Instructions

Tektronix

TLA5KUP
Logic Analyzer Field Upgrade Kit

075-0835-02

This document applies to TLA System Software version 5.1.

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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- In North America, call 1-800-833-9200.
- Worldwide, visit www.tektronix.com to find contacts in your area.

Warranty 6

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In order to obtain service under this warranty, Customer must notify Tektronix of the defect before the expiration of the warranty period and make suitable arrangements for the performance of service. Customer shall be responsible for packaging and shipping the defective part to the service center designated by Tektronix, with shipping charges prepaid. Tektronix shall pay for the return of the part to Customer if the shipment is to a location within the country in which the Tektronix service center is located. Customer shall be responsible for paying all shipping charges, duties, taxes, and any other charges for parts returned to any other locations.

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Warranty 9(b)

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Table of Contents

General Safety Summary . . . . . **v**

Service Safety Summary . . . . . **vii**

Preface . . . . . **ix**

Products Eligible for TLA5KUP Upgrades ix

Service and Upgrade Notes xi

Adjustment and Certification Interval xi

Service Offerings xi

TLA5KUP Option 10

TLA5KUP Option 10:Memory Upgrade Installation **1-1**

Instruments 1-1

Parts List 1-1

Minimum Tool and Equipment List 1-1

Installation Prerequisites 1-1

Remove the Accessories Pouch 1-2

Remove the Trim and Covers 1-3

Remove the Right-Side Cover 1-5

Adding Memory 1-6

Verifying Operation 1-6

Attach the Upgrade Kit Label to the Instrument 1-7

TLA5KUP Option 11

TLA5KUP Option 11:Memory Upgrade Installation **2-1**

Instruments 2-1

Parts List 2-1

Minimum Tool and Equipment List 2-1

Installation Prerequisites 2-2

Remove the Accessories Pouch 2-2

Remove the Trim and Covers 2-3

Remove the Right-Side Cover 2-5

Adding Memory 2-6

Verifying Operation 2-6

Attach the Upgrade Kit Label to the Instrument 2-7

TLA5KUP Option 15

TLA5KUP Option 15: iView External Oscilloscope Cable Installation **3-1**

Instruments 3-1

Minimum Tool and Equipment List 3-1

Parts List 3-1

Installation Prerequisite 3-1

Installation Instructions 3-2

Attach the Upgrade Kit Label to the Instrument 3-2

TLA5KUP Option 20

TLA5KUP Option 20: CD-RW/DVD-ROM Drive Upgrade 4-1
Instruments 4-1
Parts List 4-1
Minimum Tool and Equipment List 4-1
TLA5KUP Option 20: CD-RW/DVD-ROM Drive Installation 4-3
Preparation 4-3
Remove the Accessories Pouch 4-4
Remove the Trim and Covers 4-4
Remove the Right-Side Cover 4-6
Locator Diagram 4-7
Remove Floppy Disk Drive 4-8
Replace the CD Drive 4-8
Verifying Operation 4-9
Attach the Upgrade Kit Label to the Instrument 4-9

TLA5KUP Option 41

TLA5KUP Option 41: TLA Application Software and Windows Operating System Upgrade 5-1
Instruments 5-1
Minimum Tool and Equipment List 5-1
Parts List 5-1
TLA5KUP Option 41: Application Software and Windows Operating System Instructions 5-3
Install Software 5-3
Upgrade the TLA5000 Firmware 5-5
Upgrade the Mainframe BIOS (TLA5000 Instruments with Serial Numbers B020000 to B029999 Only) 5-5
Calibrate the Instrument 5-7
Installing the TLA Application Software on a PC 5-7
Attach the Upgrade Kit Label to the Instrument 5-9

TLA5KUP Option 42

TLA5KUP Option 42: TLA Application Software Upgrade 6-1
Instruments 6-1
Installation Prerequisite 6-1
Parts List 6-1
Minimum Tool and Equipment List 6-2
TLA5KUP Option 42: Application Software Instructions 6-3
Upgrade Instruction Overview 6-3
Remove the Old Software 6-3
Update the TLA Drivers 6-4
Install Adobe Acrobat Reader 6-6
Install SnagIt 6-6
Install NI-GPIB 6-6
Install the TLA Application Software 6-7
Install the Nero OEM Suite Software 6-7
Upgrade the TLA5000 Firmware 6-7

Upgrade the Mainframe BIOS (TLA5000 Instruments with Serial Numbers B020000 to B029999 Only) 6-8
Calibrate the Instrument 6-9
Installing the TLA Application Software on a PC 6-10
Attach the Upgrade Kit Label to the Instrument 6-12

List of Figures

Figure 1-1: Trim and covers **1-4**
Figure 1-2: Right-side cover removal **1-5**
Figure 1-3: Memory module and battery location **1-6**
Figure 1-4: Kit label locations **1-7**
Figure 2-1: Trim and covers **2-4**
Figure 2-2: Right-side cover removal **2-5**
Figure 2-3: Memory module and battery location **2-6**
Figure 2-4: Kit label locations **2-7**
Figure 3-1: Kit label locations **3-2**
Figure 4-1: Trim and covers **4-5**
Figure 4-2: Right-side cover removal **4-6**
Figure 4-3: Locator diagram **4-7**
Figure 4-4: Kit label locations **4-10**
Figure 5-1: Revision and kit label locations **5-9**
Figure 6-1: Revision and kit label locations **6-12**

List of Tables

Table i: TLA5000 Series logic analyzers eligible for upgrades . . . . **ix**
Table ii: TLA5KUP Logic Analyzer Field Upgrade Matrix . . . . . **x**
Table 1-1: TLA5KUP Option 10 parts list **1-1**
Table 1-2: Tools required for installing upgrade **1-1**
Table 2-1: TLA5KUP Option 11 parts list **2-1**
Table 2-2: Tools required for installing upgrade **2-1**
Table 3-1: TLA5KUP Option 15 parts list **3-1**
Table 4-1: TLA5KUP Option 20 parts list **4-1**
Table 4-2: Tools required for installing upgrade **4-1**
Table 5-1: TLA5KUP Option 41 parts list **5-2**
Table 5-2: TLA user file suffixes **5-3**
Table 5-3: TLA5000 BIOS settings **5-6**
Table 6-1: TLA5KUP Option 42 parts list **6-1**
Table 6-2: TLA5000 BIOS settings **6-9**

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 a larger system. Read the safety sections of the other component manuals for warnings and cautions related to operating the system.

To Avoid Fire or Personal Injury

Use Proper Power Cord. Use only the power cord specified for this product and certified for the country of use.

Connect and Disconnect Properly. Do not connect or disconnect probes or test leads while they are connected to a voltage source.

Ground the Product. 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.

Observe All Terminal Ratings. To avoid fire or shock hazard, observe all ratings and markings on the product. Consult the product manual for further ratings information before making connections to the product.

The inputs are not rated for connection to mains or Category II, III, or IV circuits.

Connect the probe reference lead to earth ground only.

Power Disconnect. The power cord disconnects the product from the power source. Do not block the power cord; it must remain accessible to the user at all times.

Do Not Operate Without Covers. Do not operate this product with covers or panels removed.

Do Not Operate With Suspected Failures. If you suspect there is damage to this product, have it inspected by qualified service personnel.

Avoid Exposed Circuitry. Do not touch exposed connections and components when power is present.

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.

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.*

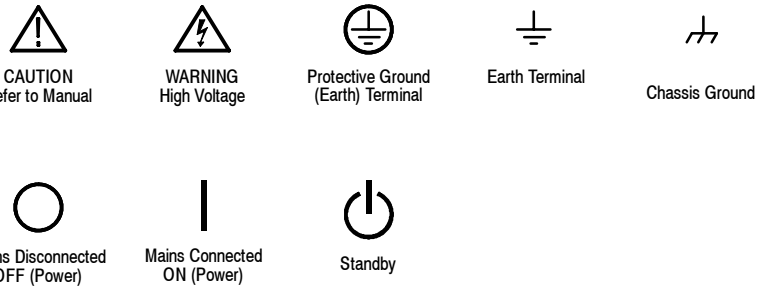
CAUTION. *Caution statements identify conditions or practices that could result in damage to this product or other property.*

Symbols and 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.

The following symbol(s) may appear on the product:



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 TLA5000B and TLA5000 Series Logic Analyzers.

NOTE. *Unless otherwise noted all references to TLA5000 Series Logic Analyzers apply to both TLA5000B and TLA5000 instruments.*

Products Eligible for TLA5KUP Upgrades

Table i lists all of the TLA5000 Series Logic Analyzers eligible for upgrades via the TLA5KUP field upgrade kits. Review Table i to determine if your logic analyzer is eligible for an upgrade and then use Table ii on page x, to explore possible upgrade paths.

Table i: TLA5000 Series logic analyzers eligible for upgrades

Configuration	Operating system	TLA application software
TLA5000	Windows XP Professional	Version 5.1 Version 5.0
TLA5000	Windows 2000 Professional	Version 4.4 Version 4.3

The TLA5KUP upgrade kits are designed for “One TLA5KUP upgrade kit per TLA5000 mainframe.” If you want to upgrade multiple mainframes, you must order one TLA5KUP upgrade kit with the appropriate options for each mainframe.

The latest TLA Application Software has been tested and can be installed and will be supported by Tektronix only on the Tektronix-supplied version of Microsoft Windows XP Professional.

Table ii: 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 TLA5000 logic analyzers by upgrading to the latest TLA Application Software. Microsoft Windows XP Professional operating system is recommended for TLA SW V5.0 or higher.	TLA5000 Std with TLA SW V5.1	Microsoft Windows XP Professional	-
	TLA5000 Std with TLA SW V5.0	Microsoft Windows XP Professional	TLA5KUP Option 42 (without restore media)
	TLA5000 Std with TLA SW V4.4 or V4.3	Windows 2000 Professional	TLA5KUP Option 41 (with restore media, recommended)
Add more DRAM Increase controller memory from 512 MB to 1 GB.	Any TLA5000 mainframe	-	TLA5KUP Option 10
Add more DRAM Increase controller memory from 512 MB to 1 GB.	Any TLA5000B mainframe	-	TLA5KUP Option 11
Add DVD-ROM/CD-RW Drive Add DVD-ROM/CD-RW Drive to back up or transfer user and data files.	TLA5000 Std with TLA SW V5.1 or V5.0	Microsoft Windows XP Professional	-
	TLA5000 Std with TLA SW V4.4 or V4.3	Microsoft Windows 2000 Professional	TLA5KUP Option 20 TLA5KUP Option 42 (without restore media)
Add New iView External Oscilloscope Capability Add new iView capability to view data from TDS oscilloscopes correlated directly on the TLA5000 logic analyzer[1]. Requires latest TLA Application Software and Microsoft Windows XP Professional operating system. TLA5000 mainframe memory requirements: 512 MByte recommended.	TLA5000 Std with TLA SW V5.1	Microsoft Windows XP Professional	TLA5KUP Option 15
	TLA5000 Std with TLA SW V5.0	Microsoft Windows XP Professional	TLA5KUP Option 15 TLA5KUP Option 42 (without restore media)
	TLA5000 Std with TLA SW V4.4 or V4.3	Microsoft Windows 2000 Professional	TLA5KUP Option 15 TLA5KUP Option 41 (with restore media, recommended)
Upgrade Logic Analyzer Record Length Enhance your current TLA5000 logic analyzer by increasing state speed or record length. Run the PowerFlex Utility to inform you what upgrades are available. Instructions to obtain an upgrade are provided.	Any TLA5000 series logic analyzer with TLA SW V4.3 and above	Microsoft Windows XP Professional or Microsoft Windows 2000 Professional	Run the PowerFlex Utility software located on the instrument and then purchase the appropriate PowerFlex kit.

Table ii: TLA5KUP Logic Analyzer Field Upgrade Matrix (Cont.)

New capability desired	Current configuration and TLA software version	Current operating system	Please order
Add Cart:	Any TLA5000 mainframe	-	Choice of either K4000 or LACART
Add Rackmount Kit	Any TLA5000 mainframe	-	016-1790-04 (Same as used with TDS6000 and TDS7000 instruments)
Add Wheeled Transport Case	Any TLA5000 mainframe	-	016-1522-xx

1 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* (Tektronix part number, 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 *Customer Services World Center* 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.

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.

TLA5KUP Option 10

TLA5KUP Option 10:Memory Upgrade Installation

TLA5KUP option 10 provides the capability of upgrading the memory on your TLA5000 Series Logic Analyzer to 1 GB.

***NOTE**. These instructions apply to TLA5000 Series Logic Analyzers only. To upgrade the memory on the TLA5000B Series Logic Analyzers, please order TLA5KUP option 11.*

Instruments

TLA5000 Series Logic Analyzers All Serial Numbers

Parts List

Table 1-1: TLA5KUP Option 10 parts list

Quantity	Part number	Description
1 ea	156-9442-xx	512 MB DIMM
1 ea	N/A	TLA5KUP kit label

Minimum Tool and Equipment List

Table 1-2: Tools required for installing upgrade

Item no.	Name	Description	General tool number
1	Screwdriver handle	Accepts Torx®-driver bits	620-440
2	T-15 Torx tip	Used for removing most the instrument's screws. Torx®-driver bit for T-15 size screw heads	640-247

Installation Prerequisites

These instructions assume that you are familiar with servicing the instrument. If you need further details for disassembling or reassembling the instrument, refer to the TLA5000 Logic Analyzer Series Service Manual (071-1305-xx). You may also contact your nearest Tektronix, Inc., Service Center or Tektronix Factory Service Center for installation assistance.

Be sure to observe the following precautions to avoid damaging the logic analyzer while preparing to service it.

CAUTION. *Many components within the instrument are susceptible to static-discharge damage.*

Service only in a static-free environment. Observe standard handling precautions for static-sensitive devices.

Always wear a grounded wrist strap, grounded foot strap, and static-resistant apparel while installing this kit.

WARNING. *Dangerous voltages may be present. Before performing any procedure in this subsection, disconnect the power cord from the line voltage source. Failure to do so could cause serious injury or death.*

- *Do not handle static-sensitive components on boards.*
- *Transport and store static-sensitive boards in their original containers or on conductive foam. Label any package that contains static-sensitive assemblies.*
- *Wear anti-static wrist strap while handling the boards to discharge the static voltage from your body.*
- *Do not allow anything capable of holding or generating a static charge on the work surface.*
- *Avoid handling boards in areas that have a floor or work surface cover that is capable of generating a static charge.*

Remove the Accessories Pouch

Remove the accessories pouch to access the covers on the instrument.

1. Turn the logic analyzer off.

2. Remove the power cord and all probes.
3. Open the pouch and locate the two snaps on the inside front side of the pouch.
4. Gently pull on each of the two tabs to unsnap the front of the pouch.
5. At the rear of the instrument, peel off the Velcro that holds the pouch to the instrument.
6. Set the pouch aside.
7. To reinstall the pouch, perform these steps in reverse order. Tighten the T-15 Torx-drive screws to 8-in lbs.

Remove the Trim and Covers

Remove the trim and covers as shown in Figure 1–1 on page 1–4, by following this procedure.

1. Remove the top cover trim.
   a. Remove the two T-15 Torx-drive screws that secure the top cover trim to the instrument.
   b. Remove the snap studs from the top cover.
   c. Slide the trim panel toward the rear of the instrument allowing the tabs to clear the cover openings, then pull out to remove the panel from the instrument (you may need to loosen the two top black feet on the back of the instrument if the cover does not come off easily).
2. Remove the right side trim.

***NOTE**. When you remove the CD Drive trim, notice the notches in the trim that provide the clearance for the chassis screws located under the trim. When you replace the trim, make sure that you orient the trim with the notches in the correct location. Otherwise the trim may not fit properly.*

   a. Remove the Drive trim by inserting a flat blade screwdriver in the bottom slot of the trim and gently prying the trim piece out of the side panel. Pull the trim up and out from the instrument.
   b. Remove the two T-15 Torx-drive screws that secure the right side trim to the bottom of the instrument.
   c. Slide the trim panel toward the rear of the instrument allowing the tabs to clear the cover openings, then pull the panel from the instrument.

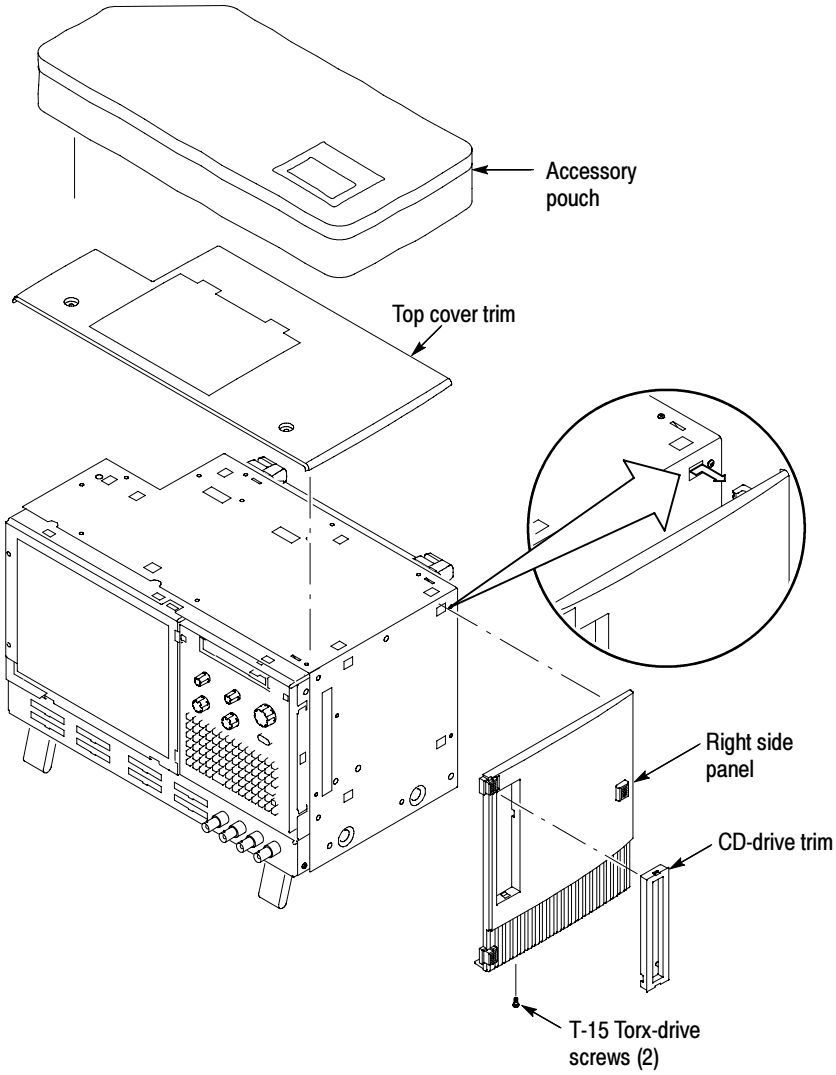


Figure 1-1: Trim and covers

Remove the Right-Side Cover

Remove the right-side cover to access most of the internal components of the instrument. Refer to Figure 1–2 while removing the right-side cover.

***NOTE**. All mounting screw holes are indicated by a star etched around the mounting hole.*

1. Remove the 15 T-15 Torx-drive screws that secure the cover to the top and right sides of the chassis.
2. Remove the cover.

***CAUTION.** Take care not to bind or snag the covers on the internal cabling as you remove or install.*

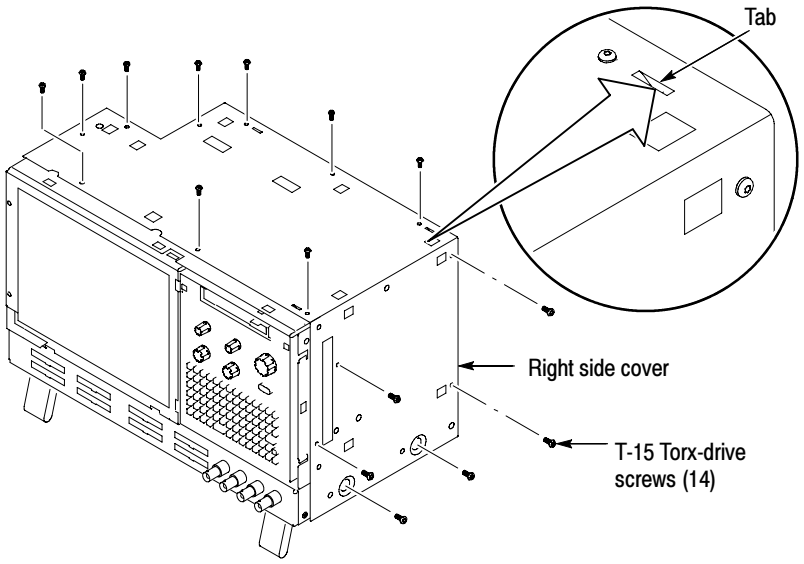


Figure 1–2: Right-side cover removal

Adding Memory

The memory sockets are located on the processor board mounted to the back panel (refer to Figure 1–3).

1. Install the memory module as follows:

   a. For TLA5000 instruments with serial numbers B010000 to B019999, install the memory module in the single, spare socket.

   b. For TLA5000 instruments with serial numbers B020000 or higher, install the memory module in one of the spare sockets. For optimum performance, leave one socket empty between the original and new DIMMs (the correct socket for the new memory module is labeled Channel B DIMM 0).

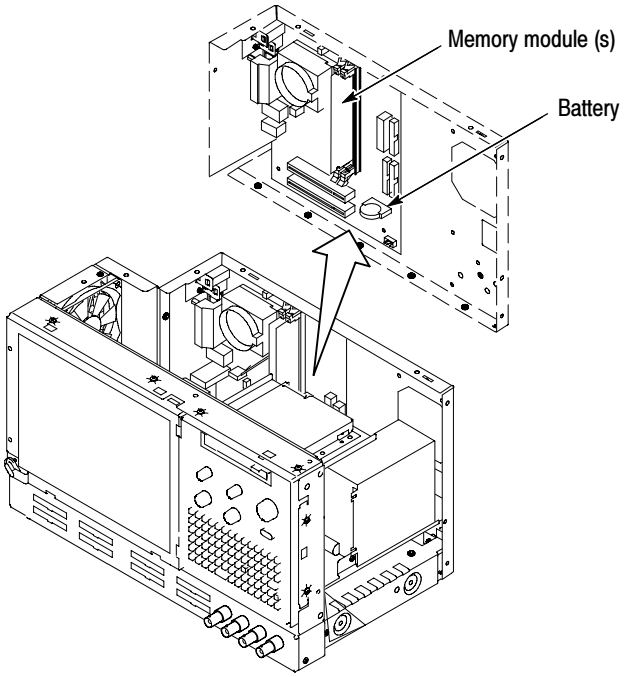


Figure 1–3: Memory module and battery location

2. Reinstall the trim, covers, and the accessories pouch.

Verifying Operation

To verify the proper operation of the logic analyzer, follow these steps:

1. Plug the power cord in and turn the logic analyzer on.

2. Verify that the instrument passes all power-up diagnostics.
3. Exit all applications and close any open windows.
4. Click Start in the Windows tool bar.
5. Select Programs from the Start menu.
6. Select the CheckIt Utilities application from the Programs menu.
7. Run the appropriate verification tests from the application.
8. Turn the logic analyzer off, and then on again before running any application software including the TLA application software.

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 1-4.

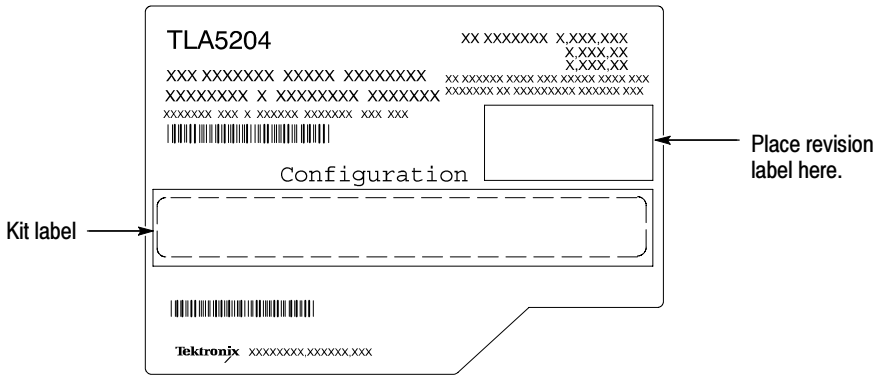


Figure 1-4: Kit label locations

TLA5KUP Option 11

TLA5KUP Option 11:Memory Upgrade Installation

TLA5KUP option 11 provides the capability of upgrading the memory on your TLA5000B Series Logic Analyzer to 1 GB.

***NOTE**. These instructions apply to TLA5000B Series Logic Analyzers only. To upgrade the memory on the TLA5000 Series Logic Analyzers, please order TLA5KUP option 10.*

Instruments

TLA5000B Series Logic Analyzers All Serial Numbers

Parts List

Table 2-1: TLA5KUP Option 11 parts list

Quantity	Part number	Description
1 ea	167-0428-xx	512 MB DIMM
1 ea	N/A	TLA5KUP kit label

Minimum Tool and Equipment List

Table 2-2: Tools required for installing upgrade

Item no.	Name	Description	General tool number
1	Screwdriver handle	Accepts Torx®-driver bits	620-440
2	T-15 Torx tip	Used for removing most the instrument's screws. Torx®-driver bit for T-15 size screw heads	640-247

Installation Prerequisites

These instructions assume that you are familiar with servicing the instrument. If you need further details for disassembling or reassembling the instrument, refer to the TLA5000 Logic Analyzer Series Service Manual (071-1305-xx). You may also contact your nearest Tektronix, Inc., Service Center or Tektronix Factory Service Center for installation assistance.

Be sure to observe the following precautions to avoid damaging the logic analyzer while preparing to service it.

CAUTION. *Many components within the instrument are susceptible to static-discharge damage.*

Service only in a static-free environment. Observe standard handling precautions for static-sensitive devices.

Always wear a grounded wrist strap, grounded foot strap, and static-resistant apparel while installing this kit.

WARNING. *Dangerous voltages may be present. Before performing any procedure in this subsection, disconnect the power cord from the line voltage source. Failure to do so could cause serious injury or death.*

- *Do not handle static-sensitive components on boards.*
- *Transport and store static-sensitive boards in their original containers or on conductive foam. Label any package that contains static-sensitive assemblies.*
- *Wear anti-static wrist strap while handling the boards to discharge the static voltage from your body.*
- *Do not allow anything capable of holding or generating a static charge on the work surface.*
- *Avoid handling boards in areas that have a floor or work surface cover that is capable of generating a static charge.*

Remove the Accessories Pouch

Remove the accessories pouch to access the covers on the instrument.

1. Turn the logic analyzer off.

2. Remove the power cord and all probes.
3. Open the pouch and locate the two snaps on the inside front side of the pouch.
4. Gently pull on each of the two tabs to unsnap the front of the pouch.
5. At the rear of the instrument, peel off the Velcro that holds the pouch to the instrument.
6. Set the pouch aside.
7. To reinstall the pouch, perform these steps in reverse order. Tighten the T-15 Torx-drive screws to 8-in lbs.

Remove the Trim and Covers

Remove the trim and covers as shown in Figure 2–1 on page 2–4, by following this procedure.

1. Remove the top cover trim.
   a. Remove the two T-15 Torx-drive screws that secure the top cover trim to the instrument.
   b. Remove the snap studs from the top cover.
   c. Slide the trim panel toward the rear of the instrument allowing the tabs to clear the cover openings, then pull out to remove the panel from the instrument (you may need to loosen the two top black feet on the back of the instrument if the cover does not come off easily).
2. Remove the right side trim.

***NOTE**. When you remove the CD Drive trim, notice the notches in the trim that provide the clearance for the chassis screws located under the trim. When you replace the trim, make sure that you orient the trim with the notches in the correct location. Otherwise the trim may not fit properly.*

---

   a. Remove the Drive trim by inserting a flat blade screwdriver in the bottom slot of the trim and gently prying the trim piece out of the side panel. Pull the trim up and out from the instrument.
   b. Remove the two T-15 Torx-drive screws that secure the right side trim to the bottom of the instrument.
   c. Slide the trim panel toward the rear of the instrument allowing the tabs to clear the cover openings, then pull the panel from the instrument.

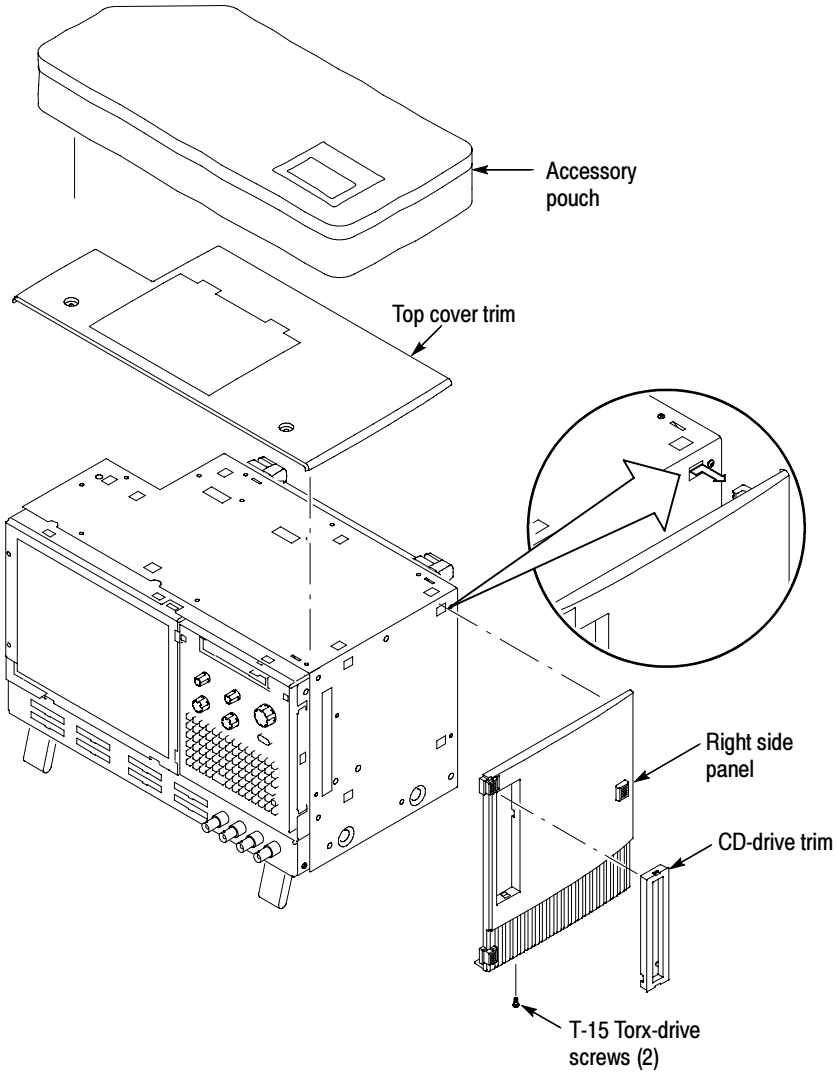


Figure 2-1: Trim and covers

Remove the Right-Side Cover

Remove the right-side cover to access most of the internal components of the instrument. Refer to Figure 2–2 while removing the right-side cover.

***NOTE**. All mounting screw holes are indicated by a star etched around the mounting hole.*

1. Remove the 15 T-15 Torx-drive screws that secure the cover to the top and right sides of the chassis.
2. Remove the cover.

***CAUTION.** Take care not to bind or snag the covers on the internal cabling as you remove or install.*

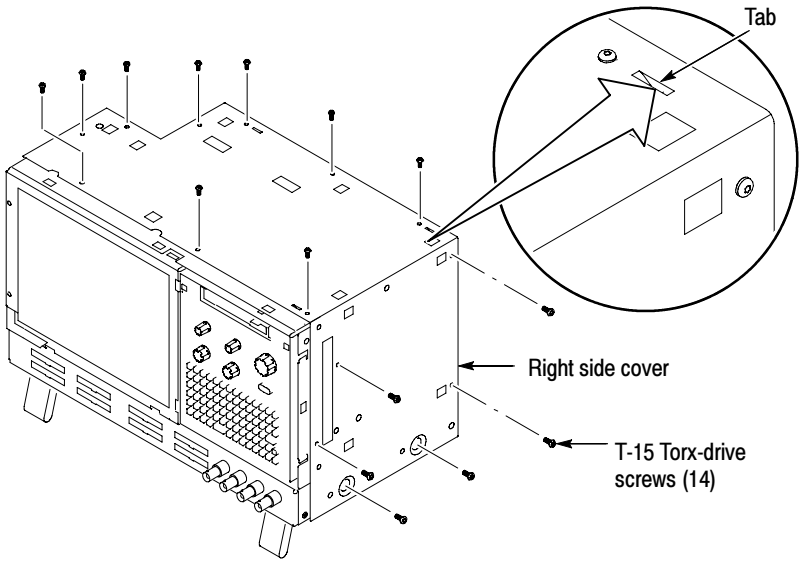


Figure 2–2: Right-side cover removal

Adding Memory

The memory sockets are located on the processor board mounted to the back panel (refer to Figure 2–3).

1. Install the memory module in one of the spare sockets. For optimum performance, leave one socket empty between the original and new DIMMs (the correct socket for the new memory module is labeled Channel B DIMM 0).

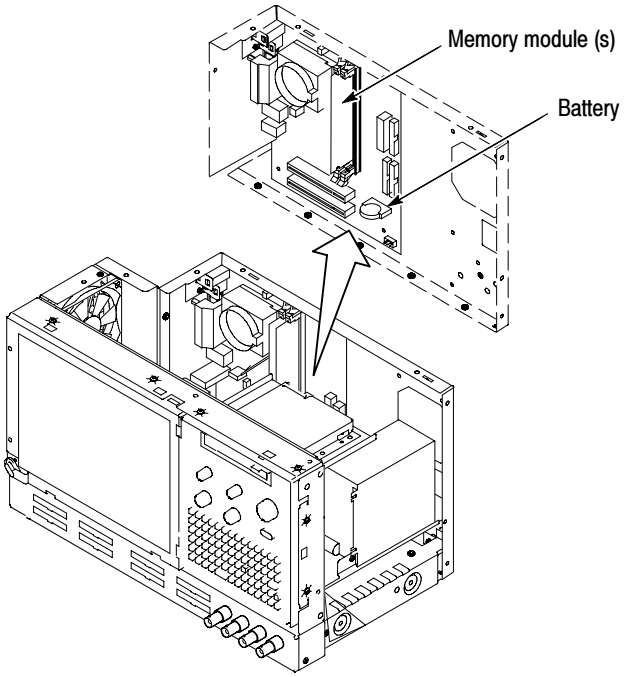


Figure 2–3: Memory module and battery location

2. Reinstall the trim, covers, and the accessories pouch.

Verifying Operation

To verify the proper operation of the logic analyzer, follow these steps:

1. Plug the power cord in and turn the logic analyzer on.
2. Verify that the instrument passes all power-up diagnostics.
3. Exit all applications and close any open windows.
4. Click Start in the Windows tool bar.

5. Select Programs from the Start menu.
6. Select the CheckIt Utilities application from the Programs menu.
7. Run the appropriate verification tests from the application.
8. Turn the logic analyzer off, and then on again before running any application software including the TLA application software.

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 2–4.

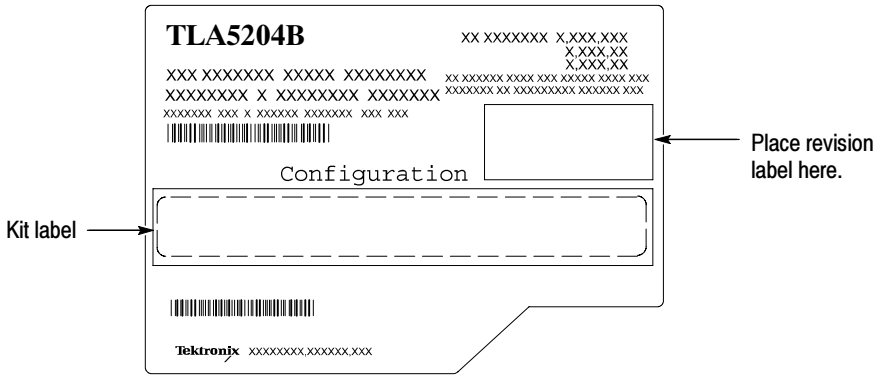


Figure 2–4: Kit label locations

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. Please order TLA5KUP Option 41 to get the latest TLA application software and the Windows XP Professional operating system.

Instruments

TLA5000 Series Logic Analyzers	All Serial Numbers
TLA5000B Series Logic Analyzers	All Serial Numbers

Minimum Tool and Equipment List

No special tools or equipment are required.

Parts List

Table 3-1: TLA5KUP Option 15 parts list

Quantity	Part number	Description
1 ea	012-1614-xx	iView external oscilloscope cable kit
1 ea	N/A	TLA5KUP kit label

Installation Prerequisite

Requires the latest TLA Application Software, Microsoft Windows XP Professional operating system, and 512 MB minimum mainframe memory. Also requires the latest version of the NI-488.2 software available on the TLA Application software CD; refer to the release notes on the CD for software version history.

Although the instruments will operate with Microsoft Windows 2000 Professional, Tektronix recommends that you upgrade the operating system to Microsoft Windows XP Professional through TLA5KUP Option 41.

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 3–1.

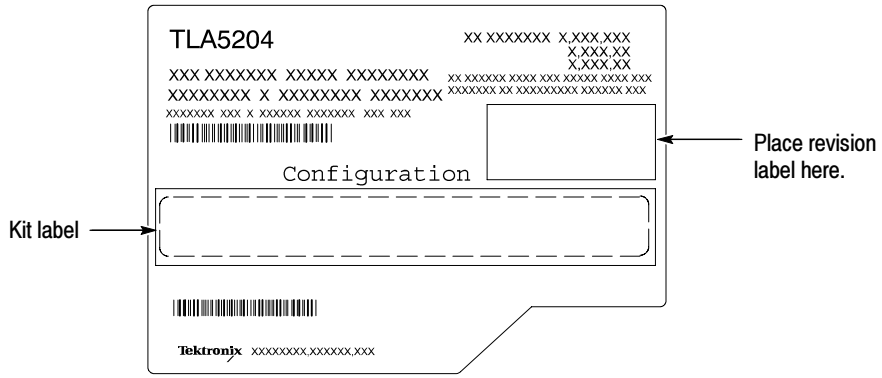


Figure 3–1: Kit label locations

TLA5KUP Option 20

TLA5KUP Option 20: CD-RW/DVD-ROM Drive Upgrade

TLA5KUP option 20 allows you to replace the CD-RW drive with a CD-RW/DVD-ROM drive for your TLA5000 series logic analyzer. This option does not include any software media and license. Please order TLA5KUP Option 41 or 42 to get the latest software to support your new drive.

***NOTE**. To play DVD media with your new drive, you must upgrade your software, with TLA5KUP Option 41. TLA5KUP Option 41 includes the Microsoft Windows XP Professional Operating System and Media Player V10. You can also add a third-party DVD decoder.*

Instruments

TLA5000 Series Logic Analyzers All Serial Numbers

Parts List

Table 4-1: TLA5KUP Option 20 parts list

Quantity	Part number	Description
1 ea	119-7196-xx	CD-RW/DVD-ROM disk drive
1 ea	N/A	TLA5KUP kit label

Minimum Tool and Equipment List

Table 4-2: Tools required for installing upgrade

Item no.	Name	Description	General tool number
1	Screwdriver handle	Accepts Torx®-driver bits	620-440
2	T-15 Torx tip	Used for removing most the instrument's screws. Torx®-driver bit for T-15 size screw heads	640-247
3	#1 Phillips screwdriver	Screwdriver for removing Phillips screws, CD-ROM Drive.	Standard tool

TLA5KUP Option 20: CD-RW/DVD-ROM Drive Installation

The following instructions guide you through the process of replacing the existing CD-RW ROM drive with a CD-RW/DVD-ROM drive.

Preparation

Be sure to observe the following precautions to avoid damaging the logic analyzer while preparing to service it. Contact your nearest Tektronix, Inc., Service Center or Tektronix Factory Service Center for installation assistance.

CAUTION. *Many components within the instrument are susceptible to static-discharge damage.*

Service only in a static-free environment. Observe standard handling precautions for static-sensitive devices.

Always wear a grounded wrist strap, grounded foot strap, and static-resistant apparel while installing this kit.

WARNING. *Dangerous voltages may be present. Before performing any procedure in this subsection, disconnect the power cord from the line voltage source. Failure to do so could cause serious injury or death.*

- *Do not handle static-sensitive components on boards.*
- *Transport and store static-sensitive boards in their original containers or on conductive foam. Label any package that contains static-sensitive assemblies.*
- *Wear anti-static wrist strap while handling the boards to discharge the static voltage from your body.*
- *Do not allow anything capable of holding or generating a static charge on the work surface.*
- *Avoid handling boards in areas that have a floor or work surface cover that is capable of generating a static charge.*

Remove the Accessories Pouch

Remove the accessories pouch to access the covers on the instrument.

1. Turn the logic analyzer off.
2. Remove the power cord and all probes.
3. Open the pouch and locate the two snaps on the inside front side of the pouch.
4. Gently pull on each of the two tabs to unsnap the front of the pouch.
5. At the rear of the instrument, peel off the Velcro that holds the pouch to the instrument.
6. Set the pouch aside.
7. To reinstall the pouch, perform these steps in reverse order. Tighten the T-15 Torx-drive screws to 8-in lbs.

Remove the Trim and Covers

Remove the trim and covers as shown in Figure 4–1 on page 4–5, by following this procedure.

1. Remove the top cover trim.
   a. Remove the two T-15 Torx-drive screws that secure the top cover trim to the instrument.
   b. Remove the snap studs from the top cover.
   c. Slide the trim panel toward the rear of the instrument allowing the tabs to clear the cover openings, then pull out to remove the panel from the instrument (you may need to loosen the two top black feet on the back of the instrument if the cover does not come off easily).
2. Remove the right side trim.

***NOTE**. When you remove the CD Drive trim, notice the notches in the trim that provide the clearance for the chassis screws located under the trim. When you replace the trim, make sure that you orient the trim with the notches in the correct location. Otherwise the trim may not fit properly.*

---

   a. Remove the Drive trim by inserting a flat blade screwdriver in the bottom slot of the trim and gently prying the trim piece out of the side panel. Pull the trim up and out from the instrument.

b. Remove the two T-15 Torx-drive screws that secure the right side trim to the bottom of the instrument.

c. Slide the trim panel toward the rear of the instrument allowing the tabs to clear the cover openings, then pull the panel from the instrument.

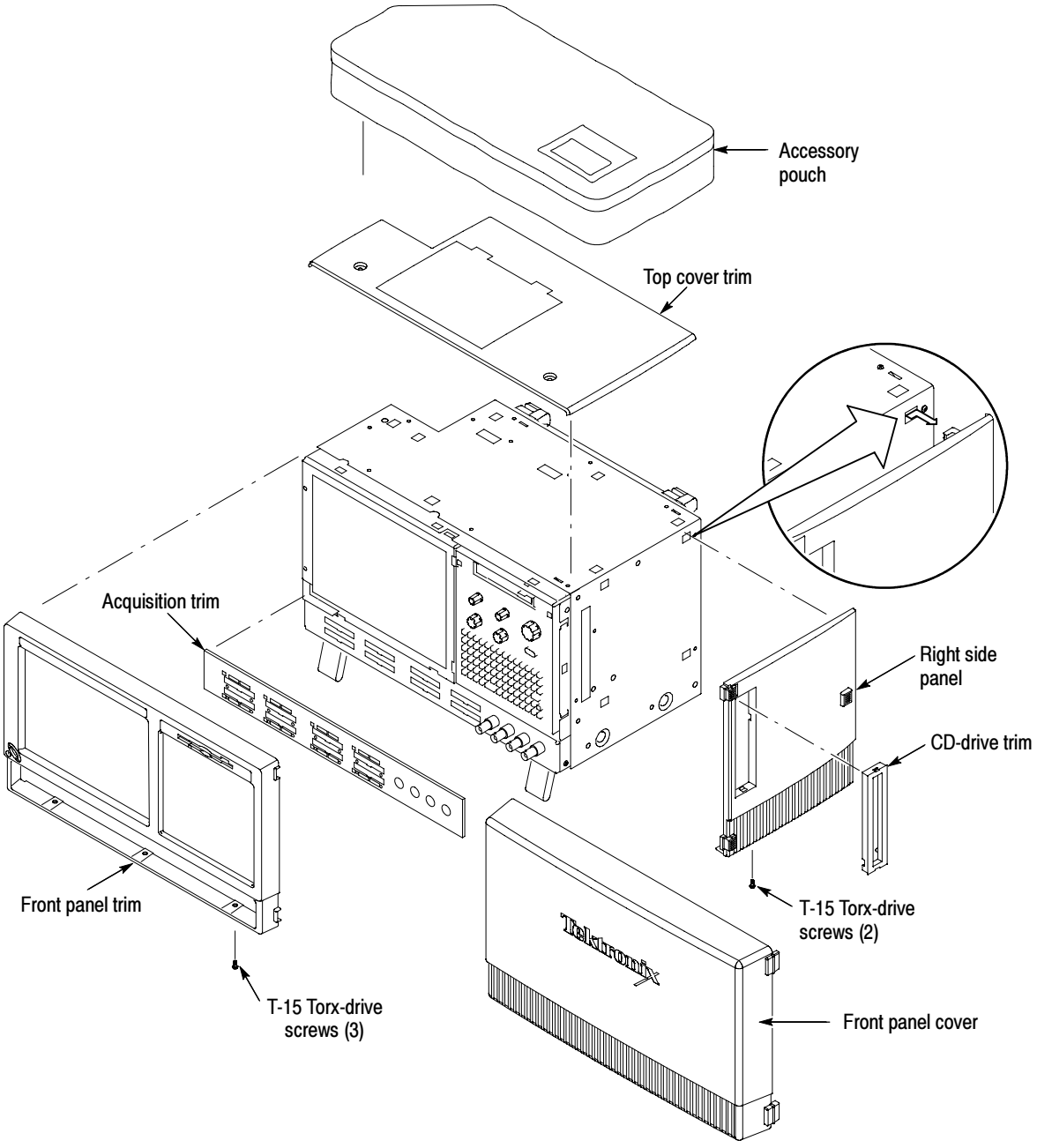


Figure 4–1: Trim and covers

Remove the Right-Side Cover

Remove the right-side cover to access most of the internal components of the instrument. Refer to Figure 4–2 while removing the right-side cover.

1. Remove the top and right trim to access the right-side cover.

NOTE. *All mounting screw holes are indicated by a star etched around the mounting hole.*

2. Remove the 15 T-15 Torx-drive screws that secure the cover to the top and right sides of the chassis.
3. Remove the cover.

CAUTION. *Take care not to bind or snag the covers on the internal cabling as you remove or install.*

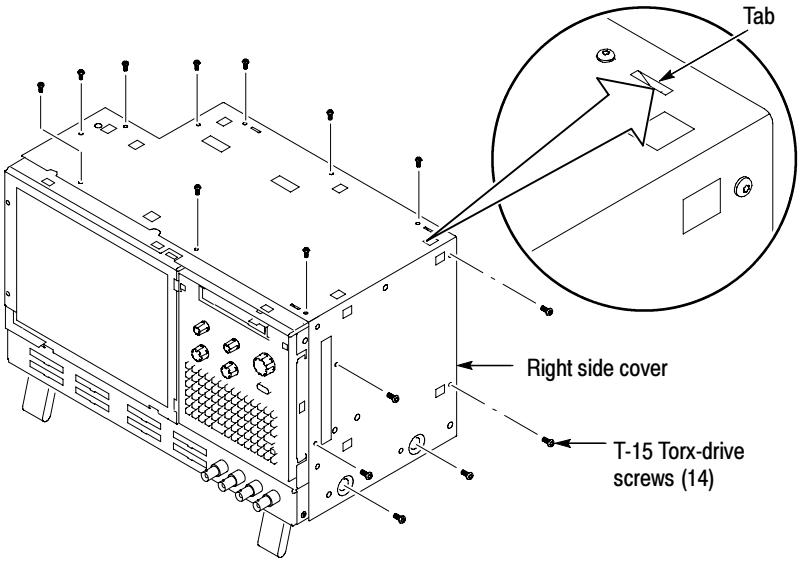


Figure 4–2: Right-side cover removal

Locator Diagram

Use Figure 4–3 to locate the components for the remaining removal and installation procedures.

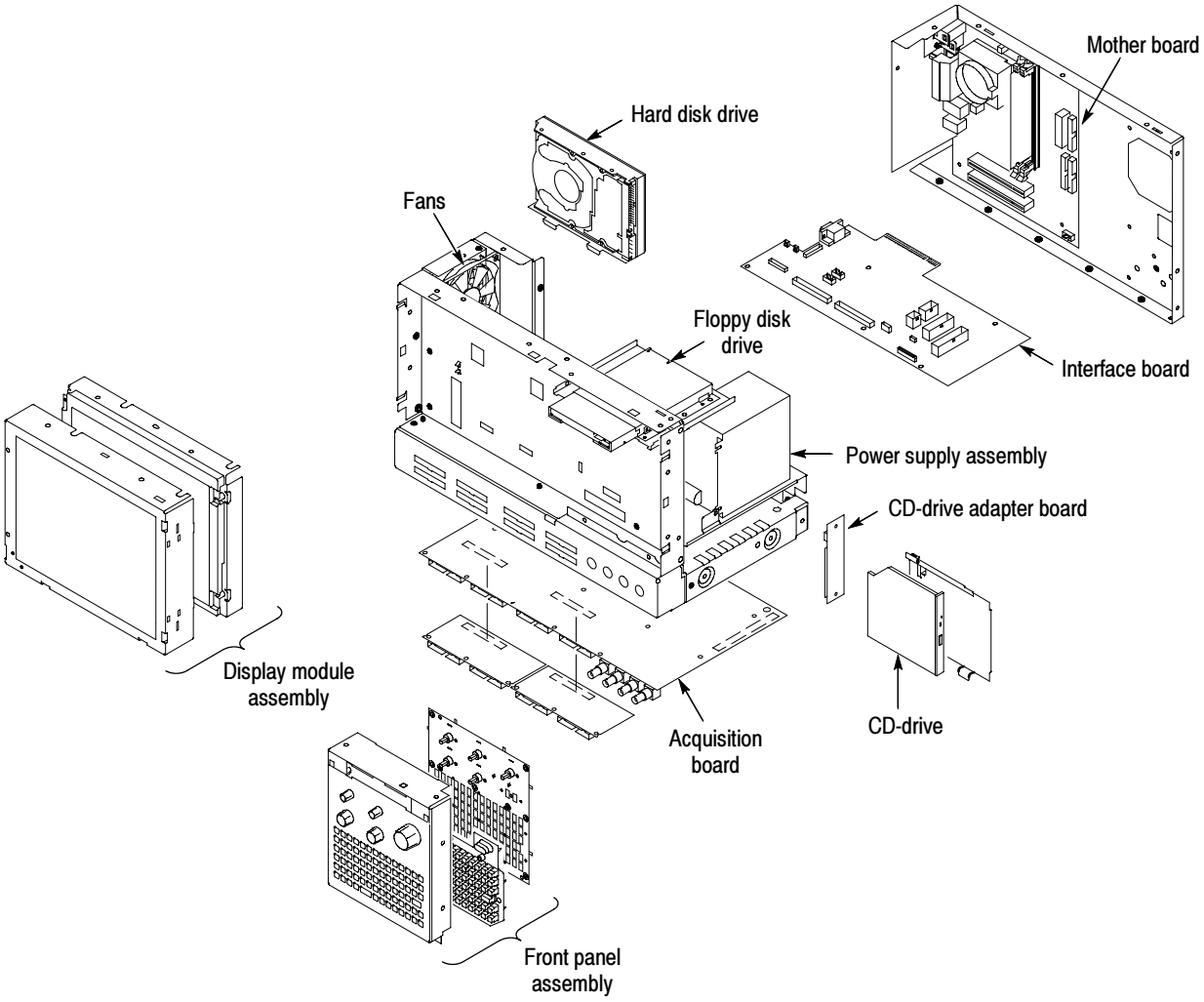


Figure 4–3: Locator diagram

Remove Floppy Disk Drive

Remove the floppy disk drive for better access to the CD-RW drive.

1. Locate the Floppy Disk Drive in the locator diagram in Figure 4–3 on page 4–7.
2. Set the instrument so its bottom is down on the work surface and the front panel is facing you.
3. Remove the cable from the back of the floppy disk drive.
4. Remove the two T-15 Torx-drive screws that secure the floppy disk drive assembly to the chassis.

Replace the CD Drive

1. Locate the CD drive in the locator diagram in Figure 4–3 on page 4–7.
2. Remove the single T-15 Torx-drive screw that secures the CD drive assembly to the chassis.
3. Pull the assembly away from the chassis so that you can disconnect the ribbon and power cables.
4. Disconnect the ribbon and power cables and then remove the CD drive from the chassis.
5. Remove the Phillips screws that secure the CD drive to the bracket.
6. Gently pull the CD drive away from the connector and remove the drive from the bracket.
7. Remove the Phillips screws that secure the CD drive adapter board to the back of the CD drive.
8. Remove the CD drive adapter board from the old CD drive and attach the board to the new DVD-ROM/CD-RW drive. Install the Phillips screws that you removed earlier and tighten them to 2 in-lbs.
9. Slide the new drive into the bracket and install the Phillips screws that you removed earlier; tighten the screws to 2 in-lbs.
10. Install the assembly in the chassis by aligning the two tabs from the bracket to the slots in the chassis before tightening the Torx-drive screw. Tighten the T-15 Torx-drive screw to 8 in-lbs.
11. Connect the ribbon and power cables to the assembly.

12. Reinstall the floppy disk drive, right-side cover, trim, and the accessories pouch.

Verifying Operation

To verify the proper operation of the logic analyzer, follow these steps:

1. Attach the power cord and power on the logic analyzer.
2. Exit all applications and close any open windows.
3. Click Start in the Windows tool bar.
4. Select Programs from the Start menu.
5. Select the CheckIt application from the Programs menu.
6. Run the appropriate verification tests from the CheckIt diagnostics.
7. Insert a CD and verify the CD write capability using the appropriate media-burning software.
8. Turn the logic analyzer off, and then on again before running any application software including the TLA application software.

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 4–4.

***NOTE**. If there is an upgrade kit label already installed, install the new label above or below the old one, wherever there is room.*

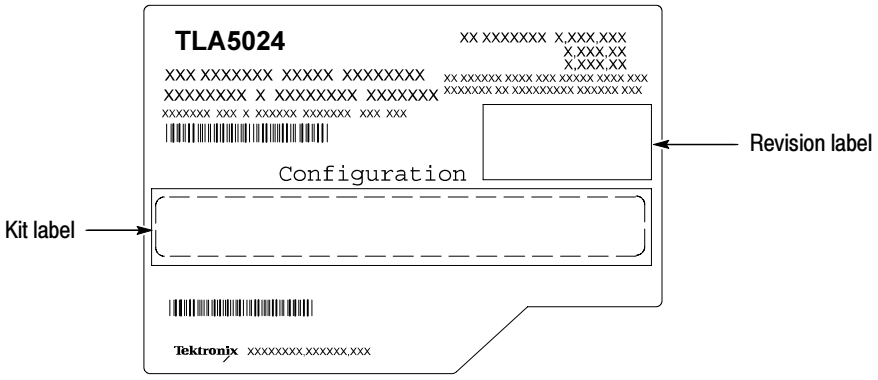


Figure 4–4: Kit label locations

TLA5KUP Option 41

TLA5KUP Option 41: TLA Application Software and Windows Operating System Upgrade

TLA5KUP option 41 supports the upgrade to TLA Application Software V5.1 and Microsoft Windows XP Professional operating system.

Use this kit to upgrade TLA5000 series logic analyzers with TLA application software 5.0, or lower, using recovery media. This process overwrites the entire contents of your hard disk drive.

***NOTE**. Several third-party software applications are included to use with your logic analyzer. These applications may include software license agreements. Be sure to abide by those license agreements.*

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

Multiple sets of CD or DVDs are included with this kit. Use the set that supports the serial number range of your instrument.

Table 5-1: TLA5KUP Option 41 parts list

Quantity	Part number	Description
1 ea	N/A	Tektronix Logic Analyzer Family Application Software V5.1
1 ea	N/A	Tektronix Logic Analyzer Family TLA5000 Recovery Media V5.1 (CD-ROM set for TLA5000 serial numbers B010000 to B019999)
1 ea	N/A	Tektronix Logic Analyzer Family TLA5000 Recovery Media V5.1 (CD-ROM set for TLA5000 serial numbers B020000 to B029999)
1 ea	N/A	Tektronix Logic Analyzer Family TLA5000 Recovery Medis V5.1 (DVD-ROM set for TLA5000 serial numbers B030000 to B039999)
1 ea	N/A	Microsoft Windows XP Professional Certificate of Authenticity
1 ea	N/A	Nero OEM Suite 3 CD
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	Recovery media license

TLA5KUP Option 41: Application Software and Windows Operating System Instructions

These instructions guide you through the process of upgrading your TLA5000 series logic analyzer software and firmware.

CAUTION. *The software installation procedure overwrites the entire contents of your hard disk. To save any files or software applications on the hard disk, back them up to another media before continuing with this procedure.*

Install Software

This kit includes media that contain the Microsoft Windows XP Professional operating system and the latest application software. All software required to run the logic analyzer comes with the media, with the exception of any microprocessor support packages or non-logic analyzer application software.

NOTE*. Use the CD or DVD set that supports the serial number range of your instrument.*

Back Up Files

Before loading the recovery media, back up any files, applications, and personal files. Use the Windows Search utility to locate the files to back up. Table 5–2 lists examples of file suffixes that you may want to back up.

Table 5–2: TLA user file suffixes

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

Table 5-2: TLA user file suffixes (Cont.)

Suffix	Description
.stk	Stack files
.spz	Protocol files

Install Windows XP Professional and the TLA Application Software

This procedure automatically reformats the hard disk, installs the Windows XP Professional Operating system software, and installs the the Tektronix Logic Analyzer application software. This process may take several minutes.

Change the BIOS Boot Settings and Load the Recovery Media. Before installing the recovery media you may need to change the BIOS settings to enable booting from the CD/DVD drive.

1. Restart the logic analyzer and then press function key F2 repeatedly 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 to boot from the CD/DVD first.
5. Insert the first disc of the reovery media into the drive.
6. Save the settings by pressing function key F10 and confirm that you want to save the new settings. The instrument will reboot and begin the installation procedure.
7. Review the license agreement. If you agree to the terms of the license agreement, proceed with the next step.
8. Follow the on-screen instructions to complete the installation procedure.

   If the recovery process detects errors and prompts you to allow the program to fix them, click Yes to continue the upgrade process.
9. 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.

Upgrade the TLA5000 Firmware

Complete the following steps if the TLA startup messages indicate that you need to upgrade the instrument firmware:

1. Log on to the instrument as Administrator.
2. Exit the logic analyzer application.
3. Click Start → All Programs → Tektronix Logic Analyzer → TLA Firmware Loader.
4. Select your instrument from the Firmware Loader - Connection dialog box and click **Connect**.
5. 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.
6. Select the module from the Supported list box near the top of the window.
7. Select **Load Firmware** from the Execute menu.
8. Click the TLA520x.lod file.
9. Click **Open**. You will be asked to confirm your action; click **Yes**.
10. When the process is complete, exit the firmware loader program.

Upgrade the Mainframe BIOS (TLA5000 Instruments with Serial Numbers B020000 to B029999 Only)

Use the following steps to determine if you need to upgrade the BIOS on the logic analyzer mainframe:

1. Restart the logic analyzer and then press function key **F2** to enter the BIOS setup.
2. Check that the BIOS version string ends in P24 (for TLA5000 instruments with serial numbers from B020000 to B029999).
3. If you have the correct version, skip the remaining steps in this procedure. Restart the instrument, or press the **Escape** key, and answer OK to discard any changes and exit (this allows the instrument to restart).
4. To update the BIOS, complete the following steps:
   a. Connect to the internet and go to the following Web site:

      `http://developer.intel.com/design/motherbd/lc/lc_bios.htm`

b. Review the information on the Web site about the Express BIOS update and then download the file and copy it to your instrument desktop.

c. Close all applications on your instrument and then execute the file that you just downloaded.

***NOTE**. Do not power down the instrument until the upgrade is complete.*

d. Follow the on-screen instructions.

The logic analyzer will update the BIOS and the screen will be blank. During the update processes you will hear several beeps and then the instrument will restart. A message will appear on the screen when the upgrade is complete.

The upgrade process should not change the BIOS settings of your instrument. If the screen remains blank, the video BIOS settings might have been reset. Complete the following steps to recover from any problems:

5. Connect an external monitor to the video port near the RS-232 port.

6. Restart the instrument and then press function key **F2** to enter the BIOS setup.

The BIOS screen should appear on the external monitor.

7. Use the keyboard or front panel keys to change the BIOS settings in Table 5–3.

Table 5–3: TLA5000 BIOS settings

Menu	Recommended settings	
Advanced		
Peripheral Configuration	Parallel Port Mode	ECP
	Audio	Disabled
Diskette Configuration	Diskette Controller	Disabled
Video Configuration	Primary Video Adapter	PCI
Boot		
	Silent Boot	Enabled

8. Press function key **F10** to save and exit the BIOS setup. The instrument should restart and the screen should work 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. Close the dialog box.

Installing the TLA Application Software on a PC

You can install the TLA application software on a PC for the following purposes:

- Run the TLA application software in the Offline mode (similar to TLAVu in earlier software versions).
- Control a logic analyzer with the same TLA Application Software over a network.

Install Third-Party Software

To use all of the features of the TLA application software on your PC, you must install additional third-party software. The following third-party software is available on the TLA Application Software CD V5.0, or higher:

- The NI-GPIB software allows you to use the iView software with your PC.
- The SnagIt software is useful for copying screen shots of logic analyzer data for use with other applications.

***NOTE**. Several third-party software applications are included to use with your logic analyzer. These applications may include software license agreements. Be sure to abide by those license agreements.*

Install the NI-GPIB Software. Complete the following steps to install the third-party software on your PC:

1. Install the first TLA Application Software CD in the CD drive.
2. Browse to the NI-GPIB-USB folder on the CD and run the Setup.exe program.
3. Follow the on-screen instructions and note the items below:
   a. When prompted, select the Typical installation option.
   b. When the Add GPIB wizard appears, select **GPIB-USB-HS**.
   c. After restarting the instrument, the NI-488.2 Getting Started wizard displays. This is not needed; select **Do not show at Windows startup**.
   d. When you first connect the iView cable, the instrument will detect the new hardware. Select **Install the software automatically (Recommended)**.

Install the SnagIt Software. Complete the following steps to install the SnagIt software on your PC:

1. Browse to the SnagIt folder on the CD and run the Setup.exe program.
2. Follow the on-screen instructions.

Install the TLA Application Software

Browse to the TLA Application software folder on the CD and run the Setup.exe program. Follow the on-screen instructions to install the TLA application software.

If you have an older version of the software on the hard disk, the installation program will detect it and ask if you want to remove it. Follow the on-screen instructions to remove the software, answering "Yes" to any prompts. Restart the instrument when prompted and run the Setup.exe program again.

Start the TLA Application

If you have installed the TLA application software on a PC for remote operation, start the software by double-clicking on the TLA Application icon. The TLA Connection dialog box displays.

1. Select an instrument in the TLA Connection dialog box and then click **Connect**. If your instrument is connected to a network, you can connect to any unused instrument on your local network.

2. Click **Offline** to start an offline version of the TLA application software. The TLA Offline software allows you to run the TLA application without connecting to an instrument. You can analyze previously acquired data from a logic analyzer, create or modify reference memories, or perform system tests without being connected to an instrument.

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 5-1.

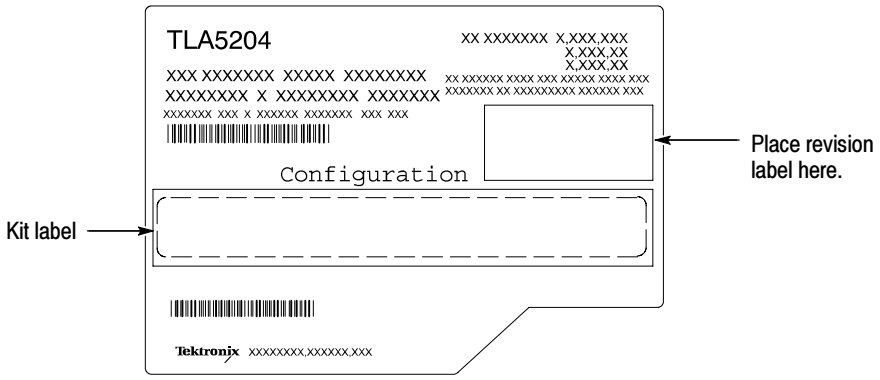


Figure 5-1: Revision and kit label locations

TLA5KUP Option 42

TLA5KUP Option 42: TLA Application Software Upgrade

TLA5KUP Option 42 supports the upgrade to TLA application software version 5.1. This kit provides instructions to upgrade the TLA application software and firmware for a TLA5000 Series logic analyzer with TLA application software version 5.0 or lower. This software will run only on TLA instruments with Microsoft Windows XP Professional Operating System or Microsoft Windows 2000 Professional Operating System purchased from Tektronix. The software will also run on a PC with Microsoft Windows XP Professional or Windows 2000 Professional operating systems.

***NOTE**. To upgrade your TLA instrument to Windows XP Professional operating system, please order TLA5KUP Option 41.*

Instruments

TLA5000 Series Logic Analyzers	All serial numbers
TLA5000B Series Logic Analyzers	All serial numbers

Installation Prerequisite

Requires TLA Application Software Version 4.3 (or higher), Microsoft Windows XP Professional Operating System or Microsoft Windows 2000 Professional Operationg System.

Parts List

Table 6-1: TLA5KUP Option 42 parts list

Quantity	Part number	Description
1 ea	N/A	Tektronix Logic Analyzer Family Application Software Version 5.1
1 ea	N/A	Nero OEM Suite 3 CD
1 ea	016-1524-xx	TLA mouse pad
1 sheet	N/A	Software revision labels
1 ea	N/A	TLA5KUP kit label

Minimum Tool and Equipment List

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

TLA5KUP Option 42: Application Software Instructions

The following instructions direct you through the process of upgrading the TLA application software on your TLA5000 series logic analyzer.

***NOTE**. Third-party software applications are included to use with your logic analyzer. These applications may include software license agreements. Be sure to abide by those license agreements.*

Upgrade Instruction Overview

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 may 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.

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.

***NOTE**. Refer to the release notes for a list of software version numbers to determine which software you may need to upgrade. The release notes are included on the TLA application software CD.*

1. If you have not already done so, power on the logic analyzer and log on as Administrator.
2. Exit the TLA application.
3. Open the Windows Control Panel.
4. Double-click the Add or Remove Programs icon.
5. 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:
   - Adobe Reader
   - NI-488.2
   - NI-Max
   - RecordNow MAX
   - SnagIt
   - Tektronix TLA Application
6. 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.
7. After the software has been successfully removed, restart Windows.

Update the TLA Drivers

Complete the following steps if your instrument has Microsoft Windows 2000 Professional Operating System and had TLA Application Software V4.3 or V4.4. This procedure removes the old PCI-VXI Bridge driver and installs the new one required by the TLA driver.

1. After rebooting the instrument, insert the second CD of the TLA Application software set.
2. Open the Windows Control Panel.
3. Open the Device Manager in the Hardware page of the System Properties dialog box.

4. Select **PCI-VXI Bridge** from the PciVxi listing.
5. Right-click to uninstall the device and then confirm that you want to delete the device.
6. Restart the instrument.

   After restarting, the instrument detects a new device and displays a dialog box.
7. Click **Cancel** to exit the dialog box.
8. Open the Device Manager in the Hardware page of the System Properties dialog box.
9. Under the PciVxi listing, Right-click **Other PCI Bridge Device** and select **Properties**.
10. Select the Driver page and click **Update Driver**.

    The Upgrade Device Driver Wizard displays.
11. Click **Next**.
12. In the Install Hardware Device Drivers page, select **Search for a suitable driver for my device (recommended)** and then click **Next**.
13. In the Locate Drive Files page, select **Specify a location** and click **Next**.
14. Click Browse and go to the directory that contains the new pci2tla.inf driver file. **(D:\Drivers\your instrument\PCI-VXI Bridge\pci2tla.inf).**
15. Select the pci2tla.inf driver and then click **Open**.
16. Click **OK** to install the driver.
17. In the Driver Files Search Results page, make sure that **Install one of the drivers checkbox** is selected and then click **Next**.
18. Select the **PCI to TLA Bridge** driver and then click **Next**.
19. Click **Finish** to complete the installation.
20. Verify that the correct driver is installed by opening the Device Manager in the System Properties dialog box.

Install Adobe Acrobat Reader

1. Log on as Administrator.
2. Install TLA V5.1 Application Software CD 1 in the CD drive.
3. Browse to the Documentation folder on the CD and double click **AdbeRdr70_enu_full.exe**.
4. Follow the on-screen instructions.
5. After the software has been successfully installed, restart Windows.

Install SnagIt

1. Log on as Administrator.
2. Browse to the SnagIt folder on the CD and double-click **Setup.exe**.
3. Follow the on-screen instructions and clear the check box for starting SnagIt automatically. Use the remaining default choices provided by the installer.
4. After the software has been successfully installed, restart Windows.

Install NI-GPIB

1. Log on as Administrator.
2. Browse to the NI-GPIB-USB folder on the CD and run the Setup.exe program.
3. Follow the on–screen instructions and note the items below:
   a. When prompted, select the Typical installation option.
   b. When the Add GPIB wizard appears, select **GPIB-USB-HS**.
   c. After restarting the instrument, the NI-488.2 Getting Started wizard displays. This is not needed; select **Do not show at Windows startup**.
   d. When you first connect the iView cable, the instrument will detect the new hardware. Select **Install the software automatically (Recommended)**.

Install the TLA Application Software

The TLA Application software uses a wizard to install the remaining software for your instrument.

1. Log on 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.

Install the Nero OEM Suite Software

The Nero OEM Suite software is available on a separate CD.

1. Log on as Administrator.
2. Exit the TLA application.
3. Insert the Nero CD into the CD drive.
4. Follow the on-screen instructions to install the software.
5. Enter the serial number when prompted (provided on the CD envelope).
6. Click Exit when done and then remove the CD.
7. Restart Windows.

Upgrade the TLA5000 Firmware

Complete the following steps if the TLA startup messages indicate that you need to upgrade the instrument firmware:

1. Log on as Administrator.
2. Exit the logic analyzer application.
3. Click Start → All Programs → Tektronix Logic Analyzer → TLA Firmware Loader.
4. Select your instrument from the Firmware Loader – Connection dialog box and click **Connect**.

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 **Open**. You will be asked to confirm your action; click **Yes**.
9. When the process is complete, exit the firmware loader program.

Upgrade the Mainframe BIOS (TLA5000 Instruments with Serial Numbers B020000 to B029999 Only)

Use the following steps to determine if you need to upgrade the BIOS on the logic analyzer mainframe:

1. Restart the logic analyzer and then press function key **F2** to enter the BIOS setup.
2. Check that the BIOS version string ends in P24 (for TLA5000 instruments with serial numbers from B020000 to B029999).
3. If you have the correct version, skip the remaining steps in this procedure. Restart the instrument, or press the **Escape** key, and answer OK to discard any changes and exit (this allows the instrument to restart).
4. To update the BIOS, complete the following steps:
   a. Connect to the internet and go to the following Web site:

      `http://developer.intel.com/design/motherbd/lc/lc_bios.htm`

   b. Review the information on the Web site about the Express BIOS update and then download the file and copy it to your instrument desktop.
   c. Close all applications on your instrument and then execute the file that you just downloaded.

***NOTE**. Do not power down the instrument until the upgrade is complete.*

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   d. Follow the on-screen instructions.

      The logic analyzer will update the BIOS and the screen will be blank. During the update processes you will hear several beeps and then the instrument will restart. A message will appear on the screen when the upgrade is complete.

The upgrade process should not change the BIOS settings of your instrument. If the screen remains blank, the video BIOS settings might have been reset. Complete the following steps to recover from any problems:

5. Connect an external monitor to the video port near the RS-232 port.
6. Restart the instrument and then press function key **F2** to enter the BIOS setup.

   The BIOS screen should appear on the external monitor.
7. Use the keyboard or front panel keys to change the BIOS settings in Table 6–2.

Table 6-2: TLA5000 BIOS settings

Menu	Recommended settings	
Advanced		
Peripheral Configuration	Parallel Port Mode	ECP
	Audio	Disabled
Diskette Configuration	Diskette Controller	Disabled
Video Configuration	Primary Video Adapter	PCI
Boot		
	Silent Boot	Enabled

8. Press function key **F10** to save and exit the BIOS setup. The instrument should restart and the screen should work 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. Close the dialog box.

Installing the TLA Application Software on a PC

You can install the TLA application software on a PC for the following purposes:

- To run the TLA application software in the Offline mode (similar to TLAVu in earlier software versions).
- To control a logic analyzer with the same TLA application software version over a network.

Install Third-Party Software

To use all of the features of the TLA application software on your PC, you must install additional third-party software. The following third-party software is available on the TLA Application Software CD V5.0, or higher:

- The NI-GPIB software allows you to use the iView software with your PC.
- The SnagIt software is useful for copying screen shots of logic analyzer data for use with other applications.

NOTE. *Several third-party software applications are included to use with your logic analyzer. These applications may include software license agreements. Be sure to abide by those license agreements.*

Install the NI-GPIB Software. Complete the following steps to install the third-party software on your PC:

1. Install the TLA Application Software CD in the CD drive.
2. Browse to the NI-GPIB-USB folder on the CD and run the Setup.exe program.
3. Follow the on-screen instructions and note the items below:
   a. When prompted, select the Typical installation option.
   b. When the Add GPIB wizard appears, select **GPIB-USB-HS**.
   c. After restarting the instrument, the NI-488.2 Getting Started wizard displays. This is not needed; select **Do not show at Windows startup**.

d. When you first connect the iView cable, the instrument will detect the new hardware. Select **Install the software automatically (Recommended)**.

Install the SnagIt Software. Complete the following steps to install the SnagIt software on your PC:

1. Browse to the SnagIt folder on the CD and run the Setup.exe program.
2. Follow the on-screen instructions.

Install the TLA Application Software

Browse to the TLA Application software folder on the CD and run the Setup.exe program. Follow the on-screen instructions to install the TLA application software.

If you have an older version of the software on the hard disk, the installation program will detect it and ask if you want to remove it. Follow the on-screen instructions to remove the software, answering "Yes" to any prompts. Restart the instrument when prompted and run the Setup.exe program again.

Start the TLA Application

If you have installed the TLA application software on a PC for remote operation, start the software by double-clicking on the TLA Application icon. The TLA Connection dialog box displays.

1. Select an instrument in the TLA Connection dialog box and then click **Connect**. If your instrument is connected to a network, you can connect to any unused instrument on your local network.
2. Click **Offline** to start an offline version of the TLA application software. The TLA Offline software allows you to run the TLA application without connecting to an instrument. You can analyze previously acquired data from a logic analyzer, create or modify reference memories, or perform system tests without being connected to an instrument.

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 6–1.

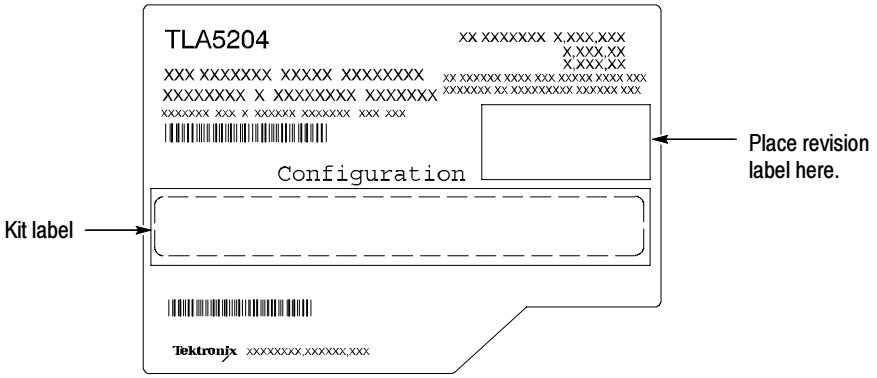

Figure 6- 1: Revision and kit label locations