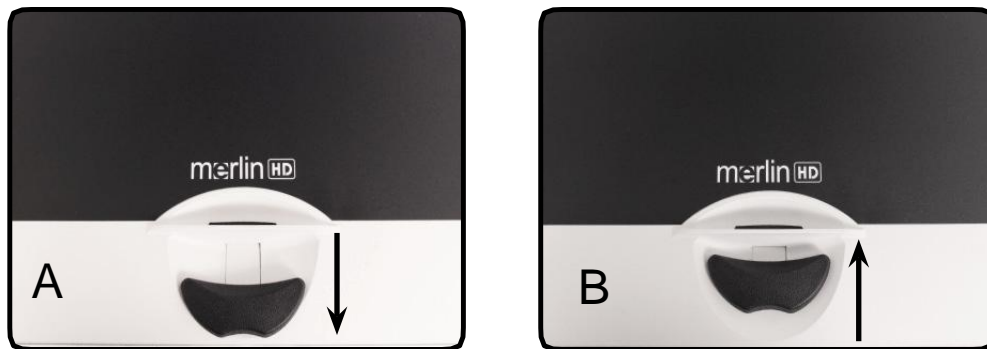
To lock the X-Y table, pull the lever all the way to the front position until it locks (A). Unlock the X-Y table by pushing the lever to the back position (B).

## Using the Locking Lever:

Placing the locking lever in the 'locked' position is primarily used when you want to move or transport the Merlin elite to a new location.

Placing the locking lever in the 'unlocked' position allows for full movement of the X-Y table for activities such as reading.

Placing the locking lever between 'locked' and 'unlocked' (Intermediate lock) can be used for tasks such as writing, hobbies, etc...



## Reading With the X-Y Table

1. With the X-Y table unlocked, place a book, newspaper, etc., on the table.
2. Use the magnification dial to enlarge the image to a comfortable viewing size.
3. Glide the X-Y table to the left, which will make the words flow across the screen for reading.
4. When you have reached the end of a line, glide the table back to the beginning of the line.
5. Move the table away from you slightly to display the start of the next line.
6. Repeat steps 4, 5 and 6 to continue reading.



---

## TIPS FOR READING AND WRITING

---

### **Reading with Merlin HD**

- New users of video magnifier systems have a tendency to over-magnify their reading material. Make the type large enough to see it comfortably, but not so large that it becomes tedious to scan across a page.
- Use the X-Y table to move reading materials under the camera, rather than moving the material manually, except small items such as a checkbook or a business card.
- New users should use two hands when moving the X-Y table for reading, until they become comfortable using one hand.

### **Writing with Merlin HD**

- Beginners should start at smaller magnification sizes, and then increase magnification as they become more comfortable using Merlin HD for writing.
- The smaller the magnification size the bigger you tend to write; the higher the magnification size the smaller you'll write.
- Use a pen that makes a bold line, such as a heavy point pen, a felt-tip marker or a fine point marker, for easier visibility.
- It might be helpful to use lined paper to more easily find and keep your place.
- It might be easier to keep your place if you write a few words at a time, then move the X-Y table and write again, rather than moving continually as you write.
- Write in either color, black-and-white or positive viewing modes.

---

## Using Optional HD Pack

---

If a HD Pack is purchased, the Merlin HD is able to display and adjust Line Markers and Window Markers and/or turn the Autofocus on or off.

### **Installing the HD Pack**

- Plug the coiled cable into the HD Pack and the other end into back of the Merlin HD labeled HD Pack.

### **Using the HD Pack**

#### Line Marker

- The Line Marker option can help guide you when reading a line of text on a document by providing horizontal lines.
- Press the button labeled LINES once to turn the Horizontal Line markers on.
- Pressing the button labeled LINES again will turn the Vertical Line markers on.
- Pressing the button again will turn the Line Markers off.

#### **Window Markers**

- The Window Marker option can help guide you when reading a paragraph of text on a document by blocking a portion of the screen.”
- Press the button labeled WINDOW once to turn the Horizontal Window Markers on.
- Pressing the button again will turn the Window Markers off.

### Adjusting Markers

- To adjust the line Horizontal Markers downwards or the Vertical Markers to the right, turn the knob on the HD Pack labeled **POSITION** clockwise
- To adjust the line Horizontal Markers upwards or the Vertical Markers to the left, turn the knob on the HD Pack labeled **POSITION** counter-clockwise
- To increase the distance between the markers turn the knob labeled **WIDTH** counter clockwise. To decrease, turn the dial clockwise.

### Turning the Auto Focus On or Off

- The Merlin HD is set to auto focus by default. In certain situations the auto focus may need to be disabled temporarily. For Example, when writing on a document underneath the camera, the camera may focus on your hand rather than on what is on the document. Place the document on the table then turn the Auto Focus Off by pressing the **LOCK** button the HD Pack to lock the focus onto the document and begin to write.

---

# TROUBLESHOOTING

---

## 1. No Power to Merlin HD

- Push the Power button on Merlin HD's control panel. A light next to the Power button should illuminate, indicating the power is turned on.
- Make sure the power supply cord is completely plugged into the AC outlet.
- Make sure the two parts of the power supply cord are securely connected.
- Make sure the power supply cord is completely plugged into the DC 5V IN jack on the back of the viewing stand base.
- Check the power strip/surge protectors on/off switch and circuit breaker if Merlin HD is plugged into one.

## 2. Blurred or Out-of-Focus Image

- Clean the protective glass covering the camera with the non-abrasive lens cleaning cloth provided with your Merlin HD.
- Clean the monitor screen with a non-abrasive cloth sprayed with a glass cleaning solution.
- Turn the Auto Focus ON or OFF to adjust the specific type of focus needed. Please see page 27 for more details.
- Make sure the target material is steady on the tray. It might take a few moments for the camera to achieve perfect focus after motion has stopped. This is normal.

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### **X-Y Table Does Not Move Smoothly**

- Make sure the locking lever is positioned completely to the left.

### **X-Y Table Does Not Stay in Locked Position**

- Make sure the locking lever is all the way to the right and that the handle pops up into the locking slot.

### **Replacement LED lamps**

Your Merlin HD comes equipped with two 100,000-hour LED lamps designed to provide years of trouble-free service. However, in the unlikely event that the LEDs need replacement, contact your place of purchase or Enhanced Vision at (800)440-9476 for instructions or assistance on replacing the LEDs.

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.

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# SPECIFICATIONS

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## **General:**

LCD 20", 22" or 24"

Dimensions: 24"H (maximum) x 20"W x 20"D

(61cm x 51cm x 51cm)

Operating temperature range: 50-104°F / 10-40°C

Storage temperature range: 32-122°F / 0-50°C

## **Monitor**

Resolution: 1600 x 900 (20" Model)

Resolution: 1680 x 1050 (22" model)

Resolution: 1920 x 1080 (24" model)

Response Rate: 5 milliseconds (20", 22" & 24" monitor) Contrast

Ratio: > 1000:1 (20", 22" & 24" models)

Color Depth: Over 16 million Colors

Controls: Light Switch On/Off, Brightness, Magnification,

Mode, Power

## **Camera Resolution:**

SMPTE 296M – 2001 / HD 720p60/50

## **Magnification:**

20" LCD: 2.4x (minimum) to 49.2x (maximum)

**\*Zoom range for 20" monitor is based on a 16:9 aspect ratio**

22" LCD: 3.2x (minimum) to 64.7x (maximum)

**\*Zoom range for 22" monitor is based on a 16:10 aspect ratio**

24" LCD: 2.8x (minimum) to 57.8x (maximum)

**\*Zoom range for 24" monitor is based on a 16:9 aspect ratio**

**\*Zoom Ranges subject to change**

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**Power Supply:**

110V-240 VAC 50-60HZ

5VDC 4.0A

**Equipment Classification (IEC 601-1):**

Type of Protection: Class 1

Degree of Protection: Type B

Mode of Operation: Continuous

**Color Modes:**

- 4 Default Modes (True Color, Black & White, Enhanced Positive, Enhanced Negative)
- 5 Color Select Modes
  - 3 Default Modes: (Yellow on Blue, Black on Yellow, Yellow on Black)
  - 2 Programmable\* Modes

\*Up to 28 Color Select Mode Combinations are available

**XY Table:**

XY table size: 16" (406 mm) x 16 1/4" (413 mm), 3/8" retaining edge

Working space height: 7 3/8" (18.7mm)

Table height clearance: 1 3/8" (35mm)

**Video output Resolution on LCD:**

SMPTE 296M – 2001 / HD 720P60

**Accessories:**

Power Supply & "Y" Power Cord

Owner's Manual & Quick Start Guide

Warranty Card

**Warranty:**

3 Years, Parts and Labor

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## OTHER PRODUCTS FROM ENHANCED VISION

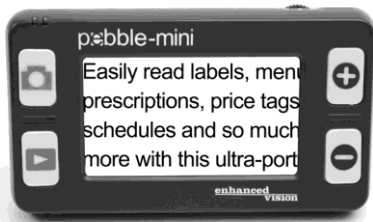
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### Pebble HD

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 to 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





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# OTHER PRODUCTS FROM ENHANCED VISION

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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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## Amigo



Amigo is a truly portable desktop magnifier. Optimal viewing is achieved with a tilting 6.5 inch viewing screen. Amigo provides 3.5 to 14x digital magnification and the lightest weight in its class. Amigo is battery operated and can be taken anywhere.

Magnification: 3.5X – 14X (digital)



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## DaVinci



DaVinci is a high performance desktop video magnifier (CCTV), featuring 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 will read any printed text aloud with the push of a button.

Magnification: 24" LCD: 2x (minimum)- to 80x (maximum)



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## Acrobat HD



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 1.7x to 95x



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## 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 - 70x



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## CONTACT INFORMATION

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Enhanced Vision manufactures many different types of products tailored to meet the needs of our low vision customers. If you have questions about any of our products, please don't hesitate to give us a call.

### **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)

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# WARRANTY STATEMENT

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## **Enhanced Vision Merlin HD Video Magnifier Warranty Policy**

Enhanced Vision products are designed to give you the highest quality image, convenient features, ease of use and reliable service. **Merlin HD has been inspected and tested prior to shipping.** Our company stands behind the quality materials, components and workmanship of the Merlin HD video magnifier.

For these reasons we are pleased to offer two warranty options. These options are available when the purchaser completes the warranty registration form.

### **Three-year warranty for the Merlin HD base and the monitor.**

**This option can be selected on the warranty registration form by the agencies, states, groups, multi-users, product demonstration sites and the individual purchasers.** Enhanced Vision warrants Merlin HD against defects in materials and workmanship under normal use for three 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.

### **Lifetime warranty for the Merlin HD base at a one-time cost of \$299.00.**

**LCD Monitor is not covered under this option. (Individual purchaser only)**

**This option can be selected on the warranty registration form and it is only available to the individual purchaser.** Enhanced Vision warrants Merlin HD base against defects in materials and workmanship under normal use for the lifetime of the individual purchaser. Enhanced Vision, at its option, will at no charge either repair the product or replace it during the warranty period. The LCD Monitor is not covered by the lifetime warranty and it is covered for 3 years only.

**The lifetime warranty is non-transferable and only valid for an individual purchaser. The lifetime warranty is not available for International**

**Customers.** On the warranty card the purchaser will be asked to select between the three-year (no-cost) or lifetime warranty for a one-time fee of \$299.00. If lifetime coverage is elected, a \$299.00 check made payable to "Enhanced Vision" will need to be included with the warranty form. **The lifetime product warranty is only valid if the product is registered within 30 days of purchase and a \$299.00 check made payable to "Enhanced Vision" is included with the warranty registration form.** If this form has not been provided, please request one from the local Enhanced Vision representative or call us at (800) 440-9476.

### **Restrictions**

All product purchases need to be registered with Enhanced Vision. Registering Merlin HD confirms the right to maximum protection and service of the product warranty. If no selection is made on the warranty form or payment is missing, the individual purchaser will default to the three-year warranty. The lifetime warranty is non-transferable and does not apply to groups, multi-users, companies or agencies. It has been designed for end-consumer / individual purchaser. Agencies, states, group homes, classrooms and demo site units will receive Enhanced Vision standard 3-year product warranty detailed above. Enhanced Vision also reserves the right to repair or replace any purchasers Merlin HD with a similar or better product.

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In the case that the end-consumer / original individual resells the Merlin HD within a 3 year time period from original purchase date and the product is resold by a recognized manufacturer representative, the Merlin HD warranty will default to the balance of what remains of the standard 3 year warranty (from original purchase date). The lifetime warranty would be void.

**Consider the example below:**

After one year Mary Smith's vision deteriorates past using the Merlin HD to assist her. She resells the Merlin HD to a recognized Enhanced Vision manufacturer representative, and he/she then sells the Merlin HD to Anne Clark. Anne Clark will receive a two-year warranty with the Merlin HD (the amount left on a standard three year warranty).

Anne will need to complete and submit a warranty registration form, marking the box that she is a "converted original owner" and provide the serial number for the product.

**The 3-year and optional Lifetime product warranty does not cover the following:**

1. Defects or damage from misuse, use in other than suggested manner, accident or neglect.
2. Defects or damage from improper operation, maintenance, installation, adjustment, alterations or modification.
3. Defects from spills of food or liquid.
4. All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal use.
5. Damage due to operating Merlin HD with equipment not supplied by Enhanced Vision.
6. Light bulbs that are not covered under warranty.
7. The Merlin HD monitor is not included in the lifetime warranty and it is covered for three years.

**THERE ARE NO OTHER EXPRESSED OR IMPLIED WARRANTIES ACCOMPANYING THIS PRODUCT.**

**Service Process**

We don't expect that you will need to have repairs on the Merlin HD but if you do, you will need to send the unit to our warranty service center.

If warranty service is required, please call Enhanced Vision between 8 a.m. – 5 p.m. PST for a return authorization number. Warranty repairs are not accepted without a return authorization number.

You may wish to keep your original packaging in case warranty service is required

Proof of purchase must be provided, bearing date of purchase, in order to receive warranty service

Purchaser is responsible and shall pay for shipment of products to Enhanced Vision for repair.

Enhanced Vision is responsible and shall pay for return shipment of repaired products back to

purchaser. Enhanced Vision reserves the right to use reconditioned and/or serviceable used parts for warranty repairs.

Anyone using this product knowingly assumes certain risks, due to the need to utilize vision enhancement devices.

**Thank you for making Enhanced Vision and Merlin HD your choice for better vision.**

# NOTES



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# **enhanced vision**

The Merlin HD video magnifier is designed to enlarge and enhance images to improve the lives of people who have low vision. The extent to which Merlin HD can improve the ability to see images and text depends on a person's individual condition and level of visual impairment. Merlin HD is not designed to restore vision, correct eye conditions or halt degenerative vision loss. An eyecare professional can best determine the suitability of Merlin HD for a patient's specific condition. For more information, please visit [www.enhancedvision.com](http://www.enhancedvision.com).

**www.enhancedvision.com**  
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Product specifications subject to change without prior notice.