Instructions

# Tektronix

# TLA5KUP Logic Analyzer Field Upgrade Kit 075-0835-00

This document applies to TLA System Software version 4.4.

#### Warning

These servicing instructions are for use by qualified personnel only. To avoid personal injury, do not perform any servicing unless you are qualified to do so. Refer to all safety summaries prior to performing service.

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# **General Safety Summary**

Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it. To avoid potential hazards, use this product only as specified.

Only qualified personnel should perform service procedures.

While using this product, you may need to access other parts of the system. Read the *General Safety Summary* in other system manuals for warnings and cautions related to operating the system.

To Avoid Fire or Personal Injury	<b>Use Proper Power Cord.</b> Use only the power cord specified for this product and certified for the country of use.
	<b>Use Proper Voltage Setting.</b> Before applying power, ensure that the line selector is in the proper position for the power source being used.
	<b>Connect and Disconnect Properly.</b> Do not connect or disconnect probes or test leads while they are connected to a voltage source.
	<b>Ground the Product.</b> This product is grounded through the grounding conductor of the power cord. To avoid electric shock, the grounding conductor must be connected to earth ground. Before making connections to the input or output terminals of the product, ensure that the product is properly grounded.
	<b>Observe All Terminal Ratings.</b> To avoid fire or shock hazard, observe all ratings and marking on the product. Consult the product manual for further ratings information before making connections to the product.
	Do not apply a potential to any terminal, including the common terminal, that exceeds the maximum rating of that terminal.
	<b>Do Not Operate Without Covers.</b> Do not operate this product with covers or panels removed.
	Use Proper Fuse. Use only the fuse type and rating specified for this product.
	<b>Avoid Exposed Circuitry.</b> Do not touch exposed connections and components when power is present.
	<b>Do Not Operate With Suspected Failures.</b> If you suspect there is damage to this product, have it inspected by qualified service personnel.
	Do Not Operate in Wet/Damp Conditions.
	Do Not Operate in an Explosive Atmosphere.
	Keep Product Surfaces Clean and Dry.

**Provide Proper Ventilation.** Refer to the manual's installation instructions for details on installing the product so it has proper ventilation.

#### Symbols and Terms

Terms in this Manual. These terms may appear in this manual:



**WARNING.** Warning statements identify conditions or practices that could result in injury or loss of life.



**CAUTION.** Caution statements identify conditions or practices that could result in damage to this product or other property.

Terms on the Product. These terms may appear on the product:

DANGER indicates an injury hazard immediately accessible as you read the marking.

WARNING indicates an injury hazard not immediately accessible as you read the marking.

CAUTION indicates a hazard to property including the product.

Symbols on the Product. The following symbols may appear on the product:





Protective Ground (Earth) Terminal CAUTION Refer to Manual



Double Insulated



Mains Disconnected Mains Connected OFF (Power) ON (Power)



Standby

# Service Safety Summary

Only qualified personnel should perform service procedures. Read this *Service Safety Summary* and the *General Safety Summary* before performing any service procedures.

**Do Not Service Alone.** Do not perform internal service or adjustments of this product unless another person capable of rendering first aid and resuscitation is present.

**Disconnect Power.** To avoid electric shock, disconnect the main power by means of the power cord or, if provided, the power switch.

**Use Care When Servicing With Power On.** Dangerous voltages or currents may exist in this product. Disconnect power, remove battery (if applicable), and disconnect test leads before removing protective panels, soldering, or replacing components.

To avoid electric shock, do not touch exposed connections.

### Preface

This instruction manual contains specific information about the TLA5KUP logic analyzer field upgrades. The logic analyzer field upgrades consist of software and hardware options for the TLA5000 Series Logic Analyzers. Use Table i, below, to explore possible upgrade paths.

#### Table i: TLA5KUP Logic Analyzer Field Upgrade Matrix

New capability desired	Current configuration and TLA software version	Current operating system	Please order
Add New Software Features Add new functionality to existing TLA520x logic analyzers by upgrading to Version 4.4 TLA Application Software.	TLA520x Std with V4.3 TLA SW	Windows 2000 Professional	TLA5KUP Option 35 (With HD Image CD, Recommended) <b>OR</b>
Version 4.4 requires Windows 2000 Professional operating system.			TLA5KUP Option 36 (Without HD Image CD)
Add New iView External Oscillo- scope Capability Add new iView capability to view data from TDS oscilloscopes	TLA520x Std with V4.4 TLA SW	Windows 2000 Professional	TLA5KUP Option 15
correlated directly on the TLA5000 logic analyzer <sup>1</sup> .	TLA520x Std with V4.3 TLA SW	Windows 2000 Professional	TLA5KUP Option 15
Requires Version 4.1 TLA Applica- tion Software and Windows 2000 Professional operating system or higher.			TLA5KUP Option 35 (With HD Image CD, Recommended) <b>OR</b>
TLA5000 mainframe memory requirements: 512 MByte recom- mended.			TLA5KUP Option 36 (Without HD Image CD)
Upgrade Logic Analyzer State Speed and Memory Depth Enhance your current TLA5000 logic analyzer by increasing state speed or memory depth. Run the PowerFlex Utility to inform you what upgrades are available. Instructions to obtain an upgrade are provided.	Any TLA520x series logic analyzer with V4.3 TLA SW and above.	Windows 2000 Professional	Run the PowerFlex Utility software located on the instrument and then purchase the appropriate PowerFlex kit.

<sup>1</sup> For a list of supported TDS oscilloscopes, please visit our website at www.tektronix.com/la.

#### **Service and Upgrade Notes**

To prevent personal injury or damage to the instrument, consider the following requirements before attempting service:

- Read the *General Safety Summary* and *Service Safety Summary* found at the beginning of this manual.
- Only qualified service personnel should perform the procedures in this manual.

Be sure to follow all warnings, cautions and notes.

#### **Adjustment and Certification Interval**

Generally, you should perform the adjustments and performance verification procedures described in the *TLA5000 Logic Analyzer Series Service Manual* (071–1305–xx) once per year, or following repairs that may affect adjustment or calibration.

Service Offerings	
	Tektronix provides service to cover repair under warranty as well as other services that are designed to meet your specific service needs.
	Whether providing warranty repair service or any of the other services listed below, Tektronix service technicians are equipped to service your logic analyzer. Services are provided at Tektronix Services Centers.
Warranty Repair Service	The warranty for this product is located behind the title page in this manual. Tektronix technicians provide warranty service at most Tektronix service locations worldwide. The Tektronix product catalog lists all service locations worldwide, or you can visit us on our <i>Customer Services World Center</i> web site at:
	Tektronix.com/Measurement/Service
Calibration and Repair Service	In addition to warranty repair, Tektronix Service offers calibration and other services which provide solutions to your service needs and quality standards compliance requirements.
	The following services can be tailored to fit your requirements for calibration and/or repair of your logic analyzer.

**Service Options.** Tektronix service options can be selected at the time you purchase your instrument. You select these options to provide the services that best meet your service needs. These service options are listed in the *TLA5000 Logic Analyzer Service Manual* available on your *Tektronix Logic Analyzer Product Family Documentation CD* or from the Tektronix website.

**Service Agreements.** If service options are not added to the instrument purchase, then service agreements are available on an annual basis to provide calibration services or post-warranty repair coverage. Service agreements may be customized to meet special turn-around time and/or on-site requirements.

**Service on Demand.** Tektronix offers calibration and repair services on a "per-incident" basis that is available with standard prices.

**Self Service.** Tektronix supports repair to the replaceable-part level by providing for circuit board exchange.

Use this service to reduce down-time for repair by exchanging circuit boards for remanufactured ones. Tektronix ships updated and tested exchange boards. Each board comes with a 90-day service warranty.

**For More Information.** Contact your local Tektronix service center or sales engineer for more information on any of the Calibration and Repair Services just described.

### **Contacting Tektronix**

Phone	1-800-833-9200*
Address	Tektronix, Inc. Department or name (if known) 14200 SW Karl Braun Drive P.O. Box 500 Beaverton, OR 97077 USA
Web site	www.tektronix.com
Sales support	1-800-833-9200, select option 1*
Service support	1-800-833-9200, select option 2*
Technical support	Email: techsupport@tektronix.com
	1-800-833-9200, select option 3*
	6:00 a.m 5:00 p.m. Pacific time

\* This phone number is toll free in North America. After office hours, please leave a voice mail message.
Outside North America, contact a Tektronix sales office or distributor; see the

Tektronix web site for a list of offices.

# **TLA5KUP Option 15**

## TLA5KUP Option 15: iView External Oscilloscope Cable Installation

TLA5KUP option 15 provides the capability of connecting your logic analyzer to an external Tektronix oscilloscope through the iView cable.



#### Instruments

TLA5000 Series Logic Analyzers

All Serial Numbers

#### **Minimum Tool and Equipment List**

No special tools or equipment are required.

#### **Parts List**

Quantity	Part number	Description	
1 ea	012-1614-xx	iView external oscilloscope cable kit (includes USB-to-GPIB & BNC, BNC-to-SMB adapter, and instruction card)	
1 ea	N/A	TLA5KUP kit label	

#### Table 1-1: TLA5KUP Option 15 parts list

#### **Installation Prerequisite**

Requires Version 4.1 TLA Application Software or higher, Windows 2000 Professional operating system, and 512 MB minimum mainframe memory.

#### Installation Instructions

Online installation instructions are provided within the TLA application through a wizard. After powering on the instrument, select Add iView External Scope from the System menu and follow the online instructions.

#### Attach the Upgrade Kit Label to the Instrument

After completing all the previous steps, you need to install the upgrade kit label on the instrument to indicate that the kit is installed.

Locate the big label on the rear of the instrument, and then attach the TLA5KUP kit label as shown in Figure 1-1.

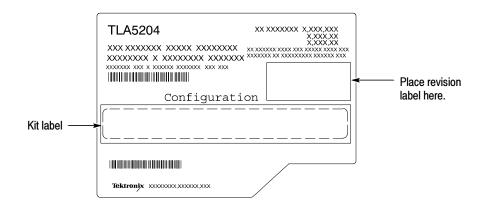


Figure 1-1: Kit label locations

# **TLA5KUP Option 35**

### TLA5KUP Option 35: Application Software and Windows Operating System Upgrade

TLA5KUP option 35 supports the upgrade to TLA application software version 4.4 and Multi-language Windows 2000 Professional operating system. TLA application software version 4.4 will run only on Tektronix instruments with the Windows 2000 Professional operating system.

This kit provides instructions to upgrade the TLA application software and firmware for a TLA5000 series logic analyzer with TLA application software version 4.3 and the Windows 2000 Professional operation system.

You can also use this kit to upgrade TLA5000 series logic analyzers with TLA application software 4.3 using the restore CD. This process removes the entire contents of your hard disk drive. Therefore, you must back up any files that you want to keep to backup media before beginning the upgrade procedure.



#### Instruments

TLA5000 Series Logic Analyzers

All Serial Numbers

#### **Minimum Tool and Equipment List**

No special tools or equipment are required to install this option.

### **Parts List**

Quantity	Part number	Description
1 ea	N/A	Tektronix Logic Analyzer Family Application Software Version 4.4 (two CD-ROM set: TLA App SW and TLAVu Offline software)
1 ea	N/A	Tektronix Logic Analyzer Family TLA5000 Hard Disk Image Version 4.4 (one double CD-ROM set)
1 ea	N/A	Microsoft Windows 2000 Professional Certificate of Authenticity
1 ea	N/A	Microsoft Windows 2000 Professional license
1 ea	016-1524-xx	TLA mouse pad
1 sheet	N/A	Software revision labels
1 ea	N/A	TLA5KUP kit label
1 ea	N/A	CheckIt Utilities sticker
1 ea	N/A	Easy Restore license
1 ea	N/A	RecordNow MAX license

Table 2-1: TLA5KUP option 35 parts list

### TLA5KUP Option 35: Application Software and Windows Operating System Instructions

These instructions guide you through the process of upgrading your TLA5000 series logic analyzer software and firmware. Software instructions describe the process for upgrading to Windows 2000 Professional operating system and TLA application software version 4.4.



**CAUTION.** The software installation procedure will remove the entire contents of your hard disk. If you want to save any files or software applications on the hard disk, back them up to another media (floppy disks or a network drive) before continuing with this procedure.

In addition to the Tektronix Logic Analyzer application software, there are other software programs that may be installed separately; Table 2-2 lists some of the software that you may have installed on your logic analyzer.

#### Table 2-2: Software not covered by the software setup

Software	Installation information
Microprocessor or bus support software	Refer to the manual that was shipped with the microprocessor or bus support.
Other Software	Refer to the instructions that come with your software.

#### Install Software

The Tektronix Logic Analyzer field upgrade kit comes with a CD entitled *TLA5000 Hard Disk Image*, which contains Microsoft Windows 2000 Professional operating system and the latest application software. All software required to run the logic analyzer comes with the CD, with the exception of any microprocessor support packages or non-logic analyzer application software.



**CAUTION.** The software installation procedure will destroy the **entire contents** of your hard disk. If you want to save any files or software applications on the hard disk, back them up to another media (floppy disks or a network drive) before continuing with this procedure.

The process of reloading the software on the hard disk will destroy any files or programs installed on the hard disk. If you do not care that the contents of your

hard disk drive will be overwritten, proceed to Install Windows 2000 Professional and the TLA Application Software on page 2-4.

**Back Up Files** Before loading the Hard Disk Image software, make sure that you back up any files, applications, and personal files to another PC via a network, or via another backup medium such as a ZIP drive.

You can find most TLA user files using the Windows Find utility. For example, open Windows Explorer and select the C:\My Documents folder. Right-click the folder and select Find. Enter one of the suffixes from Table 2-3 to locate the TLA files in the current folder and all subfolders:

Suffix	Description
.tla	TLA setup files and stored data
.tsf	TLA symbol files
.tbf	Tektronix binary format
.tls	TLA script file
.tpg	Tektronix pattern generator files
.txt	Tektronix TLA data exchange format files
.stk	Stack files
.spz	Protocol files

Table 2-3: TLA user file suffixes

Once you find the files, copy or drag them to the external storage device. Use this procedure to find and save any TLA files or applications.

If you purchased any microprocessor support packages, you will need to reinstall them after you reinstall the hard disk image. If you don't have a copy of the microprocessor support software, contract your Tektronix Account Manager to order a replacement copy. If you cannot contact the account manager, contact the Tektronix Support Center.

#### Install Windows 2000 Professional and the TLA Application Software

This procedure automatically reformats the hard disk, installs the Windows 2000 Professional Operating system software, and installs the the Tektronix Logic Analyzer application software. Because this procedure reformats the hard disk drive, be sure to back up any files or software that you want to preserve by following the steps in the previous section. **Change the BIOS Boot Settings and Load the Hard Disk Image.** Before installing the Hard Disk Image, you must change the BIOS settings to enable booting from the CD-ROM.

- **1.** Restart the logic analyzer and then press function key F2 to enter the BIOS setup.
- 2. In the BIOS setup, go to the Boot menu.
- 3. Select Boot Device Priority.
- 4. Set the Boot devices as shown below:

First Boot Device:	[ATAPI CDROM]
Second Boot Device:	[Floppy]
Third Boot Device:	[IDE-HDD]

- 5. Insert the Hard Disk Image CD in the CD-ROM drive.
- **6.** Save the settings by pressing function key F10 and press Enter to confirm that you want to save the new settings.
- 7. After booting from the CD-ROM drive, the program on the CD will display its license agreement. Review the license agreement. If you agree to the terms of the license agreement, proceed with the next step.

**NOTE**. Use care when prompting through the software license agreement to avoid confirming that you want to cancel the software installation procedure.

- **8.** After you have reviewed the software license agreement, the EasyRestore dialog displays and prompts you to continue, or to cancel the upgrade process. Click the Continue button to load the contents of the upgrade CD.
- **9.** If EasyRestore detects errors and prompts you to allow the program to fix them, click Yes to continue the upgrade process.
- **10.** When prompted remove Disc 1 and insert Disc 2 to continue the software installation.
- **11.** The program automatically loads the hard disk image. This procedure is fully automatic and takes approximately 15 minutes to complete.

The image loading procedure installs and sets up the logic analyzer application. You should not need to make any changes to the setup to use the logic analyzer.

- **12.** After the image is loaded, follow the prompts to remove the CD from the CD-ROM drive and reboot the logic analyzer.
- **13.** The System Settings Change message displays, prompting you to restart the computer before your changes can take effect. Click Yes to restart your computer.
- 14. Reinstall any user files that you backed up previously. Reinstall any software (such as the microprocessor support packages) that you want to use on the logic analyzer.

**Reset the BIOS Boot Settings (Optional).** After you have successfully installed the hard disk image, if you want to reset the BIOS settings and disable booting from CD-ROM do the following. Otherwise, continue with Upgrading the TLA5000 Firmware on page 2–6.

- **1.** Restart the logic analyzer, and then press function key F2 to enter the BIOS setup.
- 2. In the BIOS setup, go to the Boot menu.
- 3. Select Boot Device Priority.
- 4. Set the Boot devices as shown below to disable booting from the CD-ROM:

First Boot Device:	[Floppy-FD]
Second Boot Device:	[IDE-HDD]
Third Boot Device:	[ATAPI CD]

5. Save the settings by pressing function key F10 and press Enter to confirm that you want to save the new settings.

Once you have successfully reset the BIOS boot settings, you have completed the operating system and TLA application software upgrade.

#### Upgrade the TLA5000 Firmware

Use the following procedure to upgrade the firmware for the TLA5000 Series Logic Analyzers. Because the TLA5000 Series Logic analyzers are monolithic instruments you can easily tell if the firmware needs updating when a startup message appears telling you that you need to upgrade.

- **1.** Log on to the instrument as Administrator.
- 2. Exit the logic analyzer application.

- 3. Click Start → Programs → Tektronix Logic Analyzer → TLA Firmware Loader.
- 4. You may see a pop-up window reminding you to cycle the power on the instrument after completing the upgrade operation. Click Yes to continue.
- 5. Select the module from the Supported list box near the top of the window.
- 6. Select Load Firmware from the Execute menu.
- 7. Click the TLA520x.lod file.
- 8. Click OK. You will be asked to confirm your action; click Yes.
- **9.** Exit the firmware loader program and power down the logic analyzer. You must power down the logic analyzer to allow the TLA application to start up properly.

#### **Calibrate the Instrument**

After verifying proper operation, you need to calibrate the logic analyzer.

- 1. Allow the instrument to warm up for at least 30 minutes before continuing.
- **2.** In the System window, select Calibration and Diagnostics from the System menu.
- **3.** Click the Self Calibration tab.
- 4. Select the Run button and click Yes to any confirmation messages.

**NOTE**. The calibration process may take several minutes.

The Status column indicates Running while the instrument is being calibrated.

- 5. Verify that the Status column changes to Calibrated.
- **6.** After the instrument has been calibrated close the dialog box and power down the instrument.

#### Upgrade the TLAVu Offline Software (Optional)

TLAVu Offline software allows you to view data and create setups for your logic analyzer on a PC. You must ensure that the version of the TLAVu Offline software is the same version as that of TLA application and that your PC has the Microsoft.NET Framework software installed.

Complete the following steps to update the TLAVu application software on your PC. If you have an older version already installed on your PC, the program will automatically detect it and replace it during the upgrade process.

- **1.** Install Disc 1 of the Tektronix Logic Analyzer Family Application Software in the CD-ROM drive of the PC.
- 2. Start Windows Explorer, and browse to and execute D:\DotNet Framework\InstallFramework.exe.
- **3.** Click Next to start the installation.
- 4. Read and accept the license agreement.
- **5.** Follow any on-screen instructions. If any messages appear asking you for permission to overwrite any read-only files, select Yes to All.
- 6. After the software has been successfully installed, restart Windows.
- 7. Remove Disc 1 and install Disc 2 of the Tektronix Logic Analyzer Family Application Software in the CD-ROM drive of the PC.
- 8. Start Windows Explorer, and browse to and execute D:\TLAVu\Setup.exe.
- 9. Click OK to perform the installation. Follow any on-screen instructions.
- **10.** Windows will uninstall the selected application. If you are asked for permission to remove unused shared files or any read-only files, select Yes to All.

**NOTE**. The ReadMe file for the TLAVu Offline application contains most of the information that you need to run the application. Access the ReadMe file by selecting: Start  $\rightarrow$  Programs  $\rightarrow$  Tektronix Logic Analyzer  $\rightarrow$  TLA Documentation  $\rightarrow$  TLAVu ReadMe.

### Attach the Upgrade Kit Label to the Instrument

After completing all the previous steps, install the upgrade kit label on the instrument to indicate that the kit is installed.

Locate the big label on the rear of the instrument and then attach the software revision label and the TLA5KUP kit label as shown in Figure 2-1.

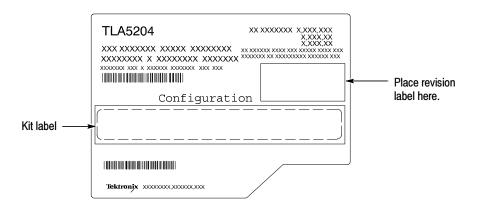


Figure 2-1: Revision and kit label locations

# **TLA5KUP Option 36**

# **TLA5KUP Option 36: Application Software Upgrade**

TLA5KUP option 36 supports the upgrade to TLA application software version 4.4. This kit provides instructions to upgrade the TLA application software and firmware for a TLA5000 Series logic analyzer with TLA application software version 4.0 or higher. This software will run only on instruments with the Windows 2000 Professional operating system that were purchased from Tektronix.



#### Instruments

TLA5000 Series Logic Analyzers

All serial numbers

### **Parts List**

Quantity	Part number	Description
1 ea	N/A	Tektronix Logic Analyzer Family Application Software Version 4.4 (two CD-ROM set: TLA App SW and TLAVu Offline software)
1 ea	N/A	RecordNow MAX license
1 ea	016-1524-xx	TLA mouse pad
1 sheet	N/A	Software revision labels
1 ea	N/A	TLA5KUP kit label
1 ea	N/A	CheckIt Utilities sticker

Table 3-1: TLA5KUP Option 36 parts list

### **Minimum Tool and Equipment List**

No special tools or equipment are required to install this option.

### **TLA5KUP Option 36: Application Software Instructions**

The following instructions direct you through the process of upgrading the TLA application software on your TLA5000 series logic analyzer. These instructions apply only to TLA5000 series logic analyzers with TLA application software version 4.0, or higher, and the Windows 2000 Professional operating system.

#### **Upgrade Instruction Overview**

The basic upgrade procedure is to manually remove the older software and reinstall the new software. The upgrade steps are listed in this document.

While performing the upgrade procedures, keep the following items in mind:

- Throughout this procedure you will see the term "log on as Administrator." The instrument is set up to automatically log on as Administrator (with no password) so you may not see the log on prompt. If the network setups have been changed on your instrument, make sure that you log on as Administrator or as a user who has administrator privileges. Failure to do so can prevent the software upgrade from completing successfully.
- After logging on as administrator, quit any applications.
- If your instrument does not display the file extensions, you need to change your folder options to display the file extensions. (From the Control Panel, double-click Folder Options, select the View tab, and then deselect the "Hide file extensions for known file types" selection.)
- Use the Windows Add or Remove Programs Control Panel utility to remove existing software.
- You will be asked to restart Windows after you install each software package. If you do not restart Windows when prompted, your software may not install properly and can cause unpredictable behavior.
- If Windows does not restart normally, press and hold the On/Standby button for five or six seconds to force a shutdown.
- You may be asked to remove some software packages that may not be loaded on your instrument. If this is the case, skip those instructions.

#### **Remove the Old Software**

Complete the following steps to remove the old software packages from your logic analyzer. Skip any steps that mention software that isn't installed on your logic analyzer.

- 1. If you have not already done so, power on the logic analyzer and log on as Administrator.
- 2. After logging on, wait for the instrument to complete the start-up sequence.
- **3.** Exit the TLA application (and pattern generator application if you have it installed on your instrument).
- 4. Open the Control Panel by clicking Start  $\rightarrow$  Settings  $\rightarrow$  Control Panel.
- 5. Double-click the Add or Remove Programs icon.
- 6. For each of the following software packages, select the software package (the exact names may very depending on the software version), click the Change/Remove button, and follow the on-screen instructions to remove the software:
  - NI-488.2
  - NI-Max
  - SnagIt
  - Tektronix TLA Application
- 7. Windows will uninstall the selected application. If you are asked for permission to remove unused shared files or any read-only files, select Yes to All.
- 8. After the software has been successfully removed, restart Windows.

#### **General Software Installation**

The following procedures assume that your CD drive is the D: drive. If this is not the case, substitute the appropriate letter for your CD drive. Unless otherwise specified, for each procedure, install Disc 1 of the Tektronix Logic Analyzer Family Application Software in the CD drive of the logic analyzer. Then follow the instructions to install each software package.

#### **Install Snaglt**

1.	Log on to the instrument as Administrator.
2.	Start Windows Explorer, and browse to and execute D:\SnagIt\Setup.exe.

- **3.** Click Next to start the installation.
- 4. Read and accept the license agreement.
- **5.** Follow any on-screen instructions and clear the check box for starting SnagIt automatically. Use the remaining default choices provided by the installer.
- 6. After the software has been successfully installed, restart Windows.

#### **Install NI-GPIB**

- 1. Log on to the instrument as Administrator.
- 2. Start Windows Explorer, and browse to and execute D:\NI-GPIB-USB-B\Setup.exe.
- 3. Click Next to start the installation.
- 4. Accept the license agreement and click Next for all other responses.
- **5.** If error 1706 displays, ignore it, and click OK to continue with the installation.
- 6. When the GPIB Hardware Wizard displays, click Cancel.
- 7. Restart Windows when prompted.
- **8.** When the Getting Started wizard displays, select "Do not show this at Windows startup," and then click X to exit.

#### Install Microsoft.NET Framework 1.1

- 1. Log on to the instrument as Administrator.
- 2. Start Windows Explorer, and browse to and execute D:\DotNet Framework\FrameworkSetup.exe.
- **3.** Click Yes to start the installation.
- 4. Read and accept the license agreement.
- **5.** Follow any on-screen instructions. If you are asked for permission to overwrite any read-only files, select Yes to All.
- 6. After the software has been successfully installed, restart Windows.

### **Install TLA Application Software Version 4.4**

- **1.** Log on to the instrument as Administrator.
- 2. Start Windows Explorer, and browse to and execute D:\TLA Application SW\Setup.exe.
- **3.** Click Yes to start the installation.
- 4. Follow any on-screen instructions. If you are asked for permission to overwrite any read-only files, select Yes to All.
- 5. After the software has been successfully installed, restart Windows.

#### **Final Software Adjustments**

Complete the following steps to finalize the software settings in the TLA application with other installed software.

- **1.** Log on to the instrument as Administrator.
- **2.** After the TLA application starts, select Options from the System menu to display the System Options dialog box.
- **3.** Select the Tools tab.
- 4. Click the item in the list and then click the Edit button.
- 5. Change the Menu Name box from &Paint to &SnagIt, if necessary.
- 6. Click the Browse button and choose the following path:

C:\Program Files\TechSmith\SnagIt 7\SnagIt32.exe

- 7. Leave the Arguments and Initial Directory blank, and then click OK twice to apply the changes.
- 8. If desired, delete the SnagIt icons from the desktop and the taskbar.
- 9. Restart Windows.

#### Upgrade the TLA5000 Firmware

Use the following procedure to upgrade the firmware for the TLA5000 Series Logic Analyzers. Because the TLA5000 Series Logic analyzers are monolithic instruments you can easily tell if the firmware needs updating when a startup message appears telling you that you need to upgrade.

- 1. Log on to the instrument as Administrator.
- 2. Exit the logic analyzer application.
- 3. Click Start → Programs → Tektronix Logic Analyzer → TLA Firmware Loader.
- 4. You may see a pop-up window reminding you to cycle the power on the instrument after completing the upgrade operation. Click Yes to continue.
- 5. Select the module from the Supported list box near the top of the window.
- 6. Select Load Firmware from the Execute menu.
- 7. Click the TLA520x.lod file.
- 8. Click OK. You will be asked to confirm your action; click Yes.
- **9.** Exit the firmware loader program and power down the logic analyzer. You must power down the logic analyzer to allow the TLA application to start up properly.

#### Calibrate the Logic Analyzer

After verifying proper operation, it is recommended that you calibrate the logic analyzer.

- 1. Allow the instrument to warm up for at least 30 minutes before continuing.
- **2.** In the System window, select Calibration and Diagnostics from the System menu.
- **3.** Click the Self Calibration tab.
- 4. Select the Run button and click Yes to any confirmation messages.

**NOTE**. The calibration process may take several minutes.

The Status column should indicate Running while the instrument is being calibrated.

- 5. Verify that the Status column changes to Calibrated.
- **6.** After the instrument has been calibrated close the dialog box and power down the instrument.

#### Upgrade the TLAVu Offline Software (Optional)

TLAVu Offline software allows you to view data and create setups for your logic analyzer on a PC. You must ensure that the version of the TLAVu Offline software is the same version as that of TLA application and that your PC has the Microsoft.NET Framework software installed.

Complete the following steps to update the TLAVu application software on your PC. If you have an older version already installed on your PC, the program will automatically detect it and replace it during the upgrade process.

- **1.** Install Disc 1 of the Tektronix Logic Analyzer Family Application Software in the CD-ROM drive of the PC.
- 2. Start Windows Explorer, and browse to and execute D:\DotNet Framework\FrameworkSetup.exe.
- 3. Click Next to start the installation.
- 4. Read and accept the license agreement.
- 5. Follow any on-screen instructions. If you are asked for permission to overwrite any read-only files, select Yes to All.
- 6. After the software has been successfully installed, restart Windows.

- 7. Remove Disc 1 and install Disc 2 of the Tektronix Logic Analyzer Family Application Software in the CD-ROM drive of the PC.
- 8. Start Windows Explorer, and browse to and execute D:\TLAVu\Setup.exe.
- 9. Click OK to perform the installation. Follow any on-screen instructions.
- **10.** Windows will uninstall the selected application. If you are asked for permission to remove unused shared files or any read-only files, select Yes to All.

**NOTE**. The ReadMe file for the TLAVu Offline application contains most of the information that you need to run the application. Access the ReadMe file by selecting: Start  $\rightarrow$  Programs  $\rightarrow$  Tektronix Logic Analyzer  $\rightarrow$  TLA Documentation  $\rightarrow$  TLAVu ReadMe.

#### Attach the Upgrade Kit Label to the Instrument

After completing all the previous steps, install the upgrade kit label on the instrument to indicate that the kit is installed.

Locate the big label on the rear of the instrument, and then attach the software revision label and the TLA5KUP kit label as shown in Figure 3-1.

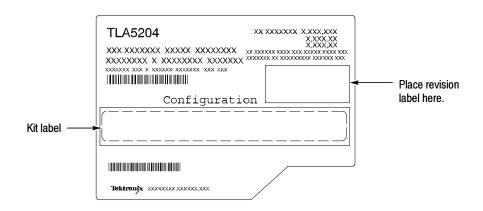


Figure 3-1: Revision and kit label locations