

Setup Guide

**For use with
Vidar Driver Installation CD 3.0 (USB or SCSI)**

VIDAR device driver summary

Operating system	Device driver	EZ-SCSI Software	Update Toolkit (<i>vscsi32.dll</i>)	CDs needed
Windows™ XP Professional Edition, Service Pack 1 or higher	Vidar STI	No	Yes	VIDAR Drivers and Toolkit Installation CD
Windows™ 2000 with Service Pack 2 or higher (Service Pack 4 or higher is required for USB connectivity)	Vidar STI	No	Yes	VIDAR Drivers and Toolkit Installation CD

IMPORTANT: Please save the CD. You will need it if you:

- Uninstall or reinstall the drivers.
- Upgrade the digitizer firmware.
- Replace the digitizer with another one having different firmware.
- Reinstall the scanning application.
- Install the digitizer and scanning application on another computer.

About the STI drivers

Previously, most system integrators built their scanning applications for VIDAR digitizers based on either the VIDAR SCSI Toolkit or the ActiveX control (based on the SCSI Toolkit). VIDAR's SCSI Toolkit was based on Adaptec's ASPI drivers. However, Adaptec™ is not supporting its ASPI drivers for Microsoft Windows™ 2000 or XP. Therefore, VIDAR developed a toolkit that takes advantage of Microsoft's Still Image Architecture (STI) for digital imaging devices. The new VIDAR Toolkit and VIDAR STI driver support several operating system enhancements.

The VIDAR STI driver was designed to provide compatibility between VIDAR medical film digitizers and Windows™ 2000 and XP. Features of this driver include:

- Installation/setup wizard for easy and consistent installation.
- Scanners and Cameras Control Panel, which provides a common interface for still image devices.
- Push-model event monitor and control center, a consistent model in which a still image device can initiate data transfer to an application (push model), in contrast to an application having to request data from the device (pull model).
- No need to rely on unsupported ASPI-layer drivers from Adaptec™ for SCSI adapters.

The VIDAR STI driver works with the new Toolkit (*vscsi32.dll*), which is automatically installed with the STI driver. The Toolkit was developed specifically to support the STI architecture:

- It is a direct replacement for previous *vscsi32.dll*s.
- No recompiles are necessary.
- Installation automatically replaces the current *vscsi32.dll* with the new one.
- Existing applications are easily configured to work with the Toolkit.

WARNING: VIDAR has validated the STI driver and replacement of *vscsi32.dll* with all supported VIDAR digitizers on both Windows™ 2000 and Windows™ XP systems using several third party software applications. No bugs or problems were identified during validation testing. However, you must check with your system integrator or scanning software vendor to verify that they support the replacement of VIDAR's *vscsi32.dll*.

NEXT: If connecting digitizer via SCSI, go to “SCSI settings” ➡

or

If connecting digitizer via USB, go to “Installing USB drivers” ➡

Configure the SCSI BIOS

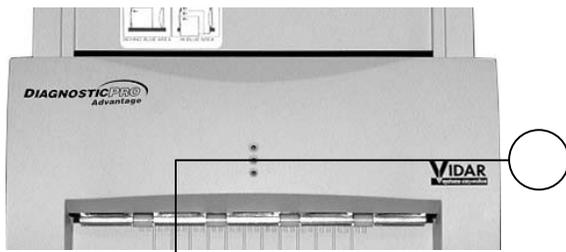
Note: This step is required for SCSI installations.

A. Turn on the digitizer

1. Ensure the PC is turned **off**.

Note: Always apply power to the digitizer before turning on the computer. This enables the computer to recognize the digitizer.

2. Turn on the digitizer.
3. Watch the LEDs on the front of the digitizer. **Wait until all LEDs are solid green (center LED may flash slowly).** Then proceed to step 2, next in this chapter.



Note: When you turn on the digitizer, several minutes are required for the digitizer to carry out its internal diagnostics.

LEDs

	Location	Function	
	Top LED	Feeder status	Solid green
	Center LED	Digitizer status	Solid green, but slow flashing when digitizer is busy
	Bottom LED	Power status	Solid green

Note: For more information about LED states, see "Appendix: troubleshooting," in the product Installation and Operation Manual

B. Edit the SCSI adapter BIOS settings

In most cases, the digitizer is not properly detected after you install the SCSI adapter. This is because the computer tries to boot from the adapter, but no SCSI hard disk is connected. You must correct this behavior in the SCSI BIOS.

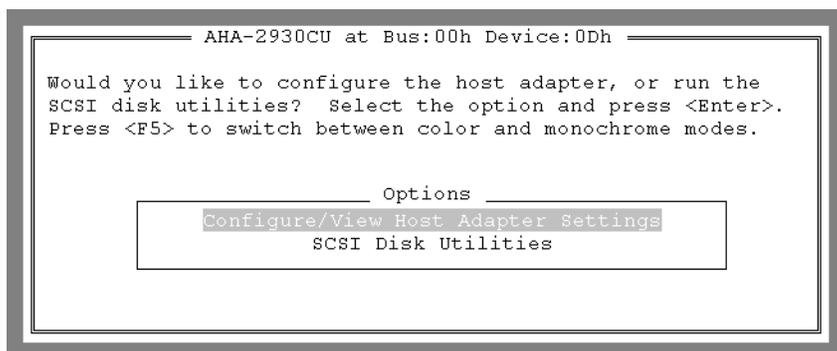
1. Turn on or restart your computer. When the computer boots up, it will detect the SCSI Adapter. When this message appears on the screen, *immediately* press CTRL+A:

Press Ctrl+A for SCSISelect™ Utility!

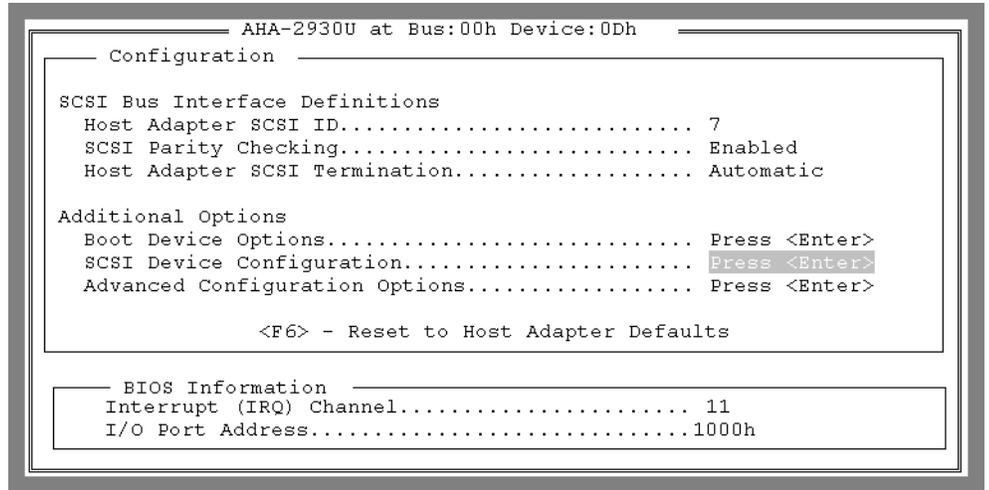
(The message appears for just a few seconds.)

Note: In the next steps, use keyboard ARROW keys to navigate within a screen. When you have selected the desired option, press ENTER.

2. In the **Options** menu (see below), select the **Configure/View Host Adapter Settings** option, then press ENTER.



3. Under **Additional Options**, select **SCSI Device Configuration** (see below). Press ENTER.



4. You will see SCSI Device ID #s 0 to 7. **Initiate Sync Negotiation** will be set to **Yes** or **No**. Set them all to **No**. Set **Maximum Sync Transfer Rate** to **10.0** for all. Press ESC to exit this screen.

SCSI Device Configuration								
SCSI Device ID	#0	#1	#2	#3	#4	#5	#6	#7
Initiate Sync Negotiation.....	no							
Maximum Sync Transfer Rate(MB/Sec)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Enable Disconnection.....	yes							
Options Listed Below Have NO EFFECT if the BIOS is Disabled								
Send Start Unit Command.....	no							
BIOS Multiple LUN Support.....	no							
Include in BIOS Scan.....	yes							

5. Select **Advanced Configuration Options** (see below) and press ENTER.

```
          AHA-2930U at Bus:00h Device:0Dh
----- Configuration -----
SCSI Bus Interface Definitions
Host Adapter SCSI ID..... 7
SCSI Parity Checking..... Enabled
Host Adapter SCSI Termination..... Automatic

Additional Options
Boot Device Options..... Press <Enter>
SCSI Device Configuration..... Press <Enter>
Advanced Configuration Options..... Press <Enter>

          <F6> - Reset to Host Adapter Defaults

----- BIOS Information -----
Interrupt (IRQ) Channel..... 11
I/O Port Address.....1000h
```

6. Select **Host Adapter Bios**. Set to **Disabled**.
7. Press ESC, then **SAVE SETTINGS**, then **REBOOT**.

NEXT: Go to “Installing SCSI drivers” ➡

Installing SCSI drivers

Note:

- On Windows™ 2000 computers, Service Pack 2 or higher must be installed for SCSI installations. Computers without Service Pack 2 or higher will not be supported.
- On Windows™ XP Professional Edition, Service Pack 1 or higher must be installed for SCSI installations.

You will need:

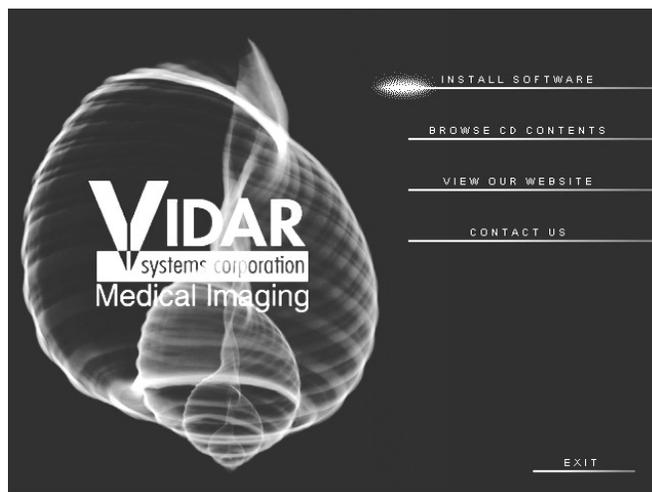
- VIDAR Drivers and Toolkit Installation CD.

Note: These instructions have been successfully tested on a wide range of Windows™ 2000 and Windows™ XP systems. In rare instances, you may have difficulty installing the STI driver. If that happens, try again after logging on as Administrator, or as a user with Administrator rights.

1. Be sure the digitizer is turned OFF, and is NOT connected to the PC. Wait until you are prompted to connect the digitizer.
2. Turn on the PC.
3. Insert the **VIDAR Drivers and Toolkit Installation CD** into the CD-ROM. The installer should launch automatically.

If the installer does not launch automatically, double-click the appropriate CD drive icon under **My Computer** in Windows™ Explorer.

4. In the first screen, click **Install Software**.

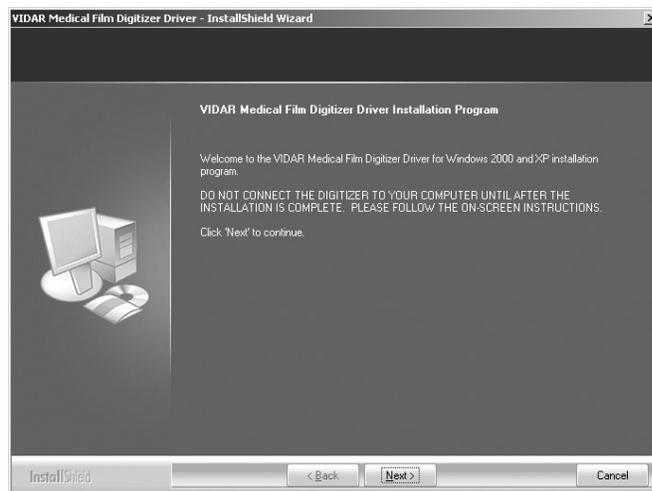


5. In the next screen, click **Install Digitizer Driver**.

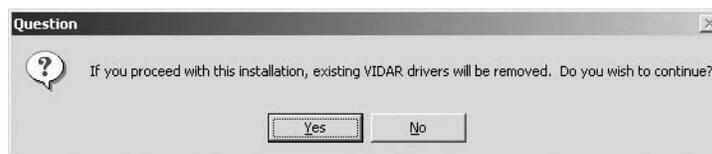


6. You will see a message that the InstallShield Wizard is starting.

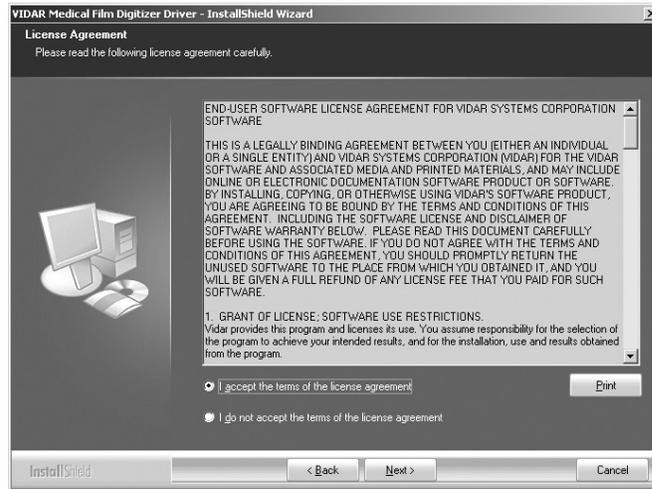
7. In the InstallShield Welcome screen, click **Next**.



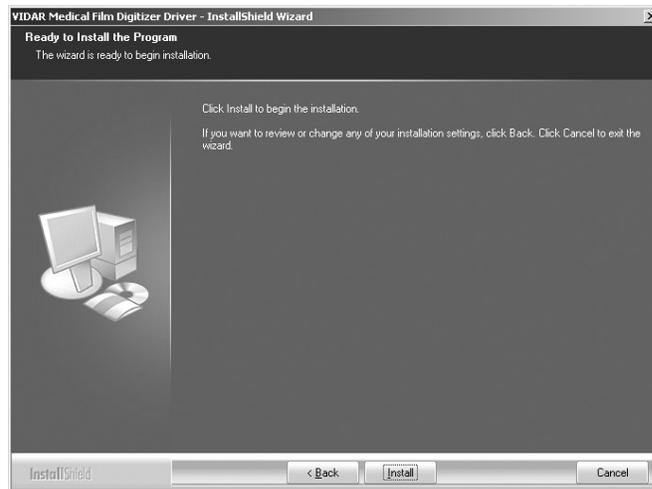
8. If you are updating from older VIDAR SCSI drivers, you will see the message below. Click **Yes**.



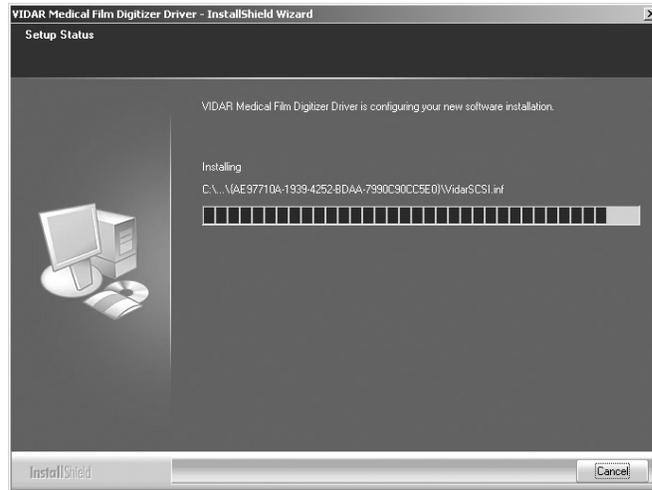
9. In the **License Agreement** window, activate the **I accept the terms of the license agreement**, then click **Next**.



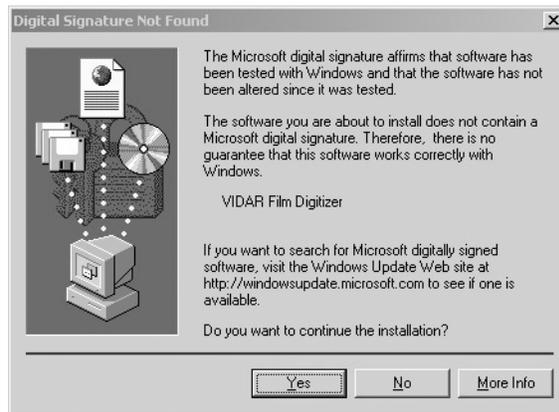
10. In the **Ready to Install the Program** window, click **Install**.



10. The **Setup Status** window will appear. Wait while the files are installed.



11. The **Digital Signature Not Found** window will appear. Click **Yes**.



12. InstallShield will indicate that installation is complete. However, drivers are not yet installed.

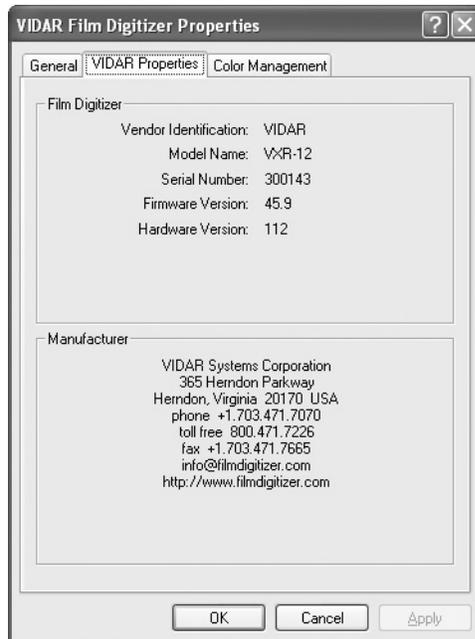
In the **...Installation Complete** window, activate **No, I will restart my computer later**, then click **Finish**.

13. Shut down the computer. Leave the VIDAR CD in the CD drive.
14. Earlier, you connected VIDAR SCSI cable part number 4270 to the digitizer. Now, attach the 50-pin connector on the other end of that cable to the external port on the SCSI adapter.
15. Turn on the digitizer.
16. Turn on the computer.
17. After Windows loads, the **Found New Hardware** window will appear, indicating that the digitizer is connected to the computer.
18. Next, the **Digital Signature Not Found** window will appear. Click **Yes**.



19. Verify that the digitizer drivers are fully installed by checking the device properties. Use the path for your operating system:
 - For Windows™ XP Professional: **Start > Control Panel > Printers and Other Hardware > Scanners and Cameras.**
 - For Windows™ 2000 Professional: **Start > Settings > Control Panel > Scanners and Cameras.**
20. In the device window, right-click **Vidar Film Digitizer**, then click **Properties** in the pop-up menu.

21. In the **VIDAR Film Digitizer Properties** window, click the **VIDAR Properties** tab.



Note that:

- The digitizer will report as “VXR-12” for backward compatibility.
- You may not see the same firmware and hardware version as shown in the window above.
- The serial number will not report if the digitizer was just powered on. Your digitizer’s serial number will be different from the one shown in the example above.

NEXT: Go to “Updating the VIDAR Toolkit” Page 24 ➡

Note: Your software may not operate correctly if the VIDAR toolkit is not updated.

Installing USB drivers

Note: VIDAR digitizers with serial numbers 310000 and higher have USB 2.0 functionality. Some older models have USB ports, but require factory hardware upgrades to operate as USB devices. Contact VIDAR for details.

Note: Do not connect the digitizer to the computer until you are prompted during the driver installation process.

USB interface requirements

- The computer must have a USB **2.0** port. If you are not certain that the computer has a USB 2.0 port, contact its manufacturer. Be aware that the manufacturer may tell you that a USB 2.0 peripheral can be used with a USB 1.1 port. That combination may be possible for other devices, but the operating system will not recognize the VIDAR digitizer if it is connected to a USB 1.1 port.
- If the computer does not have a USB 2.0 port, you may install a USB 2.0 adapter. Adaptec™ (www.adaptec.com) offers several USB 2.0 adapters; however, VIDAR has only tested Adaptec Model USB2Connect, part number AUA-2000.
- The computer's operating system must be upgraded to the following level:
 - Windows™ XP: Service Pack 1 or higher.
 - Windows™ 2000: Service Pack 4 or higher.Microsoft does not support USB 2.0 on earlier service packs.
- The digitizer must be connected to the computer with a USB 2.0 cable. VIDAR provides an approved USB 2.0 cable (part number 4618) with all USB digitizer orders; this cable has been tested and approved for EMI radiated emissions.

Updating a previous VIDAR STI driver installation

If older VIDAR STI drivers are installed on this computer, you must first remove them, then perform a clean driver installation.

To remove older drivers:

1. For Windows™ XP Professional: **Start > Control Panel > Printers and Other Hardware > Scanners and Cameras**.
or
On a Windows™ 2000 system: **Start > Settings > Control Panel > Scanners and Cameras**.
2. **VIDAR Film Digitizer** should report in the **Devices** window. Click the **Remove** button.
3. Continue in “Installing the USB drivers,” next.

Installing the USB drivers

You will need:

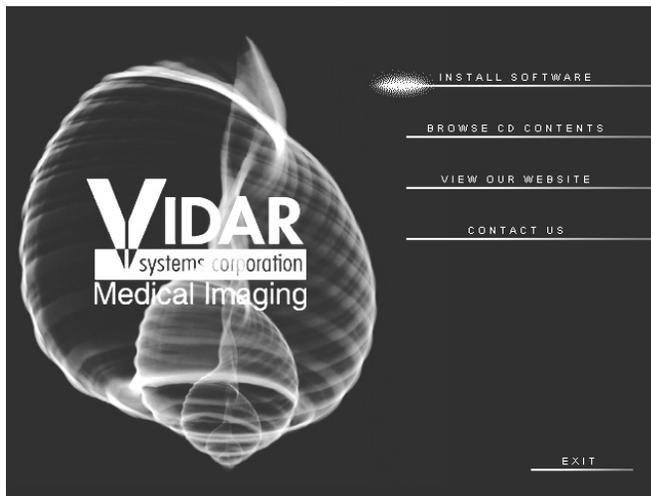
- VIDAR Drivers and Toolkit Installation CD.

Note: These instructions have been successfully tested on a wide range of Windows™ 2000 and Windows™ XP systems. In rare instances, you may have difficulty installing the STI driver. If that happens, try again after logging on as Administrator, or as a user with Administrator rights.

1. Be sure the digitizer is turned OFF, and is NOT connected to the PC. Wait until you are prompted to connect the digitizer.
2. Turn on the PC.
3. Insert the **VIDAR Drivers and Toolkit Installation CD** into the CD-ROM. The installer should launch automatically.

If the installer does not launch automatically, double-click the appropriate CD drive icon under **My Computer** in Windows™ Explorer.

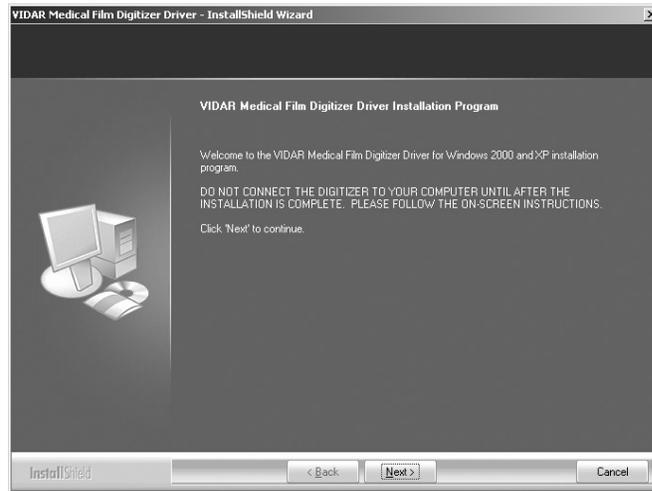
4. In the first screen, click **Install Software**.



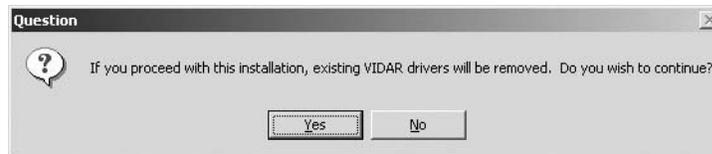
5. In the next screen, click **Install Digitizer Driver**.



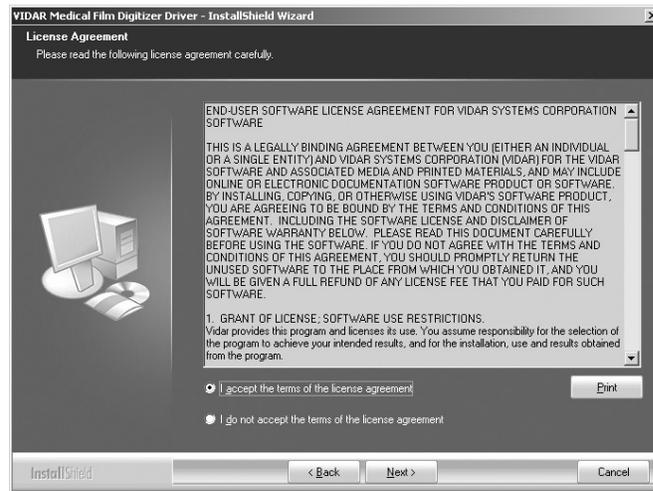
6. You will see a message that the InstallShield Wizard is starting.
7. In the InstallShield Welcome screen, click **Next**.



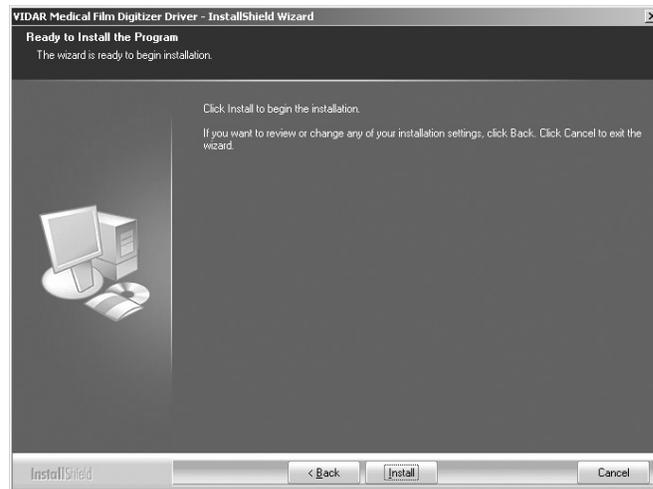
8. If you are updating from older VIDAR SCSI drivers, you will see the message below. Click **Yes**.



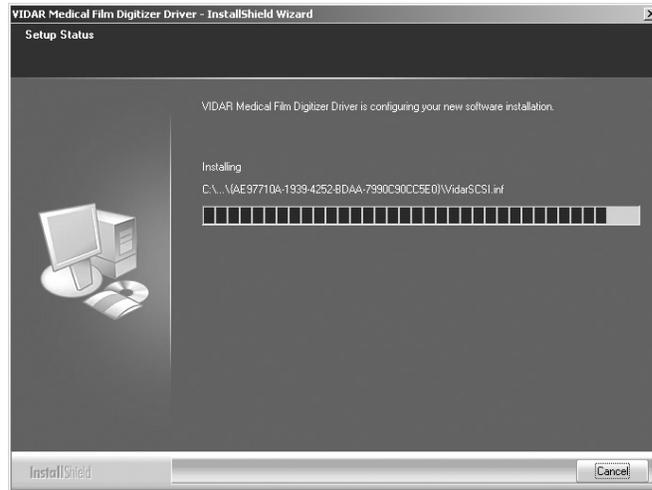
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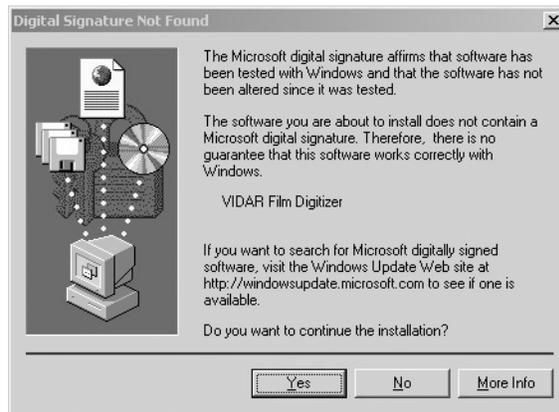
10. In the **Ready to Install the Program** window, click **Install**.



11. The **Setup Status** window will appear. Wait while the files are installed.



12. The **Digital Signature Not Found** window will appear. Click **Yes**.



13. InstallShield will indicate that installation is complete. However, drivers are not yet installed.

In the **...Installation Complete** window (not shown), activate **No, I will restart my computer later**, then click **Finish**.

14. Connect the digitizer to the computer's USB 2.0 port with a USB 2.0 cable.
15. Shortly after connecting the digitizer to the computer, the **New Hardware Found Wizard** window will appear.
- If the computer is running Windows™ XP, activate the **Install the software automatically** option, then click **Next**.
 - If the computer is running Windows™ 2000, activate the **Install from a list or specific location** option, then click **Next**. In the next screen (not shown), select the CD drive.



16. The wizard will search for the USB driver files.



17. You may see a warning about Windows™ Logo Testing. Click **Continue Anyway**.



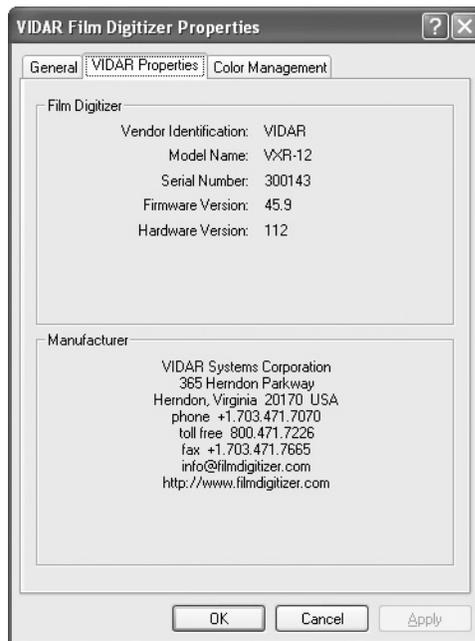
18. The wizard will indicate that files are being installed. This may take a minute or so to complete.



19. When the wizard is finished installing the driver, click **Finish**.



20. Verify that the digitizer drivers are fully installed by checking the device properties. Use the path for your operating system:
 - For Windows™ XP Professional: **Start > Control Panel > Printers and Other Hardware > Scanners and Cameras.**
 - For Windows™ 2000 Professional: **Start > Settings > Control Panel > Scanners and Cameras.**
21. In the device window, right-click **Vidar Film Digitizer**, then click **Properties** in the pop-up menu.
22. In the **VIDAR Film Digitizer Properties** window, click the **VIDAR Properties** tab.



Note that:

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NEXT: Go to “Updating the VIDAR Toolkit” Page 24 ⇨

Note: Your software may not operate correctly if the VIDAR toolkit is not updated.

Updating the VIDAR Toolkit

The Update Toolkit DLL feature on the VIDAR Drivers and Toolkit CD updates the scanning application with the current VIDAR Toolkit Dynamic Link Library (DLL). Check with the scanning application vendor to ensure that the scanning application has tested **vscsi32.dll, version 4.1.81**.

WARNING: VIDAR has validated the STI driver and replacement of *vscsi32.dll* with all supported VIDAR digitizers on both Windows™ 2000 and Windows™ XP systems using several third party software applications. No bugs or problems were identified during validation testing. However, you must check with your system integrator or scanning software vendor to verify that they support the replacement of VIDAR's *vscsi32.dll*.

Note: The scanning application must be installed before performing the Toolkit DLL Update.

1. Insert the **VIDAR Drivers and Toolkit Installation CD** into the CD-ROM. The installer should launch automatically.

If the installer does not launch automatically, double-click the appropriate CD drive icon under **My Computer** in Windows™ Explorer.

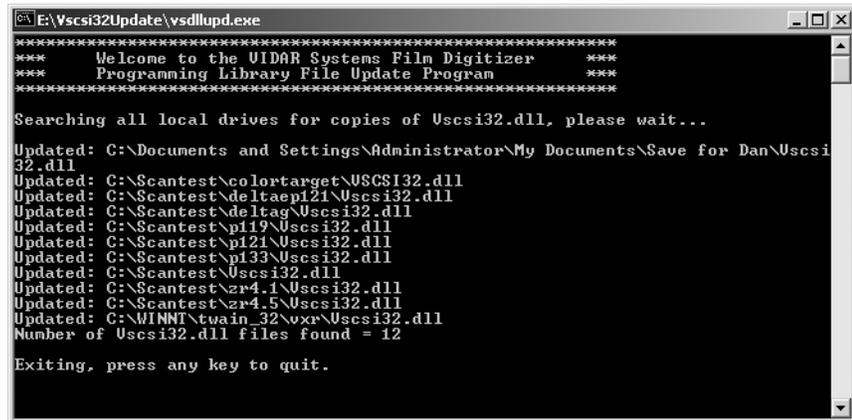
2. In the first screen, click **Install Software**.



3. In the next screen, click **Update Toolkit DLL**.



4. A DOS window will open. Wait while the files are updated.



```
E:\Uscsi32Update\ysdllupd.exe
*****
*** Welcome to the UIDAR Systems Film Digitizer ***
*** Programming Library File Update Program ***
*****
Searching all local drives for copies of Uscsi32.dll, please wait...
Updated: C:\Documents and Settings\Administrator\My Documents\Save for Dan\Uscsi32.dll
Updated: C:\Scantest\colortarget\USCSI32.dll
Updated: C:\Scantest\deltaepi21\Uscsi32.dll
Updated: C:\Scantest\deltaepi21\Uscsi32.dll
Updated: C:\Scantest\pi119\Uscsi32.dll
Updated: C:\Scantest\pi121\Uscsi32.dll
Updated: C:\Scantest\pi133\Uscsi32.dll
Updated: C:\Scantest\Uscsi32.dll
Updated: C:\Scantest\zr4.1\Uscsi32.dll
Updated: C:\Scantest\zr4.5\Uscsi32.dll
Updated: C:\WINNT\twain_32\usp\Uscsi32.dll
Number of Uscsi32.dll files found = 12
Exiting, press any key to quit.
```

5. When you see the message “Exiting, press any key to quit,” press any key or close the window by clicking the X in the upper right corner.
6. Remove the VIDAR Drivers and Toolkit Installation CD.

IMPORTANT: Please save the CD. You will need it if you:

- Uninstall or reinstall the drivers.
- Upgrade the digitizer firmware.
- Replace the digitizer with another one having different firmware.
- Reinstall the scanning application.
- Install the digitizer and scanning application on another computer.