

MedRx

TRAINING

MANUAL

External
Light Source



Battery Operated
Light Source



*Camera, Probe and
Lightsource*

VIDEO OTOSCOPES

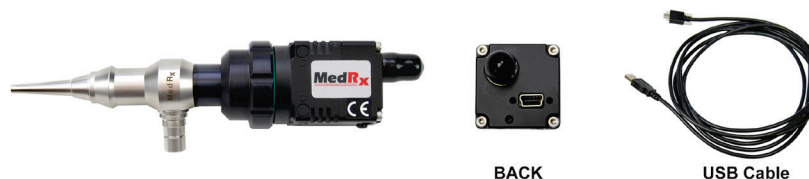


www.medrx-usa.com

Contents

Video Otoscope Drivers & Software

USB CAMERA



Getting to Know Your Video Otoscope	3
Computer Requirements.....	4
Driver Installation (USB Camera).....	5
Software Installation (USB Camera)	8
Software Configuration (USB Camera)	12
Adjusting Video Quality (USB Camera).....	13

Camera connects to computer via USB CAPTURE DONGLE



Driver Installation (USB Capture Dongle)	15
Software Installation (USB Capture Dongle).....	17
Software Configuration (USB Capture Dongle)	20
Adjusting Video Quality (USB Capture Dongle)	22

Using the Video Otoscope Software - Applies to both cameras

Taking Pictures.....	23
Capture Screen	24
Main Screen	25
View Screen.....	26
Saving Images	26



www.medrx-usa.com



1200 Starkey Rd., #105, Largo FL 33771 U.S.A.

Toll Free: (888) 392-1234 • (727) 584-9600

Fax: (727) 584-9602 • Email: medrx@medrx-usa.com



MedRx's Authorized Representative in Europe

(Regulatory affairs only)

Emergo Europe, Prinsessegracht 20

2514 AP The Hague, The Netherlands

Getting to Know Your Video Otoscope

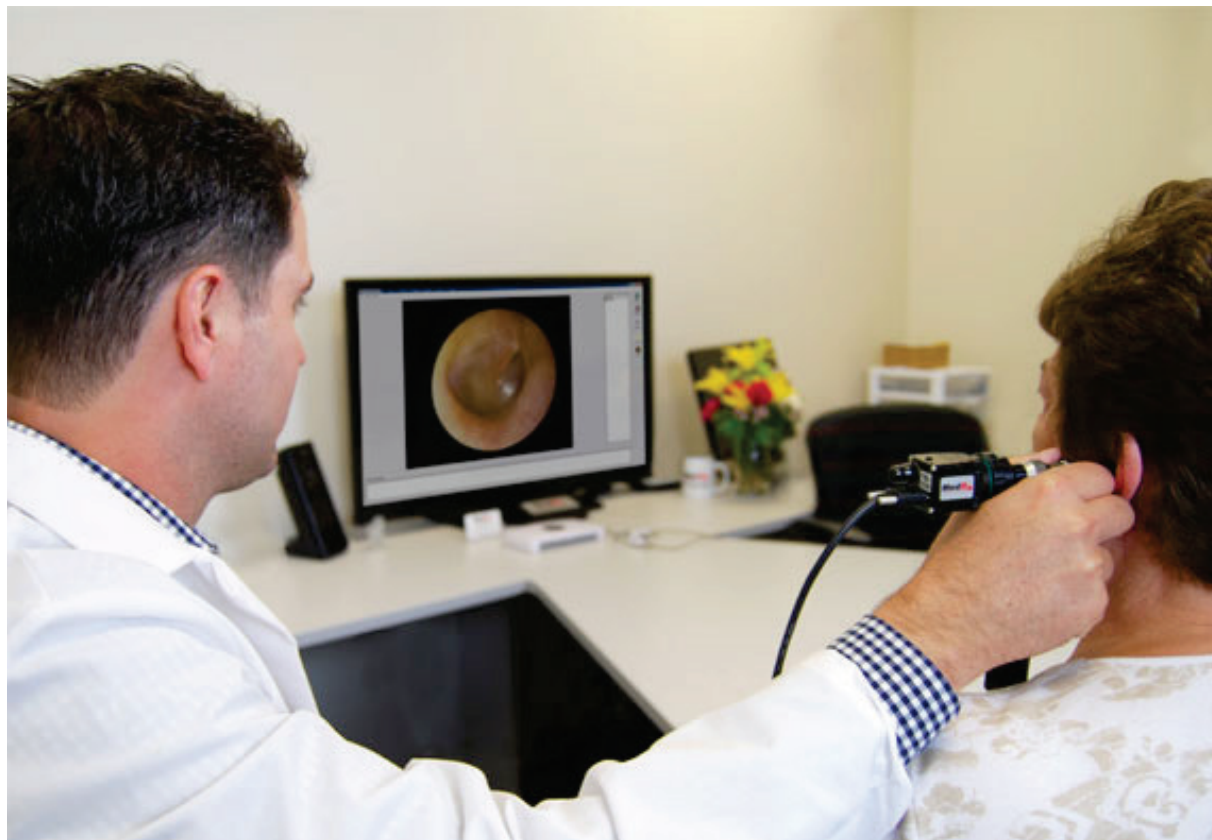
Intended Use Statement:

The MedRx Video Otoscope is used to perform otoscopic examination of the outer ear and tympanic membrane. Also used to assist the hearing aid and probe microphone placement for real ear measurements. These devices are to be operated by professionals with education and/or training in the field of audiometry. The device consists of an Otoscope connected to a video camera that can present the image on a video screen. This function gives you the option to capture images for storage

Indication For Use Statement:

The MedRx Video Otoscope is for use by professionals with education and/or training in the field of audiometry to provide detailed examinations of the outer ear canal and tympanic membrane. Also used to assist the hearing aid and probe mic placement for Real Ear Measurements. The image provided by the camera can be captured and stored as a visual record of the examination.

The MedRx Video Otoscope represents a new era of otoscopic examination in your office. The remarkably clear resolution of the MedRx Video Otoscopes is particularly helpful when comparing a clean ear canal with normal eardrum to a canal that has excessive cerumen, foreign bodies, external otitis, PE Tube status, cholesteatoma, TM perforations or other abnormalities. The following section of this manual will familiarize you with the physical features and accessories of the MedRx Video Otoscope system.



Computer Requirements

MedRx Minimum Computer Specs:
Windows®-PC compatible computer
Intel™ Dual Core, 1.8 GHz or better
2 GB RAM
5 GB free hard drive space
Available 2.0 USB port
CD-ROM or DVD-ROM drive
Windows 7, 8 or 10 (32 or 64-bit)
MedRx Recommended Computer Specs:
Windows®-PC compatible computer
Intel™ Dual Core, 2.0 GHz or better
3 GB RAM or more • 20 GB or more free hard drive space
Available 2.0 USB port
Graphics Adapter with Dedicated Video Memory
DVD-ROM Drive
High Speed Internet Connection (DSL, Cable)
Windows 7, 8 or 10 (32 or 64-bit)



Driver Installation

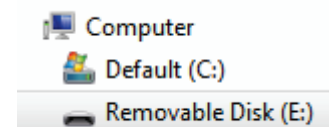
(USB Camera)

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



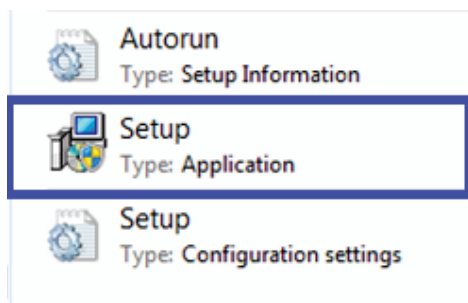
1. Insert the MedRx USB Flash Drive into USB port:

- ❖ Launch **My Computer**
- ❖ Locate USB Drive

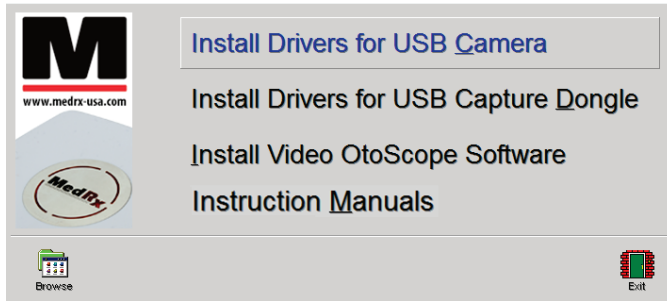


(E:) may vary depending on the USB port selected. Consult your computer's documentation.

2. Double Click on **Setup** to launch:
Note: If requested, Accept Permission to Install Software



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



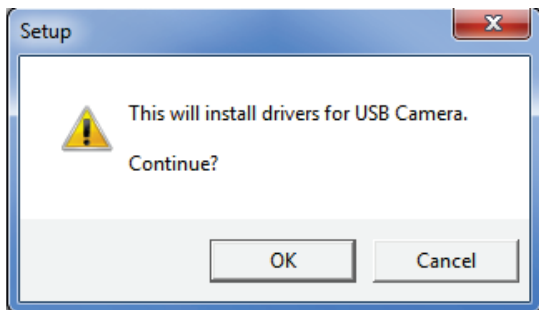
4. On the Driver Setup screen,

- Click **Install Drivers for USB Camera**.

Also, the Electronic Copy of this Manual is located under **Instruction Manuals**.

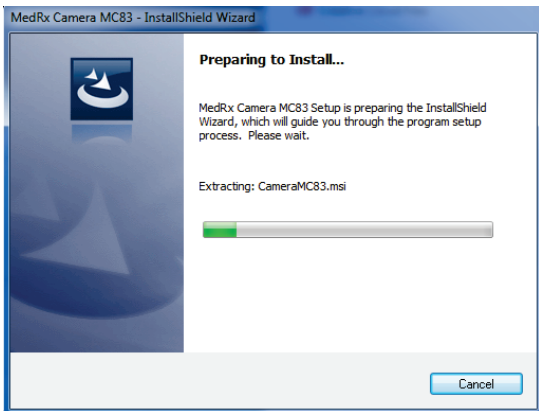
5. When this screen appears

- Click **OK**.



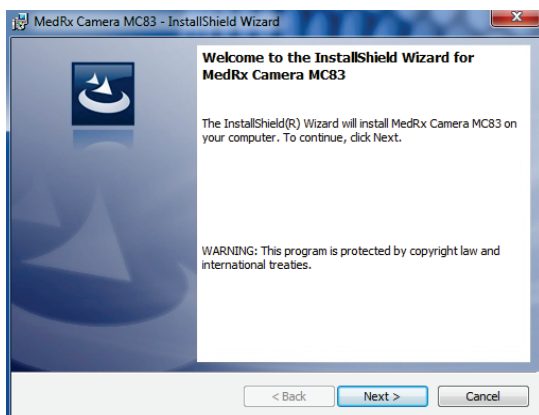
6. Wait for the InstallShield Wizard to finish preparing.

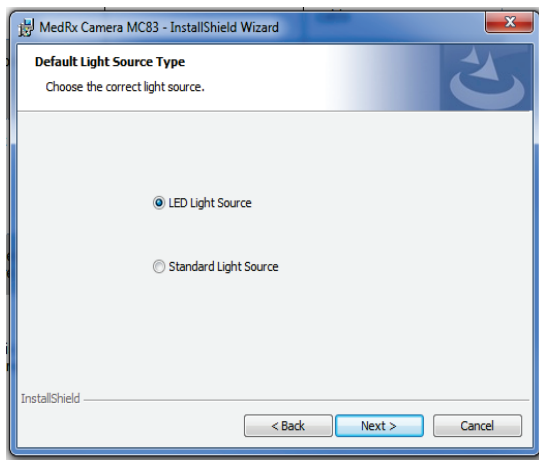
(This window may take a few seconds to appear.)



7. When this screen appears

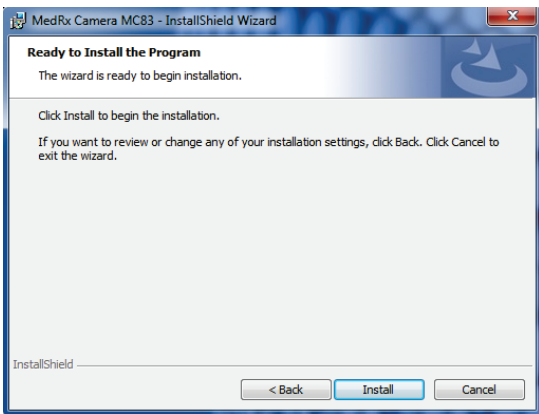
- Click **Next**.



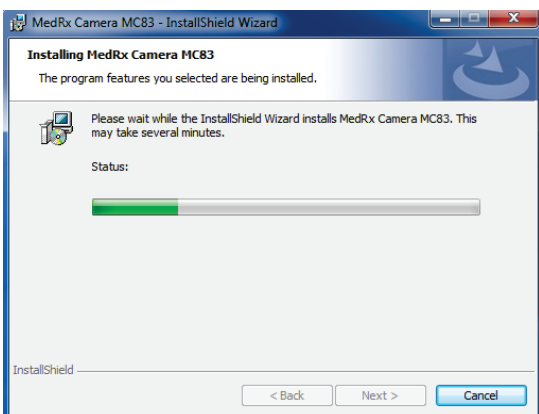


8. When this window appears choose which light source you have.

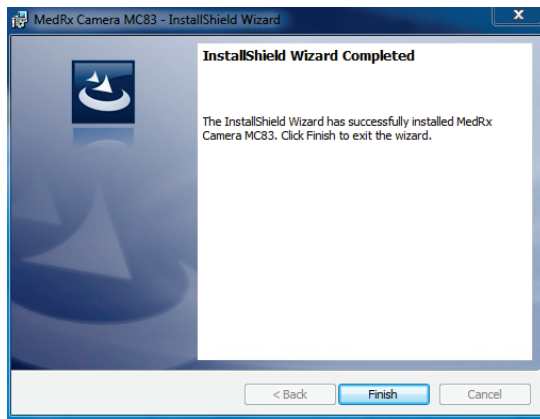
- Click **Next**



9. To begin installation **Click Install.**

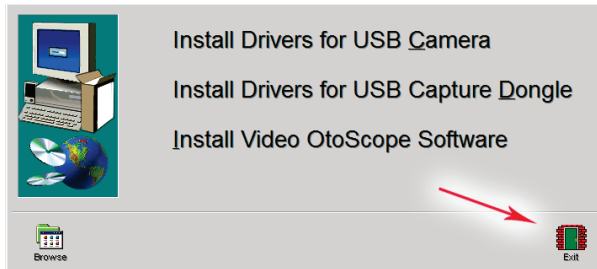


10. Wait for the InstallShield Wizard to finish.



11. When Installation is complete,

- Click **Finish**.



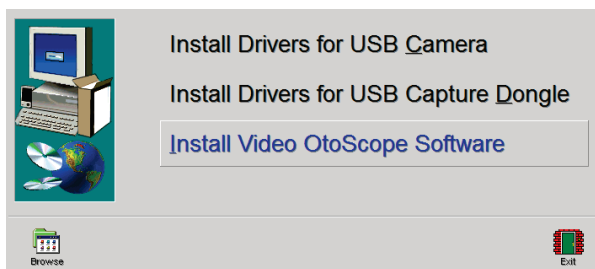
12. When the setup screen reappears

- Click **Exit**.

Installing the Video Otoscope Software (USB Camera)

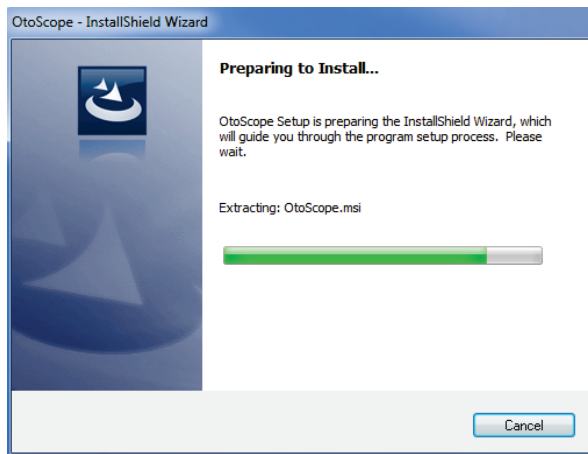
The MedRx Video Otoscope software may be incorporated into any AVANT™ software package. It is also available as a stand-alone application. When bundled with the AVANT software package, the Video Otoscope software is automatically installed. In this case, make sure you have installed the drivers. Driver installation instructions are on page 5 or 15 – depending on the camera you purchased.

Stand Alone Video Otoscope Software Installation.

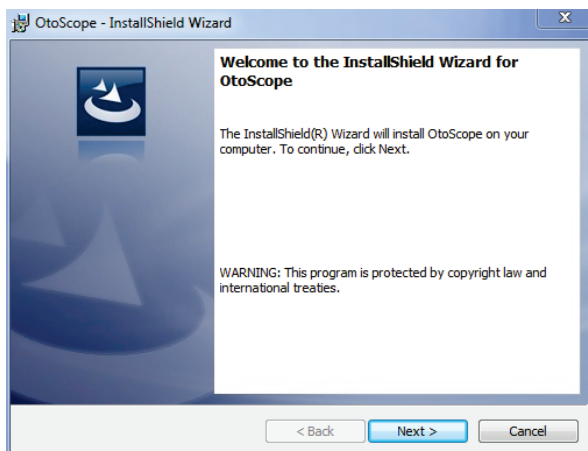


1. On the Setup screen, choose **Install Video Otoscope Software**.

Note: Please follow steps 1-2 from **Driver Installation** to get to following screen

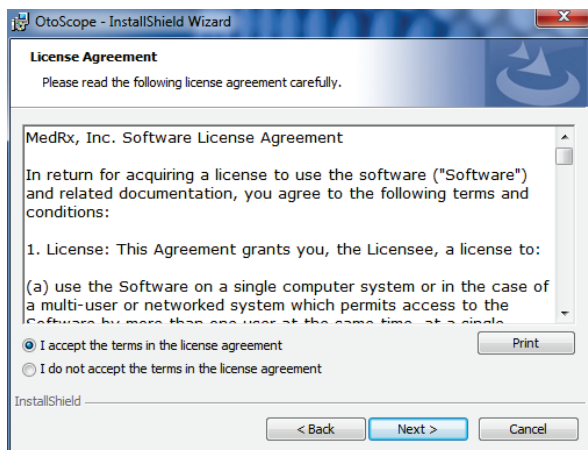


2. Wait for the InstallShield Wizard to finish preparing. (This window may take a few seconds to appear)



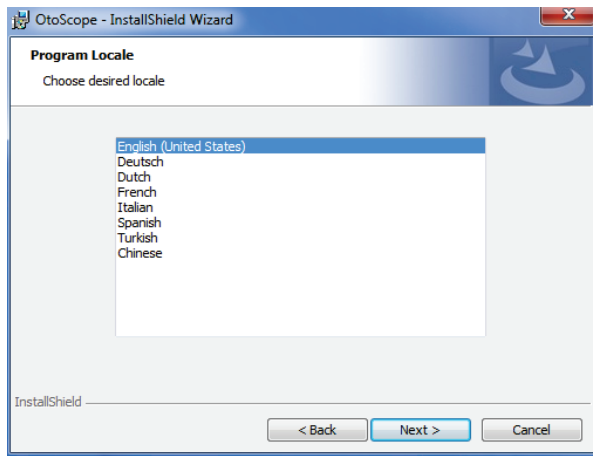
3. To Install the Ootoscope Software,

- Click **Next**.

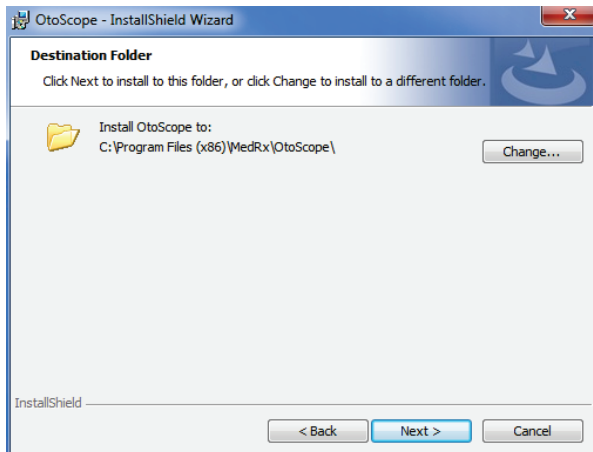


4. Read the Software License Agreement.

- Click **I accept...**
- Click **Next**.
- To make changes, Click **Back**.

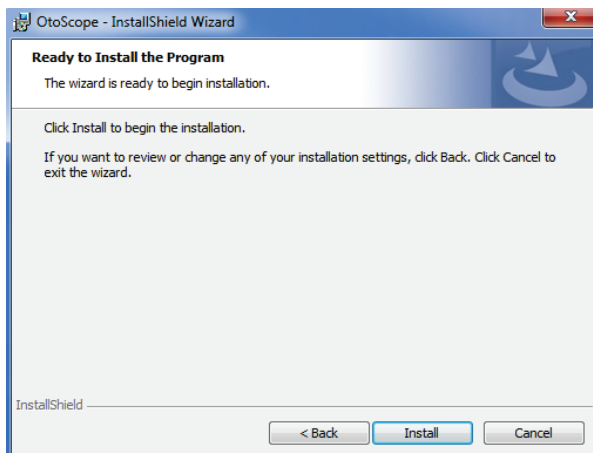


5. Choose a language. Click **Next**.



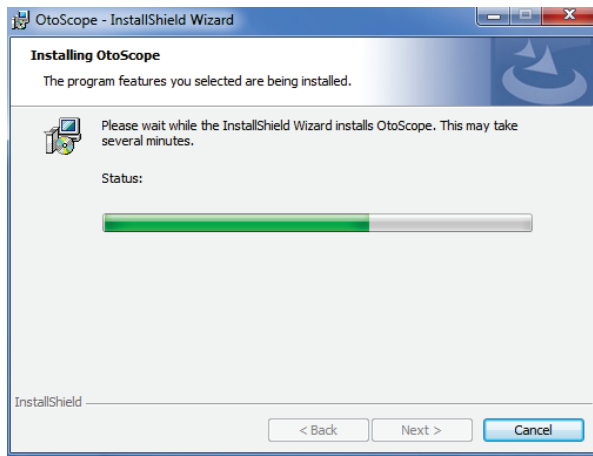
6. This screen summarizes the installation configuration.

- To continue, Click **Next**.
- To make changes, Click **Back**.

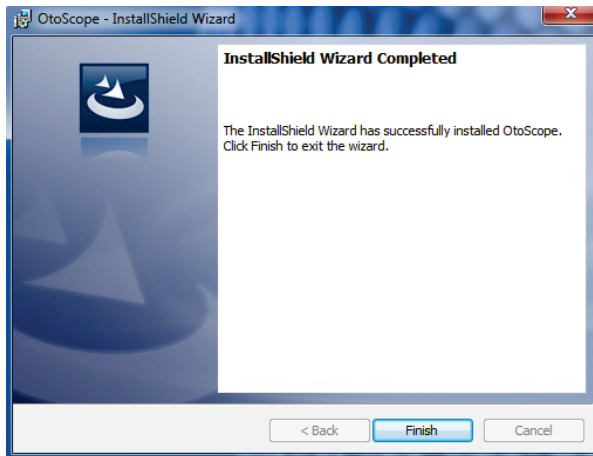


7. To start the installation process

Click **Install**.

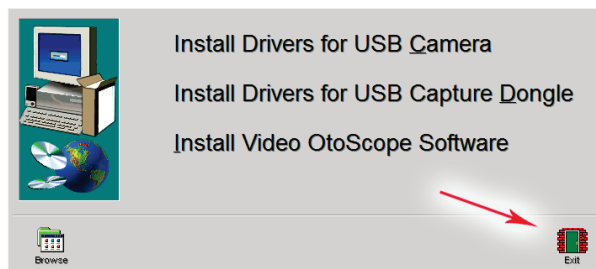


8. Wait for the installation to complete.



9. This screen will appear when the installation is complete.

- Click **Finish**.



10. 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™ or the TIMS® 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**.



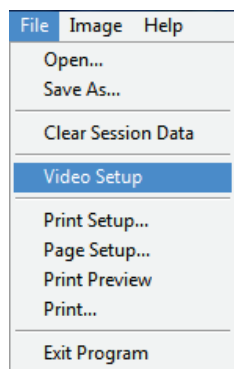
Configuring the Otoscope Software

(USB Camera)

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

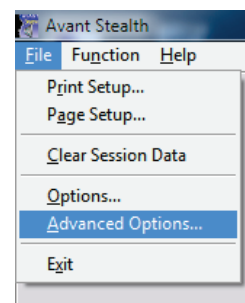
For Stand Alone software

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

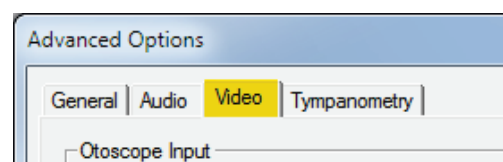


For Avant Family software

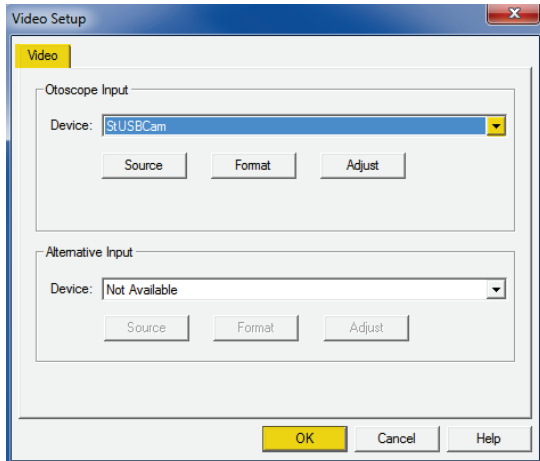
2. From the main screen of the Otoscope software,
 - Click **File**.
 - Click **Advanced Options**



- Then Click **Video** tab



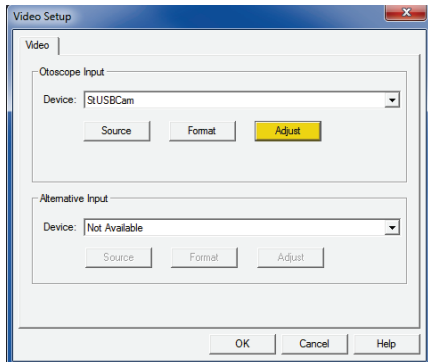
Applies to Stand Alone or the AVANT Family Software



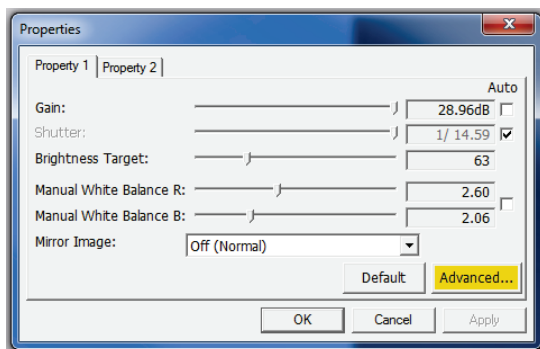
3. From the **Video Tab**:
 - Click the **Device** pull-down.
 - Select **StUSBCam**
4. Click **OK**.

Adjusting Video Quality (USB Camera)

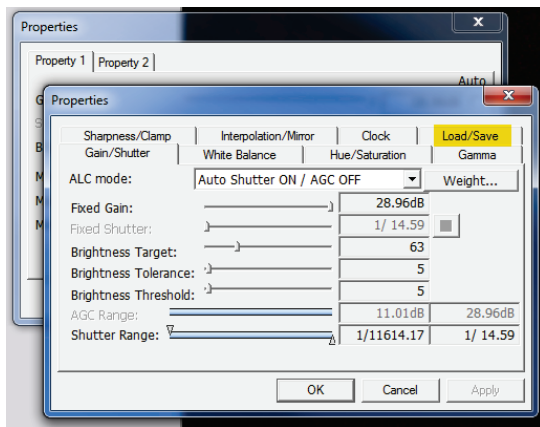
It is sometimes desirable to adjust the video quality of the Otoscope software.
To do this, follow the steps below:



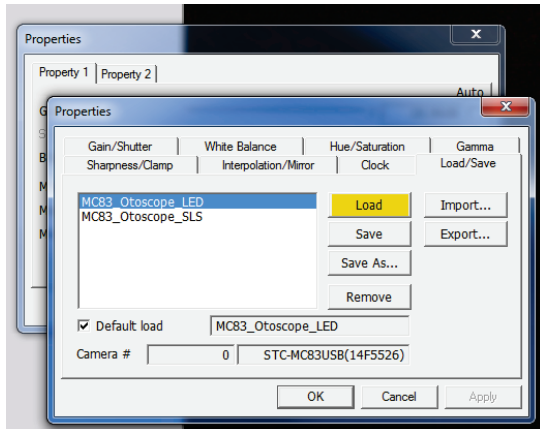
1. To open the **Video Tab**:
 - Click **File**.
 - Click **Video Setup**.
- From the **Video Tab**
Click the **Adjust** button.



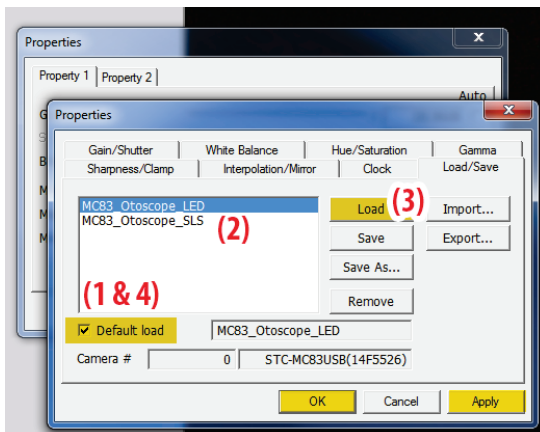
2. On the Properties screen, click on **Advanced**.



3. Click on **Load/Save**.



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



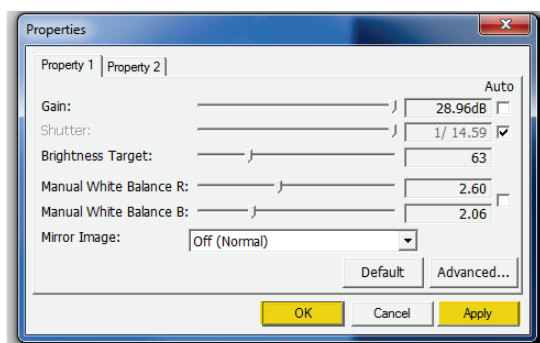
5. **Uncheck Default load (1)**

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

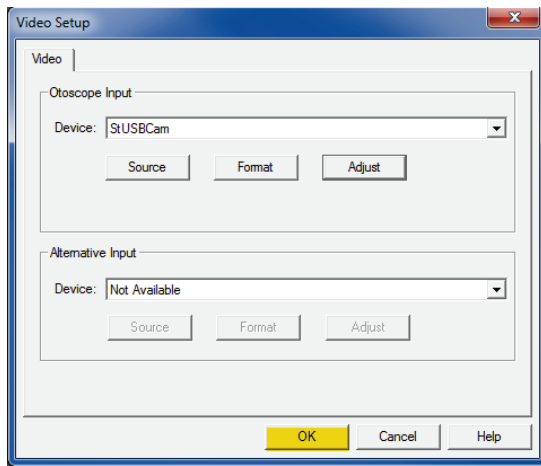
Click **Load (3)**

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.

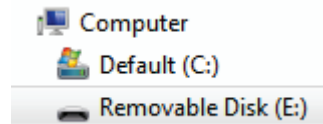
Driver Installation

(using a USB Capture Dongle)

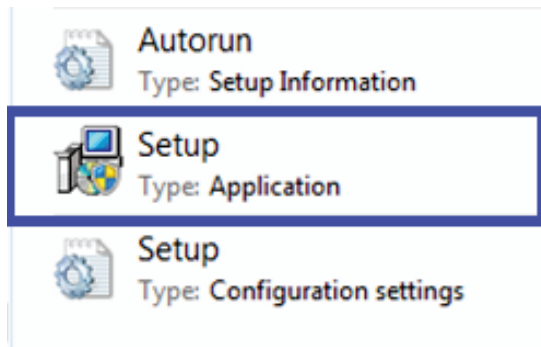
Go to page 4 for driver installation instructions if you are using Video Otoscope that connects via a USB cable.



1. Insert the MedRx VO USB Flash Drive into USB port:
 - ❖ Launch **My Computer**
 - ❖ Locate USB Drive

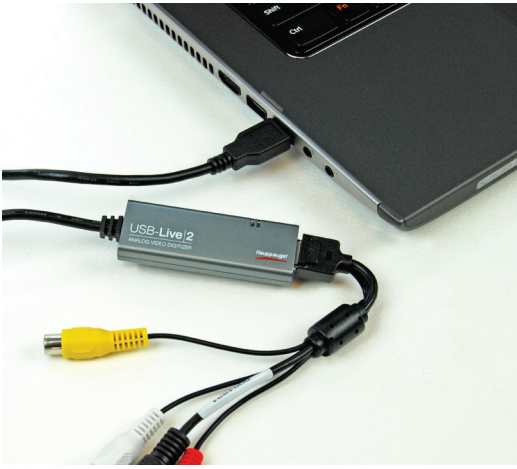


(E:) may vary depending on the USB port selected. Consult your computer's documentation.

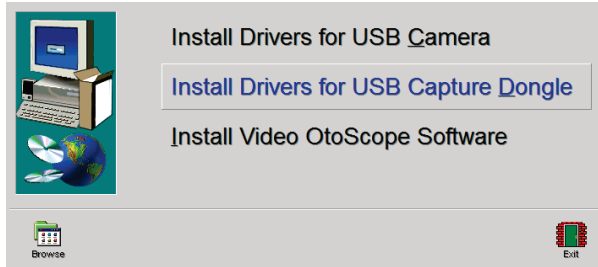


2. Double Click on **Setup** to launch:

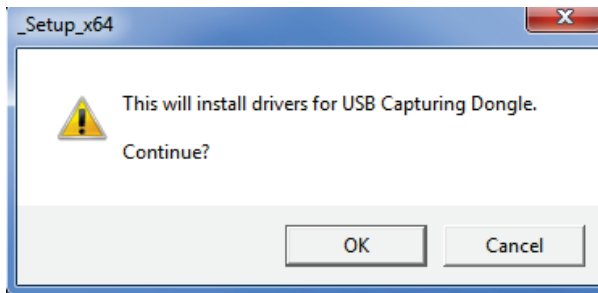
NOTE: If requested, Accept Permission to Install Software



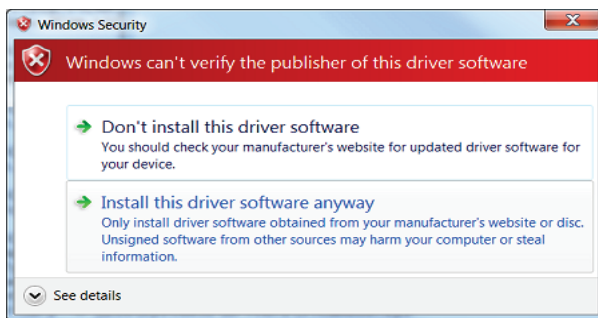
3. Connect USB Capture Dongle.



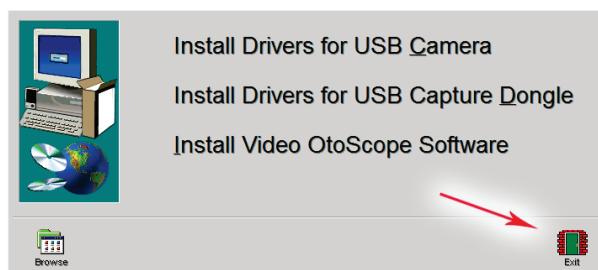
4. On the Setup screen, Click **Install Drivers for USB Capture Dongle**.



5. When this screen appears, Click **OK**.



6. If this warning screen appears, Click **Install this driver software anyway**.



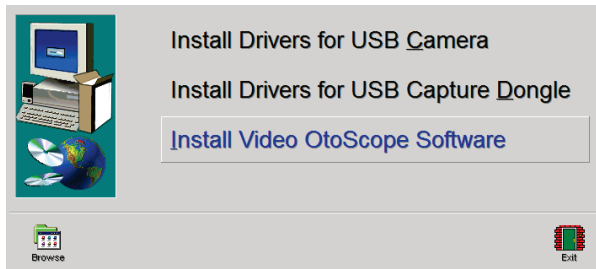
7. On the Setup Window Click **Exit**. (This window may take a few seconds to appear)

Installing the Video Otoscope Software

(using a USB Capture Dongle)

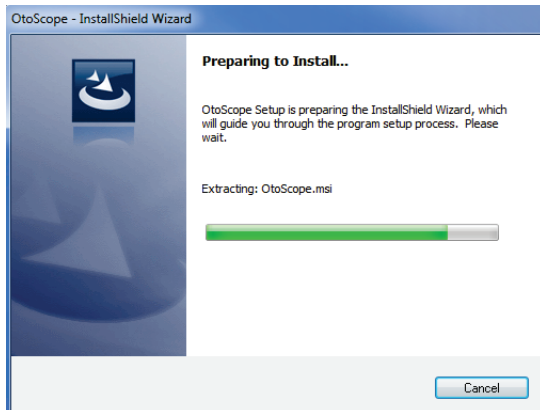
The MedRx Video Otoscope software may be incorporated into any AVANT™ software package. It is also available as a stand-alone application. When bundled with the AVANT software package, the Video Otoscope software is automatically installed. In this case, make sure you have installed the drivers. Driver installation instructions are on page 5 or 15 – depending on the camera you purchased.

Stand Alone Video Otoscope Software Installation.

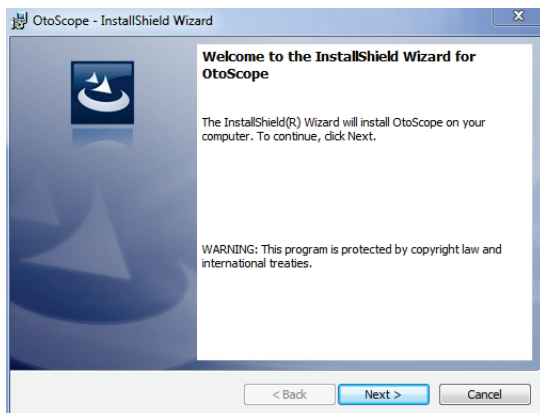


1. On the Setup screen, choose **Install Video OtoScope Software**.

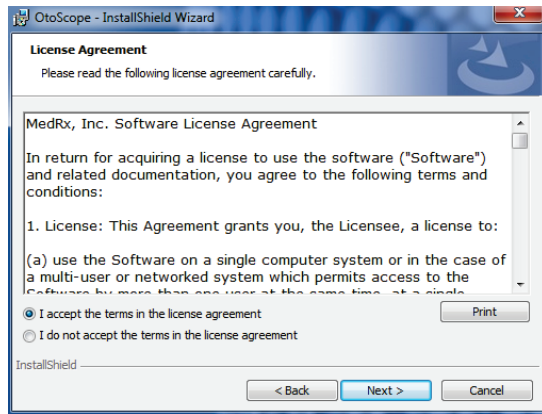
NOTE: Please follow steps 1-3 from Driver Installation to get to following screen



2. Wait for the InstallShield Wizard to finish preparing.

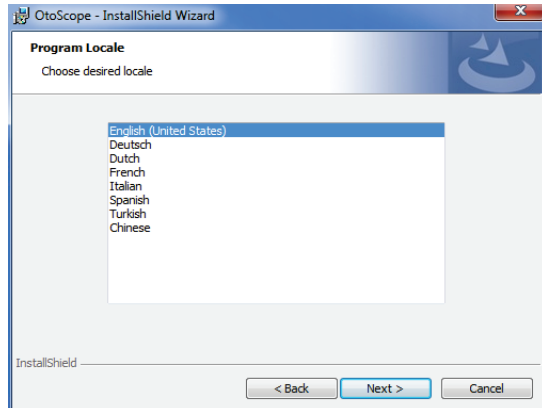


3. To Install the Otoscope Software, Click **Next**.

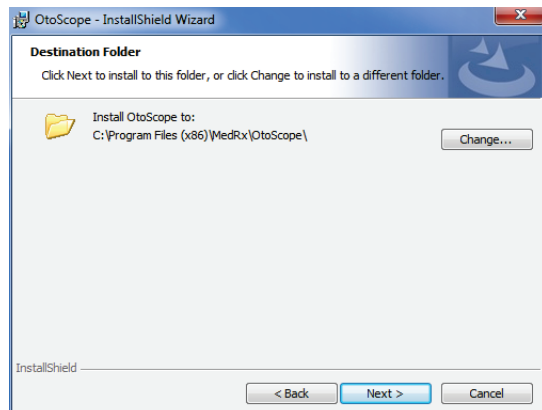


4. Read the Software License Agreement.

- Click **I accept...**
- Click **Next**.
- To make changes, Click **Back**.

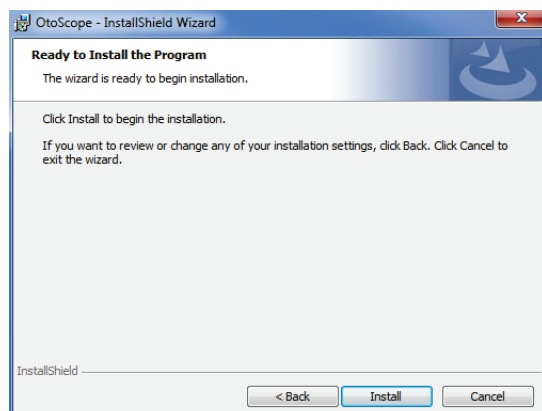


5. Choose a language. Click **Next**.

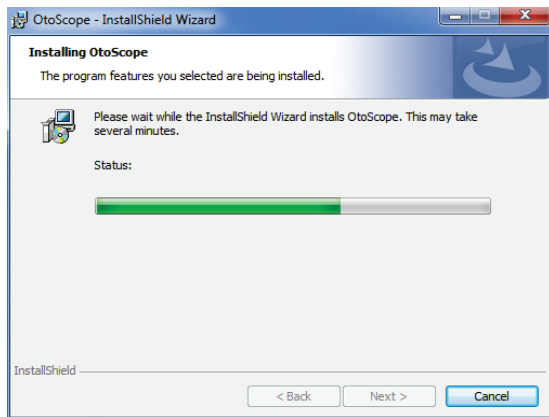


6. This screen summarizes the installation configuration.

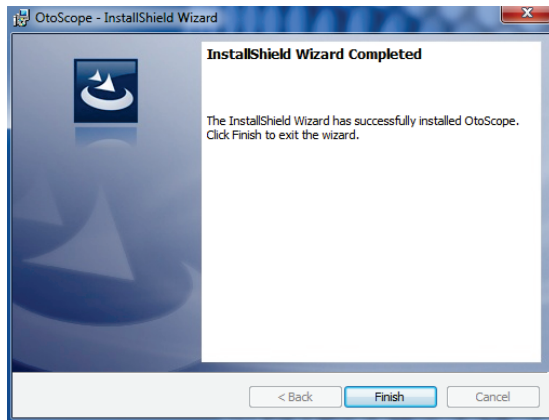
- To continue, Click **Next**.
- To make changes, Click **Back**.



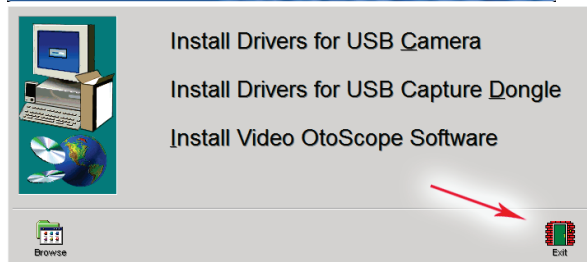
7. To start the installation process Click **Install**.



8. Wait for the installation to complete.



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



10. On the Setup Window Click **Exit**.

Software Configuration

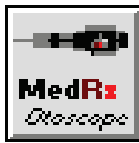
(using a USB Capture Dongle)

The MedRx Video Otoscope software can run stand-alone, through the AVANT family software, through NOAH™ or the TIMS® 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**.



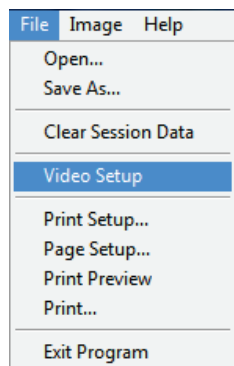
Configuring the Otoscope Software

(using a USB Capture Dongle)

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

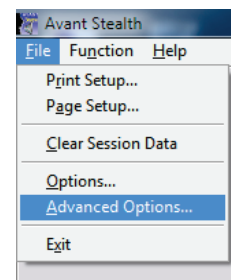
For Stand Alone software

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

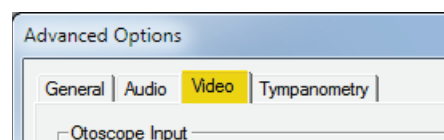


For Avant Family software

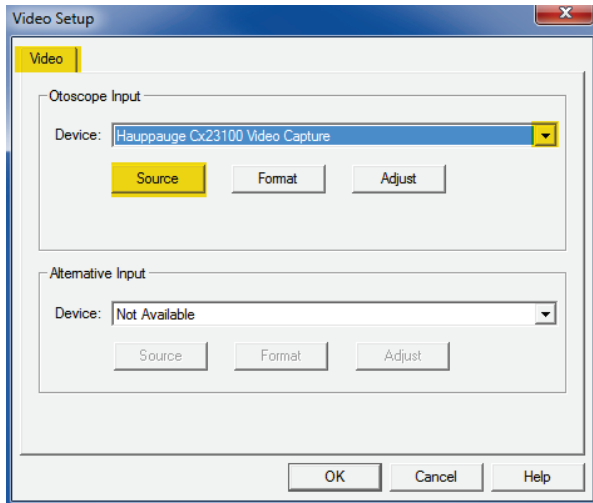
2. From the main screen of the Otoscope software,
 - Click **File**.
 - Click **Advanced Options**



- Then Click **Video** tab

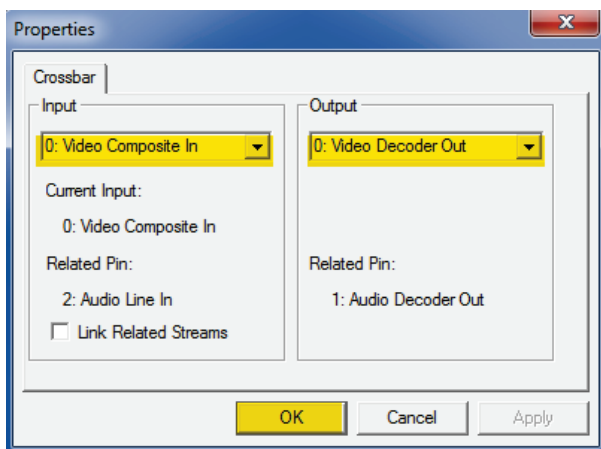


Applies to Stand Alone or the AVANT Family Software



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.

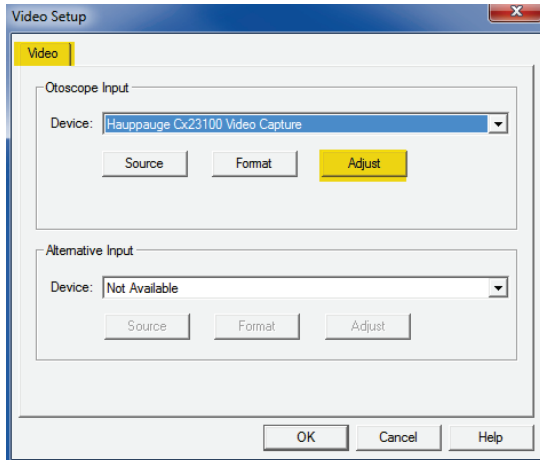


5. In the Properties window, use the pull-down menus to verify the following settings:
 - **Input = Video Composite In.**
 - **Output = Video Decoder Out.**
6. Click **OK** to complete changes. Click OK on the Video Setup window to finish.

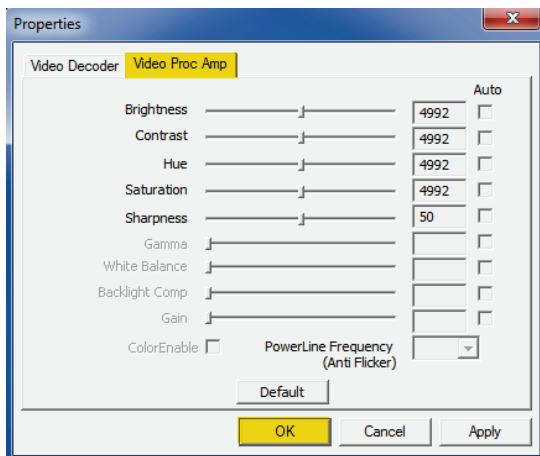
Adjusting Video Quality

(using a USB Capture Dongle)

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



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.

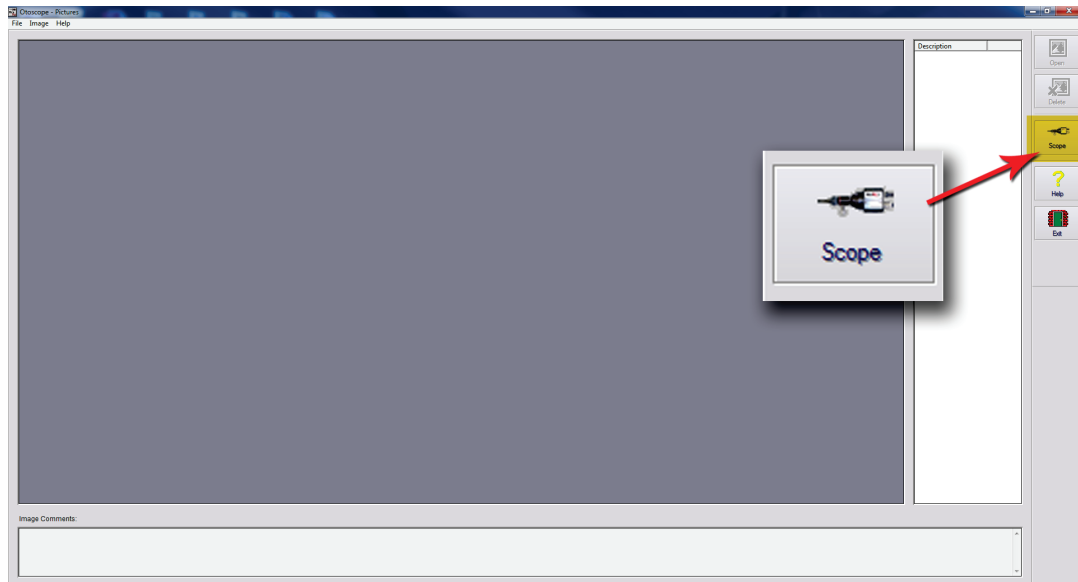
Using the Otoscope Software (Applies to all cameras)

Taking Pictures

Within NOAH™ 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.

Using the Otoscope Software (Applies to all cameras)

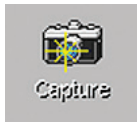
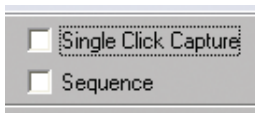
The Capture Screen

Within NOAH™ or stand-alone

There are three ways to take pictures:

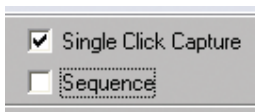
1.If you do not check either box:

When no items are selected,
click on the Capture Icon to take one picture, the Main Screen appears.



2.If you check Single Click Capture:

When you click the Capture Icon instead of immediately taking a picture, the program switches to the Single Click mode.



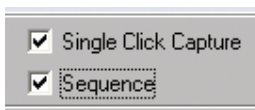
All the icons will turn gray on the screen, indicating that they are inactive.



You can now take a picture by pressing any key on the keyboard, clicking the left mouse button or pressing the foot pedal, the Main Screen appears.

3.Or if you check both boxes.

When you click the Capture Icon instead of immediately taking a picture all the icons will turn gray, indicating that they are inactive.



You can now take as many pictures as you would like in a row without returning to the Main Screen **by pressing any key on the keyboard, clicking the left mouse button or pressing the foot pedal.**



To end the Single Click/Sequence mode, press the Esc key or the right mouse button.

Press the Back button to return to the Main Screen to work with your pictures.

Naming your pictures:

Use the pull-down menu at the top of your screen.

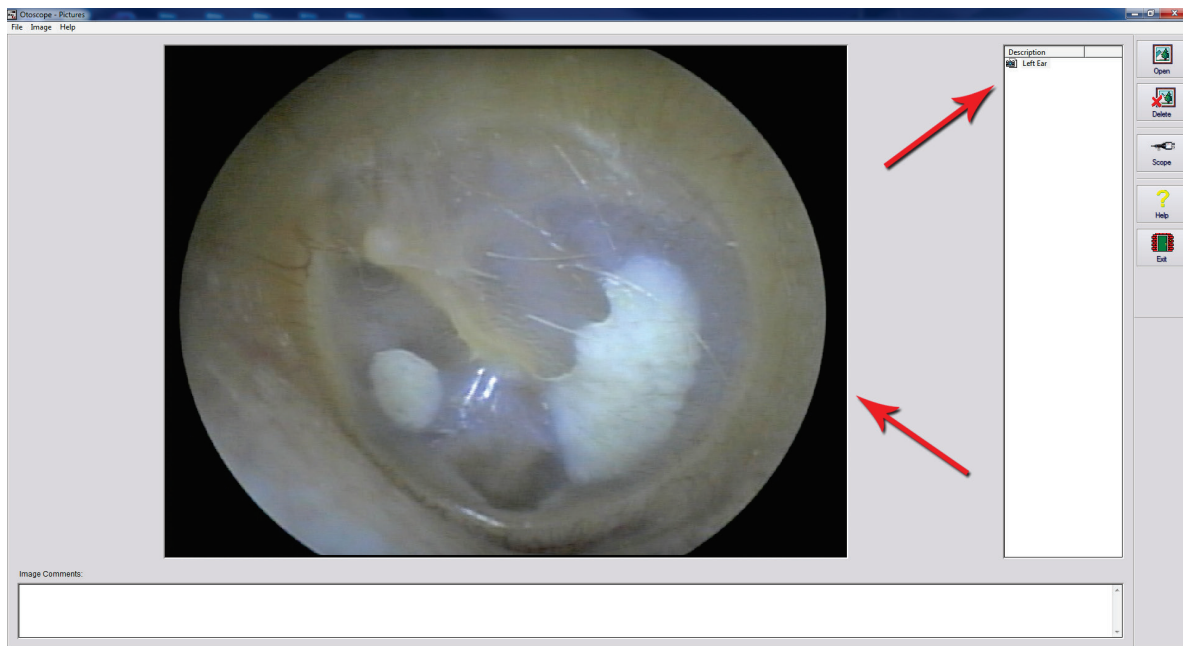
Select from the list provided or highlight box and type in any name.



Using the Otoscope Software (Applies to all cameras)

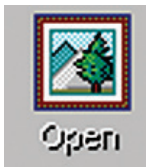
The Main Screen

Within NOAH™ 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.

Using the Otoscope Software (Applies to all cameras)

The View Screen

Within NOAH™ or stand-alone



This screen allows you to enhance your pictures.

Tool Bar



Use this button to enlarge the image.



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.

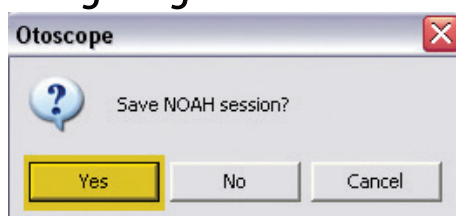


Use this function to create a shadow effect on the image. Best when used with monochrome pictures.

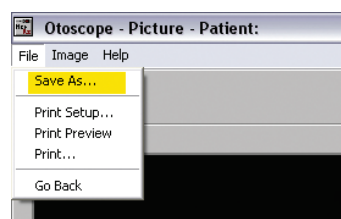


Use this function to reduce motion artifacts.

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).

Congratulations

Your MedRx system is now set up and ready for use. Please consult the Training Manual and the Interactive Help Files within the software for instructions and procedures. The Training Manual is available in PDF format on a USB flash drive and at www.medrx-usa.com in our Download Section.

Limited Warranty

MedRx, Inc warrants this product to be free from defects in material and workmanship for one year from the time of purchase. If this system fails to perform as specified during this period, the purchaser is responsible for calling MedRx at (888) 392-1234 or (727) 584-9600. The company's representative will advise the owner to either return specific components or the entire system to:

MedRx, Inc.
1200 Starkey Road #105
Largo, FL 33771 USA

MedRx will repair or replace any defective devices, fully test the system and/or components and ship the system promptly back to the owner. There is no cost for the repair or return shipping, provided the system is one year old or less and has not been misused, abused or damaged. Such damage includes, but is not limited to, dropping, exposure to excessive heat greater than 100°F and water/liquid damage.

Repair or replacement of the system as provided under this warranty is the sole and exclusive remedy of the purchaser. MedRx shall not be liable for any consequential or incidental damages or for breach of any express or implied warranty. Except to the extent of applicable law, any implied warranty, merchantability or fitness of this product is limited to the duration of this warranty.

MedRx will, at its discretion, service and repair out of warranty products at the purchaser's request, charging for parts and labor as necessary.

The limited warranty is deemed void if software or hardware is installed on this product which is not pre-approved by MedRx, Inc. Approved software includes NOAH™ and HIMSA approved hearing aid manufacturer programming modules for fitting hearing aids.

MedRx, Inc is not responsible for problems resulting from installation of unapproved software or hardware. In the event of unapproved software or hardware installed on the system causing a conflict, MedRx will service the product for a fee to be determined at the time of service.

Any extension of this warranty past the initial one-year warranty is subject to the following (where applicable).

1. A \$300 deductible per repair.
2. Extended warranty does not include cables, connectors or peripherals.
3. Extended warranty of the Video Otoscope covers optics only.