

# VisiDoc-It™ Imaging System

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## *Installation and User Instructions*



**VisiDoc-It with Stand**



**VisiDoc-It with Hood**



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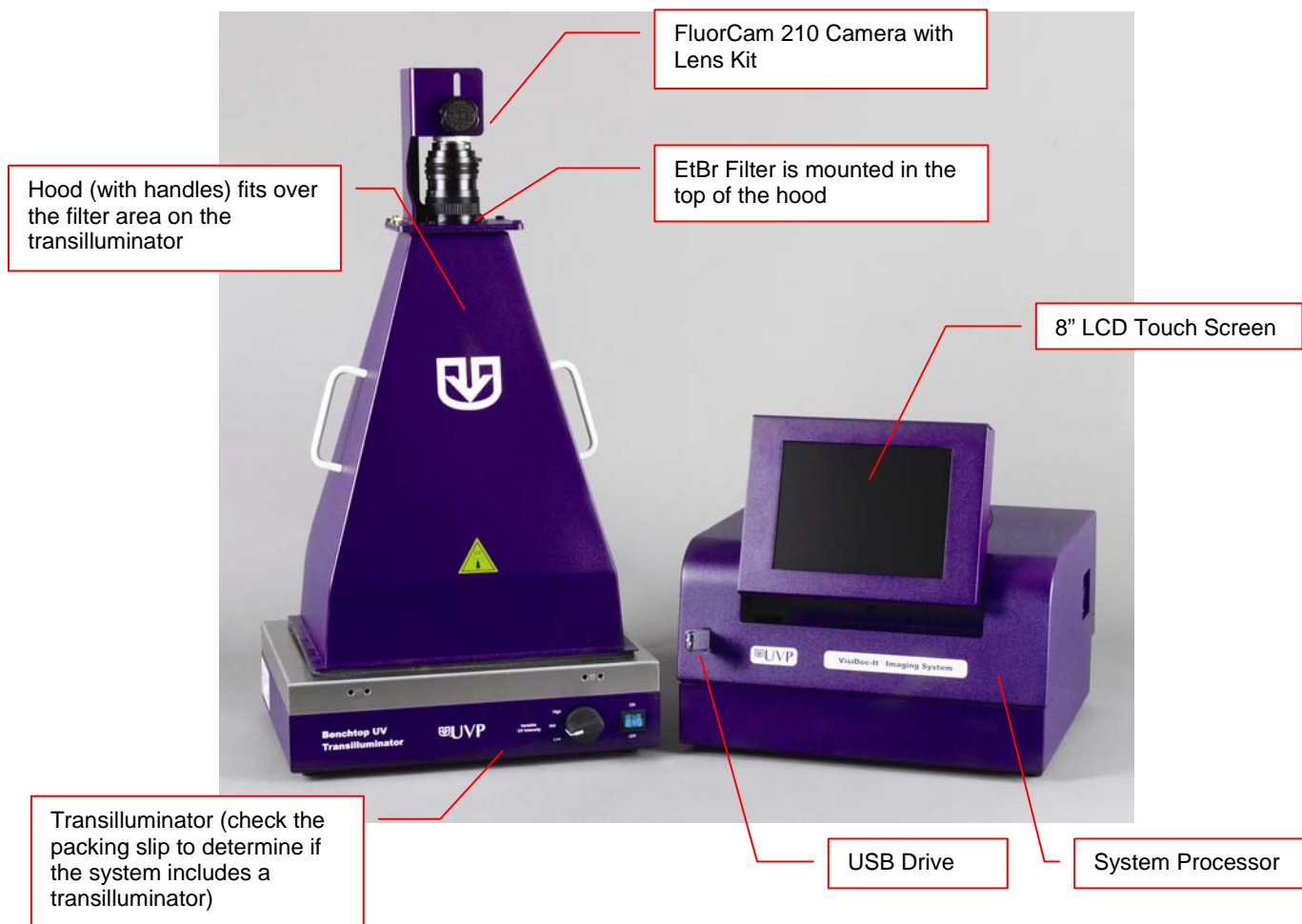
## System Introduction

The VisiDoc-It Imaging System is designed for researchers who already have a transilluminator in the lab. Configurations include a compact hood or camera stand. The compact hood fits on top of UVP's High Performance and Benchtop Transilluminators. The VisiDoc-It System is similar to the provides simple documentation of fluorescent and non-fluorescent gels, membranes, blots, film plates and assays with the ability to save images to the USB storage device for later quantitative analysis.

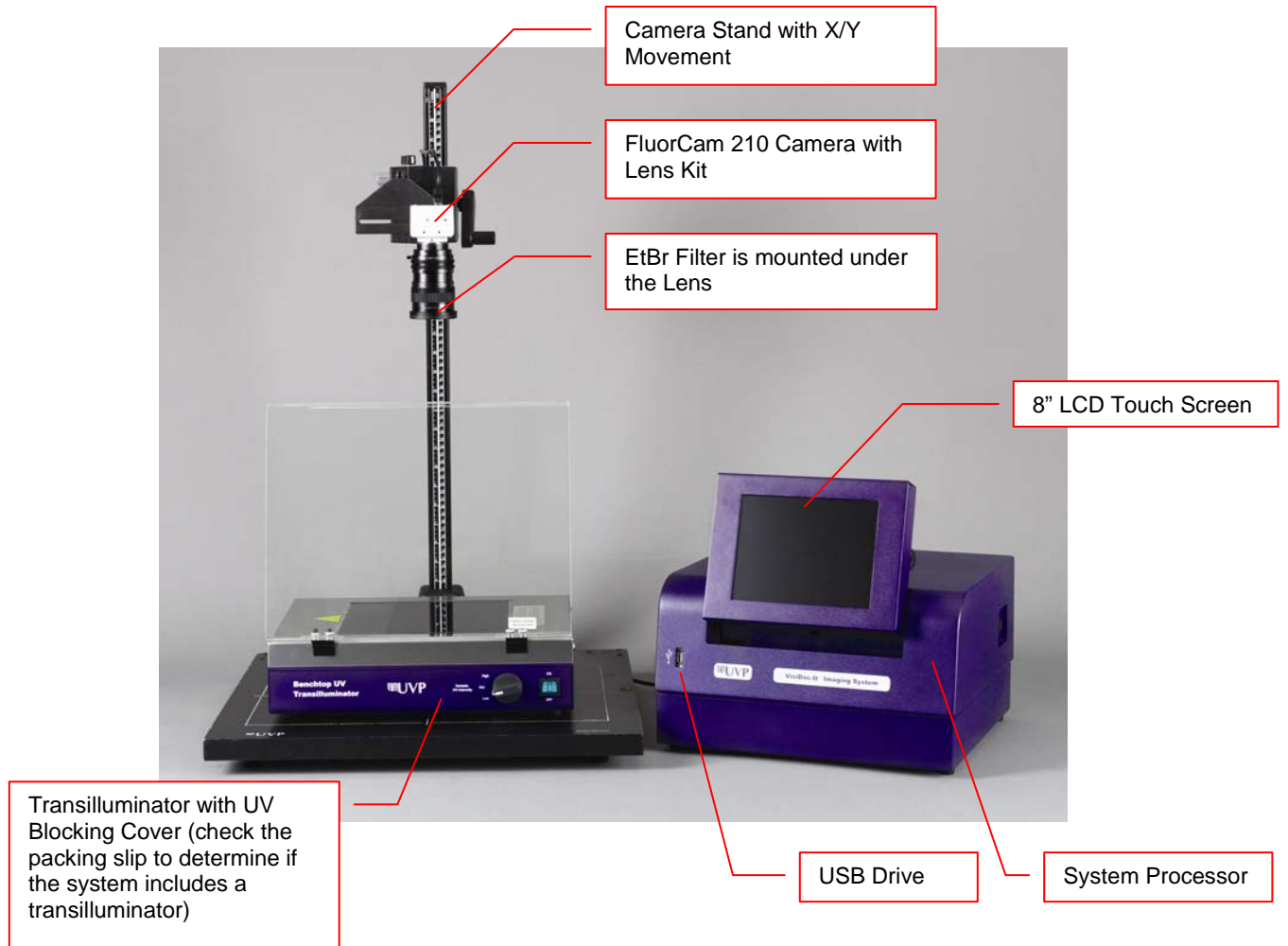
### VisiDoc-It Components

Refer to the packing slip and pictured components for parts included with the system.

#### VisiDoc-It with Hood



### VisiDoc-It with Stand



## System Specifications

### Camera

FluorCam 210 Camera with a resolution of 640 x 480 (VGA) with a USB 2.0 PC interface. All camera settings are factory pre-set for optimum performance when viewing gels, films, or membranes under low light level conditions. UVP Technical Support should be contacted before making any adjustments to the camera settings.

### Lens

The 8-48 mm zoom lens is fitted with a close-up diopter and step-up ring. The camera can then be held in a fixed position. The diopter is for focusing on objects at the focus length of the VisiDoc-It system.

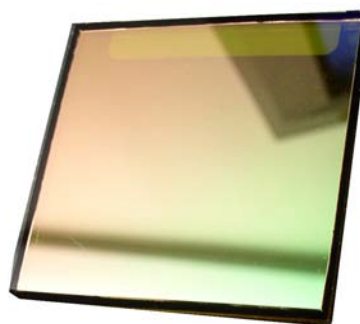


### Processor

- Internal Storage: 75GB or more
- USB 2.0 ports: 1 front, 4 in the back
- USB storage device capacity: 1GB (minimum)
- Software: TS software

### Ethidium Bromide Filter (EtBr)

The Ethidium Bromide (EtBr) Filter (50mm sq.) UV blocking band pass interference filter blocks UV and IR radiation emitted from the transilluminator. The filter is placed in the filter tray below the camera assembly. The filter allows visualization of fluorophores from 580-630nm, targeting the EtBr emission which peaks at 605nm. The EtBr filter can be substituted for other specific fluorophore filters or removed when imaging non-fluorescent media (protein gels, colony plates, etc.) in order to produce brighter images.



### Hood Enclosure or Camera Stand for the VisiDoc-It System

The compact hood enclosure is manufactured of lightweight plastic for portability. Handles are positioned on two sides of the hood to make it easy to move the hood for access to the transilluminator surface. The camera with a zoom lens is mounted on top of the hood or camera stand.

### Transilluminator

For VisiDoc-It systems, transilluminators are optional equipment. The VisiDoc-It System can accommodate UVP's Benchtop and FirstLight transilluminator models. The VisiDoc-It (with stand design) can also accommodate the High Performance UV Transilluminators (25-watt) and White/UV Transilluminators (8-watt). UVP offers a variety of transilluminators, from the benchtop models with 8-watt, single wavelength and single intensity to multiple wavelengths and high/low intensities, or the high-end FirstLight transilluminator.

### LCD Touch Screen

The display is an 8-inch VGA color touch screen connected to the darkroom cabinet with tilt adjustment. The touch screen allows the user to preview, snap, save and print images, as well as select certain preference options, without the need of an external mouse or keyboard.

A stylus pen is included for increased pointer control for selecting software options on the touch screen.

### Focus Target

The focus target fluoresces when placed on a transilluminator or when exposed to overhead UV. The target provides sharp, fluorescent images to aid in adjusting the focus of the camera.

### Removable USB Stick

The removable USB stick has 1 GB memory (minimum) included with the system which connects to the system allowing transfer of images.

## Optional Equipment

Refer to the ordering information section of this manual for optional equipment part numbers.

### Thermal Printer

The thermal printer provides archive quality, 256 grayscale prints, and five optional cost-effective print sizes.



*Printer*

### Converter Plates

The **UV/White Converter Plate** allows imaging of non-fluorescent stained media with an ultraviolet transilluminator. The converter plate is specially coated to convert the 302nm UV output to white light, rather than using a separate white light box.

The **Visi-Blue Converter Plate** converts UV to 460-470nm designed for use with blue excitation samples and SYBR green, SYPRO orange and GFP stains.



*UV/White Converter Plate*

### Transilluminators

If the system does not include a transilluminator (check the packing slip), contact UVP for ordering information or go to UVP's web site at [www.uvp.com](http://www.uvp.com). Transilluminators available include the compact 8-watt models to our high performance FirstLight Transilluminator.

## Set-up Instructions

### Components

- Camera with zoom lens, bracket, filter, cables
- VisiDoc-It hood or stand
- USB storage device, 1 GB (minimum)
- Transilluminator (may be ordered separately)

**WARNING: DO NOT ATTEMPT TO CONNECT ANY WIRING WHILE THE EQUIPMENT IS CONNECTED TO ANY POWER SUPPLY**

### CAUTION

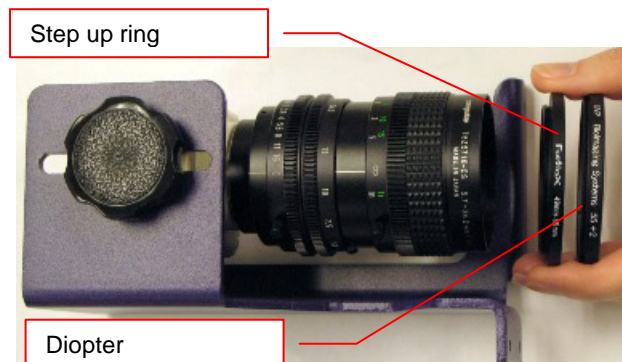
Do not install the system in places with high moisture, dust, or high temperature. Do not use any oil or petroleum based cleaner for the cabinet. Use only mild soap or detergent solution for cleaning. Ensure that the system is turned OFF during cleaning. Keep the equipment away from motors or other large magnetic equipment apparatus.

### Camera Set-up

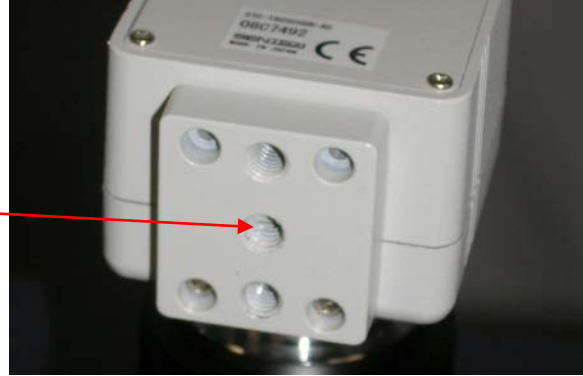
#### In the VisiDoc-It Hood

The camera and zoom lens are assembled at the UVP factory.

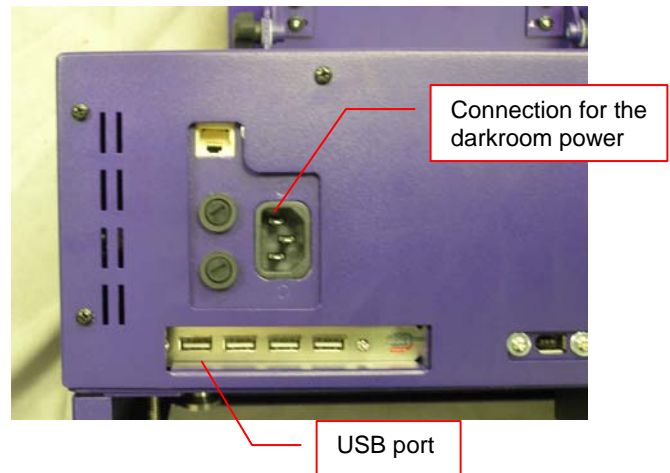
- Remove the cap from the lens.
- Attach the step up ring and diopter to the lens. The step up ring and diopter will only fit one way.
- Using the four thumb screws provided, secure the bracket to the base.
- Slide the camera and lens assembly into the camera bracket. Slide the lens through the center hole in the gasket. The gasket forms a seal around the lens.



- Insert and tighten the knob/washer in the central hole in the camera to secure the camera to the bracket.



- Plug the camera cable into the top the camera and the other end into a UBS port on **back of the processor**.
- Connect the power cord from the transilluminator to a surge protector power outlet.
- Connect the main power cord from the back of the processor to a surge protector power outlet.



## Printer Set-up

The thermal printer is an optional accessory. Proceed to the next section if a printer was not included with the shipment.

## Stylus and Holder

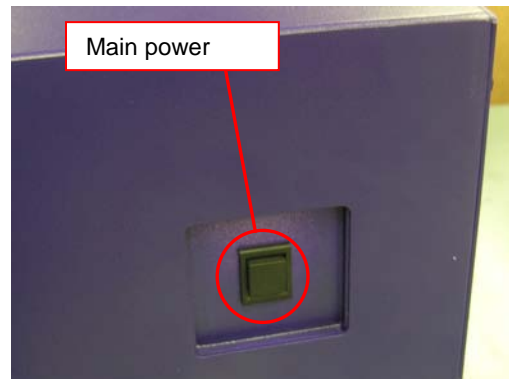
The screen is touch sensitive. Use the stylus included with the system to operate the software controls. For easy access to the stylus when operating the system, remove the tape from the back of the holder and adhere it to the VisiDoc-It. Slide the stylus into the holder.

## Using the System

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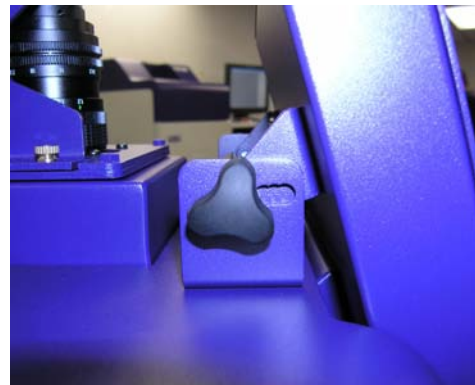
### Powering Up the System

- Power up the system by pushing once on the **MAIN POWER** button located on the right side of the processor.
- Turn on the transilluminator.
- To power down the system, push the main power button.



### Adjusting the Screen Angle

- To adjust the angle of the screen, loosen the knobs on each side of the monitor. Twist each knob counter-clockwise (note that you will actually be turning each knob in the opposite direction from each other).
- Tilt the screen to the desired angle.
- Turn each knob clockwise to tighten.





## Operating the TS Software

The system will go through the boot-up process. When ready, the LCD will display the TS software screen similar to the one below:



To shut down the TS software, touch the X on the bottom left corner of the screen.

To turn the system off, press the MAIN POWER button or power down from the Windows icon on the bottom right corner of the screen.

Refer to the TS Software User Manual for further instructions on using the software.

## Using the Transilluminator

To use the transilluminator, turn on the transilluminator power on the front of the unit.

**NOTE:** When the transilluminator is illuminated, ensure that the UV blocking cover is in position to prevent any exposure to UV.

## Image Focusing

Prior to capturing any images, prepare the image focus capabilities of the system:

- Turn on the transilluminator and place the *Fluorescent Focus Target* on the transilluminator surface.
- While watching the LCD screen, rotate the lens f-stop adjustment so that the image is bright enough to see on the screen.
- Rotate the lens focus adjustment on the lens. Adjust this so that the image appears in clear focus on the LCD monitor. **Note:** Once the proper zoom range is set, the lens will have to be refocused when zoomed in completely.
- Rotate the zoom lens adjustment on the lens, so that the image is as big as possible. Readjust the focus ring on the lens, making the image clear. Adjust the zoom so that the object of interest is within the picture on the LCD monitor.

## Service Procedures

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### Return Procedure

A **Returned Goods Authorization (RGA)** number must be obtained from UVP Customer Service before returning any product.

### Replacement Parts and Accessories

To order accessories or replacement parts for the VisiDoc-It System, contact UVP's offices.

<b>Part Description</b>	<b>Part Number</b>
Filter, Ethidium Bromide, 50mm Square	38-0220-01
Filter, SYBR Green, 50mm Square	38-0219-01
Filter, SYBR Gold, 50mm Square	38-0221-01
White Light Converter Plate, 21x26cm	38-0191-01
White Light Converter Plate, 25x26cm	38-0191-04
Visi-Blue Converter Plate, 21x26cm	38-0200-01
Visi-Blue Converter Plate, 25x26cm	38-0200-04
Gel-Cutter	85-0002-01
Gel-Ruler	85-0003-01
Gel-Scooper	85-0006-01
Gel-Tray, small	85-0007-01
Gel-Sentry DNA Preparation Plate	97-0076-01
Fluorescent Standard Step Tablet	33-0014-02
Doc-It@LS Analysis Software	97-0185-02
Spectacles, UV Blocking (UVC-303)	98-0002-01
Goggles, UV Blocking (UVC-503)	98-0002-02
Faceshield, UV Blocking (UVC-803)	98-0002-04

### Troubleshooting

#### No Power to the Darkroom

Recheck main power cord connections to the darkroom.

Check fuses, located at the back of the unit, near the power port. You will need a flat-head screwdriver. Turn the cap and the fuse holder will "pop-out". Inspect the thin wire within the glass fuse to see if there is a break in the wire. If so, replace fuse(s). If fuses are blown repeatedly, contact UVP Technical Support Department for additional troubleshooting.

#### No Image on the LCD Screen

To power up the system, push **once** on the button located on the left side of the unit.

#### Touch Screen not Accurate

If touching or clicking on the buttons becomes inaccurate, you may need to recalibrate your touch screen. Please follow all instructions in the touch screen calibration instructions included in your TS software CD.

### Error Messages Pop Up on the Screen

Messages appear on the screen that might be related to the TS software interface, or Microsoft Windows. If the message is related to Microsoft Windows, such as a reminder to activate or update your copy of Windows, please contact your system administrator for assistance.

If an error message appears repetitively, and your system administrator does not recognize it as a Microsoft Windows error, contact UVP Technical Support for further assistance.

### Technical Support

UVP offers technical support on all of its products. If you have any questions about the product's use, operation or repair, please contact our offices at the locations below. Or go to UVP's web site and click the Tech Support > Biolmaging Systems.

<b>If you are in North America, South America, East Asia or Australia:</b>	<b>If you are in Europe, Africa, the Middle East or Western Asia:</b>
<b>Call (800) 452-6788 or (909) 946-3197</b> , and ask for <b>Customer Service</b> during regular business days, between 7:00 am and 5:00 pm, PST.	<b>Call +44(0) 1223-42002</b> , and ask for <b>Customer Service</b> during regular business days between 9:00 am and 5:30 pm.
<b>E-mail</b> your message to: techsupport@uvp.com	<b>E-mail</b> your message to: uvp@uvp.co.uk
<b>Fax</b> Customer Service, and send it to <b>(909) 946-3597</b>	<b>Fax</b> Customer Service, and send it to: <b>+44(0) 1223-420561</b>
<b>Write to: UVP, LLC</b> 2066 W. 11 <sup>th</sup> Street, Upland, CA 91786 USA	<b>Write to: Ultra-Violet Products Ltd</b> Unit 1, Trinity Hall Farm Estate, Nuffield Road, Cambridge CB4 1TG UK

### Warranty

UVP's products are guaranteed to be free of defects in materials, workmanship and manufacture for two (2) years from date of purchase. Consumable and disposable parts including, but not limited to tubes and filters, are guaranteed to be free from defects in manufacture and materials for ninety (90) days from date of purchase. Transilluminators carry a two (2) year warranty from date of purchase. If equipment failure or malfunction occurs during the warranty period, UVP shall examine the inoperative equipment and have the option of repairing or replacing any part(s) which, in the judgment of UVP, were originally defective or became so under conditions of normal usage and service.

No warranty shall apply to this instrument, or part thereof, that has been subject to accident, negligence, alteration, abuse or misuse by the end-user. Moreover, UVP makes no warranties whatsoever with respect to parts not supplied by UVP or that have been installed, used and/or serviced other than in strict compliance with instructions appearing in this manual.

In no event shall UVP be responsible to the end-user for any incidental or consequential damages, whether foreseeable or not, including but not limited to property damage, inability to use equipment, lost business, lost profits, or inconvenience arising out of or connected with the use of instruments produced by UVP. Nor is UVP liable or responsible for any personal injuries occurring as a result of the use, installation and/or servicing of equipment.

This warranty does not supersede any statutory rights that may be available in certain countries.