

## **Tektronix Software Solutions**

**WaveStar™ Software for Oscilloscopes**

**WaveStar™ Upgrade**

**AD007 GPIB-LAN Adapter**

**TDS3EM Ethernet Communications Module**

**TDS3GV GPIB, VGA Port, and RS-232**

**Communications Module**

**VocalLink™ Software or VocalLink™ Demo**



071-1105-00



**CDROM**

**Tektronix**

**Tektronix Software Solutions**

**WaveStar™ Software for Oscilloscopes**

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**AD007 GPIB-LAN Adapter**

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**VocalLink™ Software or VocalLink™ Demo**

**071-1105-00**

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## Preface

Tektronix Software Solutions is a suite of software products designed to connect, capture, and analyze data from Tektronix TDS, THS, and CSA series oscilloscopes and TX Series true RMS digital multimeters. Refer to the section in this booklet that pertains to your software and the product user manual for more information on each product.

This disk contains the following products:

- WaveStar Software for Oscilloscopes ..... page 3
- Free WaveStar Software for Oscilloscopes 30-day Demo ..... page 7
- WaveStar Reader..... page 10
- Upgrade to update WaveStar Software for Windows 3.1 to WaveStar Software for Oscilloscopes..... page 12
- AD007 GPIB-LAN Adapter software ..... page 16
- TDS3EM Ethernet Communications Module TekVISA software ..... page 18  
TDS3GV data sheet is on your disk.
- VocalLink software..... page 20
- Free VocalLink 30 day Demo software..... page 24



## WaveStar Software for Oscilloscopes

Welcome to WaveStar Software for Oscilloscopes (Part number WSTRO), an easy-to-learn and easy-to-use interface between your PC and a Tektronix oscilloscope. WaveStar lets you remotely control your oscilloscope to capture, display, analyze, measure, and document signal waveforms via GPIB, RS-232, or Ethernet connections.

### Supported Instruments

WaveStar Software for Oscilloscopes supports Tektronix TDS200, TDS300, TDS400, TDS500, TDS600, TDS700, TDS800, TDS3000, TDS3000B, TDS5000, TDS7000, TDS8000, THS700, CSA800, CSA8000, and 11800 series oscilloscopes.

### Oscilloscope Requirements

Many of the supported oscilloscopes include built-in GPIB, RS-232, and/or Ethernet ports. Other supported oscilloscopes provide these ports as an option. Refer to the appropriate oscilloscope user documentation to determine the communication ports that are available for your oscilloscope. Use this information to determine the communication port support installed on your PC.

## PC Requirements

To install and run WaveStar Software for Oscilloscopes on a PC, you must have the following:

- Windows 95, 98, 2000, or NT4.0 operating system PC
- 16 MB RAM or greater recommended
- CD-ROM drive, 4X or better
- Super VGA monitor or better
- 20 MB disk space
- TekVISA software (supplied) or other VISA software
- Appropriate interface hardware to connect your PC to an oscilloscope:
  - National Instruments IEEE 488.2 GPIB Interface Card
  - RS-232 serial communications port and RS-232 cable
  - 10BaseT compatible Ethernet card

**NOTE.** *Supported Tektronix Windows-based oscilloscopes can run WaveStar software directly from the oscilloscope Windows desktop.*

## Installing WaveStar Software for Oscilloscopes

Follow the steps below to install WaveStar Software for Oscilloscopes. Refer to the *WaveStar for Oscilloscopes User Manual* (printed manual or PDF file version included on the CD) for detailed installation information.

1. Insert the CDROM into the CDROM drive. Typically, the PC automatically runs the installer program. If it does not, run the *install.exe* file located in the CD root directory. The computer displays the main installation window, which contains tabs along the top of the window.
2. Select the **WaveStar for Oscilloscopes** tab. The installer opens the WaveStar for Oscilloscopes information window with a menu bar at the top of the installer window.
3. Select **Install** in the menu bar. The installation wizard appears next and guides you through the rest of the installation process. Follow the instructions in the wizard. When prompted, select **WaveStar Software for Oscilloscopes—Purchase required**. You need to enter the key code provided with WaveStar Software for Oscilloscopes; keep the key code for future reference.

## Running WaveStar

Refer to the *WaveStar for Oscilloscopes User Manual* and the WaveStar online help for detailed information on running WaveStar Software for Oscilloscopes. You can also run the WaveStar tutorial by restarting the installer, selecting the **WaveStar for Oscilloscopes** tab, and selecting **Tutorial**.



## Free WaveStar Software for Oscilloscopes 30-Day Demo

The free 30-day demonstration software is a full featured version of WaveStar™ Software for Oscilloscopes that expires thirty days after installation. WaveStar Software for Oscilloscopes is an easy-to-learn and easy-to-use software interface between your PC and a Tektronix oscilloscope. WaveStar Software for Oscilloscopes lets you remotely control your oscilloscope to capture, display, analyze, measure, and document signal waveforms via GPIB, RS-232, or Ethernet connections.

## Supported Instruments

WaveStar software supports Tektronix TDS200, TDS300, TDS400, TDS500, TDS600, TDS700, TDS800, TDS3000, TDS3000B, TDS5000, TDS7000, TDS8000, THS700, CSA800, CSA8000, and 11800 series oscilloscopes.

## Oscilloscope Requirements

Many of the supported oscilloscopes include built-in GPIB, RS-232, and/or Ethernet ports. Other supported oscilloscopes provide these ports as an option. Refer to the appropriate oscilloscope user documentation to determine the communication ports that are available for your oscilloscope, which determines the communication port to use or install in your PC.

## PC Requirements

To install and run the WaveStar Software for Oscilloscopes demonstration software on a PC, you must have the following:

- Windows 95, 98, 2000, or NT4.0 operating system PC
- 16 MB RAM or greater recommended
- CD-ROM drive, 4X or better
- Super VGA monitor or better
- 20 MB disk space
- TekVISA software (supplied) or other VISA software
- Appropriate interface hardware to connect your PC to an oscilloscope:
  - National Instruments IEEE 488.2 GPIB Interface Card
  - RS-232 serial communications port and RS-232 cable
  - 10BaseT compatible Ethernet card

**NOTE.** *Supported Tektronix Windows-based oscilloscopes can run WaveStar software directly from the oscilloscope Windows desktop.*

## Installing The Free WaveStar Software for Oscilloscopes 30-Day Demo

Follow the steps below to install the WaveStar Software for Oscilloscopes demo. Refer to the *WaveStar for Oscilloscopes User Manual* (PDF file version included on the CD) for detailed installation information.

1. Insert the CDROM into the CDROM drive. Typically, the PC automatically runs the installer program. If it does not, run the *install.exe* file located in the CD root directory. The computer displays the main installation window, which contains tabs along the top of the window.
2. Select the **WaveStar for Oscilloscopes** tab. The installer opens the WaveStar for Oscilloscopes information window with a menu bar at the top of the installer window.
3. Select **Install** in the menu bar. The installation wizard appears next and guides you through the rest of the installation process. Follow the instructions in the wizard. When prompted, select **WaveStar Software DEMO** to load the demonstration software.

## Running WaveStar

Refer to the *WaveStar for Oscilloscopes User Manual* and the WaveStar online help files for information on running WaveStar. You can also run the WaveStar tutorial by restarting the installer, selecting the **WaveStar for Oscilloscopes** tab, and selecting **Tutorial**.



## WaveStar Reader

WaveStar Reader (Part number WSTR) is a free program that lets you view data sheet and notebook files created by WaveStar Software for Oscilloscopes. You can load WaveStar Reader on any number of PCs.

### PC Requirements

To install and run WaveStar Reader on a PC, you must have the following:

- Windows 95, 98, 2000, or NT4.0 operating system PC
- 16 MB RAM or greater recommended
- CDROM drive, 4X or better
- Super VGA monitor or better
- 20 MB disk space
- TekVISA software (supplied) or other VISA software

**NOTE.** *Supported Tektronix Windows-based oscilloscopes can run WaveStar Reader directly from the oscilloscope Windows desktop.*

### Installing WaveStar Reader

Follow the steps below to install WaveStar Reader on your PC. Refer to the *WaveStar for Oscilloscopes User Manual* (printed manual or PDF file version included on the CD) for detailed installation information.

1. Insert the CDROM into the CDROM drive. Typically, the PC automatically runs the installer program. If it does not, run the *install.exe* file located in the CD root directory. The computer displays the main installation window, which contains tabs along the top of the window.
2. Select the **WaveStar for Oscilloscopes** tab. The installer opens the WaveStar for Oscilloscopes information window with a menu bar at the top of the installer window.
3. Select **Install** in the menu bar. The installation wizard appears next and guides you through the rest of the installation process. Follow the instructions in the wizard. When prompted, select **WaveStar Reader** to load the WaveStar reader software.

### Running WaveStar Reader

Refer to the *WaveStar for Oscilloscopes User Manual* and the WaveStar online help files for information on running WaveStar Reader.

## Upgrade to WaveStar Software

Upgrade to WaveStar Software for Oscilloscopes (Part number WSTROU) upgrades your WaveStar for Windows 3.1 software to WaveStar Software for Oscilloscopes. WaveStar Software for Oscilloscopes lets you remotely control your Tektronix oscilloscope to capture, display, analyze, measure, and document signal waveforms via GPIB, RS-232, or Ethernet connections.

You can install Upgrade to WaveStar Software for Oscilloscopes only if you have the serial number from your WSTR31 WaveStar Software. This number is on the seal of the software license agreement envelope in which you received the WSTR31 installation disks, or on the WSTR31 floppy disk label.

### Supported Instruments

WaveStar Software for Oscilloscopes supports Tektronix TDS200, TDS300, TDS400, TDS500, TDS600, TDS700, TDS800, TDS3000, TDS3000B, TDS5000, TDS7000, TDS8000, THS700, CSA800, CSA8000, and 11800 series oscilloscopes.

### Oscilloscope Requirements

Many of the supported oscilloscopes include built-in GPIB, RS-232, and/or Ethernet ports. Other supported oscilloscopes provide these ports as an option. Refer to the appropriate oscilloscope user documentation to determine the communication ports that are available for your oscilloscope, which determine the communication port to use or install on your PC.

### PC Requirements

To install and run Upgrade to WaveStar Software for Oscilloscopes on a PC, you must have the following:

- Windows 95, 98, 2000, or NT4.0 operating system PC
- 16 MB RAM or greater recommended
- CDROM drive, 4X or better
- Super VGA monitor or better
- 20 MB disk space
- TekVISA software (supplied) or other VISA software
- Appropriate interface hardware to connect your PC to an oscilloscope:
  - National Instruments IEEE 488.2 GPIB Interface Card
  - RS-232 serial communications port and RS-232 cable
  - 10BaseT compatible Ethernet card

**NOTE.** *Supported Tektronix Windows-based oscilloscopes can run WaveStar software directly from the oscilloscope Windows desktop.*

## Installing Upgrade to WaveStar Software for Oscilloscopes

Follow the steps below to install Upgrade to WaveStar Software for Oscilloscopes. Refer to the *WaveStar for Oscilloscopes User Manual* (printed manual or PDF file version included on the CD) for detailed installation information.

1. Insert the CDROM into the CDROM drive. Typically, the PC automatically runs the installer program. If it does not, run the *install.exe* file located in the CD root directory. The computer displays the main installation window, which contains tabs along the top of the window.
2. Select the **WaveStar for Oscilloscopes** tab. The installer opens the WaveStar for Oscilloscopes information window with a menu bar at the top of the installer window.
3. Select **Install** in the menu bar. The installation wizard appears next and guides you through the rest of the installation process. Follow the instructions in the wizard. When prompted, select **WaveStar Software for Oscilloscopes -Purchase required**.
4. When prompted, enter the serial number from your WSTR31 software as well as the new key code provided with Upgrade to WaveStar Software for Oscilloscopes; keep these numbers for future reference.

## Running WaveStar

Refer to the *WaveStar for Oscilloscopes User Manual* and the WaveStar online help files for information on running WaveStar. You can also run the WaveStar tutorial by restarting the installer, selecting the **WaveStar for Oscilloscopes** tab, and selecting **Tutorial**.

## AD007 GPIB-LAN Adapter Software

The AD007 adapter allows GPIB devices (oscilloscopes, test instruments, and controllers) to talk or listen to networked computers and peripherals through a 10BaseT Ethernet connection.

### System Requirements

The AD007 adapter requires the following system components for installation and operation.

- IBM-compatible PC with Windows 95, 98, 2000, or NT 4.0 operating system
- CDROM drive
- Web browser
- 10BaseT Ethernet card
- 10BaseT LAN connection with a server that supports BOOTP or DHCP
- LPD-compatible print server for network printing

### AD007 Software Installation

Follow the steps below to install the AD007 software. Refer to the *AD007 GPIB-LAN Adapter User Manual* for detailed installation information.

1. Insert the CDROM into the CDROM drive. Typically, the PC automatically runs the installer program. If it does not, run the *Install.exe* file located in the CD root directory. The computer displays the main installation window, which contains tabs along the top of the window.
2. Select the **AD007** tab. The installer opens the AD007 information window with a menu bar at the top of the installer window.
3. Select **Install** in the menu bar. The installation wizard appears next and walks you through the rest of the installation process. Select the desired installation options and follow the instructions in the wizard.

## Installing TekVISA for TDS3EM

The TDS3EM Ethernet communication module connects your TDS3000 Series oscilloscope to any 10BaseT Ethernet LAN. You need to install TekVISA software for WaveStar for Oscilloscopes software to communicate with the TDS3000 via the TDS3EM Ethernet communication module.

**NOTE.** *If you already installed TekVISA as part of the WaveStar for Oscilloscopes Software install, you do not need to install the TDS3EM TekVISA software; it is the same software.*

### PC Requirements

To install and run TekVISA software on a PC, you must have the following:

- Windows 95, 98, 2000, or NT4.0 operating system PC
- 16 MB RAM or greater recommended
- CDROM drive, 4X or better
- Super VGA monitor or better
- 20 MB disk space

### Installing TDS3EM TekVISA Software

Follow the steps below to install the TekVISA software for the TDS3EM module. Refer to the *TDS3000 & TDS3000B Series Programmer Manual* for information on configuring the TDS3EM module.

1. Insert the CDROM into the CDROM drive. Typically, the PC automatically runs the installer program. If it does not, run the *Install.exe* file located in the CD's root directory. The computer displays the main installation window, which contains tabs along the top of the window.
2. Select the **TDS3EM** tab. The installer opens the TDS3EM information window with a menu bar at the top of the installer window.
3. Select **Install** in the menu bar. The installation wizard appears next and guides you through the rest of the installation process. Follow the instructions in the wizard.

## VocalLink Software

Welcome to VocalLink. VocalLink is an easy-to-learn and easy-to-use speech recognition interface between your PC and a supported oscilloscope. Without touching an oscilloscope or even being in the room, you can obtain measurements and control the functions of the oscilloscope using an extensive set of verbal commands.

The Pro version has a macro capability that lets you combine a group of voice commands, plus enter GPIB command strings, then execute the macro with a few words. These macros simplify using the oscilloscope without sacrificing its sophisticated capabilities.

## Supported Instruments

VocalLink software installs on a windows based PC that connects to a Tektronix TDS500, TDS600, TDS700, TDS3000, TDS5000, or TDS7000 series oscilloscopes. VocalLink software installs TekVISA software in order to communicate with these oscilloscopes.

## PC Requirements

To install and run VocalLink software, you must have an Windows-based operating system with the following minimum configuration.

**NOTE.** *Tektronix Windows-based TDS5000 and TDS7000 series oscilloscopes can run VocalLink software directly from the oscilloscope operating system.*

- Windows 95, 98, 2000, or Windows NT 4.0 PC operating system
- 166 MHz Pentium processor
- 32 MB RAM
- Sound card with an amplifier
- Noise cancelling microphone headset (supplied)
- CDROM drive, 4X or better
- Super VGA monitor or better
- 20 MB of disk space
- TekVISA software (supplied) or other VISA software
- Install one of the following: GPIB controller card and cable, AD007 GPIB-LAN Adapter, RS-232 COM port (TDS3000 only), or a 10baseT Ethernet LAN.

**NOTE.** For optimum performance, you need 233 MHz and 64 MB of RAM. On minimum-configured machines, close all other programs before running VocalLink software.

## Installing VocalLink Software

**NOTE.** If you already installed TekVISA as part of another software package for oscilloscopes, you do not need to install the VocalLink TekVISA software; it is the same software.

To install VocalLink software for a supported oscilloscope follow these steps:

1. Insert the CDROM into the CDROM drive. Typically, the CDROM drive automatically runs the installation program. If it does not, use the following instructions:

To install VocalLink, select Start > Run, and type  
<CD-ROM drive mapping>:\VL\setup.exe

To install TekVISA, select Start > Run, and type  
<CD-ROM drive mapping>:\Tekvisa\setup.exe

**NOTE.** In the TDS7000 Series oscilloscope, the CDROM drive mapping is located on the D drive.

2. Select the VocalLink tab. The installer opens the VocalLink information screen.
3. Select **Install** in the menu bar. The installation wizard appears next and guides you through the rest of the installation process. Follow the instructions in the wizard.

**NOTE.** When the installer displays the dialog asking for your name, company, and keycode, enter your VocalLink 19-character software keycode attached to your CD case; keep this number for future reference.

For more information about the VocalLink software refer to the *VCLNKP* and *VCLINKB* User manual or the *VocalLink Reference Card* (commands only) located on the CDROM disk.

## Free VocalLink 30-Day Demo

Welcome to VocalLink. VocalLink is an easy-to-learn and easy-to-use speech recognition interface between your PC and a supported oscilloscope. Without touching an oscilloscope or even being in the room, you can obtain measurements and control the functions of the oscilloscope using an extensive set of verbal commands.

The free 30-day demonstration software is a full featured version of VocalLink Software that expires thirty days after installation. This full featured version (Pro) has a macro capability that lets you combine a group of voice commands and enter GPIB command strings, and then execute the macro with a few words. These macros simplify using the oscilloscope without sacrificing its sophisticated capabilities.

### Supported Instruments

VocalLink software installs on a windows-based PC that connects to a Tektronix TDS500, TDS600, TDS700, TDS3000, TDS5000, or TDS7000 series oscilloscopes. VocalLink software installs TekVISA software to communicate with these oscilloscopes.

### Ordering Information

If you are interested in continued use of VocalLink Software, place an order for VCLNK Pro or VCLNK Basic Software with Tektronix or an authorized Tektronix distributor any time during the thirty day trial period.

### PC Requirements

To install and run VocalLink software, you must have a Windows-compatible PC with the following installed:

- Microsoft Windows 95, 98, 2000, or Windows NT 4.0
- 166 MHz Pentium processor
- 32 MB RAM
- Sound card with an amplifier
- Noise-cancelling microphone headset
- CDROM drive, 4X or better
- Super VGA monitor or better
- 20 MB of disk space
- TekVISA software (supplied) or other VISA software
- Install one of the following: GPIB controller card and cable, AD007 GPIB-LAN Adapter, RS-232 COM port (TDS 3000 only), or a 10baseT Ethernet LAN.

**NOTE.** *For optimum performance, you need a 233 MHz processor and 64 MB of RAM. On minimum-configured machines, close all other programs before running VocalLink software.*



## Headset and Microphone

A headset unit is not provided with your demonstration software. You can purchase a noise-cancelling microphone headset unit or order a free headset from Tektronix (Tektronix part number 116-1059-00) while supplies last.

**NOTE.** *If you already have speakers on your PC, you can purchase a noise-cancelling microphone headset without speakers.*

When ordering a headset from Tektronix, we need the serial number and the model of your oscilloscope.

**NOTE.** *Some sound cards may have ports for line-in and microphone-in; use the microphone-in port.*

Follow these steps to connect your headset:

1. Using your sound card documentation, identify the microphone-in port and the line-out port on your sound card.
2. Plug the red microphone jack from the headset into the microphone-in port on the back of your sound card.
3. Plug the black speaker jack from the headset into the line-out port on the back of the sound card.

## Installing VocalLink 30-day demo

Follow the steps below to install the free VocalLink 30-day demonstration software:

1. Insert the CD-ROM into the CD-ROM drive. The installer file on the CD-ROM self starts within about thirty seconds. If it does not self start, Select Start | Run and enter <CD-ROM drive mapping>:\Install.exe in the dialog and click **OK**.
2. Select the **VocalLink** tab. The next screen shows the **VocalLink** information screen with a menu bar at the top of the screen.
3. Click **Install**. The installation wizard appears next and guides you through the rest of the installation process. Follow the instructions in the wizard.
4. Next you are prompted to install Tektronix TekVISA software, Tektronix' version of VISA. VISA is another communication application that is required for VocalLink software to communicate with your instrument.

**NOTE.** *If you already installed TekVISA as part of another software package for oscilloscopes, you do not need to install the VocalLink TekVISA software; it is the same software.*

Typically, only one version of VISA (Visa32.dll file) should be located in your C:/windows/system directory. If you have another company's VISA on your system, then you must choose between TekVISA and that other VISA. VocalLink software only uses a VISA file called Visa32.dll. Read the following bullets before choosing a VISA version:

- The AD007 GPIB-LAN Adapter and the Tektronix TDS3EM require TekVISA.
- The VocalLink software may work with a VISA from another company, provided their VISA software supports the interface types with which you are working.

If you decide to have two VISA files, read *Managing Two VISA Files* in the C Appendix in the *VocalLink User* manual on your CDROM.

If you choose to install TekVISA, see section 1 of the *VocalLink User* manual on your CDROM.

5. Next you are asked to read the VocalLink Software License Agreement. If you accept all of the terms in the license agreement, click **Yes**. If you do not accept the terms of the agreement, click **No** to end the setup process.
6. In the User Information dialog box, enter your name, your company name, and the product serial number (enter **VocalLinkdemo**). Click **Next**.

7. The Installation Type dialog box appears, *This is a 30-day demonstration software version of VocalLink*. Click **Ok**.
8. Confirm the values in the Registration confirmation dialog box. If everything is correct, select **yes**; otherwise select **no** to return to the previous dialog box.
9. In the Choose Destination dialog box, select **Next** to install the software to the default location, or select the browse button to enter a different installation location. Click **Next** when you are finished.
10. In the Installation Type dialog box, select the program components to install. Click **Next**.  
  
**NOTE.** *You must select the program files and the English language files, but the additional language files are optional.*
11. After all files have been installed, the Restart Windows dialog appears. It is recommended that you restart Windows to allow proper operation of VocalLink Software. Click **OK**.

## Calibrating the Microphone

You must calibrate the software to the volume of your voice. You may need to recalibrate for each new voice and for changes in the environment, to avoid problems recognizing words and command phrases.

1. Power on your oscilloscope.
2. Select the Start > Programs > Tektronix > menu. The software remains busy for a few seconds on start up while it polls for an available instrument. When an instrument is connected, it is listed in the data window.
3. Click **OK**. The Configuration dialog box for the Audio tab is displayed.
4. Put the headset on, and adjust the microphone. Place the microphone two-finger widths from the corner of your mouth.
5. Follow the instructions in the Audio tab dialog box to calibrate the software. Select **Ok**.
6. You are now ready to use the voice commands (see the Reference Card).

