Near Infrared Imaging

Vein-Eye[™] Vein Illumination System

USER MANUAL

Vein-Eye Hospital Cart (HC) and Attached Unit (AU)





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Vein-Eye

USER MANUAL



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Venipuncture

Drawing blood or starting an IV can be a very challenging task, even for the skilled medical professional. The Vein-Eye makes this task easier. While some medical practitioners may not require an image guidance system for the majority of vein punctures, the Vein-Eye is designed for first attempt success even with the more challenging vein punctures. And, there will always be the rare occasion when the room environment, or the biology of the patient, provides a challenge even with the Vein-Eye.

The patented technology of the Vein-Eye provides real-time video of subdermal veins located on various parts of the body, particularly the patient's arm or hand. The video displays a "runway" image of the patient's vein, necessary for IV placements.



Venipuncture: Easy And Accurate

The Vein-Eye's imaging capability reduces the number of unsuccessful attempts and improves patient well-being.

- The Vein-Eye provides direct imaging of the entire area of interest with operator adjustable magnification.
- The image is displayed on a high resolution monitor and can be used throughout the entire procedure





Vein-Eye Product Configurations

The Vein-Eye vein Illumination System includes a camera, monitor, power adapter, C-clamp mount bracket (Attached Unit) or wheeled mobile stand (Hospital Cart)

			Configu	ration
#	Item	Description	AU Model	HC Model
1	Camera on	Camera 700 TVL 12V 1A (Sony Sensor, 6~22mm Varifocal	Х	х
	Gooseneck Tube	Lens, LED, optical filter, OSD cable, gooseneck tube)	^	^
Danier adams annisth	Power Adapter for wall outlet power source			
2	Power adapter with power splitter	input: 100-240V AC~50/60Hz 0.8-4A	X	х
		output: 12V DC2A, Power splitter		
3	Monitor assembly	8" Monitor 12V DC 0.5A (800x600 resolution) with monitor	Х	х
3	INIOIIILOI assembly	mount clamp	^	^
4	C-clamp assembly C-clamp and bracket for AU model		Х	
_		Cart stand with O-ring or bike mount bracket and basket for		×
5	Cart Stand assembly	HC model		X

The electrical rating for the	- Model Vein-Eye AU	12V DC 1.9A MAX. 22.8W
Vein-Eye System	- Model Vein-Eye HC	

Vein-Eye Models





There are no contra-indications in the Vein-Eye.



Vein-Eye AU (Attached Unit) Model Overview

- The AU_can be installed on fixed locations such as a desk, phlebotomy chair, table, etc...
- The all-in-one design allows for access in tight spaces
- The design allows for "hands-free" operation
- A storage basket is attached to the clamp and located at the side of a chair, bed or a desktop. This allows
 for an organized and compact area of operation.
- Connect C-clamp and basket to gooseneck tube to operate







Camera & Monitor

- Easy viewing of the images on the monitor: no interference with visual examination
- Position of camera is adjustable by means of a sturdy and flexible gooseneck tube, pole and cart base
- · Monitor can tilt and swivel for easy viewing

Adjusting The Camera and Monitor

- After completion of the assembly of the Vein-Eye AU system, on either a desk top or the arm of the chair, it is the time to set up the camera.
- Insert the plug of the power adapter into the wall power source.
- The "On screen" settings have been preset for the best results.
- Make certain that there is a white sheet or piece of paper underneath the patient's arm or hand and there is no sunlight in the immediate area.
- Do not change the settings unless absolutely necessary, and wait until a technician is working with you.

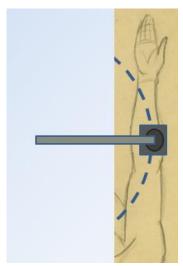




- · Adjust the monitor to the appropriate position for the optimal viewing.
- With the patient sitting in front of you, position their arm on the table or chair.
- The optimal distance from the arm or hand to the Vein-Eye is 12" to 18"
- · The gooseneck and camera must be handled gently and using minimal force for positioning
- When aiming the camera at the target, use the Zoom knob to obtain the right size image. Use the Focus knob to obtain the clearest image.

Alignment Of The Camera Before Imaging

- The camera must be placed above the area of interest (such as the arm) facing the surface nearly vertically (both the HC and AU).
- Arrange the patient's arm or hand along the circle (as shown in the picture) in order to obtain the optimal viewing areas of the arm and hand.



Vein-Eye HC (Hospital Cart) Model Overview

- Hands-free operation
- · Lightweight, easily fits into a closet or corner
- Adjustable 8" high-resolution monitor attached to the gooseneck for easy viewing.
- A basket to carry hosting cables and wires
- 5 wheels for easy portability
- Sturdy "locking-in-place" procedure for the wheels



Basket On Vein-Eye HC

- The basket is attached to the pole of the cart stand and should be used ONLY for the storage of the power adapter and cables.
- The basket can also be used as a handle when transporting the HC.







Small And Balanced Cart Base

- Compact size: small diameter of the base for flexible positioning and movement in small or crowded spaces.
- 5 legs to balance the cart in all directions
- 5 wheels able to be locked firmly in position



Getting Started With HC Model

- Follow the Assembly Manual to correctly connect the camera, gooseneck tube, monitor, and cart stand.
- The procedure is the same for both the AU and HC.

How To Lock The Vein-Eye HC

It is very important to lock the Vein-Eye HC in a firm location before servicing the patient. Please simply hold the gooseneck and use your foot to press down on the locking mechanism of the wheel.









Moving Vein-Eye HC (Transportation)



(Figure 2) Pull the HC behind you when are walking to your destination



(Figure 1) Hold the basket at your side and behind you

- The Vein-Eye HC is equipped with wheeled casters to enable free rolling and turning.
- Before moving the HC, please bend the gooseneck tube so that the camera is tucked into the stand as close as possible.
- The height of the adjustable pole shall not be extended more than 5 cm, or
 2 inches, from the opening of its hosting pipe.
- This is shown in Figure 3 and allows for better stability in transport.



(Figure 3)

- Hold firmly the Vein-Eye basket, which is attached to the middle of the pole of the Vein-Eye HC, as shown in figure 1.
- The Vein-Eye HC should be positioned on either side of the user, and slightly behind the user.
- Pulling the Vein-Eye HC, walk toward your way to destination as shown in figure 2.
- Avoid holding the camera or gooseneck in transport.
- There is the chance for tipping when transporting the HC on a floor with an inclination greater than 5 degrees. The Vein-Eye HC has to be held securely so that it will not tilt. The Vein-Eye camera should be tucked into the stand as close as possible.

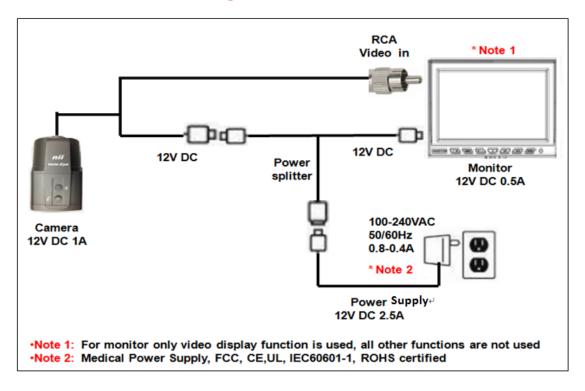


Turning The Vein-Eye OFF And ON

- Turning the Vein-Eye OFF or ON is accomplished by simply plugging in and unplugging the power adapter from the source of electricity.
- It is recommended to turn the Vein-Eye OFF when not in use.

Connecting The Vein-Eye System Components

(Electric Circuit Diagram)







System Specifications (BOM)

_	_				
#	Item	Description	Manufacturer Model	AU Model	HC Model
1	Camera on Gooseneck Tube	Camera 700 TVL 12V DC 1A (Sony Sensor, 6~22mm Varifocal Lens) with LED, optical filter, OSD cable, gooseneck tube	Neon NCB-IS6E338IOH-NTSC Or equivalent	Υ	Υ
2	Power adapter with power splitter	12V 2.0A Power Adapter, Power splitter	Power JS Technology MPU30A-3 Or equivalent	Y	Υ
3	Monitor with mount clamp	8" Monitor 12V DC 0.5A (800x600 resolution) with monitor clamp and Adapters	Towin_L8009 Or equivalent	Υ	Υ
4	C-clamp with C-clamp with basket for AU model		Sparqtron CC-BK-1 Or equivalent	Y	
5	Cart Stand with O-ring and baskets	Cart stand with O-ring or bike mount bracket, baskets for HC model	Sparqtron CS-OB-1 Or equivalent		Υ

Note: NII reserves the right to change the specifications of the product without notice. Users should visit NII's website at www.nearinfradimaging.com for new product updates.

System Parameters

-		
Height:	HC Model	Maximum- 62", Minimum- 54.6"
	AU Model	34"
Weight:	HC Model	19 lb
	AU Model	7.5 lb
Wide:	HC Model	Diameter- 18.5" (Caster Base)
On a matin a	Temperature	3.9°C to 40.5°C (39.02°F to 104.9°F)
Operating	Humidity	5.1% to 86% RH non-condensing
Transport	Temperature	-19.5°C to 51°C (-3.1°F to 123.8°F)
Transport	Humidity	4.9% to 86% RH non-condensing
Ctorago	Temperature	-21°C to 51°C (-5.8°F to 123.8°F)
Storage	Humidity	4.9% to 86% RH non-condensing

Recommendations For Proper Use

- The camera and monitor are configured at the factory.
- The end user should not adjust the fixed internal camera and monitor settings.
- If there is a need to adjust the internal settings of the camera or monitor, contact your system administrator or distributor.
- If the images are not clear and crisp, there may be factors in the environment causing this.
- Do not attempt to use the Vein-Eye when the camera or patient is in direct sunlight.
- The camera should be held approximately 12 inches to 18 inches from the patient.
- The user or patient **should avoid** direct eye exposure from close proximity.
- The camera is equipped with LEDs that produce near infrared light that is invisible to the eye.
- Pulling or pushing the Vein-Eye H/C improperly could result in tipping.

Operator Qualifications

The healthcare professional operating the Vein-Eye Illumination System must have a general knowledge of peripheral veins and vein puncturing medical procedures. The healthcare professional must understand the basic operating principles of the Vein-Eye before attempting to use.

Operator Training

This Vein-Eye Illumination system is intended to be used by healthcare professionals only.

This User Manual is for the Vein-Eye Illumination System. Prior to using the device, become familiar with the operating instructions in this User Manual.

The Vein-Eye Illumination System is a unique concept, as it allows the user to image, in real-time video, peripheral veins to be used in medical procedures, such as vein punctures.

Prior to patient evaluation, inspect the Vein-Eye Illumination System for any physical damage, such as a cracked or broken camera, monitor, cables, stand, clamp, power adapter, etc...

If physical damage exists, do not use and contact your local Distributor for service.

General Cautions & Warnings

- Before use of the product, read the General Caution & Warnings and the Specific Cautions & Warnings pertaining to the Vein-Eye Illumination system. If you need further assistance, see the Service section of this manual.
- This manual applies to the following Near Infrared Imaging product model numbers and versions:
- Vein-Eye Vein Illumination System (AU and HC models)





Attention

Consult Accompanying Documents



CE Mark

Indicates this device is in compliance with MDD 93/42/ECC.

REF

Catalogue or Model Number

S/N

Serial Number



Manufacturer



Manufacture Date



Authorized representative in the European community.



Keep Dry



Directive Logo. The return of the Vein-Eye, for proper disposal, is encouraged. Please return to your distributor.



Pay attention to the floor when transporting or when on an inclination



Indoor Use Only



General warning sign



If the ETL Listed mark has a "US" to the bottom right, it has passed U.S. product safety standards. If it has a "C" to the bottom left, it has passed Canadian product safety standards. If the ETL mark displays both identifiers, it meets both standards.





Rx Only

Symbol for prescription only. U.S. federal law restricts this device to sale by or on the order of a physician or properly licensed practitioner.



Symbol to instruct the user and/or operator to bend in the flexible gooseneck with the camera attached as close as possible to the pole when the Vein-Eye is in transport from one location to another. Please follow the instruction in the "Moving Vein-Eye HC (Transportation)" section."



WARNINGS

All Near Infrared Imaging's products are intended for use by healthcare professional. Read all instructions for use (User Manual, Assembly Guide) and specifications provided prior to use. Use extreme caution when moving and storing the View-Eye Illumination system to prevent the unit from tipping over.

- When transporting the Vein-Eye HC on a floor that has an inclination greater than 5 degrees, the Vein-Eye HC must be held securely so that it will not tip over.
- The Vein-Eye HC can be held securely by placing a hand on the attached basket or on the pole/stand.
- The Camera should be tucked into the stand as close as possible.
- Do not use this product without first reading and understanding the instructions contained in this booklet.
- If you are unable to understand the Warnings, Cautions or Instructions, contact a healthcare professional, dealer or technical personnel before use.
- Serious bodily injury or product damage may occur if the Warnings, Cautions or Instructions are not adhered to.
- Do not exceed the maximum weight of three (3) lbs. in the basket
- All wheels must be in contact with the floor at all times.



WARNINGS

- When moving Vein-Eye HC, avoid wet or slick surfaces, wires, cables, or tubes and any uneven surfaces that may cause the system to tip or overturn.
- Only use accessories and spare parts authorized by Near Infrared Imaging.
- Do not attach the Vein-Eye HC to other objects.
- Do not use the Vein-Eye HC for support or as a walking aid.
- Do not attempt to use the Vein-Eye to support your weight, or use as an assist, while standing.
- The Vein-Eye Illumination system is for external use only.
- Do not immerse in water.



- Do not drop.
- Only the AC adaptor and cable should be placed in the basket.
- Do not disassemble the Vein-Eye HC once it is assembled.
- Do not attempt to disconnect the camera from the gooseneck.
- Use extreme caution when moving the Vein-Eye HC to avoid contact with walls, doors, or other fixed structures.
- Use extreme caution when moving the Vein-Eye so that the camera does not come in contact with patients or other personnel.
- When transporting, do not allow the AC adapter or cables to bump into other objects, doors, or other equipment.
- Wheels should be locked in place when using the Vein-Eye HC
- Do not use the Vein-Eye in the presence of flammable anesthetic mixture.
- Use of accessory equipment not complying with EN60601-1 and/or UL2601-1 or equivalent safety standard may lead to a reduced level of safety of the resulting system.
- No modification of this product is allowed
- Do not modify this equipment without authorization of the manufacturer.
- If this equipment is modified, appropriate inspection and testing must be conducted to ensure continued "safe use" of the equipment.
- Do not allow sharp objects to touch device or cord(s)/ cable(s), as they may cause damage.
- If the Vein-Eye Illumination System is used with other devices, electrical current leakage may increase and electric shock may be caused.
- It is the user's responsibility to ensure safety when the device is used with other medical equipment.
- If safety cannot be ensured, use of the Vein-Eye Illumination System with other devices is not allowed.
- Do not use a power adapter with specifications different from what is listed in this manual.
- Cautions: Federal (USA) law requires the order of a physician in order for the Vein-Eye to be sold and used by a healthcare professional in the USA.

For Near Infrared Imaging's products marked with —, please contact your local Distributor or your local waste company for proper disposal instructions.



Avoiding Potential Electromagnetic Or Other Interferences

The power supply for the Vein-Eye is grounded and will limit EMI charges around the device. There is also shielding for the camera which is designed to limit any EMI interference to the camera and signals. The monitor is also designed to have limited EMI interference and is grounded, as is the power supply, to limit exposure to EMI. The Vein-Eye should have no electromagnetic interference (EMI) from other devices.

In case a user discovers an EMI impact to Vein-Eye System, the user should avoid the possible cause of electromagnetic interference from other devices.





There are adjustments that can be made to avoid or reduce EMI that is affecting the Vein-Eye System:

- 1) Physical Isolation: Keep devices that emit electromagnetic radiation away from the Vein-Eye, such as electronics devices or electronic medical devices.
- 2) Use of Dedicated Circuits: Keep the Vein-Eye on a circuit that is separate from the circuit running other electronic devices. This will result in a significant reduction of interference passing to the Vein-Eye from the other devices.
- 3) Power Conditioning: The use of a line conditioner, or uninterruptible power supply, can filter out interference caused by other devices that share a line with the Vein-Eye.

Guidance And Manufacturer's Declaration - Electromagnetic Emissions & Immunity

Medical electrical equipment requires certain precautions regarding EMC and medical electrical equipment needs to be installed and put into service according to EMC information provided in this document.

Guidance and Manufacturer's Declaration - Electromagnetic Emissions

The Vein-Eye System is intended for use in the electromagnetic environment specified below. The			
customer or the user o	f the Vein-Eye	System should assure that it is used in such an environment.	
Emissions Test	Emissions Test Compliance Electromagnetic Environment Guidance		
RF Emissions CISPR 11	Group 1	The Vein-Eye System uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference to nearby electronics.	
RF Emissions CISPR 11	Class A	The Vein Eye Cystem is suitable for use in all establishments other	
Harmonic Emissions IEC 6100-3-2	Complies	The Vein-Eye System is suitable for use in all establishments other than (1) domestic and (2) those buildings that are used for domestic and are directly connected to any public low-voltage	
Voltage Fluctuations IEC 6100-3-3	Complies	power source.	

Recommended separation distances between portable and mobile

RF communications equipment and the Vein-Eye System

The Vein-Eye System is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The user of the Vein-Eye System can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Vein-Eye System as recommended below, according to the maximum output power of the communications equipment.

Separation distance according to frequency of transmitter M



power of transmitter W	150 kHz to 80 MHz d = 1.2 √P	80 MHz to 800 MHz d = 1.2 √P	800 MHz to 2.5 GHz d = 2.3 √P
0.01	.12	.12	.23
0.1	.38	.38	.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance *d* in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

Guidance and Manufacturer's Declaration - Electromagnetic Immunity

The Vein-Eye System is intended for use in the electromagnetic environment specified below. The customer or the user of the Vein-Eye System should assure that it is used in such an environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
			Portable and mobile RF communications equipment should be used no closer to any part of the Vein-Eye System, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
Conducted DE	2 Vrm c	3 Vrms	Recommended separation distance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 VIIIIS	d = 1.2 √P
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz		d = 1.2 √P 80 MHz to 800 MHz
11001000-4-3			d = 2.3 VP 800 MHz to 2.5 GHz
			Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).
			Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey ^a , should be less than the compliance level in each frequency range. ^b
			Interference may occur in the vicinity of equipment marked with the following symbol:

NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.





Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy.

To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Vein-Eye System is used exceeds the applicable RF compliance level above, the Vein-Eye System should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the Vein-Eye System.

^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Guidance and Manufacturer's Declaration - Electromagnetic Immunity

The Vein-Eye System is intended for use in the electromagnetic environment specified below. The customer_or the user of the Vein-Eye System should assure that it is used in such an environment

· , ·				
Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance	
Electrostatic Discharge (ESD) IEC 61000-4-2	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.	
Electrical Fast Transient/Burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/output lines	± 2 kV for power supply lines ± 1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.	
Surge IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to Earth	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	Mains power quality should be that of a typical commercial or hospital environment.	
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	$<5 \% U_T$ (>95 % dip in U_T) for 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles $<5 \% U_T$ (>95 % dip in U_T) for 5 s	$<5\% U_T$ $(>95\% dip in U_T)$ for 0,5 cycle $40\% U_T$ $(60\% dip in U_T)$ for 5 cycles $70\% U_T$ $(30\% dip in U_T)$ for 25 cycles $<5\% U_T$ $(>95\% dip in U_T)$ for 5 s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Vein-Eye System requires continued operation during power mains interruptions, it is recommended that the Vein-Eye System be powered from an uninterruptible power supply or a battery.	
Power frequency (50/60 Hz) magnetic Field: IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.	
NOTE: U_T is the a.c. mains voltage prior to application of the test level.				

Vein-Eye Operating Temperature

The camera and monitor of Vein-Eye are low power devices and only generate low temperature. The camera enclosure is made of metal, which dispatches heat efficiently.

Our_experiments demonstrated the Vein-Eye System when turned ON continuously for 72 hours. The temperature remained at the low end of normal body temperature, i.e., not higher than 96.4°F (35.78 ° C.) The User never felt uncomfortable, hot or was burned. The power supply will be touched for 3 seconds when powering the Vein-Eye ON, and for another 3 seconds when powering the Vein-Eye OFF. The power supply falls within the limits for acceptable risk and poses no risk for burning the skin.

The intended use of Vein-Eye is to help healthcare professionals view veins for easy venipuncture. The Vein-Eye will not come into contact with a patient when in use. Even the medical practitioner should only need to touch the camera of the Vein-Eye for less than 60 seconds while doing a blood draw or IV placement.

Maintenance of the Vein-Eye

Service

The end user and/or healthcare professional should not attempt to fix the Vein-Eye or provide any maintenance without the express consent of the Distributor. Contact your local Distributor first for all questions on the Assembly and Use of the Vein-Eye.

A Return Merchandise Authorization (RMA) number will be issued for repairs if they are needed.

THE INSTRUMENT MUST BE RETURNED FOR REPAIRS AT THE EXPENSE OF THE PURCHASER. FOR IN-WARRANTY REPAIRS, UNITS ARE TO BE RETURNED TO THE DISTRIBUTOR, NEAR INFRARED IMAGING OR NII'S AUTHORIZED AGENT. FOR "OUT OF WARRANTY" WORK, THE CUSTOMER IS RESPONSIBLE FOR ALL SHIPPING CHARGES

Cleaning and Disinfecting

- 1. Always disconnect the Vein-Eye Illumination System from the power source before performing any maintenance or cleaning.
- Clean surfaces with a damp cloth using water only. Dry thoroughly. AVOID CLEANING AROUND CONNECTORS. Excess moisture in, on or around the case, cables or air fittings could affect operation.
- 3. Clean the Vein-Eye system as needed and per Hospital/clinic guidelines.
- 4. To clean the Vein- Eye Illumination system wipe the surfaces of the case with a clean cloth moistened in water only. To disinfect the Vein- Eye Illumination system, wipe the case with a hospital grade



disinfectant.

Storage

Store the Device in a dry place. Avoid sudden changes in temperature.

Physical Shock

Avoid physical shock.

Inspection

Inspect device for damage initially and before each use. Do not use devices that show visual signs of damage. Contact your Distributor with questions related to device damage and repair.

Disposal Instructions

- 1. Contact your Vein-Eye Illumination System Distributor before disposing of the device.
- 2. Concerning the European Union Waste Electrical and Electronic Equipment Directive Logo, the return of the Vein-Eye Illumination System to your Distributor is allowed for proper disposal.
- 3. The following information is for EU Members: (1) The use of this symbol indicates that this product should not be treated as household waste. (2) By ensuring that this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste-handling of this product

Limited Warranty

- All instruments sold and supplied by Near Infrared Imaging are guaranteed to be free from defects in
 material and workmanship for a period of 1 year from date of purchase. All supplies and accessories
 carry a 90-day limited warranty. If in the judgment of Near Infrared Imaging the instrument is proven
 to be defective during the warranty period, it will be repaired or replaced with no charge for parts or
 labor.
- This warranty does not cover any instrument that has been damaged by accident, misuse, abuse or has been altered or repaired by anyone other than an authorized Near Infrared Imaging agent. This warranty also does not cover any unit that has had the serial number removed, defaced or rendered illegible.
- THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING
 WARRANTIES OF MERCHANTABILITY AND FITNESS AND IS HEREBY LIMITED TO REPAIR OR
 REPLACEMENT OF INSTRUMENTS FOUND DEFECTIVE DURING THE WARRANTY PERIOD. AN
 AUTHORIZED NEAR INFRARED IMAGING AGENT OR DISTRIBUTOR MUST MAKE ALL REPAIRS.
 INSTRUMENTS SENT BY MAIL OR COMMON CARRIER SHOULD BE INSURED AGAINST LOSS OR
 DAMAGES BY THE SENDER, AS THEY ARE NOT COVERED BY THIS WARRANTY.
- All rights are reserved. No one is permitted to reproduce or duplicate, in any form, this manual or any
 part thereof without permission from Near Infrared Imaging, Inc.





- Caution: Federal US law restricts sale of the device identified in this manual to, or on the order of, a licensed physician.
- Near Infrared Imaging assumes no responsibility for any injury, or for any illegal or improper use of the
 product, that may result from failure to use this product in accordance with the instructions, cautions,
 warnings, or indications for use published in this manual.
- Vein-Eye™ is a registered trademark of Near Infrared Imaging, Inc.
- For information about any Near Infrared Imaging product, please call your Distributor.

Near Infrared Imaging 's Technical Support:

Telephone: (215) -327-8355 (USA)

Email: service@nearinfraredimaging.com
FDA Registration Number: 3010535611

The Vein-Eye was formerly known as the AVV-1

Customer Service

Contact your Distributor

If you cannot contact your Distributor, please feel free to contact Near Infrared Imaging

Email: service@nearinfraredimaging.com

(Email Service: 24/7 - 365)



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OSD

On Screen Display (OSD) settings for the camera and monitor have been set by the manufacturer.

Please do not change the settings unless you have consulted with your distributor.

If you need to make an adjustment:

- Press the toggle switch button straight down in order to get to the main menu.
- Then, by clicking left, right, up or down on the toggle switch, you can highlight the area you want to adjust, make the adjustment, and save your settings by highlighting SAVE and clicking on the toggle button.
- The toggle switch is on the wire extending from the camera.

Monitor Settings





