SmartView Pro 2300/2400 Imager System

Instruction Manual

Catalogue No. UVCI-2300 UVCI-2400





www.majorsci.com service@majorsci.com

Version 08A Revised on : 2023/01/16



Packing List

Standard Package				
UVCI-2300	UVCI-2400			
SmartView Pro 2300 Imager system	SmartView Pro 2400 Imager system			
-1 x 2.0MP CCD camera and lens	-1 x 2.0MP CCD camera and lens			
-1 x 312(302)nm UV transilluminator	-1 x 470nm blue transilluminator			
-1 x Epi White Light Module	-1 x Epi White Light Module			
-1 x UV viewing window	-1 x Blue viewing window			
-1 x Power Cord -1 x Instruction Manual				
- 1 x Smartview 1D Analyze Soltware C	D			
- 1 x Stylus Pen				
Optional Package				
UVCI-2300	UVCI-2400			
White Light Plate	White Light Plate			
- 1 x White Light Plate	- 1 x White Light Plate			
- 4 x M3 screws	- 4 x M3 screws			
Blue Light Plate				
- 1 x Blue Light Plate				
- 4 x M3 screws				

Signed by:

Date:

Major Science is liable for all missing or damaged parts / accessories within 7 days after customer received this instrument package. Please contact Major Science immediately regarding this issue. If no response within such time period from consignee party, that will be consignee party's whole responsibility.

Table of Contents

Ρ	acking list	1
W	/arning	6
1	Introduction	.12
	1.1 Overview	.12
	1.2 Feature	.12
	1.3 Components Guide	.13
2	Technical Specification	14
-		
3	Installation Instructions	.16
	3.1 Installing Blue Light Plate (Optional)	.16
	3.2 Installing White Light Plate (Optional)	.19
	3.3 Installing SmartView 1D Analysis Software	.22
	3.3.1 IP Address Setup	.28
	3.3.2 IP Address Confirm	.34
4	Operation Instructions	.38
	HMI Interface (UVCI-2300)	.38
	4.1 Start the System	.38
	4.2 Select the UV Intensity	.40
	4.3 Add Info	.40
	4.4 Title	.41
	4.5 Adjust the Volume of Exposure	.41
	4.6 Capture	.43
	4.6.1 Save Pictures To Remote Computer	.44
	4.7 Default Setting	.46
	4.8 System Setup	.48
	4.8.1 Touch Screen Calibration	.49
	4.8.2 System Information	.49
	4.8.3 System Time	.50
	4.8.4 System Upgrade	.50
	4.8.5 Optional Devices	.51
	4.8.6 COPY TO USB	.51

4.8.7 Copy All to USB	51
4.8.8 Delete Selected	52
4.8.9 Delete All	52
4.8.10 Screen Saver	52
4.8.11 Create Folder	52
4.8.12 Remove Folder	53
4.8.13 Network Settings	54
4.9 Reverse out	54
4.10 Freeze	55
4.11 Turn ON/OFF the Lighting Modules	56
4.12 Print	57
4.13 Load and Edit the Picture	57
4.13.1 Anti-white	59
4.13.2 Flip upside down	59
4.13.3 Flip horizontally	59
4.13.4 Turn counterclockwise	60
4.13.5 Turn clockwise	60
4.13.6 Brightness adjust	60
4.13.7 Crop	61
4.13.8 Text	61
4.13.9 Undo and redo	63
4.14 Signals Indication	63
4.13 WARNINGS:	63
HMI Interface (UVCI-2400)	64
4.1 Start the System	64
4.3 Add Info	66
4.4 Title	66
4.5 Adjust the Volume of Exposure	67
4.6 Capture	68
4.6.1 Save Pictures To Remote Computer	69
4.7 Default Setting	71
4.8 System Setup	73
4.8.1 Touch Screen Calibration	74
4.8.2 System Information	74
4.8.3 System Time	75
4.8.4 System Upgrade	75

	4.8.5 Optional Devices	.76
	4.8.6 Copy to USB	.76
	4.8.7 Copy All to USB	.76
	4.8.8 Delete Selected	.77
	4.8.9 Delete All	.77
	4.8.10 Screen Saver	.77
	4.8.11 Create Folder	.77
	4.8.12 Remove Folder	.78
	4.8.13 Network Settings	.79
	4.9 Reverse out	.80
	4.10 Freeze	.80
	4.11 Turn ON/OFF the Lighting Modules	.81
	4.12 Print	.82
	4.13 Load and Edit the Picture	.82
	4.13.1 Anti-white	. 84
	4.13.2 Flip upside down	.84
	4.13.3 Flip horizontally	. 84
	4.13.4 Turn counterclockwise	.85
	4.13.5 Turn clockwise	.85
	4.13.6 Brightness adjust	.85
	4.13.7 Crop	.86
	4.13.8 Text	.86
	4.13.9 Undo and redo	.88
	4.14 Signals Indication	.88
5	SmartView 1D Analysis Software	.89
	5.1 Process	.89
	5.2 Editor	101
	5.3 Selecting the Image Lane	102
	5.4 Analyze	104
	5.5 Summary	113
	Dot Blot Analysis Sample	120
6	Troubleshooting Guide	135
7	Cleaning & Maintenance	137
	7.1 Replacing the Fuse	137
	7.2 Replacing Amber Filter on Viewing Window	138

8	Ordering Information	141
9	Warranty	142

Warning

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.

- NOTE: 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.

Notice: (1) Changes or modifications not expressly approved by the party responsible for could void the use is authority to operate the equipment.

Major Science SmartView Pro Imager System series has been tested and found to comply with the limits for the CE regulation. Also, SmartView Pro Imager System series is RoHS compliant to deliver confident product which meets the environmental directive. These limits are designed to provide reasonable protection against harmful interference when the instrument series is operated in a commercial environment. This instrument series used together with power supply unit generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this instrument series in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their expense. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. It is strongly recommended for the user to read the following points carefully before operating this equipment.

- 1. Read and follow the manual instructions carefully.
- 2. Do not alter the equipment. Failure to follow these directions could result in personal and/or laboratory hazards, as well as invalidate equipment warranty.
- 3. Use a properly grounded electrical outlet with correct voltage and current handling capacity.
- 4. Disconnect from power supply before maintenance and servicing. Refer servicing to qualified personnel.
- 5. Never use this instrument series without having the safety cover correctly in position.
- 6. Do not use the unit if there is any sign of damage to the external tank or cover. Replace damaged parts.
- 7. Do not use in the presence of flammable or combustible material; fire or explosion may result. This device contains components which may ignite such materials.
- 8. Refer maintenance and servicing to qualified personnel.
- 9. Ensure that the system is connected to electrical service according to local and national electrical codes. Failure to make a proper connection may create fire or shock hazard.
- 10. Use appropriate materials and operate correctly to avoid possible hazards of explosion, implosion or release of toxic or flammable gases arising from overheated materials.
- 11. The unit shall be operated only by qualified personnel.

Safety Information

Use high level of precaution against any electrical device. Before connecting the electrical supply, check to see if the supply voltage is within the range stated at the rating label, and see to it that the device be seated firmly. Place the unit in a safe and dry location; it must NOT touch the surrounding. Follow the safety precautions for chemicals / dangerous materials. If needed, please contact qualified service representative or service@majorsci.com

Environmental Conditions

Ensure the instrument is installed and operated strictly in the following conditions:

- 1. Indoor use only
- 2. ≤95% RH (non-condensing)
- 3. 75 kPa 106 kPa
- 4. Altitude must not exceed 2000 meters
- 5. Ambient to 40°C operating temperature
- 6. Pollution degree: 2
- 7. Mains supply voltage fluctuations up to ±10% of the normal voltage

Avoiding Electrical Shock

Follow the guidelines below to ensure safe operation of the unit.

SmartView Pro Imager System series has been designed to use with shielded wires thus minimizing any potential shock hazard to the user. Major Science recommends against the use of unshielded wires.

To avoid electrical shock:

- In the event of solution accidentally spilling into the instrument, it must be dried out for a period of time (at least 2 hours) and restored to NORMAL CONDITION before each operation.
- 2. Never connect or disconnect wires loading from the power jacks when the red indicator light of power switch is on.
- 3. WAIT at least 5 seconds after stopping a run before handling output leads or any connected apparatus.
- 4. ALWAYS make sure that your hands, work area, and instruments are **clean** and **dry** before making any connections or operating the power supply.
- 5. ONLY connect the power cord to a properly grounded AC outlet.

Avoiding Damage to the Instrument

1. Do not attempt to operate the device if damage is suspected.

- 2. Protect this unit from physical damage, corrosive agents and extreme temperatures (direct sunlight, etc.).
- 3. For proper ventilation and safety concerns, keep at least 10 cm of space behind the instrument, and at least 5 cm of space on each side.
- 4. Use high level of precaution against the damages on the unit.
- 5. Do not operate the unit out of environmental conditions addressed above.
- 6. Prior to applying any cleaning or decontamination methods other than manufacturer's recommendation, users should check with the manufacturer's instruction to see if the proposed method will damage the equipment.

Equipment Operation

Follow the guidelines below to ensure safe operation of the unit:

- 1. Check the displayed figures to see if the unit is functioning correctly before using this unit.
- 2. NEVER access dangerous chemicals or other materials to prevent possible hazard of explosion and damage.
- 3. A temporary conductivity caused by condensation might occur even though this series is rated Pollution Degree 2 in accordance with IEC 664.

To Disposal UV tubes

The UV tubes contain mercury; please dispose of the tubes in accordance with local laws. It is important to handle the waste tubes with care to ensure public health and the environment. For further information about recycle waste tubes, please see www.lamprecycle.org.

Equipment Handling

Follow the guidelines below to ensure safe move of the device:

- 1. Carry the device at least two people.
- 2. Do not over than knuckle height when you moving the device.
- 3. Move the device by cart and assist the device do not drop.

Symbols

The symbols used on SmartView Pro 2300 Imager System are explained below.



Indicates an area where a potential shock hazard may exist. Consult the manual to avoid possible personal injury or instrument damage.



Indicate a warning of UV radiation.

While using the UV Transilluminator, be sure the operating personnel is properly protected.

Indicates disposal instruction.



DO NOT discards this unit into a municipal trash bin when this unit has reached the end of its lifetime. To ensure utmost protection of the global environment and minimize pollution, please recycle this unit.

Potential Risk and Preventive Measure

Potential Risk Frequency	Frequent	Likely	Possible	Rare	Unlikely
Bruise			\checkmark		
Pinch			\checkmark		
Slash					\checkmark
UV radiation					~
dangerous					·
Power cord plug				\checkmark	
wrong					

1. Risk assessment table

Potential Risk	Preventive measures		
Bruise	Do not put the machine near the table edge.		
	Move the machine by cart.		
Pinch	Do not put your hands on the open door.		
Slash	Prevent hard impact on the acrylic panel.		
UV radiation	Do not open the darkroom door while you turn on the		
dangerous	UV light.		
Power cord plug	Observe correct adapter plug.		
wrong			

2. Preventative measures of risk

1 Introduction

1.1 Overview

SmartView Pro Imager System is the next generation of gel documentation instrument. It is specifically designed for ease of use for any lab experiment with gel imaging. SmartView Pro Imager System is packed with 2.0 megapixels high sensitivity and resolution scientific grade camera for outstanding imaging quality. The system provides you convenience such as 312(302)nm pull out UV transilluminator for easy gel cutting(enclosed with UVCI-2300; pull out blue transilluminator with UVCI-2400), pre-focused lens for one touch image capture, and user friendly software interface. The expendable accessories such as epi-blue module and White Light Plate are also available for environment safe nucleic acid stains or western blot analysis.

1.2 Feature

- Standalone gel doc system with high-quality monochrome CCD
- 2.0 megapixels CCD resolution
- Intuitive 10.4" interface with color touch-screen
- Zoom-able lens for proper picture size
- Movable platform for gel excision with optional UV-protection shield
- Automatic UV shut off mechanism (UVCI-2300 only)
- Safety door switch
- Optional trans white light and blue light plates (UVCI-2300 only)
- Exclusively designed for EtBr-free operation gel doc system (UVCI-2400 only)
- Easy to use software for image analysis
- Optional trans white light plates

1.3 Components Guide



Rear View

Side View

2 Technical Specification

Model Name	UVCI-2300	UVCI-2400	
Total Weight	Approx. 32.34 kg	Approx. 25.4 kg	
Unit Dimension ($W \times D \times H$)	400× 425 × 900 mm	410 × 405 × 915 mm	
Display	10" TFT display		
Touch Sceen	Image capture		
Download Images	USB or web		
Image Storage	Built-in 14G Memory and USB flash		
Saved Image Format	BMP/JPEG/PNG/TIFF, 8bit ; PNG/TIFF, 16 bit		
Interface	Ethernet Port 10/100/1000Mb Ethernet port		
	USB flash drive: Front x 1, Back x 2(all three ports)		
	Supports Mitsubishi thermal-printer P95DW		
Material	Painted iron metal , ABS front door		
Rated Voltage	100-240V~, 50/60Hz, 2A		
Safety Regulation	CE		
Stylus Pen	Yes		
PC Software	Analysis (including proc	cess、editor、analyze、	
	summary step)		
	軟體要綁 License		
CCD Camera			
Image Sensor	1/1.8" Interline UXGA n progressive CCD (Sony	nonochrome / ICX274AL)	
Effective Picture Elements	1628 (H) × 1236 (V)		
Resolution	1600 (H) × 1200 (V) (fu	ll scanning)	
Video Output Format	RAW 8 bit / 10 bit / 12 bit		
Pixels Size (H × V)	4.4 × 4.4 μm		
Max. Frame Rate	15 fps		
Interface	USB2.0 connector		
Grayscale	12 bit, 0 – 4095 gray levels		

Specification

Manual Zoom Lens				
Operation Range Iris Manual control, F1.2-F16C				
Operation Range Focus	Manual control, 1m - Inf.			
Operation Range Zoom	Manual control, 12.5mm - 75mm			
Filter size	M55mm			
Close-up Lens				
+1 close up				
Filter (for camera) *Ordere	ed Separately			
Optical EtBr filter				
Optical SYBR green filte	er Orange Amber filter			
 Orange Amber filter 				
<i>Note:</i> For use with UV light as activation source, optical filters should be used. For use with blue light as activation source, amber filters should be used.				
Darkroom				
- Built-in Drawer Type transilluminator 312(30 - Light source: 8W × 6 tub	e UV 02) nm - Built in Blue light Table bes			
⁻ Built in LED white light, Light source: 1W x 6 lamps				
- UV Safety door switch N/A				
- Maximum field of view 2	21 × 26cm			
- (optional) Blue Light Pla	ate N/A			
- (optional) White Light Pl	late			
Viewing Window				
- Built-in UV protection viewing window				
- Built-in viewing window	amber filter 580nm			
PC Minimum Hardware Requirements				
Operating Systems	Windows® 7 SP1 / Windows® Vista SP1 / Windows® XP SP3 / Windows® 8/ Windows® 10			
Processor	1.8GHz Pentium® IV or equivalent AMD Athlon® processor			
Storage	1 GB available HD space			
Display	1280 × 800 resolutions			
Memory	1 GB			
Media	CD-ROM drive			

3 Installation Instructions

SmartView Pro Imager System comes with epi white light and trans-UV (UVCI-2300) as standard. Optional blue light plate or white light plate is offered for expansion to offer higher flexibility. There are few procedures to <u>install the optional devices</u>: place the unit on a sturdy, level safe and dry place, then follow the instruction below for installation.

Note: Please skip ahead to section 3.3 if no optional lighting modules are included with your purchase.

Tool required: A regular screwdriver (not provided)



3.1 Installing Blue Light Plate (Optional)

Step1 Get the Blue Light Plate ready.



Step2 Open the darkroom door.

*The Blue Light Plate will be installed under the White Light Plate.



Step3 Fasten the Blue Light Plate onto device with a regular screwdriver and four screws.





Step4 Connect the Blue Light Plate cable to darkroom inner socket. **NOTICE: Blue Light Plate cable connects to the upper socket.**



Finished



3.2 Installing White Light Plate (Optional)



Step1 Get the White Light Plate ready.

Step2 Open the darkroom door.



Place the White Light Plate as the picture below. Align four screw holes (in yellow circles).



Step3 Fasten the White Light Plate onto device with a regular screwdriver and four screws.



Step4 Connect the White Light Plate cable to darkroom inner socket. **NOTICE: White Light Plate cable connects to the lower socket.**





Finished



Note: If necessary, please manually adjust the aperture to have the best performance while working with White Light Table.



Aperture ring

F1.2 - Close

3.3 Installing SmartView 1D Analysis Software

*To install the program, please log in as an administrator on the			
computer.			
Please refer to the Web link to change the account of computer:			
a. For Windows® XP			
http://www.microsoft.com/resources/documentation/windows/xp/all/proddocs/en-us/windows_			
security_runas.mspx?mfr=true			
b. For Windows® 7			
http://windows.microsoft.com/en-hk/windows7/installing-programs-frequently-asked-questions			
c. For Windows® 8 and Windows® Vista			
1. Go to the Search and type "Change User Account Settings" or Go to			
Control Panel > User Accounts and Family Safety > User Accounts.			
2. Do one of the following:			
 To turn off UAC, move the slider to the Never notify position, and 			
then click OK. If you're prompted for an administrator password or			
confirmation, type the password or provide confirmation. You will			
need to restart your computer for UAC to be turned off.			
 To turn on UAC, move the slider to choose when you want to be 			
notified, and then click OK. If you're prompted for an administrator			
password or confirmation, type the password or provide			
confirmation			

Step1 Turn on the SmartView Pro Imager System and connect to Ethernet port of personal device via the Ethernet port with an Ethernet cord.



Step2 Activate SmartView 1D Analysis Software installation program.



Step3 Click "Next" to proceed.



Step4 Accept the license agreement then press "Next" to proceed.



Step5 Save this program in your specifying location then press "Next" to proceed.

📅 SmartView 1D Analysis Software Setup
Destination Folder Click Next to install to the default folder or click Change to choose another.
Install SmartView 1D Analysis Software to:
C:\Program Files (x86)\MS_SmartView1D\ Change
Back Cancel

Step6 Click "Install" to begin the installation.





Step7 Press "Finish" to complete the program installation.

Step8 A dialog will pop up to ask you to restart your system, press "Yes" to restart now or "No" if you plan to manually restart later.

😸 SmartView 1D Analysis Software Setup					
1	You must restart your sy changes made to SmartV take effect. Click Yes to manually restart later.	ystem for the configuration View 1D Analysis Software to restart now or No if you plan to			
	Yes	No			

Note: Please restart the computer when you have all needed software installed.

Step9 The SmartView 1D Analysis Software icon will be shown on desktop.



Step10 Click to open SmartView 1D Analysis Software. For the first installation, you will need to enter the corresponding IP address of your device and license key. Press "OK" to finish the final step of installation and you may start using your SmartView 1D Analysis Software.



NOTICE: You may find your IP address by checking your UVCI-2300/2400 interface> System Setup> IP address.

System Setup				
Touch Screen Calibration	System Information System Time System Upgrade			
Internal Disk	lisk			
File Name	Size Last Access			
20160421151304.tiff	5MB 2016/04/21 15:13:05			
20160420190236-2.jpeg	16KB 2016/04/21 09:11:43			
20160420190236-1.jpeg	MAC address: 00:03:2d:28:f6:9a			
20160420190236.jpeg				
20160420190057.jpeg	IP address: 10.0.0.161			
20160420184815.jpeg				
	Netmask: 255.255.255.0			
	Gateway IP: 10.0.0.254			
	Apply Cancel			
Copy To USB	To USB Delete Selected The Delete All Screen Saver			
Create Folder	Folder Vetwork Settings Disk usage: (0%) 5.61MB / 14336.00MB			

Find your license key as following instruction.



Note: The license key must match the camera serial number.

Note: Do not unplug the Ethernet cord of SmartView Pro Imager System when you operate the analysis software. If you need to disconnect the SmartView Pro Imager System with your computer, please close the analysis software first.

3.3.1 IP Address Setup

In some cases, user might not be able to connect the remote control when user completes all the installation. So we suggest user check the IP address of user's computer. Follow the instructions below.

Step1 Open "Control Panel" on the computer. Enter "Network and Internet"; then "Network and Sharing Center". (The following pictures are captured under Microsoft Windows7 operating system.)

Start > Control Panel > Network and Internet > Network and Sharing			
Step1			
Control Panel +	Network and Internet Network and Sharing Center		
Control Panel Home	View your basic network information and set up connections		
Change adapter settings	See full map		
Change advanced sharing settings	View your active networks Connect to a network You are currently not connected to any networks.		
	Change your networking settings		
	Set up a new connection or network Set up a wireless, broadband, dial-up, ad hoc, or VPN connection; or set up a router or access point.		
	Connect to a network Connect or reconnect to a wireless, wired, dial-up, or VPN network connection.		
	Choose homegroup and sharing options Access files and printers located on other network computers, or change sharing settings.		
	Troubleshoot problems Diagnose and repair network problems, or get troubleshooting information.		
See also			
HomeGroup			
Internet Options			
Windows Firewall			

Step2. Click on "Change adapter settings". User can see the connected LAN (Local Area Network). "Enabled" means the network that user's computer is using, and the network is connected.



Step3. Right click on the connected network, and select "Properties". The Network properties dialogue will pop up on the screen.

🔾 🗢 🖳 🗣 🚱 Control Panel 🔸	Network and Internet 🔸 Netw	ork Connections 🕨
Organize Disable this netwo	ork device Diagnose this co	nnection Rename t
Major Science Enabled		
👘 🖉 Realtek PCIe GBE Fa	Disable	
	Status	
	Diagnose	
۲	Bridge Connections	
	Create Shortcut	
	Delete	
0	Rename	
8	Properties	Step3

Step4. Select "Internet Protocol Version 4 (TCP/IPv4)"; then click "Properties"

	Major Science Properties	
	Networking	
	Connect using: Realtek PCIe GBE Family Controller Configure This connection uses the following items: Image: Client for Microsoft Networks Image: Client for Microsoft Networks Image: Client for Microsoft Networks Image: Client Protocol Version 6 (TCP/IPv6)	
Step	p4-1 ✓ Internet Protocol Version 4 (TCP/IPv4)	
	Ster	<mark>4-2</mark>
	Install Uninstall Properties	
	Description	
	Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.	
	OK Cancel	

Step5. Check the IP address of user's computer to see if user's computer IP conflicts with the IP address of UVCI-2300/2400 or other computers. To set up a new IP address, the first 3 numbers should be the same as the first 3 numbers of user's network IP address. All user need is to change the last number, which has to be different from the IP address of user's UVCI-2300/2400 and other computer.

Internet Protocol Version 4 (TCP/IPv4) Properties				
General				
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.				
Obtain an IP address automatical	у			
Ose the following IP address:				
IP address:	10 . 0 . 0 . 152			
Subnet mask:	255 . 255 . 255 . 0			
Default gateway:	10 . 0 . 0 .254			
Obtain DNS server address autom	natically			
Ose the following DNS server add	resses:			
Preferred DNS server:	10 . 0 . 0 .254			
Alternate DNS server:	· · ·			
Validate settings upon exit	Advanced			
	OK Cancel			

Note:

You may find your IP address by checking your UVCI-2300/2400 interface> System Setup> IP address.

Touch Screen Calibration System Information System Time System Upgrade © Optional Devices Internal Disk External USB Disk File Name Size Last Access Image: Composition of the state of	System Setup
File Name Size Last Access 20160421151304.tiff SMB 2016/04/21 15:13:05 20160420190236-2.jpeg 16KB 2016/04/21 09:11:43 20160420190236-1.jpeg NAC address: 00:03:2d:28:f6:9a 20160420190057.jpeg 10.0.0.166 Image: Copy To USB Vetmask: 255:255:255.0 Image: Copy To USB Copy To USB Copy All To USB Delete Selected Image: Copy Science Saver Create Folder Remove Folder Network Settings Disk usage: (0%) 5.61MB / 14336.00MB	Touch Screen Calibration System Information System Time System Upgrade System Up
Copy To USB Copy All To USB C	File Name Size Last Access 20160433151304 Hff 5MP. 20160431151305
⊇ 20160420190236.jpeg ⊇ 20160420190057.jpeg ⊇ 20160420184815.jpeg IP address: 10.0.0.166 □ 20160420184815.jpeg Netmask: 255.255.255.0 Gateway IP: 10.0.0.254 Apply Cancel ▼ Copy To USB E Copy All To USB Remove Folder Network Settings Disk usage: 10.8 31	20160420190236-2.jpeg 16KB 2016/04/21 09:11:43 20160420190236-1.jpeg MAC address: 00:03:2d:28:f6:9a
Netmask: 255.255.255.0 Gateway IP: 10.0.0.254 Apply Cancel Copy To USB Copy All To USB Create Folder Polete Selected Create Folder Network Settings Disk usage: (0%) 5.61MB / 14336.00MB 31	20160420190236.jpeg 20160420190057.jpeg IP address: 10.0.0.166
Gateway IP: 10.0.254 Apply Cancel Copy To USB Copy All To USB Collecte Selected Delete All Concel Create Folder Remove Folder Network Settings Disk usage: (0%) 5.61MB / 14336.00MB 31	Netmask: 255.255.0
Copy To USB Copy All To USB Delete Selected Create Folder Remove Folder Network Settings Disk usage: (0%) 5.61MB / 14336.00MB	Gateway IP: 10.0.0254
Copy To USB Copy All To USB Cope Delete Selected Cope All Screen Saver	
Create Folder	Copy To USB Copy All To USB Delete Selected
	Create Police

For example, if the IP address of the conflicted IP address is "10.0.0.103", and the UVCI-2300/2400 IP address is "10.0.0.166". Then the IP address of user's computer should be set up like "10.0.0.152". User can use the numbers ranging from 1 to 254 except 103 (the conflicted IP address) and 166 (the UVCI-2300/2400 IP address).

nternet Protocol Version 4 (TCP/IPv4) Properties
General	
You can get IP settings assigned auto this capability. Otherwise, you need t for the appropriate IP settings.	omatically if your network supports to ask your network administrator
Obtain an IP address automatica	ally
• Use the following IP address:	
IP address:	10 . 0 . 0 . 103
Subnet mask:	255.255.255.0
Default gateway:	10 . 0 . 0 .254
Obtain DNS server address auto	omatically
Our of the following DNS server ad	dresses:
Preferred DNS server:	10 . 0 . 0 .254
Alternate DNS server:	
Validate settings upon exit	Advanced
	OK Cancel
	OK Cancel
ternet Protocol Version 4 (TCP/IPv4	OK Cancel
iternet Protocol Version 4 (TCP/IPv4 General	OK Cancel
ternet Protocol Version 4 (TCP/IPv4 General You can get IP settings assigned auto this capability. Otherwise, you need t for the appropriate IP settings.	OK Cancel OK Cancel Properties
ternet Protocol Version 4 (TCP/IPv4 General You can get IP settings assigned auto this capability. Otherwise, you need t for the appropriate IP settings.	OK Cancel OK Cancel OProperties
General You can get IP settings assigned auto this capability. Otherwise, you need t for the appropriate IP settings. Obtain an IP address automatica O Use the following IP address:	OK Cancel) Properties @ matically if your network supports to ask your network administrator ally
Aternet Protocol Version 4 (TCP/IPv4 General You can get IP settings assigned auto this capability. Otherwise, you need t for the appropriate IP settings. Obtain an IP address automatica Use the following IP address: IP address:	OK Cancel OK Cancel Properties
Aternet Protocol Version 4 (TCP/IPv4 General You can get IP settings assigned auto this capability. Otherwise, you need t for the appropriate IP settings. Obtain an IP address automatica Use the following IP address: IP address: Subnet mask:	OK Cancel) Properties ? matically if your network supports to ask your network administrator ally 10 . 0 . 0 . 152 255 . 255 . 0
Aternet Protocol Version 4 (TCP/IPv4 General You can get IP settings assigned auto this capability. Otherwise, you need t for the appropriate IP settings. Obtain an IP address automatica Obtain an IP address automatica Use the following IP address: IP address: Subnet mask: Default gateway:	OK Cancel Properties ? matically if your network supports to ask your network administrator ally 10 . 0 . 0 . 152 255 . 255 . 255 . 0 10 . 0 . 0 . 254
Aternet Protocol Version 4 (TCP/IPv4 General You can get IP settings assigned autor this capability. Otherwise, you need t for the appropriate IP settings. Obtain an IP address automatica Use the following IP address: IP address: Subnet mask: Default gateway: Obtain DNS server address auto	OK Cancel OK Cancel OProperties Constraints OR Cancel OProperties OPPOPERTIES
Aternet Protocol Version 4 (TCP/IPv4 General You can get IP settings assigned auto this capability. Otherwise, you need t for the appropriate IP settings. Obtain an IP address automatica Obtain an IP address automatica Use the following IP address: IP address: Subnet mask: Default gateway: Obtain DNS server address auto Obtain DNS server address auto	OK Cancel Properties ? matically if your network supports to ask your network administrator ally 10 . 0 . 0 . 152 255 . 255 . 255 . 0 10 . 0 . 0 . 254 matically dresses:
Aternet Protocol Version 4 (TCP/IPv4 General You can get IP settings assigned auto this capability. Otherwise, you need t for the appropriate IP settings. Obtain an IP address automatica Obtain an IP address automatica Use the following IP address: IP address: Subnet mask: Default gateway: Obtain DNS server address auto Obtain DNS server address auto Use the following DNS server ad Preferred DNS server:	OK Cancel) Properties ? matically if your network supports to ask your network administrator ally 10 . 0 . 0 . 152 255 . 255 . 255 . 0 10 . 0 . 0 . 254 matically dresses: 10 . 0 . 0 . 254
Aternet Protocol Version 4 (TCP/IPv4 General You can get IP settings assigned auto this capability. Otherwise, you need t for the appropriate IP settings. Obtain an IP address automatica Obtain an IP address automatica Use the following IP address: IP address: Subnet mask: Default gateway: Obtain DNS server address auto Obtain DNS server address auto Use the following DNS server ad Preferred DNS server: Alternate DNS server:	OK Cancel Properties ? matically if your network supports to ask your network administrator ally 10 . 0 . 0 . 152 255 . 255 . 255 . 0 10 . 0 . 0 . 254 matically dresses: 10 . 0 . 0 . 254
Aternet Protocol Version 4 (TCP/IPv4 General You can get IP settings assigned auto this capability. Otherwise, you need t for the appropriate IP settings. Obtain an IP address automatica Obtain an IP address automatica Use the following IP address: IP address: Subnet mask: Default gateway: Obtain DNS server address auto Obtain DNS server address auto Obtain DNS server: Alternate DNS server: Alternate DNS server:	OK Cancel Properties ? × matically if your network supports to ask your network administrator ally 10 . 0 . 0 . 152 . 255 . 255 . 255 . 0 . 10 . 0 . 0 . 254 . matically . dresses: . 10 . 0 . 0 . 254 . Advanced .

Hint:

There are odds that the new IP address which user sets might conflict with other's network. Try another number to set up the IP address. **Step6**. After finishing the setting, press "OK" to confirm the settings and exit the dialogue.

Internet Protocol Version 4 (TCP/IPv4)	Properties				
General					
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.					
🔘 Obtain an IP address automaticall	у				
• Use the following IP address:					
IP address:	10 . 0 . 0 . 152				
Subnet mask:	255 . 255 . 255 . 0				
Default gateway:	10 . 0 . 0 .254				
Obtain DNS server address autom	natically				
• Use the following DNS server add	resses:				
Preferred DNS server:	10 . 0 . 0 .254				
Alternate DNS server:	· · ·				
Validate settings upon exit	Advanced				
	OK Cancel				

3.3.2 IP Address Confirm

To confirm the new IP address. Follow the next step.

Step7. Click on the "Start" button. Type "cmd" in the search bar and press

"Enter" key to execute the program. MS-DOS will pop up on the screen.

Calculator		0	Programs (1)
Painte?			Cmd.exe
and then		Area	
Marsuft Word 2020		No.	
Adobe Teader 1			
Z Manual Load 202		term.	
		Computer	
Insettiase Pro 1220 Inseger Springer		Control Panel	
K HADIN BRRATRIA		Darks and Printers	
S Stager		Default Programs	
Securities Fre 200 brager		Help and Taggert	
Gr 1-24 File Manager			
💼 tauntiy			
 All'reparts 			₽ See more results
Search programs and files	۶	Shut down	cmd × Shut down +
<u>8</u>			3



Step8. Type "ipconfig" after the flashing cursor. And press "Enter" key.



Step9. System then shows the IP address of user's, the example in step 5, user's IP has been changed to "10.0.0.152", therefore the same IP address is showed in the screen. However, if it is not showed on the screen, the IP address might conflict with others'. Search the Internet for "IP address conflict" to solve the problem.

C:\Windows\system32\cmd.exe	×
C:\Users\ >ipconfig	^
Windows IP Configuration	
Ethernet adapter Major Science:	
Connection-specific DNS Suffix . : IPv4 Address 10.0.0.152 Subnet Mask 255.255.2	
Tunnel adapter isatap.{ACEC928B-6560-4C1C-9CD6-D1031CBBDE80}:	
Media State : Media disconnected Connection-specific DNS Suffix . :	
Tunnel adapter 區域連線* 3:	
Media State Media disconnected Connection-specific DNS Suffix . :	
C: \Users\	
	-
Step10. Then type "ping + (Space) + UVCI-2300/2400's IP address" right after the flashing cursor. For instance, the IP address of the used UVCI-2300/2400 is "10.0.0.166"; then type "ping 10.0.0.166", and press "Enter".



Step11. The program will start connecting user's computer to UVCI-2300/2400. The information showed on the screen tells user if the network is connected.





If the network is still not connected, please check the connection and settings of user's network equipment.

4 Operation Instructions

HMI Interface (UVCI-2300)

4.1 Start the System

Plug on power cord to your socket. Turn on device via the power switch on side of UVCI-2300.





▲HMI Interface (optional devices disabled)



▲HMI Interface (optional devices enabled)

(With "white light plate" and "blue light plate" optional devices connected)

4.2 Select the UV Intensity

Press "UV" icon to turn on or off UV transilluminator, select 70/100 (%) to set the UV light intensity.



4.3 Add Info

Press "Add Info" icon to enable the function of date, exposure time stamp on the left corner of picture and the title on the middle above. If user wants to show only

certain item, press ito enter Default Setting>Add Info for further changing.



4.4 Title

Press "Title" icon to rename the title.



4.5 Adjust the Volume of Exposure



Key in the desired value of exposure time (0.001-30 sec.)



Press"+" or"-"under the column of "Exposure" to increase/decrease 0.001 sec. of the value of exposure user sets.

4.6 Capture

Press "Capture" icon to capture a picture at the present. The capture dialogue would pop out.





- (A) Select either "Internal disk" or "External USB" to decide the loction of the storage.
- (B) Tap the button behind "Save in folder" to choose the folder that desired to be saved. Note: Users could create their own folder up to 3 layers of folder. Please go to System Setup> Create Folder
- (C) Type the file name(system default is the date and time of the picture been taken). The file can be named up to 128 characters. Select either "8 bit" or "16 bit" and the file format user would like to save. Note: All file format can be saved as 8 bit while only tiff and png can be saved as 16 bit.

Click "Save" to apply or "Cancel" to cancel and close the dialogue.

4.6.1 Save Pictures To Remote Computer

User could save pictures in "Internal disk" to any computer as long as UVCI-2300 is connected to a wireless router. Detailed instructions are shown below:

1. Connect UVCI-2300 to a wireless router by using a Ethernet cord.



2. Open a browser at any computer with access to Internet, and enter the corresponding IP address of your UVCI-2300 at address bar.



NOTICE: You may find your IP address by checking your UVCI-2300/2400 interface> System Setup> IP address.

3. Input the user name and the password.

F	Authentication Required	×	
	http://10.0.0.165 requires a username and password.		
	Your connection to this site is not private.		
	User Name: Password:		
	Log In Cancel		

NOTICE: You may find and change your user name and password by checking your UVCI-2300/2400 interface> Default Setting>Remote login.

4. List of current pictures saved in "Internal disk" then could be viewed and saved from the computer.

Index of / X		-	_		_	State and party of the p	COLUMN TWO IS NOT		and the second second	_	_	-	- 0 - X
← → C 🗋 10.0.0.165													B 🖒
🔢 應用檔式 💁 Google 翻譯 🥳	🗊 Dr.eye 課具通 🎽 Yal	100奇摩字	兵 🕑 etymology - How do	🛃 Google 地園	🔰 What Are IQ, OQ, an	www.bio-rad.com/w	G www.grantinstrume	DPF Converter - Con	- TMC 凱戰股份有限公	🗅 Filter cloth	Difference between	🗋 Di water vs "soft water	>> 🗀 其他書
UVCI-2300 Imaging System													
Index of /													
Nane	Last Modified	Size	Туре										
Parent Directory/	2016-Jul-29 15:29:56	1.1	Directory										
20160728105907-LAMP.jpeg	2016-Jul-28 10:59:46	633.9K	image/jpeg										
20160728110000-LAMP2.jpeg	2016-Jul-28 11:00:22	631.1K	image/jpeg										
201607281100338VCV86 iner	2016-301-20 11:01:14	194.2X 505.3X	image/jpeg										
20160728111717.jpeg	2016-Jul-28 11:17:19	504.7K	image/ipeg										
20160728111720.jpeg	2016-Jul-28 11:17:22	505.3K	image/jpeg										
20160728115251.jpeg	2016-Jul-28 11:52:52	209.0K	image/jpeg										
20160729152045.jpeg	2016-Jul-29 15:20:48	513.1K	image/jpeg										
20160720152116-1.3peg	2016-301-29 15:25:29	35.0K	1Hage/Jpeg										
20160729152119.jpeg	2016-Jul-29 15:21:20	713.6K	image/jpeg										
20160729152713.jpeg	2016-Jul-29 15:27:14	716.3K	image/jpeg										
20160826115703.jpeg	2016-Aug-26 11:57:06	469.4K	image/jpeg										
MBE300_2300LAMP2.jpeg	2016-Jul-28 11:20:49	589.3K	image/jpeg										
MBE300_2300_LAMP1.jpeg	2016-301-28 11:20:13	502.8K	image/Jpeg										

Note: This function is not compatible to Windows 10 Edge, which is the default browser for Windows tablet; for tablet user, please change your browser to Chrome or Firefox to apply this function.

4.7 Default Setting



In "Default Setting" page, user can set various items as default setting. See detailed description below.

Start up settings

In this column, user can set the lighting module on or off as default setting. Also, user can set the intensity of UV light (UVCI-2300 only), its auto-shut-off time, and the default exposure time.

Advanced features

Here user could set "Saturation detection" on/off and its value as default setting.



NOTICE:

If the current saturation value is above the set value and the mechanism is on, this signal picture will show beside "Default Setting" button.

In case user accidentally delete all the files, the default setting of "Delete all" is OFF. If user activates this function here, the "Delete all" button would show up in System setup.

File Type

Here user can set default file type also in 8 or 16 bit (16 bit for "tiff" and "png" only).

Remote login

When user wants to save pictures from remote computer, it is necessary to input the user name and the password first. Here user can change user name and password.

Add info

The Add info button is the main switch of date stamp, exposure time, and title, and here user can set date stamp, exposure time, and title on/off separately as default setting. Tap the blank behind title to rename it.

4.8 System Setup



Press "System Setup" icon and open the system setup page. See detailed description in the following sections.

	S	ystem Setup		
Touch Screen Calibration Touch Screen Calibration Internal Disk O External USB Disk	Information	System Time	System Upgrad	e Optional Devices
File Name	Size	Last Access	^	
20160414162730.tiff	5MB	2016/04/14 16:27:32		
20160414162722.tiff	5MB	2016/04/14 16:27:24		
20160414145719.tiff	2MB	2016/04/14 14:57:20		
20160414145705.tiff	2MB	2016/04/14 14:57:07		
20160413170243.tiff	2MB	2016/04/13 17:02:45		
20160413164110.tiff	2MB	2016/04/13 16:41:11		
20160413162346.tiff	2MB	2016/04/13 16:23:47		
20160413152220.tiff	4MB	2016/04/13 15:22:21		
20160413151933.tiff	5MB	2016/04/13 15:19:35		
20160413151914.tiff	4MB	2016/04/13 15:19:16		
20160413151858.tiff	4MB	2016/04/13 15:18:59		
20160413151336-1.tiff	112KB	2016/04/13 15:14:54		
20160413151336 tiff	3MB	2016/04/13 15:13:37	\checkmark	
Copy To USB	в	elete Selected	Delete All	X Screen Saver
Create Folder	r 🛞 M	Network Settings Disk u	isage: (0%) 62.34N	4B / 14336.00MB
				X <u>C</u> lose

▲ System Setup Page

4.8.1 Touch Screen Calibration



Press

Touch Screen Calibration and

system will transfer to the page of screen calibration. Click the middle of the cross until finish the calibration process. After finish the screen calibration process, system will return to the prior page automatically.

4.8.2 System Information



Press System Information to read

the detail information of the system. Press "Close" to close the dialogue.

4.8.3 System Time

	_	_	Sy	stem :	Setup	,	_		_		=
Touch Screen Calibration	System li	formatio	n (() s	ystern Ti	me	ាំ s	ystem Upgra	ade	Coptional Devices	
Internal Disk O External USB I	Disk										
File Name		Size	l	ast Ac	cess		_				
20160414162730.tiff 20160414162722.tiff	۲.	April	>			< 2	016 >				
20160414145719.tiff	Sun	Mon	Tue	Wed	Thu	Fri	Sat				
20160414145705.tiff	27					1	2				
20160413170243.tiff	3	4	5	6	7	8	9				
20160413164110.tiff	10	11	12	13	14	15	16				
20160413162346.tiff	17	18	19	20	21	22	23				
20160413152220.tiff	24	25	26	27	28	29	30				
20160413151933.tiff	±	2	3	4	5	0		-			
20160413151914.tiff	246-										
20160413151858.tiff	24nr. (IOCK:	13	nou	2	9	minute				
20160413151336-1.tiff				Set		Can	cel				
1 20160413151336 titt						<u> </u>					
Copy To USB	ll To USB		De De	lete Sele	cted	一	Delete A	ll.	×	Screen Saver	
Create Folder	e Folder		Ne	twork Se	ttings	Disk	usage:	(0%) 62.34	4MB / 1	4336.00MB	
										X <u>C</u> lose	

Press O System Time icon to

read or set system time. Press "Set" to save or "Cancel" to cancel and close the dialogue.

4.8.4 System Upgrade

	S	System Setup
Touch Screen Calibration	mation	System Time
Internal Disk O External USB Disk		
File Name S	ize	Last Access
20160414162730.tiff	5MB	3 2016/04/14 16:27:32
20160414162722.tiff	5MB	3 2016/04/14 16:27:24
20160414145719.tiff	2MB	3 2016/04/14 14:57:20
20160414145705.tiff	2MB	3 2016/04/14 14:57:07
20160413170243.t 🔊 Does	not cona	atin upgrading program in USB disk !
20160413164110.t		
20160413162346.t		
20160413152220.t		
20160413151933.t		and the second s
20160413151914.tm	4140	2010/04/13 15.19.10
20160413151858.tiff	4MB	8 2016/04/13 15:18:59
20160413151336-1.tiff	112KB	3 2016/04/13 15:14:54
20160413151336 tiff	3MB	3 2016/04/13 15:13:37
Copy To USB	(Delete Selected 🔲 Delete All 🔀 Screen Saver
Create Folder	ا چ	Network Settings Disk usage: (0%) 62.34MB / 14336.00MB
		X <u>C</u> lose

If there is a need of system upgrade, plug the USB with the upgrade file in and press

System Upgrade

If user does not plug in the USB or the USB does not contain the corresponding files system needed, warning will pop up. Press "Close "to close the dialogue.

	System Setup
Touch Screen Calibratio	n System Information System Time System Upgrade Solutional Devices
Internal Disk O Ext	ernal USB Disk
File Name	Size Last Access
20160421151304	4.tiff 5MB 2016/04/21 15:13:05
2016042019023	5-2.jpeg 16KB 2016/04/21 09:11:43
2016042019023	5-1 ipeg 12KB 2016/04/21 09:11:28
2016042019023	Do you want to upgrade from USB disk?
2016042019005	I his action may be crash the whole
2016042018481	System. Please pay attention to it! After restoring, system will report
	automatically.
	● № O Yes
Copy To USB	Copy All To USB Oelete Selected
Create Folder	Remove Folder 🕘 Network Settings Disk usage: (0%) 5.61MB / 14336.00MB
	Close

Plug the USB with upgrade file, system will pop up a warning to confirm, press "Yes" to continue or "No" to cancel.

NOTE: System will reboot automatically after the upgrade.

<u>4.8.5 Optional Devices</u>

	s	ystem Setup		
Touch Screen Calibration	System Information	System Time	System Upgrade	Coptional Devices
Internal Disk O Extern	al USB Disk			
File Name	Size	Last Access	<u>_</u>	
20160218090403-3.	jpeg 48KB	2016/02/18 11:09	:48	
20160218090403-2.	jpeg 8KB	2016/02/18 09:04	:52	
20160218090403-1.	.jpeg 8KB	2016/02/18 09:04	22	
20160218(Selec	ct to activate y	our optior	nal device	
	lielet elete			
white				
Blue I	ight plate OFF ON	Auto shut	off 2 min	
			<u>Cancel</u> <u>Save</u>	
🧳 Copy To USB	Copy All To USB	Delete Selected	Delete All	🕻 Screen Saver
Create Folder	Remove Folder	Network Settings Dis	sk usage: (0%) 0.13MB /	14336.00MB
				X <u>C</u> lose

Press Optional Devices to enable

the optional devices. Press and turn on/off the lighting module. Set the auto shut off time if available. Press "Save" to apply or "Cancel" to cancel and close the dialogue.

<u>4.8.6 Copy to USB</u>

If user would like to copy files to a flash drive, select the files, plug the USB on then press <a>[style="text-align: center;">Copy To USB.

4.8.7 Copy All to USB

If user would like to copy all files to a flash drive, select the files, plug the USB on then press **Copy All To USB**.

4.8.8 Delete Selected

If user would like to delete any file. Select the files and press Selected

<u>4.8.9 Delete All</u>

If user would like to delete all files, press *between the set of the set of*

Note: User has to enable this function in Default Setting first; otherwise this button will not show up.

4.8.10 Screen Saver

Click Screen Saver	to set th	ne screen saver time. The window below will be shown:
Screen Saver Setup—		
Turn on screen saver	30 min	
Apply	💥 <u>C</u> ancel	Time setting range is 3-9999 min.

4.8.11 Create Folder

If user would like to create a folder in the folder, press *create Folder*. Name the folder, press "OK" and press "Create" to save or "Cancel" to cancel and close the

dialogue. Tap the button behind "Save in folder" Save in folder: [[root] to

choose the desired location of newly create folder. In the same folder, it can contain up to 3 layers of folder.

Create Folder
Save in folder: [root]
Create floder: FOLDER1
Esc 1 2 3 4 5 6 7 8 9 0
QWERTYUIOP+
ASDFGHJKL.
Z X C V B N M OK
Create 🏼 🎉 Cancel

	Create Folder		Create F	Folder	
Save in folder: [FOLDER1 C [child]	Save in folder:	FOLDER1	FOLDER2	0
Create floder:	FOLDER2	Create floder:	FOLDER3		
Esc 1 2 3 Q W E R A S D F Z X C V	4 5 6 7 8 9 0 T Y U I O P + G H J K L . ← B N M OK	Esc 1 2 Q W E A S D Z X C 1	3 4 5 R T Y F G H V B N	6 7 8 U 1 0 J K L M √Crr	9 0 P + OK eate & Cancel
		System Setup			
	Touch Screen Calibration	🕚 System Time	System Upgrade	Coptional Devices	
	Internal Disk O External USB Disk				
	File Name S	ize Last Access	~		
	▼ FOLDER1				
		Delete Selected X Screer	⊆ n Saver e name		
				C lose	

4.8.12 Remove Folder

If user would like to delete any folder in the list, select the folders and press

4.8.13 Network Settings

Press Press to set detail information. Press "Apply" to apply or "Cancel" to cancel and close the dialogue.

	System Setup
Touch Screen Calibration	System Information System Time System Upgrade
Internal Disk	Disk
File Name	Size Last Access
20160421151304.tiff	5MB 2016/04/21 15:13:05
20160420190236-2.jpeg	16KB 2016/04/21 09:11:43
20160420190236-1.jpeg	MAC address: 00:03:2d:28:f6:9a
20160420190236.jpeg	
20160420190057.jpeg	IP address: 10.0.0.161
20160420184815.jpeg	
	Netmask: 255.255.255.0
	Gateway IP: 10.0.0.254 Apply Cancel
	$\overline{}$
Copy To USB	Il To USB 🐼 Delete Selected 🗰 Delete All 🔀 Screen Saver
Create Folder Remov	e Folder Wetwork Settings Disk usage: (0%) 5.61MB / 14336.00MB
	Close

4.9 Reverse out



Press the icon to reverse the color of present picture from black to white, white to black.

4.10 Freeze





Press to freeze the present picture on the screen. System will have the picture stay on the screen as long as user needs. If user would like to save the freeze picture, press "Capture" and press "Save".

During the period of "freeze," the UV light function can not be activated.

If the UV light were lit, it would be temperately shut off; press "freeze" button again to resume UV lighting. If the UV light were not lit, still the UV lighting function can not be activated during "freeze" period.



4.11 Turn ON/OFF the Lighting Modules



Press the icon of "Epi White Light" to turn on/off the Epi white light.



Press the icon of "White Light Plate" to turn on/off the white light.



Press the icon of "Blue Light Plate" to turn on/off the blue light.

4.12 Print



Press the icon of "Print" to print the present picture on the screen.

NOTICE that system will not save a digital format of the picture automatically only by pressing "Print" button.

4.13 Load and Edit the Picture

Press "Load" icon to review or edit the files in device or flash drive.



Name	Size	Last Access	
20160414162730.tiff	5MB	2016/04/14 16:27:32	
20160414162722.tiff	5MB	2016/04/14 16:27:24	
20160414145719.tiff	2MB	2016/04/14 14:57:20	
20160414145705.tiff	2MB	2016/04/14 14:57:07	500
20160413170243.tiff	2MB	2016/04/13 17:02:45	=
20160413164110.tiff	2MB	2016/04/13 16:41:11	ALC: N
20160413162346.tiff	2MB	2016/04/13 16:23:47	
20160413152220.tiff	4MB	2016/04/13 15:22:21	
20160413151933.tiff	5MB	2016/04/13 15:19:35	
20160413151914.tiff	4MB	2016/04/13 15:19:16	
20160413151858.tiff	4MB	2016/04/13 15:18:59	
20160413151336-1.tiff	112KB	2016/04/13 15:14:54	
20160413151336.tiff	ЗМВ	2016/04/13 15:13:37	~
		Disk u	sage: (0%) 62.34MB / 14336.00MB

Select either "Internal Disk" or"External USB Disk" to read the files in corresbonding device. Select one file then press"Open " to edit; press "Cancel" to cancel and close the dialogue. The usage percent of the device displayed at the right corner.



Editing Interface



- Close/Cancel
- Save
- Anti-white
- Flip upside down
- Flip horizontally
- Turn counterclockwise
- Turn clockwise
- Brightness adjust
- Crop
- Text

4.13.1 Anti-white

×		
\Leftrightarrow		
ర	$\sum_{g=1}^{n} z \le e^{-\frac{1}{2}} e^{\frac{1}{2}}$	
Ċ		
٢		
11	2016/04/13 16:41:07	
T		

Press 🖻 to anti-white the screen.

4.13.2 Flip upside down



Press 1 to turn the picture upside down.

4.13.3 Flip horizontally





4.13.4 Turn counterclockwise



Press **t** to turn the picture counterclockwise.

4.13.5 Turn clockwise



Press do turn the picture clockwise.

4.13.6 Brightness adjust



Press 🚺 to increase or

decrease the brightness of the picture.

4.13.7 Crop



Press 🛄 to crop the picture.

Press one point on the screen and drag to crop.

NOTICE: The minimum area of cropping is 256*256 pixels. If the crop square shows red, it is too small; if it is green, it is in possible size.



1. Press **T** to create a new text on the picture. Locate one point and press to add a new text. Cross indicates the location of the text. Press **S** to start editing the text.

	Sample
3	-2 -
ß	2 2 26 42 20
	-8 11

2. Press is to replace the text on any point on the screen.

4.13.8 Text

×	Input new text	
ľ		
Û		
$\langle \Rightarrow \rangle$	Esc 1 2 3 4 5 6 7 8 9 0	
5	QWERTYUIOP+	
Ċ	ASDFGHJKL. 🗲	
	Z X C V B N M OK	
£,	J Creste 🎉 Cancel	
T		

3. Press is to edit the content of the text. Press "Create" to apply the setting. Note: all letters are in capital. "Esc" is to delete all text in the column; is to backspace. Press "Cancel" to cancel editing and close



×		
	5 0 0 8 F 12	
	Hue: 0 + Red: 255 +	
	Yalue: 100 y glue: 255 y	
$\langle \Rightarrow \rangle$	Color name: #FFFFFF	
5		
8		
	Saucel Carcel	
Ē		

4. Press **b** to adjust the front size. Press "Apply" to confirm or "Cancel" to cancel and close the dialogue.

5. Press to change the color of the text. Click the color triangle to pick the color. Move the color triangle to choose the color range. Press "OK" to apply or "Cancel" to cancel and close the dialogue.

4.13.9 Undo and redo



On the editing page, any changing can be undone or redone by buttons along right bar.

4.14 Signals Indication



4.13 WARNINGS:



If the UV transilluminator is on while the door is opened, UV light will be turned off automatically, and the warning will pop up to warn users that the UV light is harmful to humans if protection mechanism is not prepared. Press "Yes" to turn the UV transilluminator on or "No" to cancel turning on the UV transilluminator.

HMI Interface (UVCI-2400)

4.1 Start the System

Plug on power cord to your socket. Turn on device via the power switch on side of UVCI-2400.





▲HMI Interface (optional device disabled)



▲HMI Interface (optional device enabled) (With optional device "white light plate" connected)

4.3 Add Info

Press "Add Info" icon to enable the function of date, exposure time stamp on the left corner of picture and the title on the middle above. If user wants to show only

certain item, press is to enter Default Setting>Add Info for further changing.



4.4 Title

Press "Title" icon to rename the title.



4.5 Adjust the Volume of Exposure



Key in the desired value of exposure time (0.001-30 sec.)



Press"+" or"-"under the column of "Exposure" to increase/decrease 0.001 sec. of the value of exposure user sets.

4.6 Capture

Press "Capture" icon to capture a picture at the present.	
Capture	
Internal disk O External USB (A)	
Save in folder: [[root] C (B)	
Save file at /var/uvci_images/UVCI-IMAGE.jpeg UVCI-IMAGE Disk usage: (0%) 0.02MB / 14336.00MB Image type O tiff O png @ 8 bit @ jpeg O bmp O 16 bit	— (C)
Esc 1 2 3 4 5 6 7 8 9 0	
QWERTYUIOP+	
ASDFGHJKL	
Z X C V B N M OK	
Save 🔀 Cancel	

- (A) Select either "Internal disk" or "External USB" to decide the loction of the storage.
- (B) Tap the button behind "Save in folder" to choose the folder that desired to be saved. Note: Users could create their own folder up to 3 layers of folder. Please go to System Setup> Create Folder

(C) Type the file name(system default is the date and time of the picture been taken). The file can be named up to 128 characters. Select either "8 bit" or "16 bit" and the file format user would like to save. Note: All file format can be saved as 8 bit while only tiff and png can be saved as 16 bit.

Click "Save" to apply or "Cancel" to cancel and close the dialogue.

4.6.1 Save Pictures To Remote Computer

User could save pictures in "Internal disk" to any computer as long as UVCI-2400 is connected to a wireless router. Detailed instructions are shown below:

1. Connect UVCI-2400 to a wireless router by using a Ethernet cord.



2. Open a browser at any computer with access to Internet, and enter the corresponding IP address of your UVCI-2400 at address bar.



NOTICE: You may find your IP address by checking your UVCI-2300/2400 interface> System Setup> IP address.

3. Input the user name and the password.

Authentication Red	uired
http://10.0.0.165 requir	s a username and password.
Your connection to this	site is not private.
User Name:	
	LogIn
	Log In Cancel

NOTICE: You may find and change your user name and password by checking your UVCI-2300/2400 interface> Default Setting>Remote login.

4. List of current pictures saved in "Internal disk" then could be viewed and saved from the computer.

Index of /	×			_	_	Section and print, a	And Personnelling		_	_	_	8	- 0 -×
← → C 🗋 10.0.0	165												■☆:
🔢 應用程式 💁 Google 翻	澤 🌀 Dr.eye 譯具通 🔛 Ya	hoo奇摩字	異 😵 etymology - How do	🛃 Google 地園	🔰 What Are IQ, OQ, an	www.bio-rad.com/w	G www.grantinstrume	DDF Converter - Cor	- TMC 肌酸铵份有限公	🗅 Filter cloth	Difference between	🕒 Di water vs "soft wat	>> 🇀 其他書
UVCI-2300 Imaging Syst	20												
Index of /													
Name	Last Modified	Size	Туре										
CY/	2016-Jul-29 15:29:56	1	Directory										
20160728105907-LAMP.jp	2016-Jul-28 10:59:46	633.9K	image/jpeg										
20160728110000-LAPP2.3	2016-Jul-28 11:00:22	631.1K	image/jpeg										
20100720110043.jpeg 201607281109238VCVR5.5	2010-301-20 11:01:14	505.38	image/jpeg										
20160728111717.jpeg	2016-Jul-28 11:17:19	504.76	image/ipeg										
20160728111720.jpeg	2016-Jul-28 11:17:22	505.3K	image/jpeg										
20160728115251.jpeg	2016-Jul-28 11:52:52	209.0K	image/jpeg										
20160729152045.jpeg	2016-Jul-29 15:20:48	513.1K	image/jpeg										
20160729152116-1.3peg	2016-Jul-29 15:23:29	55.0K	1mage/jpeg										
20160729152119.jpeg	2016-301-29 15:21:20	713.68	image/jpeg										
20160729152713. jpeg	2016-Jul-29 15:27:14	716.3K	image/jpeg										
20160826115703.jpeg	2016-Aug-26 11:57:06	469.4K	image/jpeg										
M8E300_2300LAMP2.jpeg	2016-Jul-28 11:20:49	589.3K	image/jpeg										
ressue_2300_LAMP1.jpeg	2016-301-28 11:20:13	502.8K	ruske/lbek										

4.7 Default Setting

	Press Setting" dialo Image: Constraint of the set of the se	o open "Default ogue.
De	fault Setting	
Start up settings		
Epi white light OFF ON		
Blue light	Auto shut off 15 min	
Exposure time Last Define	Set value 0.010 sec	
Advanced features		
Saturation detection	Set value 10.0 %	
Delete all OFF ON		
File type		
Image type 🔿 tiff) png 🕘 8 bit	
) jpeg	O bmp O l6 bit	
Remote login		
User name uvci	Password 1234	
Add info		
Date stamp OFF 🛛 🛚 🔊		
Exposure OFF ON		
Title OFF ON	UVCI-IMAGE	
	🔀 <u>C</u> ancel	/e

In "Default Setting" page, user can set various items as default setting. See detailed description below.

Start up settings

In this column, user can set the lighting module on or off as default setting. User can set the auto-shut-off time of white light, and the default exposure time.
Advanced features

Here user could set "Saturation detection" on/off and its value as default setting.



NOTICE:

If the current saturation value is above the set value and the mechanism is on, this signal picture will show beside "Default Setting" button.

In case user accidentally delete all the files, the default setting of "Delete all" is OFF. If user activates this function here, the "Delete all" button would show up in System setup.

File Type

Here user can set default file type also in 8 or 16 bit (16 bit for "tiff" and "png" only).

Remote login

When user wants to save pictures from remote computer, it is necessary to input the user name and the password first. Here user can change user name and password.

Add info

The Add info button is the main switch of date stamp, exposure time, and title, and here user can set date stamp, exposure time, and title on/off separately as default setting. Tap the blank behind title to rename it.

4.8 System Setup

Press "System Setup" icon and open the system setup page. See detailed description in the following sections.

Maer Science UCC: 2480	
System Setup	
	No
Touch Screen Calibration System Information	Optional Devices
Internal Disk O External USB Disk	
File Name Size Last Access	
20160218090403-3.jpeg 48KB 2016/02/18 11:09:48	
20160218090403-2.jpeg 8KB 2016/02/18 09:04:32	
20160218(Select to activate your optional device	
Million Robot and an	
Blue light plate off Auto shut off 2 min	
Cancel Save	
Copy To USB Copy All To USB Delete Selected	Screen Saver
Create Folder Remove Folder Disk usage: (0%) 0.13MB /	14336.00MB
	Close

▲ System Setup Page

4.8.1 Touch Screen Calibration



Press

Touch Screen Calibration and

system will transfer to the page of screen calibration. Click the middle of the cross until finish the calibration process. After finish the screen calibration process, system will return to the prior page automatically.

4.8.2 System Information

	System Setup
Touch Screen Calibration System I Internal Disk C External USB Disk	nformation System Time System Upgrade 🐱 Optional Devices
File Name	Size Last Access
20160414162730.tiff	5MB 2016/04/14 16:27:32
20160414162722.tiff	5MB 2016/04/14 16:27:24
20160414145719.tiff	2MB 2016/04/14 14:57:20
20160414145705.tiff	
20160413170243.tiff	UVCI-2400 Kernel : 3 2 0-33-generic
20160413164110.tiff	Program : 1.0
20160413162346.tiff	Build : 100 (Apr 14 2016 16:22:34)
20160413152220.tiff	
20160413151933.tiff	Close
20160413151914.tiff	
20160413151858.tiff	4MB 2016/04/13 15:18:59
20160413151336-1.tiff	112KB 2016/04/13 15:14:54
20160413151336 tiff	3MB 2016/04/13 15:13:37
Copy To USB	3 Screen Saver
Create Folder	Network Settings Disk usage: (0%) 62.34MB / 14336.00MB
	Close

Press System Information to read

the detail information of the system. Press "Close" to close the dialogue.

4.8.3 System Time

		_	Sy	stem S	Setup	_			_	
Touch Screen Calibration	System Inf	ormation		() 5)	rstern Til	me	a s	lystem Upgrad	•	Optional Devices
	DISK						_	_		
File Name	1	Size	L	ast Acc	ess		-			
20160414162730.tiff		• 1								
20160414162722.tiff	< /	April	>			< 2	016 >			
20160414145719.tiff	Sun	Mon	Tue	Wed	Thu	Fri	Sat			
20160414145705.tiff	27					1	2			
20160413170243.tiff	3	4	5	6	7	8	9			
20160413164110.tiff	10	11	12	13	14	15	16			
20160413162346.tiff	17	18	19	20	21	22	23			
20160413152220.tiff	24	25	26	27	28	29	30			
20160413151933.tiff	1	2		4			7			
20160413151914.tiff										
20160413151858.tiff	24hr. cl	ock:	13	hour	2	9	minute			
20160413151336-1.tiff			_		10					
20160413151336 tiff		l.	_	Set		Can	cel	-		
Copy To USB	II To USB) De	ete Seleo	ted	۵.	Delete A	NI	Xs	creen Saver
Create Folder	e Folder		Ne	twork Set	tings	Disk	usage:	(0%) 62.341	18 / 1 43	336.00MB
										X Close

Press Osystem Time icon to

read or set system time. Press "Set" to save or "Cancel" to cancel and close the dialogue.

4.8.4 System Upgrade

	S	ystem Setup		
Touch Screen Calibration	System Information	System Time	System Upgrade	Coptional Devices
Internal Disk O Externa	l USB Disk			
File Name	Size	Last Access	_	
20160414162730.tiff	5MB	2016/04/14 16:27:32		
20160414162722.tiff	5MB	2016/04/14 16:27:24		
20160414145719.tiff	2MB	2016/04/14 14:57:20		
20160414145705.tiff	2MB	2016/04/14 14:57:07		
20160413170243.t	Does not conat	in upgrading program	in USB disk !	
20160413164110.t				
20160413162346.t				
20160413152220.t			Sectore .	
20160413151933.t			Close	
20160413151914.tm	4MD	2010/04/15 15.19.10		
20160413151858.tiff	4MB	2016/04/13 15:18:59		
20160413151336-1.ti	ff 112KB	2016/04/13 15:14:54	-	
20160413151336 tiff	3MB	2016/04/13 15:13:37	•	
Copy To USB	Copy All To USB	elete Selected	Delete All	X Screen Saver
Create Folder	Remove Folder	letwork Settings Disk u	sage: (0%) 62.34M	B / 14336.00MB
				S close

If there is a need of system upgrade, plug the USB with the upgrade file in and press

System Upgrade

If user does not plug in the USB or the USB does not contain the corresponding files system needed, warning will pop up. Press "Close "to close the dialogue.

	System Setup
Touch Screen Calibration	System Information System Time
Internal Disk O Exte	rnal USB Disk
File Name	Size Last Access
20160421151304	tiff 5MB 2016/04/21 15:13:05
20160420190236	-2.jpeg 16KB 2016/04/21 09:11:43
20160420190236	1 ipag 12KB 2016/04/21 00:11:28
2016042019023	Do you want to upgrade from USB disk?
2016042019005	I his action may be crash the whole
2016042018481	After restoring, system will report
	automatically.
	● <u>N</u> o ● <u>Y</u> es
	V
Copy To USB	Copy All To USB Olete Selected
Create Folder	Remove Folder Disk usage: (0%) 5.61MB / 14336.00MB
	∭ ⊆lose

Plug the USB with upgrade file, system will pop up a warning to confirm, press "Yes" to continue or "No" to cancel.

NOTE: System will reboot automatically after the upgrade.

<u>4.8.5 Optional Devices</u>

	System Setup
Touch Screen Calib	oration System Information System Time System Upgrade System Devices
Internal Disk O	External USB Disk
File Name	Size Last Access
2016042216	0652-1.0ff 0 2016/04/22 16:08:52 0652.0ff 5MB 2016/04/22 16:06:54
S	select to activate your optional device
N	White light plate of or
	Cancel Save
🎻 Copy To USB	Copy All To USB Oelete Selected
Create Folder	Remove Folder Wetwork Settings Disk usage: (0%) 5.50MB / 14336.00MB
	≈ ⊆lose

Press Coptional Devices to enable

the optional devices. Press and turn on/off the lighting module. Set the auto shut off time if available. Press "Save" to apply or "Cancel" to cancel and close the dialogue.

4.8.6 Copy to USB

If user would like to copy files to a flash drive, select the files, plug the USB on then press <a>[style="text-align: center;">Copy To USB.

4.8.7 Copy All to USB

If user would like to copy all files to a flash drive, select the files, plug the USB on then press **Copy All To USB**.

4.8.8 Delete Selected

If user would like to delete any file. Select the files and press Object Selected.

<u>4.8.9 Delete All</u>

If user would like to delete all files, press *believe All*. System will delete all files automatically.

Note: User has to enable this function in Default Setting first; otherwise this button will not show up.

4.8.10 Screen Saver

Click 🔀 Screen Saver	to set t	he screen saver time. The window below will be shown:
Screen Saver Setup—		
Turn on screen saver	30 min	
Apply	💥 <u>C</u> ancel	Time setting range is 3-9999 min.

4.8.11 Create Folder

If user would like to create a folder in the folder, press *create Folder*. Name the folder, press "OK" and press "Create" to save or "Cancel" to cancel and close the

dialogue. Tap the button behind "Save in folder" Save in folder: [[root] to

choose the desired location of newly create folder. In the same folder, it can contain up to 3 layers of folder.

Create Folder
Save in folder: [root]
Create floder: FOLDER1
Esc 1 2 3 4 5 6 7 8 9 0
QWERTYUIOP+
ASDFGHJKL.
Z X C V B N M OK
Create 🏼 🌋 Cancel

	Create Folder			Create	Folder	
Save in folder: [FOLDER1 C		Save in fol	Ider: FOLDER1	C FOLDER2	•
Create floder:	FOLDER2		Create flo	oder: FOLDER3		
Esc 1 2 3 Q W E R A S D F Z X C V	4 5 6 7 8 9 T Y U I O P G H J K L . B N M C √Create	0 +	Esc 1 2 Q W E A S D Z X C	3 4 5 R T Y F G H V B N	6 7 8 U 1 0 J K L M € cr	9 0 P ++ . ← OK eate & Cancel
		Syste	m Setup			
	Touch Screen Calibration System In	formation	System Time	System Upgrade	Coptional Devices	
	Internal Disk O External USB Disk					
	File Name	Size	Last Access	A		
	▼ FOLDER1					
	▼ FOLDER2					
	FOLDER3					
	Copy To USB	Delete S	Selected	Screen Saver		
	Create Folder Remove Folder	Network	s Settings Sho	ort file name		
	Disk usage: (0%) 0.02MB / 14336.00MB					
					Close Close	

4.8.12 Remove Folder

If user would like to delete any folder in the list, select the folders and press

4.8.13 Network Settings

Press Network Settings to set detail information. Press "Apply" to apply or "Cancel" to cancel and close the dialogue.

	System Setup
Touch Screen Calibration	system Information System Time System Upgrade
Internal Disk O External USB D	lisk
File Name	Size Last Access
20160421151304.tiff	5MB 2016/04/21 15:13:05
20160420190236-2.jpeg	16KB 2016/04/21 09:11:43
20160420190236-1.jpeg	MAC address: 00:03:2d:28:f6:9a
20160420190236.jpeg	
20160420190057.jpeg	IP address: 10.0.0.161
20160420184815.jpeg	
	Netmask: 255.255.255.0
	Gateway IP: 10.0.0.254
	Appiy Cancel
	~
Copy To USB	To USB Screen Saver
Create Folder	Folder Network Settings Disk usage: (0%) 5.61MB / 14336.00MB
	Close

4.9 Reverse out



Press the icon to reverse the color of present picture from black to white, white to black.

4.10 Freeze



Press to freeze the present picture on the screen. System will have the picture stay on the screen as long as user needs.

If user would like to save the freeze picture, press "Capture" and press "Save".



4.11 Turn ON/OFF the Lighting Modules



Press the icon of "Epi White Light" to turn on/off the Epi white light.



Press the icon of "White Light Plate" to turn on/off the white light.



Press the icon of Blue Light" to turn on/off the blue light.

4.12 Print



Press the icon of "Print" to print the present picture on the screen.

NOTICE that system will not save a digital format of the picture automatically only by pressing "Print" button.

4.13 Load and Edit the Picture



Press "Load" icon to review or edit the files in device or flash drive.

		Load	
Internal Disk 🔘 External USB	Disk		
File Name	Size	Last Access	
20160414162730.tiff	5MB	2016/04/14 16:27:32	
20160414162722.tiff	5MB	2016/04/14 16:27:24	
20160414145719.tiff	2MB	2016/04/14 14:57:20	
20160414145705.tiff	2MB	2016/04/14 14:57:07	60
20160413170243.tiff	2MB	2016/04/13 17:02:45	
20160413164110 tiff	2MB	2016/04/13 16:41:11	0119
20160413162346.tiff	2MB	2016/04/13 16:23:47	
20160413152220.tiff	4MB	2016/04/13 15:22:21	
20160413151933.tiff	5MB	2016/04/13 15:19:35	1111/11/11/11 11:511:12
20160413151914.tiff	4MB	2016/04/13 15:19:16	
20160413151858.tiff	4MB	2016/04/13 15:18:59	
20160413151336-1.tiff	112KB	2016/04/13 15:14:54	
20160413151336.tiff	змв	2016/04/13 15:13:37	v
		Disk u	sage: (0%) 62.34MB / 14336.00MB
			Cancel Ope

Select either "Internal Disk" or"External USB Disk" to read the files in corresbonding device. Select one file then press"Open " to edit; press "Cancel" to cancel and close the dialogue.

The usage percent of the device displayed at the right corner.



Editing Interface



- Close/Cancel
- Save
- Anti-white
- Flip upside down
- Flip horizontally
- Turn counterclockwise
- Turn clockwise
- Brightness adjust
- Crop
- Text

4.13.1 Anti-white



Press 🔳 to anti-white the screen.

4.13.2 Flip upside down



Press 1 to turn the picture upside down.

4.13.3 Flip horizontally



Press 🔄 to flip the picture horizontally.

4.13.4 Turn counterclockwise



Press to turn the picture counterclockwise.

4.13.5 Turn clockwise



Press of to turn the picture clockwise.

4.13.6 Brightness adjust





decrease the brightness of the picture.

4.13.7 Crop



Press to crop the picture. Press one point on the screen and drag to crop.

4.13.8 Text



1. Press **T** to create a new text on the picture. Locate one point and press to add a new text. Cross indicates the location of the text. Press **S** to start editing the text.

	CE 2
5	
	Ly is in
Ð	
Т	

2. Press is to replace the text on any point on the screen.

×	Input new text
Û	
\Leftrightarrow	Esc 1 2 3 4 5 6 7 8 9 0
5	QWERTYUIOP+
Ċ	ASDFGHJKL.
0	Z X C V B N M OK
١.	🗸 Create 😿 Cancel
Т	

3. Press is to edit the content of the text. Press "Create" to apply the setting. Note: all letters are in capital. "Esc" is to delete all text in the column; is to

backspace. Press "Cancel" to cancel editing and close



4. Press **b** to adjust the front size. Press "Apply" to confirm or "Cancel" to cancel and close the dialogue.

×	
	Hue: 0 v Red: 255 v
	Saturation: 0 🚊 Green: 255 🚽
	<u>Y</u> alue: <u>100</u> <u>B</u> lue: <u>255</u> <u></u>
	Color name: #FFFFFF
5	
2	
٦.	

5. Press to change the color of the text. Click the color triangle to pick the color. Move the color triangle to choose the color range. Press "OK" to apply or "Cancel" to cancel and close the dialogue.

4.13.9 Undo and redo



On the editing page, any changing can be undone or redone by buttons along right bar.

4.14 Signals Indication



5 SmartView 1D Analysis Software

5.1 Process



Step:



Next Step: Go to next step to select analysis mode: gel positive/ gel negative/ dot positive/ dot negative.

Process:



Crop: Select the cropping area of the image.

4. Rotate

Rotate: Rotate the image.

5. Flip

Flip: Flip the image according to the orientation you desired.



Brightness: Adjust the brightness of the image.



Contrast: Adjust the contrast level of image.



Negative: To reverse the image between black and white (not applicable to colored images).



Zoom: To show a larger area or to examine more closely of the image.



Text: Add text on the image.



Original: Return back to original image without any editing.



Redo

Undo: Return to previous step.

13.



Redo: Repeat last action.

Crop:

Crop the image by press the "Crop" button (as box 1). In order to select the cropping area of the image, hold and drag the cursor to select the area you want (as box 2). Once you are done. Press " \checkmark " (as box 3) button to confirm or press "x" to cancel.



Rotate:

To rotate the image, first select the "Rotate" button (as box 1) then the toolbar (as box 2) will pop up.

Toolbar:



: Rotate counter-clock wise



: Rotate clock wise



: Confirm action



: Cancel



You may rotate the image counter-clock wise or clock wise in two ways:

- a. Using the toolbar labelled as box 1, press " \checkmark " to confirm action.
- b. Input the desired angle (0~359) directly in the blank space labelled as box 2, press ENTER first before pressing "√" to confirm action.



Flip:

To flip the image according to the orientation you desired.

- Similar

 Press

 Exter
 Analyze

 Similar

 Exter
 Analyze

 Exter
 Analyze

 Exter
 Exter

 Exter
 Exter
- a.

b. : Invert the image from left to right.







Brightness:

Adjusting the brightness of the image by pressing on the "Brightness" button (as box 1), then use the scrollbar (as box 2) to adjust the brightness level.

> : Low – High a.



The result of Brightness is shown below. Press " \checkmark " to proceed or press "X" to

cancel.





Contrast:

Adjusting the contrast level of the image by pressing the "Contrast" button (as box 1), then use the scrollbar (as box 2) to adjust the contrast level.



The result of Contrast is shown below. Press " \checkmark " to proceed or press "X" to

cancel.

b. Confirm action c.



Negative:

To reverse the image between black and white by pressing on the "Negative" button (as box 1). If you don't want to negative the image, you can press the "Negative" button again or you can press the "Undo" button (as box 2) to recover the image.

Process Editor Analyze Sur Process Editor Analyze Sur Next Step Crop Rotate Flip Brightness Contras Proces	SmartView 1D Analysis Software	_ = × @

Zoom:

Adjusting the zoom of the image by pressing on the "Zoom" button (as box 1) and then a toolbar will pop out. If you want to zoom in the image, press the "+" button (as box 2). If you want to zoom out the image, press the "-" button (as box 2). Press "EXIT" to finish. This feature simply lets you zoom in and zoom out of the image but will not make any changes to the image file.



Text:

You could add any text onto the image. Click on the "Text" button (as box 1) and then the toolbar (as box 2) will show up. The sample text (as box 3) will show on middle of the screen.



Click on the input box, type in your text here. You could adjust your text using this toolbar. The toolbar functions are explained as below.



f. ^[ed Documentation] Input box: Type in your text here, press ENTER first before pressing "√" to confirm action.
g. *[w]*: Confirm action
h. *[w]*: Cancel
Note: 1. To add another set of text, please press "TEXT" again.
2. To remove a text, please use "Undo".

Original:

This is the master undo button. It will undo ALL the changes you made to the image and revert it back to the original image. A massage will pop up to ask for confirmation once you press the "Original" button. Press "Yes" to proceed.



Next Step:

Press "Next Step" button (as box1) to continue the analysis. There are 4 analysis methods for you to choose depending on your application. For example here, we choose "Gel Negative" (as box 2) for DNA gel electrophoresis. (This instruction for operating under Gel Positive and Gel Negative is the same)



5.2 Editor



Delete Lane: To cancel the lane.

4.

Lane

Note: Make sure to add all lanes you wish to analyze before you proceed to the next step.

5.3 Selecting the Image Lane

Add Lane:

Selecting your lane by creating a long rectangular box along the lane. Press "Add Lane" button (as box 1) and then hold and drag the rectangular box to the area you want. Each time you press "Add Lane" button, the system will duplicate an exact box as your previous box. You may move the box once the "+" cursor is appeared, hold and drag the box to the appropriate location.



Delete Lane:

Press "Del Lane" button (as box 1), and then click the center of rectangular box you want to delete. After selecting all lanes, click "Next Step" button (as box 2) to move forward.

Note: Make sure your bands are straight and enclosed inside the rectangular box. You must choose at least one lane in order for the analysis software to proceed.



5.4 Analyze





Prev

Step

Previous Step: Return to previous step, current setting will be deleted.



Next Step: Go to next step.

3. Ame

Home: Return to Image Process Interface.

<u>Analyze:</u>

4.

,0

Auto Find



- 5. Add Peak: Add the peak manually.
- 6. Delete
- **Delete Peak:** Delete the peak manually.



Base Line: Set the base line manually for selecting peaks.

8. Base Line

Previous Lane: Go back to last lane.



Next Lane: Go to next lane.

The analysis software will analyze the bands inside the lane to create a histogram.



Auto Find:

Click on the "Auto Find" button (as box 1), the software will allow you to adjust the sensitivity level according to your needs. Sensitivity level (as box 2) is ranged from 1 to 10. Select a number appropriate to your image. The smaller the number, the lower the sensitive degree. The larger the value, the higher the sensitive degree.



Any peaks above your adjusted sensitivity level will turn "RED".



Example A: Sensitivity level 1

Example B: Sensitivity level 10



If the density of band (as box 1) is not clear, the Auto Find (as box 2) function
cannot find any peaks. The warning dialogue will pop up on the screen (as box 3).



Add Peak:

Click "Add Peak" button (as box 1), choose two points which covers the range of the peak from the screen (select one point from the left side and a second point from the right side of the desired peak) to add a peak (as box 2) and then click the " \checkmark ".





The peak will turn "RED". The new peak number is 5 (shown below).

Delete Peak:

Press "Delete Peak" button (as box1), click on that peak (as box 2), the peak will turn gray and then click " \checkmark " to finished.



The peak will turn white. The white peak will not be included in the calculation. The order of the peaks will be rearranged.



Base Line:

This feature is used to help you increase (or cut off) the peaks you want (or do not want) to include in the quantification step. Press "Base Line" button (as box 1) a green line will show up on the screen, you could move the line to the position you desired and the peaks above the base line will be selected, then press " \checkmark " (as box 2) to confirm it.



Note: You need to have at least one peak in order for Base Line feature to function.

The software will only count the peaks that are above the base line. There were three lanes selected (as box 1) in this example, so you need to press on the "Next Lane" button (as box 2) go to select peaks for lane3 before proceeding to summarizing the data. Click "Next Step" button (as box 3) to move to summarizing the data.



5.5 Summary



Step:



Previous Step: Return to previous step, current setting will be deleted.

2.

Home: Return to Image Process Interface.

Calculating the density

Step1 When clicking the "Density" worksheet (as box 1), you need to input two known concentration from two of the bands from the lane(s).

				L1 Density	L1 Concentration	L2 Density	L2 Concer
		Se	egment 01	8595		17594	
		Se	egment 02	729		6435	
		Se	egment 03	3940		7371	
2	1	3 Se	egment 04	6171		3246	
2-1		Se	egment 05			6313	
		Se	egment 06			5131	
2-3		Se	egment 07			2921	
3-4	had and	3-1 Se	egment 08			362	
2-6		3-2 Se	egment 09			3869	
2.7	1-1	3_3 Se	egment 10			6288	
	and the second se	Se	egment 11			3260	
Contract of the							
	Cel Domm	nentation					
				III	1		

Step2 Double click the blank L1 Concentration box associated with the known marker size. After key in the first value, the system will show a dialog to remind you to key in the second value.





Step3 Entering the second value of known concentration then hit **Enter** on your keyboard to finish, the analysis software will project all the other unknown concentrations based on the 2 known (input) concentrations.

ummary						
Density Molecular Weight						
			L1 Density	L1 Concentration	L2 Density	L2 Concentra
1010		Segment 01	8595	12000.000	17594	22868
		Segment 02	729	2500.000	6435	9391
		Segment 03	3940	6378.019	7371	10521
2	1 3	Segment 04	6171	9072.464	3246	5539
2-1		Segment 05			6313	9243
		Segment 06			5131	7816
$\frac{2}{2}$		Segment 07			2921	514
3-4	3-	Segment 08			362	205
2-5	3	Segment 09			3869	629
2.7	1-1 3-	Segment 10			6288	921
		Segment 11			3260	555
2 0 2 1						
	Gel Documentatio		m			Þ
			Save Imag	e	Export D	Pata

Step4 Click "Save image" button (as box 1) to store this image from the screen. Choose a destination location to save your image. Give the image a file name (as box 2) and press "Save" (as box 3) to finish.

Save As				×	tration	L2 Density	L2 Concentra
SmartView Pro Imager System >	- - - - - - - - - -	Search SmartV	iew Pro Image	r P	000.000	17594	2286
			-		500.000	6435	939
Organize 🔻 New folder				•	378.019	7371	1052
2 🙀 Favorites					072.464	3246	553
2-1 Desktop	A.					<mark>631</mark> 3	924
Downloads						5131	781
23 🛛 🕮 Recent Places 😑						2921	514
2-4 UVCI	UVCI-1100					362	205
2-6 🛱 Libraries						3869	629
2 7 Documents						6288	921
Music						3260	555
Pictures							
Videos							
<mark></mark>				_			
File name: gel_image				•			
Save as type: BMP (*.bmp)				•			
	•	<mark>3</mark>	`				
Hide Folders		Save	Cance	I			
			J	ai.			
							'

Step5 Click on the "Export Data" button (as box1), a window pops up to ask you to select a destination location to save your file. Give the data a file name (as box 2) and press "Save" (as box 3). (Data is then exported using the CSV file format, which could be easily access by using Microsoft Excel)



Calculating the molecular weight

Step1 Select "Molecular weight" worksheet to move forward with quantification analysis by calculating the molecular weight.



Step2 Key in the respective molecular weight values of the marker in this page.

Note: The "Mol weight" values of marker are provided by marker manufacturer. Click on the "Mol weight" box and then input all known values.



Summary					
Density Molecular Weight					
			-	Mark Lane 1 Entering the known M	olecular Weight as fallow.
				Segment Mol Wei	ght
				01	25.000
2	1		3	02	20.000
Z-1			- 11 B	03	15.000
2-2				04	10.000
			6.4		
2-0			3-2		
2-8	1-2		3-4		
2259	1				
200	1000		<u>0-0</u>		
2=11					
	Cel I	Jocumen	tation		
			Save Imag	e M	ol Weight Calc.

Step3 Fill in all known values of the marker on the list.

Step4 Click "Save image" button (as box 1) to store this image from the screen. Choose a destination location to save your image. Give the image a file name (as box 1) and press "Save" (as box 2) to finish.



Step5 When clicking the "Mol Weight Calc." button (as box1), this analysis software will calculate the unknown "Mol weight" based on the input marker values. Press the "Export Data" button (as box 2), the software will export the data to a CSV file sheet.

. Malaada	Mol Weight Ca	lc.					
Density Molecula		L1 Weight	L2 Weight	L3 Weight			
	Segment 01	25.000	25.000	25.000			
	Segment 02	20.000	25.000	25.000			
	Segment 03	15.000	25.000	25.000			known Molecular Weight as fallo
	Segment 04	10.000	25.000	20.500			Mol Weight
	Segment 05		25.000	15.000			25.000
2	Segment 06		25.000	9.792			20.000
21	Segment 07		25.000				15.000
2-2	Segment 08		20.500				10.000
2-3	Segment 09		15.000				
24	Segment 10	0 ¹	10.000				
2 0	Segment 11		7.500				
				<mark>2</mark>			
					Export Data	OK	1
						Save Image	Mol Weight Calc.

Step6 Choose a destination location to save your export. Give the data a file name (as box1) and press "Save" (as box 2) to finish.



Dot Blot Analysis Sample

Crop: Crop the image by press the "Crop" button (as box 1). In order to select the cropping area of the image, hold and drag the cursor to select the area you want (as box 2). Once you are done. Press "√" (as box 3) button to confirm or press "x" to cancel.





The image will be shown below as you selected.

Rotate: To rotate the image, first select the "Rotate" button (as box1) and the toolbar (as box 2) will pop up.

Toolbar:



: Rotate counter-clock wise



: Rotate clock wise



: Confirm action





You may rotate the image counter-clock wise or clock wise in two ways:

- a. Using the toolbar labelled as box 1, press " \checkmark " to confirm action.
- b. Input the desired angle (0~359) directly in the blank space labelled as box 2, press **ENTER** first before pressing " \checkmark " to confirm action.



Flip: To flip the image according to the orientation you desired.



a. Invert the image upside down.







Brightness: Adjusting the brightness of the image by pressing on the "Brightness" button (as box 1), then use the scrollbar (as box 2) to adjust the brightness level.





The result of Brightness is shown below. Press " \checkmark " to proceed or press "X" to



Contrast: Adjusting the contrast level of the image by pressing the "Contrast" button (as box 1), then use the scrollbar (as box 2) to adjust the contrast level.



The result of Contrast is shown below. Press " \checkmark " to proceed or press "x" to cancel.







Negative: To reverse the image between black and white by pressing on the "Negative" button (as box 1). If you don't want to negative the image, you can press the "Negative" button again or you can press the "Undo" button (as box 2) to recover the image.



Zoom: Adjusting the zoom of the image by pressing on the "Zoom" button (as box 1) and then a toolbar will pop out. If you want to zoom in the image, press the "+" button (as box 2). If you want to zoom out the image, press the "-"button (as box 2). Press "EXIT" to finish. This feature simply lets you zoom in and zoom out of the image but will not make any changes to the image file.

0	⇒ SmartView 1D Analysis Software _ □ ×
Next Step Step	Image: Second
2	
	$\bullet \bullet \bullet \bullet$

Text: You could add text onto the image. Click on the "Text" button (as box 1) and then the toolbar (as box 2) will show up. The sample text (as box 3) will show on middle of the screen.



Click on the input box, type in your text here. You could adjust your text using this toolbar. The toolbar functions are explained as below.

: Change the font type Tr Agency FB a. b. 12 : Change the font size. c. lacksquare : Move the text to the desired location by move the mouse cursor to the desired location on the image and click the left button of the mouse. B I U S: Change the font properties. d. e. E Change the color of the font. Dot Blot f. Input box: Type in your text here, press **ENTER** first before pressing " \checkmark " to confirm action.





Note: 1. To add another set of text, please press "TEXT" again.2. To remove a text, please use "Undo".

Original: This is the master undo button. It will undo ALL the changes you made to the image and revert it back to the original image. A massage will pop up to ask for confirmation once you press the "Original" button. Press "Yes" to proceed.

SmartView 1D Analysis Software
Process Editor Analyze Summary Image: Summary Image: Summary Image: Summary Image: Summary Image: Summary
VCI-2100 VCI-2100 VCI-2100 VE

Next Step: Press "Next Step" button (as box1) to continue the analysis. There are 4 analysis methods for you to choose depending on your application. For example, we choose "Dot blot Positive" (as box 2) for DNA gel electrophoresis. (This instruction for operating under Dot blot Positive and Dot blot Negative is the same)



Selecting the Image Dot

Press "Dot blot Positive" button and the software will automatically analyze the dot-blot samples from the image.



Add Dot: Click "Add Dot" button (as box 1) to add one sample. Use the mouse to select the sample (as box 2) from the screen. Each time you press the "Add Dot" button, the system will duplicate a random circle size. Use the cursor to adjust the circle size.



The image will be shown below as you have selected.



Delete Dot: Press "Del Dot" button (as box 1), and then select the dot (as box 2) you want to delete. After selecting the dot, click on "Next Step" button (as box 3) to move forward to next step.



Calculating the density

Step1 Double click on the "Dot concentration" blank boxes to input the real density of each sample. (You will need at least one value in order to calculate the rest of the numbers.)



Step2 Enter the value of known concentration. The analysis software will project other unknown concentrations based on the known (input) concentration.



Step3 Click "Save image" button (as box 1) to store this image from the screen. Choose a destination location to save your image. Give the image a file name (as box 2) and press "Save" (as box 3) to finish.

Summary			
8	Save As	pr	ncentration
	CCD200_TestPicture	← ← Search CCD200_TestPicture 🔎	32000.000
	Organize - New folder	E - 0	29369.196
			31959.617
	🙀 Favorites	No items match your search.	34645.691
	Marktop		28795.619
	bownloads 🖉		28586.774
	Recent Places		31541.755
7			25624.179
	Cibraries		20188.804
	Documents	1	
	Videor		
	Videos		
	📕 Computer 🔻		
4	File name: doc_image		
	Save as type: BMP (*.bmp)		
		3	
1	Hide Folders	Save Cancel	
		11	
		Save Image E:	xport Data
)

Step4 Click on the "Export Data" button (as box 1), a window pops up to ask you to select a destination location to save your file. Give the data a file name (as box 2) and press "Save" (as box 3) to finish. (Data is then exported using the CSV file format, which could be easily access by using Microsoft Excel)

Summary							23
8	Save As				x	ncentration	
	CCD200_TestPicture		**	Search CCD200_TestPictu	e p	32000.000	
	Organize 🔻 New folder			-	?	29369.196	
	Favorites	No items mat	ch vour	search		34645.691	
	Marktop	NO ILEITS HIG	ciryour	scoren		28795.619	
	🐌 Downloads					28586.774	
	📃 Recent Places					31541.755	
7	C Libraria					25624.179	
	Documents					20188.804	
	J Music						
	E Pictures						
	Videos 🔛						
	🖳 C_pputer 🔻						
	2 File name: dot_data				Ţ		
4	Save as type: CSV Files (a)				-		
		<mark></mark>	_				
	🗃 Hide Folders	J		Save Can	cel		
			_		ai		
				C Church Lance	[For sut Data	_
				ave Image		Export Data	

6 Troubleshooting Guide

Many operating problems may be solved by carefully reading and following the instructions in this manual accordingly. Some suggestions for troubleshooting are given below. Should these suggestions not resolve the problem, please contact our SERVICE DEPARTMENT or a distributor in your region for assistance. If troubleshooting service is required, please include a full description of the problem.

Problem	Su	Iggestion
Screen doesn't light on.	\blacktriangleright	Check the main power switch is on. Or reboot
		the system. For further assistance, please
		contact your local distributor.
No picture from the CCD	≻	Check the video cable of CCD camera is
camera.		connected. Or reconnect the cable of CCD
		camera. (For the procedure please check
		*Note 1)
Lighting module failed.	≻	Check if the specific lighting module switch on
		the screen is ON. Or reboot the system. For
		further assistance, please contact your local
		distributor.
UV light doesn't light up	≻	Check UV transilluminator is switched on.
	★	Since 312nm wavelength UV is invisible light,
		you can put on a sheet of white paper onto the
		transilluminator to help distinguish if the light is
		on.
		A4 A4
		$ \longrightarrow $ Paper
		Light OFF Light ON
Printing function failed.	≻	Turn OFF the system, reconnect the USB cable
		between your printer and system, check if your
		printer works normally, then restart the system.
Analysis software failed.	≻	Reconnect your Ethernet cable of computer and
		system, or reboot the system.
Save picture from remote	≻	Check if the network is workable.
control function failed		

*Note 1:

Unscrew the back panel of UVCI-2300/2400, reconnect the USB cable of CCD camera(refer to the picture below).

PLEASE make sure to turn the system off before opening the back panel.



CCD Camera Connect USB Cable Reconnect the USB port on the board and check again.



■ NOTE:

Disconnect the ground cable(left) and fan cable(right) carefully when removing the back panel.

7 Cleaning & Maintenance

The painted surfaces of the filter areas on the built-in UV Transilluminator must be cleaned with water and soap, using a sponge or towel. Dry the filter surface with a soft cloth after each operation. Never use abrasive cleaners, solvent based cleaners or scouring pads. The housing may be cleaned with a moist cloth containing a mild soap solution.

Always disconnect the SmartView Pro Imager System from the electrical power prior to cleaning.

7.1 Replacing the Fuse

For additional fuses, contact MS local distributer.

To replace the fuse:

- 1. Turn off the main power switch at the rear of system and detach the power cord.
- Open the fuse compartment located inside the Power Entry Module by inserting a small flathead screwdriver into the slot below the ON/OFF switch. Turn the screwdriver to gently pry open the fuse compartment.

Note: the fuse compartment will not open with the power cord in place.

- Pull the fuse holder out of the compartment and inspect the fuse. If the fuse is burned or there is a break in the fuse element, replace the fuse with an identical type of fuse (T2A/250V~) as provided in the fuse holder (see figure below)
- 4. Place the fuse holder back into the compartment.
- 5. Snap the cover close.



7.2 Replacing Amber Filter on Viewing Window

Two filters (transparent filter and amber filter) are installed as default, if you did not purchase the blue light module and would like to remove the amber filter, please follow the steps below.



Tool: 7mm socket wrench (not provided)



Step1 Loosen 4 nuts from the corners. Remove the transparent filter.



Step2 There are no screw holes on the amber filter, please put the amber filter in between.



Step3 Replace the transparent filter, put the nuts of four corners and then use the socket wrench to tighten the nuts.



Step4 Confirm the transparent filter is fixed in the center of the viewing window.



8 Ordering Information

MODELS & APPLICATIONS				
Cat. No.	Description			
UVCI-2300	SmartView Pro 2300 Imager System, UV light version			
UVCI-2400	SmartView Pro 2400 Imager System, Blue light version			
Filter (for camera) *Ordered Separately				
UVCI-2300-EB	SmartView EtBr Filter, 610nm (for UV)			
UVCI-2300-SG	SmartView SYBR Green Filter, 520nm (for UV)			
UVCI-2300-F4	SmartView Amber Filter, 580nm (for blue light)			

Accessories	
Cat. No.	Description
UVCI-2313	SmartView Pro UV protection shield, for 2300 series
UVCI-2314	SmartView Pro lens filter stand, can hold up to 4 lens filters, for 2300 & 2400 series
UVCI-2300-BL	Blue Light table for SmartView Pro 2300 series
UVCI-2300-WL	White Light Plate 21 × 26cm for SmartView Pro 2300
	& 2400 series
UVCI-1000-F4	Viewing window Amber filter, 580nm for SmartView
	Pro 1000 series
CI-CL55+1	55mm Close up lens +1 for CCD Image System
MJC-8-STYLUS-00000	Stylus Pen
DI-CLIQS	CLIQS 1D Gel Analysis Software

9 Warranty

Major Science warrants apparatus of its manufacture against defects in materials and workmanship, under normal service, for <u>one year from the</u> <u>shipping date to purchaser</u>. This warranty excludes damages resulting from shipping, misuse, carelessness, or neglect. Consumable parts (UV lamp and UV filter) are not covered by our warranty. Major Science's liability under the warranty is limited to the receipt of reasonable proof by the customer that the defect is embraced within the terms of the warranty. All claims made under this warranty must be presented to Major Science within one year following the date of delivery of the product to the customer.

Headquarters:

Major Science Co., Ltd.

Contact Information:

Main Office : No. 156, Sec. 1, Guoji Rd., Taoyuan Dist., Taoyuan City 33061, Taiwan

T/ +886-3-3762878 F/ +886-3-3761310 E-mail : <u>service@majorsci.com</u>, <u>info@majorsci.com</u>

MEMO
