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	NAME:	VISTAEY2H INSTALLATION & USER MANUAL			
VISTA IMAGING INCORPORATED	Date:	DEC 13, 2011			
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# VistaEY2H Installation & User Manual

# Version 1.4

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# **Revision History**

Revision	Date	Reason for change	Sections	Prepared by
1.0	June 8, 2011	Draft Version 1.0 submitted for Review	All	Chris Dopp
1.1	July 8, 2011	Draft Version 1.1 submitted for Review	All	Chris Dopp
1.2	July 24, 2011	Draft Version 1.2 submitted for Review	All	Chris Dopp
1.3	July 26, 2011	Final version formatted for Release	All	Chris Dopp
1.4	Dec 13, 2011	Revised version formatted for Release	All	Chris Dopp

# **Document Advisory Symbol Definitions**

	<b>DANGER:</b> This symbol indicates a dangerous situation that, if proper precautions are not taken, may result in serious risks to personal health and safety.
O	<b>WARNING:</b> This symbol indicates a dangerous situation that, if proper precautions are not taken, may result in improper operation, or damage to the VistaEY2H device or to the equipment connected to the VistaEY2H.
	<b>NOTE:</b> This symbol indicates suggestions or particularly important technical information which must not be neglected.

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# VistaEY2H Overview

The VistaEY2H iris imaging device is integrated into a very durable housing intended for either handheld operation or fixed location use on a tripod or similar mounting apparatus,. The VistaEY2H provides an easy high quality solution for dual iris captures for biometric enrollment and identity applications. The main features of the VistaEY2H device are:

- Dual iris single sensor camera placed behind a wide dual eye cold mirror to allow the users to easily align themselves for automatic dual iris image acquisition. The distance to the eyes from the VistaEY2H device is controlled by the integrated alignment visor providing reliable iris capture in nearly all lighting environments.
- A RGB LED on the rear assists the operator with the auto acquisition process during dual iris captures.
- Integrated microphone on the front to easily capture audio from the target person and near environment.
- Integrated speaker on the rear panel to assist the operator and target with the capture state during iris acquisition
- Rugged detachable USB 2.0 interface on the rear panel for a reliable connection to the host system.



VistaEY2H Front View

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#### VistaEY2H Rear View

### Package Contents

The VistaEY2H dual iris capturing device should include the follow in the package:

- 1. VistaEY2H device
- 2. 6 foot USB cable
- 3. Micro-fiber cloth to clean the imaging mirror glass.

### System Requirements

#### **Operating Systems Supported**

- Windows XP® SP3 (32bit)
- Windows XP® SP1 (64-bit)
- Windows Vista (32-bit/64-bit)
- Windows 7 (32-bit/64-bit)

#### Hardware requirements

- Processor: Pentium IV @ 2,8 GHz or better, recommended Intel® Core<sup>TM</sup>2 Duo @1.8 GHz or better

- Memory Size: 1GB or more
- Interface to VistaEY2H (i.e., USB) : 2.0 (high Speed)
- Rated FSB (effective speed in bits/second of the Front Side Bus): 800 Mhz

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# VistaEY2H Driver Installation



Install Note: Conclude this VistaEY2H driver installation process before connecting the VistaEY2H device to the USB port of the system.

#### 32-bit Installation Notes:

Installation software components for Windows XP:

Setup.exe - app to launch the MSI installer for teh VistaEY2H NetFx20SP2\_x86.exe - .NET Framework VcRedist\_x86.exe - Microsoft Run-Time Libraries VistaEY2H\_Setup\_x86.msi - VistaEY2H Driver and Demo Installation

Installation software Windows Vista and Windows 7:



The VistaEY2H\_Setup\_x86.msi needs to be run in a command shell with Administrator privileges. Click the Start / Accessories, and then Right-Click the Command Prompt option. Select Run As Administrator. In the Command window, navigate to where the VistaEY2H\_Setup\_x86.msi file is located. Enter "VisteEY2H\_Setup\_x86.msi" to install the VistaEY2H package.

#### 64-bit Installation Notes:

Installation software components for Windows XP:

Setup.exe - app to launch the MSI installer for teh VistaEY2H NetFx20SP2\_x64.exe - .NET Framework VcRedist\_x64.exe - Microsoft Run-Time Libraries VistaEY2H\_Setup\_x64.msi - VistaEY2H Driver and Demo Installation

Installation software Windows Vista and Windows 7:



The VistaEY2H\_Setup\_x86.msi needs to be run in a command shell with Administrator privileges. Click the Start / Accessories, and then Right-Click the Command Prompt option. Select Run As Administrator. In the Command window, navigate to where the VistaEY2H\_Setup\_x86.msi file is located. Enter "VisteEY2H\_Setup\_x64.msi" to install the VistaEY2H package.

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Step 1. Run the "Setup.exe" app or MSI installer to launch the VistaEY2h Installer as detailed above which will cause the following dialog box to be displayed, click NEXT to continue.



Step2. Select the Installation Folder, choose "Everyone", and click NEXT to continue.

😸 VistaEY2H		
Select Installation Folde	ər	
The installer will install VistaEY2H to the	following folder.	
To install in this folder, click "Next". To in	nstall to a different folder, enter it be	elow or click "Browse".
<u>F</u> older: C:\Program Files\Vista Imaging\Vista	EY2H\	B <u>r</u> owse
,		<u>D</u> isk Cost
Install VistaEY2H for yourself, or for an	yone who uses this computer:	
• Everyone		
⊙ Just <u>m</u> e		
	Cancel < <u>B</u> ack	<u>N</u> ext ≻

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Step 3. Click NEXT to confirm and start the driver installation



Step 4. Installation in progress...



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Step 5. Installation is complete. Click "Close" to finish the installation process.

i₿ VistaEY2H	
Installation Complete	
VistaEY2H has been successfully installed.	
Click "Close" to exit.	
Please use Windows Update to check for any critical updates to the .NET Framework	k.
Cancel < <u>B</u> ack	Close

## Uninstalling the VistaEY2H Drivers & Software

To uninstall the drivers and software from the system use the following process:

For Windows XP: Use the Control Panel / Add Remove Programs to uninstall the VistaEY2H package by choosing the "Remove" button, illustrated below.

For Windows Vista and Windows 7: Uninstall needs to be run in a command shell with Administrator privileges. Use the same procedure described in the Install section to open a command shell with administrator privileges and navigate to where the VistaEY2H\_Setup\_x86.msi file is located. Type "msiexec /x VistaEY2H\_Setup\_x86.msi" to start the uninstall process.

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Upon conclusion of the uninstall process the VistaEY2H entry will be removed from the Add/Remove dialog screen indicating the successful removal from the system.

## Connecting the VistaEY2H Device

Insert the USB cable into the rear of the VistaEY2H device making sure it is completely engaged. The VistaEY2H uses a rugged USB connector solution to avoid accidental removal of the USB cable, so this may require a good effort. Connect the other end of the USB cable to a USB port of the host system. Upon connection the computer will find the new device and automatically install the drivers for the VistaEY2H without any user intervention. You will notice the following popup notices while the process occurs and concludes in the bottom right of the Windows screen, which will go away automatically at the successful conclusion of the driver installation.



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# Using the VistaEY2H device

The VistaEY2H dual iris capturing device is designed to easily provide high quality iris capture in nearly every environment. The VistaEY2H should be held horizontally and just above the eyebrows against the forehead, and level while not pointing substantially up or down. The subject should remove any eyewear and look into the mirror seeing their own eyes, with the eyes open widely to assure the best possible iris capture.



Self Enrollment - handheld

Self Enrollment - fixed on tripod

Operator assisted enrollment

### VistaEY2H device position examples

1.	Correct positioning of the VistaEY2H device The VistaEY2H is position correctly on the forehead just above the eyebrows and level. This should yield reliable high quality dual iris captures.	
2.	Incorrect positioning of the VistaEY2H device The VistaEY2H position is not level which may result in low quality iris captures. Corrective action is to position the VistaEY2H device horizontal against the subject's forehead just above the eyebrows and level as illustrated in position example # 1.	

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3.	Incorrect positioning of the VistaEY2H device The VistaEY2H position is not level which may result in low quality iris captures. Corrective action is to position the VistaEY2H device horizontal against the subject's forehead just above the eyebrows and level as illustrated in position example # 1.	
4.	Incorrect positioning of the VistaEY2H device The VistaEY2H position is upside down which will result in incorrect iris captures. Corrective action is to position the VistaEY2H device right side up, horizontal against the subject's forehead just above the eyebrows and level as illustrated in position example # 1.	
5.	Incorrect positioning of the VistaEY2H device The VistaEY2H position is not against the subject's forehead which will result in low quality iris captures. Corrective action is to position the VistaEY2H device horizontal against the subject's forehead just above the eyebrows and level as illustrated in position example # 1.	

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## Capturing quality irises with the VistaEY2H device

The VistaEY2H dual iris capturing device is designed to easily provide high quality iris capture in nearly every environment.



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# VcViewEY2H Application Overview

The installer automatically installs the VcViewEY2H application, and can be launched under the START button, Vista Imaging \ VistaEy2H program group, by clicking on the VcViewEY2H item.

The VcViewEY2H demonstration application provides a software solution for testing and evaluating Vista Imaging's VistaEY2H imaging device on your Windows system. To launch the application go to the EXE directory created in the installation process above, and run the "VcViewEY2H.exe" application.

### Iris Capture Process

When the VcViewEY2H application is started it will automatically detect the presence of the VistaEY2H device on your system and start a live preview of the dual image camera in a reduced resolution for preview, as illustrated below.



VcViewEY2H Live Preview

The VcViewEY2H comes with default settings which will allow the device to auto acquire dual iris images when the iris position and quality is assessed by the VistaEY2H device and the application to be acceptable.

The VistaEY2H incorporates a tri-colored RGB LED to assist the operator with determining the status of the auto acquisition process during dual iris captures. The RGB LED is Blue when the image is too dark or no subject is present, Red when the image is too bright, and Green when the subject is in the correct position and the detail of the image is acceptable.

To assist the system operator to help direct the target user with alignment VcViewEY2H provides a live preview as detailed in the above image. If the Preview Overlay is enabled, a crosshair with RGB circle (illustrated in the above image by the green circles over the eyes) showing the irises have been located and are of good quality during preview. This allows the operator to either move the device or direct the user to move to get into the optimal position for the iris capture.

The intended steps of the iris auto acquire procedure are very straight forward and are as follows:

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- 1. With VcViewEY2H running in live preview, place your face up to the visor of the VistaEY2H so that the visor makes contact with the target person just at or above the eyebrows. The target user can see both of their eyes center both vertically and horizontally in the oval cold mirror.
- 2. You need to be in this optimal position for approximately  $\frac{1}{2}$  of a second (500msec) for the autoacquire process to complete.
- 3. The VcViewEY2H application will detect the auto acquire satisfied state of the camera and capture a large 2560 by 720 image from the camera, it will then locate the left and right irises within this large dual eye image and produce individual VGA (640x480) images for both eyes and save all images to the directory on the Windows system where the VcViewEY2H applications is located. It also will save a large 2560 by 720 image file with dash line overlay indicating the areas of the image that were saved to the individual left and right VGA iris images. It will then stop the live preview and display the two located VGA iris images as illustrated below.



- 4. To restart the process, simply press the button on top of the VistaEY2H or press the space bar.
- 5. If for what ever reason you want to force a capture while the live preview is in process, simply depress the button on top of the VistaEY2H or press the space bar on the PC, and the VcViewEY2H application will capture a single 2560 by 720 dual iris image, attempt to located the left and right irises, then save them to the system, stop live preview, and display the captured image.

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### VcViewEY2H Camera Control Panels

The VcViewEY2H also incorporates Control Panels selectable in the Camera Setting Menu to allow you to alter and control the format, resolution of preview & still captures, and control over the camera features which are shown below. If you ever desire to restore the settings back to the default state simply choose the "Load Defaults" in the Camera Setting Menu.

Format & Resolu	ution		
	Preview I	mage	Still Image
Format:	RGB24	-	RGB8 💌
Resolution:	640×180	-	2560x720 💌
Zoom:		~	<b>_</b>
Destination Widt	h:	640 🔺	2560 🔺
Destination Heigh	t:	180 🔺	720 🔺
Source Widtl	י:	640 🔺	2560 🔺
Source Heigh	it:	480 🔺	1920 🔺
AOI X Offse	t:	0 🔺	
AOI Y Offse	:t:	150 🖃	600 📩
Preview	OK	Car	Apply

**Camera Format & Resolution Dialog** 

For format and resolution there are two columns of controls, one for Preview and one for Still Images. VcViewEY2H Camera Format & Resolution Controls Definition:

- Format controls the data format of the iris images
- Resolution controls the image size
- Zoom control disabled
- Destination Width control disabled
- Destination Height– control disabled
- Source Width control disabled
- Source Height– control disabled
- AOI X Offset control disabled
- AOI Y Offset control disabled
- Still Capture Button Forces a still capture
- OK Button saves changes made to the controls
- Cancel Button cancels changes made to the controls
- Apply Button applies changes made to the controls

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Camera Contr	ols			×		
Bri	ightness: —			50		
SH	arpness: —					
(	Iontrast: —		0			
	Gamma: 📋			1.00		
	Shutter: —		i	1/92		
Compression	Quality: —		1	75		
IR Illu	mination: —			19		
White Illu	mination: 📋			0		
Auto Acquire H	old Time: 🛛 —			400		
Audio Out	: Volume: —			50		
AGC Mode O Off Average O Center O Peak	LED Auto Red Green Blue	Auto Acquire Off Left Eye Right Eye Both Eyes	60 Hz     Mirror     Invert     Compressed Transfer     Preview Overlay     Dual Iris - Sequenced Captur	8		
	_	Play Audio	Auto Play Capture Audio	-		
Still Capture			ок	Cancel		

Camera Control Dialog

VcViewEY2H Camera Controls Definition:

- Brightness controls the overall brightness of the iris image
- Sharpness controls the sharpness of the details in the iris image
- Contrast controls the contrast of the iris image should be left at zero
- Gamma controls the gamma correction on the iris image should be left at 1.00
- Shutter controls the electronic shutter speed of the captured iris images should not go below 60
- IR Illumination controls the intensity of the NIR illumination LEDs
- White Illumination controls the intensity of the white light illumination LED
- Auto Acquire Hold Time controls the time a stable iris image must exist before a auto capture
- AGC Mode Off = no AGC, Average = image average AGC approach, Center = image averaged AGC in the center only, Peak = image peak values controls AGC process
- LED controls the RGB LED where Auto = control by software, Red = turns on RED, Green = turns on Green, Blue = turns on Blue
- Auto Acquire Off = no auto acquire, Left Eye = capture only Left, Right Eye = capture only Right, Both Eyes = capture both eyes
- 60Hz Selects 60Hz or 50Hz power system
- Mirror flips image horizontally
- Invert flips image vertically
- Compress Transfer enable JPEG transfers from camera
- Preview Overlay enables overlay on capture state in the center of the image
- Dual Iris Sequenced Capture enables sequenced illumination control during iris captures
- Auto Play Capture Audio enables playing audio sound when capture is complete
- Still Capture Button Forces a still capture
- OK Button saves changes made to the controls
- Cancel Button cancels changes made to the controls

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# **Troubleshooting**

If you detect a "USB Device Not Recognized" message follow the process below to confirm drivers are install properly. If this does not resolve the problem then follow the un-install and install procedures outlined in this document to resolve this device issue. To confirm the VistaEY2H device and drivers are installed properly you can check in the Windows Control Panel/System to get device properties. Choose the Hardware tab and click the "Device Manager" button shown below.

Susten	Bestor		Automat	ic Undates		Bernote
General	meston	are	Advance			
Device N	lanager The Do on you proper	evice Manage r computer. U ies of any de	er lists all t Ise the De vice.	he hardwar wice Manaj	e device ger to ch	s installed ange the
				<u>D</u> e	evice Ma	nager
Drivers						
	Driver compa how W	Signing lets y tible with Win 'indows conn	ou make s idows. Wi ects to W	sure that ins ndows Upd indows Upd	talled dri ate lets y date for c	vers are vou set up frivers.
	Driver compa how W	Signing lets y tible with Win ′indows conn Driver <u>S</u> ignin	ou make s idows. Wi ects to W g	sure that ins ndows Upd indows Upo	talled dri ate lets y date for o ndows U	vers are vou set up frivers. pdate
Hardwar	Driver : compa how W	Signing lets y tible with Win ′indows conn Driver <u>S</u> ignin	ou make s idows. Wi ects to W g	sure that ins ndows Upd indows Upd	talled dri ate lets y date for c ndows U	vers are vou set up frivers. pdate
Hardwar	Driver compa how W Profile: Hardw differer	Signing lets y tible with Win findows conn Driver <u>Signin</u> are profiles pr it hardware c	ou make s idows. Wi ects to W g ovide a w onfiguratio	sure that ins ndows Upd indows Upd <u>W</u> i <u>w</u> i ay for you to ons.	talled dri ate lets y Jate for c ndows U ndows U	vers are you set up trivers. pdate and store
Hardwar	Driver 1 compa how W e Profile: Hardw differer	Signing lets y tible with Win Driver <u>Signin</u> s are profiles pr t hardware c	ou make s idows. Wi ects to W g ovide a w onfiguratio	sure that ins indows Upd indows Upo <u>Wi</u> ay for you to ons. Ha	talled dri ate lets y Jate for c ndows U o set up rdware <u>F</u>	vers are you set up trivers. pdate and store Profiles

This will bring up the Device Manager Dialog. Under "Vista Imaging" notice the VistaEY2H Camera entry.

	Properties
	Scan for hardware changes
	Uninstall
	Disable
	Update Driver
🚽 🎯 VistaEY2H Camera	
🗠 🗘 Vista Imaging	
🖙 😋 Universal Serial Bus co	ntrollers
🖳 😼 System devices	
-	

Choose the "Properties" to display the VistaEY2H Camera Properties Dialog.

+

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VistaEY2	H Camera Pro	operties 🔹 💽 🔀
General	Driver Details	
¢	VistaEY2H Can	nera
	Driver Provider:	Vista Imaging
	Driver Date:	5/26/2011
	Driver Version:	1.0.0.0
	Digital Signer:	Microsoft Windows Hardware Compatibility Publ
Drive	er Details	To view details about the driver files.
Upda	ate Driver	To update the driver for this device.
<u>B</u> oll I	Back Driver	If the device fails after updating the driver, roll back to the previously installed driver.
	<u>I</u> ninstall	To uninstall the driver (Advanced).
		OK Cancel

You can choose the Driver Details button to see which files are required by the VistaEY2H device. If you are experiencing problems, verify these files are present in the locations specified. In not follow the uninstall and install processes detailed in the "Installation" section to reinstall all of the VistaEY2H related files.

Driver File Det	ails 🔹 🤶 🔀							
VistaEY	VistaEY2H Camera							
<u>D</u> river files:								
C:\WINDO\	WS\system32\DRIVERS\WinUSB.sys							
C:\WINDO\	WS\system32\WdfCoInstaller01009.dll							
C:\WINDO	VS\system32\WinUSBCoInstaller2.dll							
Provider:	Microsoft Corporation							
File version:	6.1.7600.16385 (win7_rtm.090713-1255)							
Copyright:	© Microsoft Corporation. All rights reserved.							
Digital Signer:	Microsoft Windows Component Publisher							
	ок							

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# VistaEY2H Genuine Label

The label shown below is affixed to the rear of the VistaEY2H and indicates it is a genuine Vista Imaging product.



### **Maintenance**

To continue to experience reliable performance routine maintenance of your VistaEY2H device is required. Before use, inspect the VistaEY2H device and if necessary, us a dry non-abrasive cloth to remove excessive dust and dirt from the outer housing. Additionally, inspect and if necessary, use a non-abrasive micro-fiber type cloth to clean the COLD MIRROR so dust or dirt particles do not compromise iris image capture quality.

## **FAQ**

For commonly asked questions and answers for your VistaEY2H product please ready this section for assistance:

Q: The VistaEY2H is not detected, why?

A: The VistaEY2H product is powered by and communicates with the computer system via a USB 2.0 connection. Verify the cable connection between the device and the computer is stable and the cable ends are completely inserted at both ends.

Q: Is it important to install the software before connecting the VistaEY2H device to the system?

A: Yes, before connecting the VistaEY2H to the system you must install the software and drivers to insure that the system detects and loads the appropriate resources to the VistaEY2H to functions properly. Please follow the installation process detailed in this document.

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Q: The VistaEY2H seems to have locked up and is not functioning properly, what do I do? A: As the VistaEY2H device and the computer system is complex device, it is possible from time to time for them to act strangely. If this appears to have happen, close any software you are using with the VistaEY2H, disconnect the cable from the VistaEY2H to computer system and then reinsert the cable connections at both ends, making sure the cable is completely inserted into both the VistaEY2H and the computer. After the computer has finished recognizing the VistaEY2H device, then, restart your software application to confirm this has resolved the problem.

Q: Where can I find the latest version of the drivers for the VistaEY2H device?

A: Since the VistaEY2H is certified under Microsoft's WinLogo program you have access to the latest drivers directly from the web. Simply go to the device manager of Windows, and choose update drivers, under the "driver details" section, and the drivers will be updated automatically. After doing an update, unplug and plug in the VistaEY2H device so the system can recognize and load the newly updated drivers.

### **Limited Warranty**

Vista Imaging, Inc. warrants that the Product you've purchased will be free from defects in material and workmanship in normal service and under normal conditions for a period of one year from the date of shipment. Normal service and normal conditions are defined in this documentation. This Limited Warranty is subject to the terms and conditions set forth below.

### **Repair or Replacement Conditions**

Unless otherwise stated herein, the sole obligation of Vista Imaging and your exclusive remedy and recourse under this Limited Warranty is for Vista Imaging, at its sole election, to either (i) repair the suspected defective Product and return the same to you or (ii) replace the suspected defective Product, all on the terms set forth below. The repair or replacement will provide you with a Product which, in Vista Imaging's opinion, performs consistently with its age and usage.

If you become aware that your Vista Imaging Product is defective in material or workmanship in normal service and under normal conditions during its one year Limited Warranty period, then you must promptly contact Vista Imaging's customer support, describe the suspected defect in detail and request a Return Merchandise Authorization ("RMA") number prior to sending the affected Product for repair or requesting a replacement product. Unless otherwise specified or limited by law, you will pay the freight to send the Product to Vista Imaging's designated Service Center. Vista Imaging will pay the freight to return the repaired Product to you. Each repaired or replaced Product is warranted (as set forth herein) for the remaining part of the original one year Limited Warranty.

THE FOREGOING CONSTITUTES YOUR SOLE AND EXCLUSIVE REMEDY AND VISTA IMAGING'S SOLE AND EXCLUSIVE LIABILITY IN CONNECTION WITH YOUR VISTA IMAGING PRODUCT, AND IS IN LIEU OF ANY AND ALL OTHER REMEDIES WHICH MAY BE AVAILABLE TO YOU.

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### Warranty Limitations

This limited warranty does not cover visits to repair the Vista Imaging product at your premises, or the commissioning of the Product on site. This Limited Warranty is not a warranty, guarantee or promise that your Vista Imaging Product will conform to its specification or will not fail. Some defects and failures are not covered.

Vista Imaging shall incur no liability under this Limited Warranty and this Limited Warranty may be void by Vista Imaging if in Vista Imaging's sole reasonable opinion: (1) the Product is used other than under normal use and under proper environmental and/or electrical conditions, as specified in this Product manual; (2) the Product is not maintained as specified in this Product manual; (3) the Product is subject to abuse, misuse, neglect, accident, flooding, storm, lightning, power surges, dirty power, third-party errors or omissions, or acts of God; (4) the Product is modified or altered (unless expressly authorized in writing by Vista Imaging); (5) the Product is installed or used in combination or in assembly with products not supplied or authorized by Vista Imaging; (6) there is a failure to follow specific restrictions or operating instructions; or (7) payment for the Product has not been timely made.

This Limited Warranty includes software "updates" (a revision or minor change to a Product intended to correct defects and provided as a change in the then current release of the Product). Software updates may be made from time to time in Vista Imaging's sole discretion. This Limited Warranty does not cover software "upgrades" (a revision to a Product that adds new enhancements and functionality resulting in a new release of the Product) or any software product or interface customized by Vista Imaging to meet Purchaser's specific requirements or Purchaser furnished equipment or software. Software upgrades may be available for purchase from time to time at Vista Imaging's then current published prices if deemed applicable by Vista Imaging.

This Limited Warranty does not provide additional hardware or computing platform software or its installation when required by Vista Imaging software supplied hereunder. If required, these may be obtained from Vista Imaging at the published prices in effect at such time.

This Limited Warranty does not cover third party equipment not provided by Vista Imaging. Vista Imaging's obligations hereunder are contingent upon your providing the Product serial number as proof-of-purchase, and upon Vista Imaging's determination that the suspected malfunction is actually due to defects in material or workmanship.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES RELATED TO THE VISTA IMAGING PRODUCT, WHETHER EXPRESS, IMPLIED, OR STATUTORY, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED BY VISTA IMAGING. THIS LIMITED WARRANTY IS NOT TRANSFERABLE OR ASSIGNABLE TO ANY THIRD PARTY AND SHALL BE FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ORIGINAL PURCHASER OF THE VISTA IMAGING PRODUCT COVERED HEREUNDER; ANY ATTEMPTED TRANSFER OR ASSIGNMENT HEREOF SHALL BE VOID FROM THE BEGINNING.

#### **Out of Warranty Repairs**

When warranty coverage for your Vista Imaging Product lapses, or for repairs or replacements not covered by Vista Imaging's warranty, (i) you will pay for all repairs at Vista Imaging's then-prevailing hourly labor

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rate (with a one hour minimum) plus parts and shipping, (ii) you will pay Vista Imaging's then-current price for all replacement Products plus shipping, and (iii) you will pay Vista Imaging's then-prevailing hourly labor rate (with a one hour minimum after the first 15 minutes) for telephone support in 15 minute increments.

To obtain out-of-warranty service, you must obtain an RMA number from Vista Imaging and send the affected Product, at your expense, to the designated Vista Imaging Service Center for inspection. You will be contacted with an estimated price and time of repair or replacement after analysis. No repairs or replacements will be made until Vista Imaging receives a Purchase Order or credit card number from you. You shall pay return freight charges, which will be added to the invoice, for the return of the repaired Product or replacement Product.

In the event you decide not to have a unit repaired or replaced after receiving a repair estimate, there will be a one hour labor charge at the prevailing hourly rate for evaluation plus return freight charges.

At your request, Vista Imaging will, for a premium, ship a refurbished unit to you in exchange for the failed unit. Vista Imaging will contact you with a price for the exchange after receipt of the failed unit. The shipment will be made when Vista Imaging receives a Purchase Order or credit card number from you. You will pay return freight charges, which will be added to the invoice, for the exchange unit. The original returned Product will become the property of Vista Imaging and will not be returned to you. The refurbished unit will retain the remaining warranty term of the original returned Product.

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# VistaEY2H General Specifications

Interface	High Speed USB 2.0				
Power	Supplied via USB (5V @ 500ma)				
<b>Operating Temperature</b>	0 °C to +50 °C				
Storage Temperature	-10 °C to +65 °C				
Humidity	10-90% non-condensing.				
Dimensions	9.25" by 6.0" by 2.0"				
Weight	1.5 lbs				
Windows Signed Drivers	Microsoft's WinLogo Certified Device Drivers				
Usage	Handheld or Tripod feature				
Iris Capture	Auto Dual Iris Capture				
Resolution	2560x1920, producing two 640x480 L/R Iris Images ISO/IEC 19794-6 compliant				
Illumination	Dual band NIR, meets international eye safety requirements				
Audio Features	USB Audio Class 16Khz at 16bit speaker & microphone				
<b>Positioning Alignment</b>	Integrated visor to maintain consistent alignment				
Compliance	FCC, CE, IEC60825-1, RoHS				

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### FCC Statement to User

As per §FCC 15.105: Information to the User



Note: This equipment has been tested and found to comply with the limits for a Class A 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.

## **Environmental Protection**

Note: This equipment has manufactured to comply with environmental requirements and is RoHS compliant. However, to guarantee that the Product is disposed of in compliance with local requirements, return to Product to the point of sale for their support in recycling and disposable consistent with local requirements.

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