# **OPERATIONS MANUAL**

# Video Otoscope Software

Bringing Video Otoscopy To Your Computer





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# Contents

## Video Otoscope Drivers & Software

#### **USB CAMERA**



#### Camera connects to computer via USB CAPTURE DONGLE







Driver Installation (USB Capture Dongle)	
Software Installation (USB Capture Dongle)	
Software Configuration (USB Capture Dongle)	
Adjusting Video Quality (USB Capture Dongle)	

### Using the Video Otoscope Software - Applies to both cameras

Taking Pictures	19
Capture Screen	
Main Screen	
View Screen	
Saving Images	



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## **Driver Installation USB** Camera

Go to page 13 for driver installation instructions if you are using Video Otoscope that connects via a USB Capture Dongle.

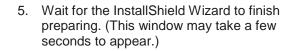


1. Connect the USB cable from the USB Camera to your computer.

X

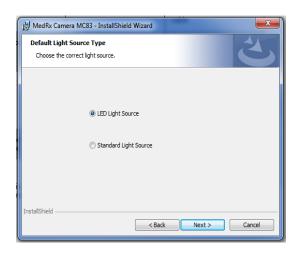


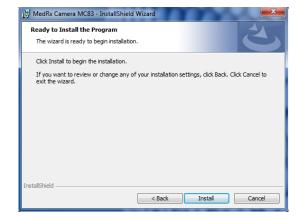
- 2. Insert the Video Otoscope Drivers & Software CD-ROM into the CD drive.
  - If the Setup program does not • automatically start, go to my computer, double click on the CD to open then double click Setup.
- 3. On the Driver Setup screen, click Install Drivers for USB Camera.
- 4. When this screen appears, click Ok.











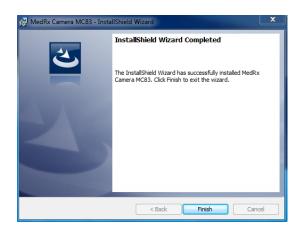
6. When this screen appears, click Next.

7. When this window appears choose which light source you have. Click **Next.** 



8. To begin installation click Install.







Install Drivers for USB <u>C</u>amera Install Drivers for USB Capture <u>D</u>ongle Install Video OtoScope Software

9. Wait for the InstallShield Wizard to finish.

10. When Installation is complete, click Finish.

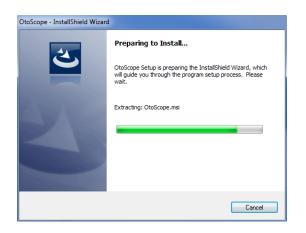
11. When the setup screen reappears click **Exit.** 

# Installing the Video Otoscope Software USB Camera

The MedRx Video Otoscope software may be incorporated into any AVANT<sup>™</sup> software package. It is also available as a stand-alone application. When bundled with the AVANT software package, the Video Otoscope software is automatically installed. In this case, make sure you have installed the drivers. Driver installation instructions are on page 4 or 13 – depending on the camera you purchased.

## Stand Alone Video Otoscope Software Installation.





- Insert the Video Otoscope Drivers & Software CD-ROM into the CD drive. Wait until the Setup program starts.
  - If the Setup program does not automatically start, go to **my computer**, **double click on the CD to open then double click Setup**..
- 2. On the Setup screen, choose **Install Video OtoScope Software**.
- 3. Wait for the InstallShield Wizard to finish preparing. (This window may take a few seconds to appear)



4. To Install the Otoscope Software, click **Next.** 



🛃 OtoScope -	InstallShield Wizard		×
Program Loo Choose desi			
	English (United States) Deutsch Dutch French Italian Spanish Turkish Chinese		
InstallShield ——		< Back Next >	Cancel



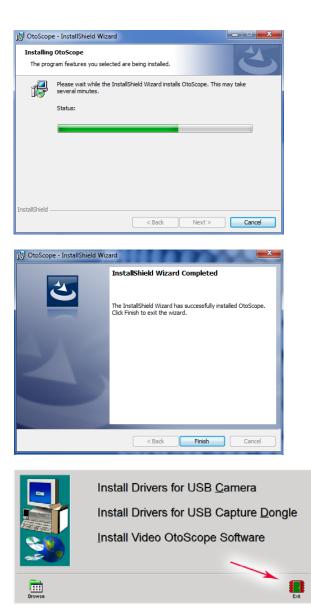


- 5. Read the Software License Agreement.
  - Click I accept...
  - Click Next.
  - To make changes, click Back.

6. Choose a language. Click Next.

- 7. This screen summarizes the installation configuration.
  - To continue, click Next.
  - To make changes, click Back.

8. To start the installation process click **Install.** 



9. Wait for the installation to complete.

10. This screen will appear when the installation is complete. Click **Finish**.

11. When the setup screen reappears click **Exit.** 

# Software Configuration USB Camera

The MedRx Video Otoscope software can run stand-alone, through the AVANT family software, through NOAH<sup>T</sup> or the TIMS<sup>®</sup> office system.

### Launching the Software

#### Stand Alone or AVANT Family

1. **Double click** the MedRx Otoscope icon or select the Otoscope Icon from any AVANT family device shortcut on your Windows desktop.



1. Launch NOAH and select the AVANT family device Otoscope icon.

NOAH and TIMS

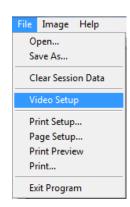


## Configuring the Otoscope Software (USB Camera)

Once the drivers are installed, you must configure the software to recognize the USB camera as follows:

#### For Stand Alone software

- 2. From the main screen of the Otoscope software,
  - Click File.
  - Click Video Setup.



#### For Avant Family software

- 2. From the main screen of the Otoscope software,
  - Click File.
  - Click Advanced Options

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<u>F</u> ile	Fu <u>n</u> ction <u>H</u> elp	
P <u>1</u>	rint Setup	Ì
P <u>a</u>	age Setup	I
<u>C</u> I	lear Session Data	
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• Then Click Video tab

Advanced Options		
General Audio	Video	Tympanometry
Otoscope Inpu	ıt	

Applies to Stand Alone or the AVANT Family Software

Video Setup		
Video		
Otoscope	Input	
Device:	StUSBCam 🔽	
	Source Format Adjust	
Alternativ	e Input	
Device:	Not Available	
	Source Format Adjust	
	OK Cancel Help	

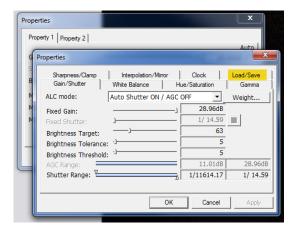
- 3. From the Video Tab:
  - Click the **Device** pull-down.
  - Select StUSBCam
- 4. Click OK

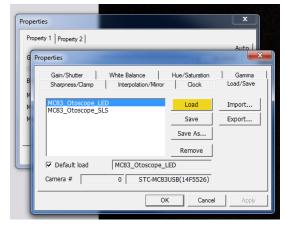
## Adjusting Video Quality (USB Camera)

It is sometimes desirable to adjust the video quality of the Otoscope software. To do this, follow the steps below:

Video Setup	and the second se	<b>X</b>
Video		
Otoscope	Input	
Device:	StUSBCam	-
	Source Format Adjust	
Alternativ	e Input	
Device:	Not Available	•
	Source Format Adjust	
	OK Cancel	Help

Properties		<b>X</b>
Property 1 Property 2		
Gain:	1	Auto 28.96dB
Shutter:	— í [-	1/ 14.59
Brightness Target:	[	63
Manual White Balance R:	[	2.60
Manual White Balance B:		2.06
Mirror Image: Off (Normal)	-	
	Default	Advanced
ОК	Cancel	Apply





- 1. To open the Video Tab:
  - Click File.
  - Click Video Setup.
  - From the Video Tab Click the Adjust button.
- 2. On the Properties screen, click on Advanced.

3. Click on Load/Save.

4. Select your light source, either LED or SLS (LED shown highlighted), then click Load.



Properties			×
Property 1 Property 2			Auto 1
G Properties			<b></b>
Gain/Shutter B Sharpness/Clamp	White Balance	Hue/Saturation	Gamma Coad/Save
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- (1 & 4)		Save As Remove	
🔄 🔽 Default load	MC83_Otoscope_L	ED	
Camera #	0 STC-MC83	USB(14F5526)	
	OI	Cancel	Apply

Properties			×
Property 1 Property 2			
			Auto
Gain:		/	28.96dB
Shutter:		U [	1/ 14.59 🔽
Brightness Target:		[	63
Manual White Balance R:		[	2.60
Manual White Balance B:		—	2.06
Mirror Image:	Off (Normal)	•	
		Default	Advanced
	ОК	Cancel	Apply

Video Setup	and the second	×
Video		
Otoscope	Input	
Device:	StUSBCam	•
	Source Format Adjust	
Alternative	e Input	
Device:	Not Available	•
	Source Format Adjust	
	OK Cancel	Help

5. Uncheck Default load (1)

Click either LED or SLS depending on the light source you are using (2)

Click Load (3)

**Recheck** Default load (4)

Click Apply then click OK.

6. Click **Apply** in the Properties window, then click **OK** to complete changes.

7. Click **OK** on the Video Setup window to finish.

## Driver Installation using a USB Capture Dongle

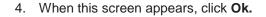
Go to page 4 for driver installation instructions if you are using Video Otoscope that connects via a USB cable.



1. Connect the USB Capture Dongle to a USB port on your computer.

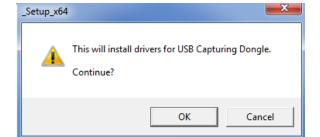


- 2. Insert the Video Otoscope Drivers & Software CD-ROM into the CD drive.
  - If the Setup program does not automatically start, go to my computer, double click on the CD to open then double click Setup.
- 3. On the Setup screen, click Install Drivers for USB Capture Dongle.

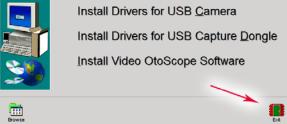


5. If this warning screen appears, click **Install this** driver software anyway.







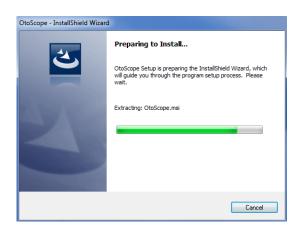


# Installing the Video Otoscope Software using a USB Capture Dongle

The MedRx Video Otoscope software may be incorporated into any AVANT<sup>™</sup> software package. It is also available as a stand-alone application. When bundled with the AVANT software package, the Video Otoscope software is automatically installed. In this case, make sure you have installed the drivers. Driver installation instructions are on page 4 or 13 – depending on the camera you purchased.

## Stand Alone Video Otoscope Software Installation.

	Install Drivers for USB <u>C</u> amera Install Drivers for USB Capture <u>D</u> ongle <u>Install Video OtoScope Software</u>	
Browse	l E	vit





- 1. **Insert the** *Video Otoscope Drivers* & *Software* **CD-ROM into the CD drive.** Wait until the Setup program starts.
  - If the Setup program does not automatically start, go to my computer, double click on the CD to open then double click Setup.
- 2. On the Setup screen, choose Install Video Otoscope Software.
- 3. Wait for the InstallShield Wizard to finish preparing.

4. To Install the Otoscope Software, click Next.

🕃 OtoScope - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
MedRx, Inc. Software License Agreement
In return for acquiring a license to use the software ("Software") and related documentation, you agree to the following terms and conditions:
1. License: This Agreement grants you, the Licensee, a license to:
(a) use the Software on a single computer system or in the case of a multi-user or networked system which permits access to the Software human the one user at the case line at a single
I accept the terms in the license agreement     Print
$\bigcirc$ I do not accept the terms in the license agreement
InstallShield
< Back Next > Cancel

🛃 OtoScope -	InstallShield Wizard			×
Program Loo Choose desi				C
	English (United States) Deutsch Dutch French Italian Spanish Turkish Chinese			
InstallShield ——		< Back	Next >	Cancel



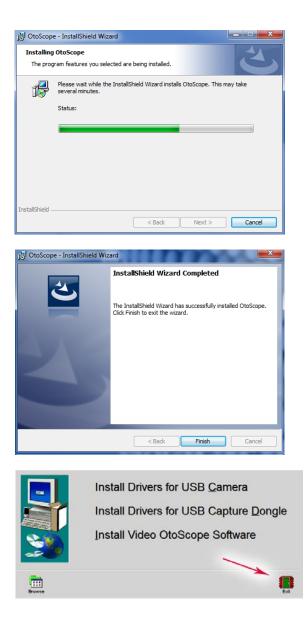


- 5. Read the Software License Agreement.
  - Click I accept...
  - Click Next.
  - To make changes, click Back.

6. Choose a language. Click Next.

- 7. This screen summarizes the installation configuration.
  - To continue, click Next.
  - To make changes, click Back.

8. To start the installation process click **Install.** 



9. Wait for the installation to complete.

10. This screen will appear when the installation is complete. Click Finish.

11. On the Setup Window click Exit.

## **Software Configuration** using a USB Capture Dongle

The MedRx Video Otoscope software can run stand-alone, through the AVANT family software, through NOAH<sup>™</sup> or the TIMS<sup>®</sup> office system.

### Launching the Software

#### Stand Alone or AVANT Family

1. Double click the MedRx Otoscope icon or select the Otoscope Icon from any AVANT family device shortcut on your Windows desktop.



#### NOAH and TIMS

1. Launch NOAH and select the AVANT family device Otoscope icon.

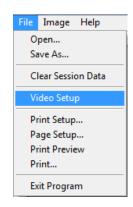


## Configuring the Otoscope Software (USB Capture Dongle)

Once the drivers are installed, you must configure the software to recognize the USB Capture Dongle as follows:

### For Stand Alone software

- 2. From the main screen of the Otoscope software,
  - Click File.
  - Click Video Setup.



#### For Avant Family software

- 2. From the main screen of the Otoscope software,
  - Click File.
  - Click Advanced Options

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• Then Click Video tab

Advanced Options		
General Audio	Video	Tympanometry
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Alternative				
Device.	Not Available	Format	Adjust	•
	300/00	- oma	Adjust	

Applies to Stand Alone or the AVANT Family Software

- 3. From the Video Tab:
  - Click the **Device** pull-down.
  - Select the name of your Video Capture Device
- 4. In the same screen, click the **Source** button.

Properties	
Crossbar Input 0: Video Composite In	Output 0: Video Decoder Out
Current Input: 0: Video Composite In Related Pin: 2: Audio Line In Link Related Streams	Related Pin: 1: Audio Decoder Out
<u>0</u>	K Cancel Apply

- 5. In the Properties window, use the pull-down menus to verify the following settings:
  - Input = Video Composite In.
  - Output = Video Decoder Out.
- 6. Click **OK** to complete changes. Click **OK** on the Video Setup window to finish.

## Adjusting Video Quality (USB Capture Dongle)

It is sometimes desirable to adjust the video quality of the Otoscope software. To do this, follow the steps below:

Video Setup				×
Video				
Otoscope	Input			
Device:	Hauppauge Cx2310	0 Video Cantura		
Device.	nauppauge CX25 TU	o video Capiture		
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	Brightness —		49	Auto
	Brightness – Contrast –		49	Auto 92
	Brightness —	qr ز		Auto 22
	Brightness – Contrast – Hue –		49	Auto 22
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Video Decod	Brightness Contrast Hue Saturation Sharpness Gamma J- White Balance J-	9 	499 499 499	Auto 22    - 22    - 2
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Video Decoo	Brightness – Contrast – Hue – Saturation – Sharpness – Gamma J White Balance J Jacklight Comp J Gain J	j	499 499 499 50 50	Auto 22 Г 22 Г 22 Г 22 Г 22 Г Г 1 Г Г

- 1. To open the Video Tab:
  - Click File.
  - Click Video Setup.
  - From the Video Tab Click the Adjust button.

- 2. Click on the Video Proc Amp Tab.
- 3. Adjust the sliders as needed.
- 4. Click **OK**. Click OK on the Video Setup window to finish.
- 5. Repeat as needed to optimize the image on your particular system.

# **Taking Pictures**

Within NOAH<sup>™</sup> or stand-alone

Always Use a clean speculum tip for each new patient. Refer to the "Set-Up Manual" for additional cleaning information.



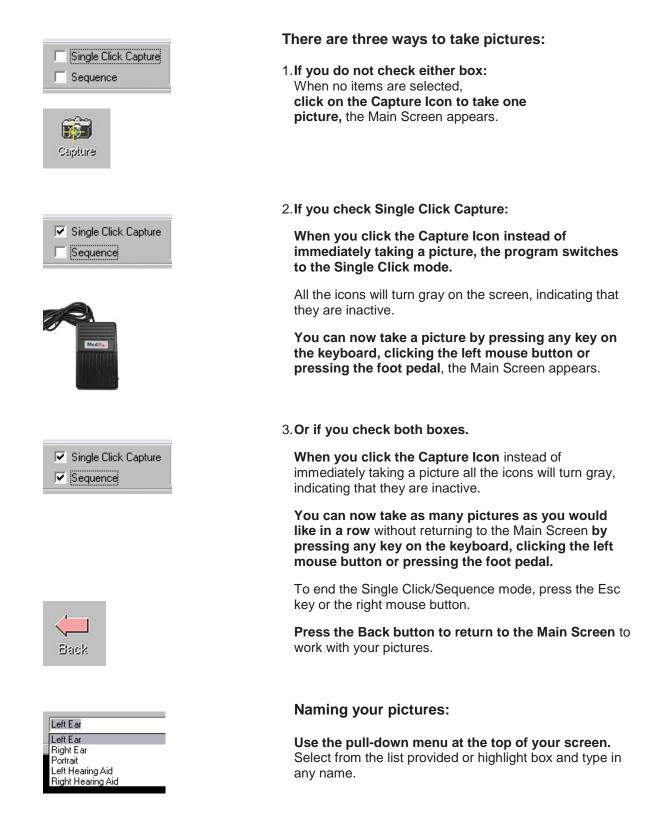
Click on the Scope Icon on the Main Screen.



The Capture Screen Appears.

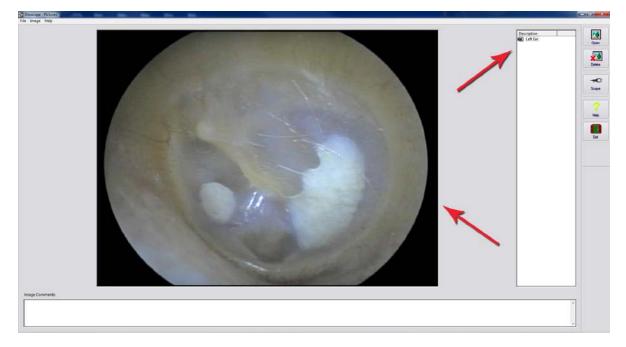
## **The Capture Screen**

Within NOAH<sup>™</sup> or stand-alone



## **The Main Screen**

Within NOAH<sup>™</sup> or stand-alone



#### The Main Screen shows a list and preview of the captured images.

An image in the list can be renamed by selecting it, clicking the right mouse button, and choosing the Rename option from the menu.



**Open Icon:** Opens the selected picture in the **View Screen** where you can enhance it.



**Scope Icon:** Click to take a new picture.

## **The View Screen**

Within NOAH<sup>™</sup> or stand-alone



This screen allows you to enhance your pictures.

## Tool Bar



Use this button to enlarge the image.

100 ×

Use this button to restore the image to the original size.



Use this button to maximize the image so that it occupies all available screen space.



Use this button to undo the last operation performed on the image.

## Enhancing



Use this function to emphasize the details on the image.

Use this function to blur the details on the image.



Use this function to create a shadow effect on the image. Best when used with monochrome pictures.

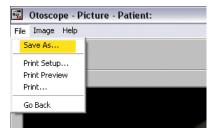


Use this function to reduce motion artifacts.

## **Saving Images**



**Using NOAH:** When you exit the program you will get a box that asks "do you want to Save NOAH session?" Click **Yes**.



**Not using NOAH:** from the View Screen go up to the File Menu and choose Save As. Save your images to your desktop in jpg or bmp formats.

## Symbols that may be used:



Read the instruction manuals for safe usage of the device. (operating instructions)



or SN Indicates that the device serial number will follow.



Manufacturer (MedRx)



Authorized Representative in Europe



Special Disposal Required.



**Humidity Limitation** 



Caution, General warning sign



**Temperature limitation** 



Read the instruction manuals for safe usage of the device (operating instructions).



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