

Instruction Manual



TLA6UP Logic Analyzer Field Upgrade Kit 071-0866-06

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

Tektronix warrants that the parts and modules (“parts”) that it manufactures and sells will be free from defects in materials and workmanship for a period of three (3) months from the date of shipment. If any such part proves defective during this warranty period, Tektronix, at its option, either will repair the defective part without charge, or will provide a replacement in exchange for the defective part. Parts and modules used by Tektronix for warranty work may be new or reconditioned to like new performance. All replaced parts and modules become the property of Tektronix.

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Warranty 9(b)

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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. If Tektronix is unable to provide a replacement that is free from defects in materials and workmanship within a reasonable time thereafter, Customer may terminate the license for this software product and return this software product and any associated materials for credit or refund.

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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 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.

Do not apply a potential to any terminal, including the common terminal, that exceeds the maximum rating of that terminal.

Power Disconnect. The power switch disconnects the product from the power source. See instructions for the location. Do not block the power switch; 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.

Use Proper Fuse. Use only the fuse type and rating specified for this product.

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.



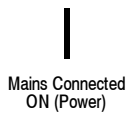
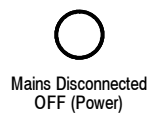
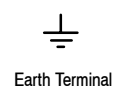
CAUTION. Caution statements identify conditions or practices that could result in damage to this product or other property.

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 symbols 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, switch off the instrument power, then disconnect the power cord from the mains power.

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.

Environmental Considerations

This section provides information about the environmental impact of the product.

Product End-of-Life Handling

Observe the following guidelines when recycling an instrument or component:

Equipment Recycling. Production of this equipment required the extraction and use of natural resources. The equipment may contain substances that could be harmful to the environment or human health if improperly handled at the product's end of life. In order to avoid release of such substances into the environment and to reduce the use of natural resources, we encourage you to recycle this product in an appropriate system that will ensure that most of the materials are reused or recycled appropriately.



The symbol shown to the left indicates that this product complies with the European Union's requirements according to Directive 2002/96/EC on waste electrical and electronic equipment (WEEE). For information about recycling options, check the Support/Service section of the Tektronix Web site (www.tektronix.com).

Mercury Notification. This product uses an LCD backlight lamp that contains mercury. Disposal may be regulated due to environmental considerations. Please contact your local authorities or, within the United States, the Electronics Industries Alliance (www.eiae.org) for disposal or recycling information.

Restriction of Hazardous Substances

This product has been classified as Monitoring and Control equipment, and is outside the scope of the 2002/95/EC RoHS Directive. This product is known to contain lead, cadmium, mercury, and hexavalent chromium.

Preface

This instruction manual contains specific information about the TLA6UP logic analyzer field upgrades. The logic analyzer field upgrades consist of software and hardware options for the TLA600 Series Logic Analyzers. Use Table i, below, to explore possible upgrade paths.

Table i: TLA6UP Logic Analyzer Field Upgrade Matrix

New capability desired	Current configuration and TLA software version	Current operating system	Please order
<p>Add More DRAM and a Larger HDD Provides a total of 512 MB DRAM and/or replace current hard disk drive with a larger, fixed, bootable MAX hard disk drive.</p> <p>Works with either Windows 98 Second Edition or Windows 2000 Professional operating system.</p>	TLA6xx Std or Option 1J with TLA SW V5.1	Windows 2000 Professional	TLA6UP Option 10
	TLA6xx Std or Option 1J with TLA SW V4.4, V4.3, V4.2, V4.1, or V4.0	Windows 2000 Professional	TLA6UP Option 10 TLA6UP Option 35 (With restore media) AND TLA6UP Option 42 (Without restore media)
	TLA6xx Std or Option 1J with TLA SW V3.2	Windows 98 Second Edition	TLA6UP Option 10 TLA6UP Option 35 (With restore media) AND TLA6UP Option 42 (Without restore media)
<p>Add New Software Features Add new functionality to existing TLA600 logic analyzers by upgrading to Version 5.1 TLA Application Software.</p> <p>Requires Windows 2000 Professional operating system, 256 MB RAM minimum, 512 MB recommended.</p>	TLA6xx Std or Option 1J with TLA SW V5.1	Windows 2000 Professional	-
	TLA6xx Std or Option 1J with TLA SW V4.4, V4.3, V4.2, V4.1, or V4.0	Windows 2000 Professional	TLA6UP Option 35 (With restore media) AND TLA6UP Option 42 (Without restore media)
	TLA6xx Std or Option 1J with TLA SW V3.2	Windows 98 Second Edition	TLA6UP Option 35 (With restore media) AND TLA6UP Option 42 (Without restore media)

Table i: TLA6UP Logic Analyzer Field Upgrade Matrix (Cont.)

New capability desired	Current configuration and TLA software version	Current operating system	Please order
Add New iView External Oscilloscope Capability Add new iView capability to view data from TDS oscilloscopes correlated directly on the TLA600 logic analyzer ¹ . Requires latest TLA Application Software and Windows 2000 Professional operating system. TLA600 mainframe memory requirements: 256 MByte minimum, 512 MByte preferred.	TLA6xx Std or Option 1J with TLA SW V5.1	Windows 2000 Professional	TLA6UP Option 15
	TLA6xx Std or Option 1J with TLA SW V4.4, V4.3, V4.2, V4.1, or V4.0	Windows 2000 Professional	TLA6UP Option 15 TLA6UP Option 35 (With restore media) AND TLA6UP Option 42 (Without restore media)
	TLA6xx Std or Option 1J with TLA SW V3.2	Windows 98 Second Edition	TLA6UP Option 15 TLA6UP Option 35 (With restore media) AND LA6UP Option 42 (Without restore media)
Upgrade Logic Analyzer State Speed and Record Length Enhance your 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 TLA600 series logic analyzer with TLA SW V5.1, V4.4, or V4.3	Windows 2000 Professional	Run the PowerFlex Utility software located on the instrument and then purchase the appropriate PowerFlex kit.
	Any TLA600 series logic analyzer with TLA SW V4.2 or earlier	Windows 2000 Professional	TLA6UP Option PF or visit www.tektronix.com/LA for the PowerFlex Utility software
Add Cart:	Any TLA600 mainframe	-	Choice of either K4000 or LACART
Add Rackmount Kit	Any TLA600 mainframe	-	016-1790-04 (Same as used with TDS6000 and TDS7000 instruments)
Add Wheeled Transport Case	Any TLA600 mainframe	-	016-1522-xx

¹ For a list of supported TDS oscilloscopes, please visit our Web site 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 *TLA600 Logic Analyzer Series Service Manual* (071-0728-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. Tektronix Service Options are available at the time you order your instrument. Contact your local Tektronix Sales Office for more information.

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.



TLA6UP Option 10

TLA6UP Option 10: MAX HDD and MAX DRAM Upgrade

TLA6UP Option 10 supports replacing your existing hard disk drive with a greater capacity hard disk drive, and upgrading to 512 MB of DRAM memory for your TLA600 series logic analyzer.



Instruments

TLA600 Series Logic Analyzers

All Serial Numbers

Parts List

Table 1-1: TLA6UP Option 10 parts list

Quantity	Part number	Description
2 ea	156-9074-xx	256 MB DRAM - Total of 512 MB
1 ea	119-6832-xx	Hard Disk Drive (no software loaded)
1 ea	003-0008-xx	Spudger tool for removing the trim ring
1 ea	N/A	TLA6UP kit label
1 ea	N/A	TLA600 BIOS floppy disk
1 ea	N/A	IBM\Hitachi HDD Feature Tool floppy disk

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
3	T-20 Torx tip	Used for removing the handle hardware. Torx®-driver bit for T-20 size screw heads	640-250
4	#1 Phillips screwdriver	Screwdriver for removing Phillips screws, hard drive.	Standard tool

Installation Prerequisite

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 *TLA600 Series Logic Analyzer Service Manual (071-0728-XX)*. You can also contact your nearest Tektronix Service Center for installation assistance.



CAUTION. To prevent static discharge damage, service this product only in a static-free environment. Always wear a grounded wrist strap, grounded foot strap, and static resistant apparel while installing this kit.

TLA6UP Option 10: MAX HDD and MAX DRAM Installation

The following instructions guide you through the process of replacing the existing hard disk drive with a greater capacity, but unformatted, hard disk drive. These instructions additionally guide you through the process of upgrading to 512 MB of DRAM memory.

Back Up Your Software

Before performing these procedures, take steps to protect the contents of your hard disk drive by backing up any files, applications and personal documents. Refer to *Back Up Files* on page 3-4 for more details. Unless you have also ordered Option 35, *TLA Application Software and Windows Operating System Upgrade*, use the backup media that was shipped with the instrument to reinstall the operating system and applications.

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 Trim

Remove the logic analyzer trim to gain access to either the TLA60X closed face bracket or the TLA61X/62X flat panel display. You will need a screwdriver with both a size T-15 Torx tip and a size T-20 Torx tip to perform this procedure.

Removal

Remove the trim as shown in Figure 1-1 on page 1-5 and Figure 1-2 on page 1-6, using the following procedure.

1. Turn the logic analyzer off.
2. Remove the power cord and all probes.
3. Remove the top cover trim.
 - a. Remove the accessory pouch; it snaps off.
 - b. Remove the four T-15 Torx-drive screws that secure the top cover trim to the instrument. The T-15 Torx-drive screws also secure the snap rings to the top cover.
 - c. Remove the top cover trim from the instrument.
4. Remove carrying handle and right/left side trim.
 - a. Remove the T-20 Torx-drive screws that secure the handle to the instrument and then remove the handle.
 - b. Slide the side trim panels toward the rear of the instrument allowing the tabs to clear the cover openings, then pull out to remove the panels from the instrument.

NOTE. *You may want to place a small strip of adhesive tape over the elastomeric On/Standby button to prevent losing it when you remove the trim ring.*

5. Remove the front panel trim. Use the spudger tool that came with this kit to pry on the edges of the trim ring to release the three plastic snaps. Grasp the trim ring by its top edge and pull toward you to gently remove it from the instrument.
6. Remove the input panel; Tilt the instrument onto its cord-wrap feet and remove the three T-15 Torx-drive screws that secure the input panel to the instrument.

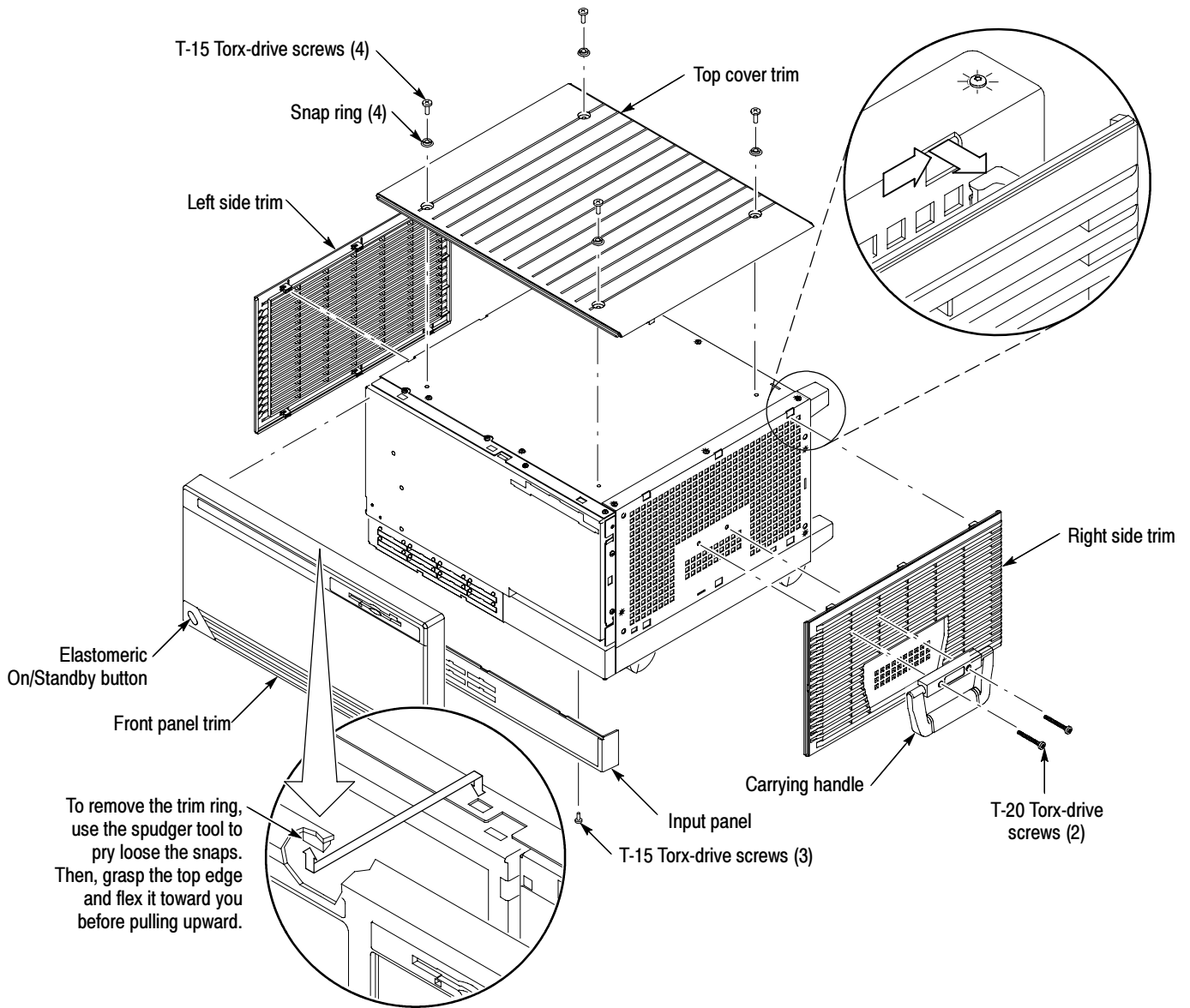


Figure 1-1: TLA60X trim removal

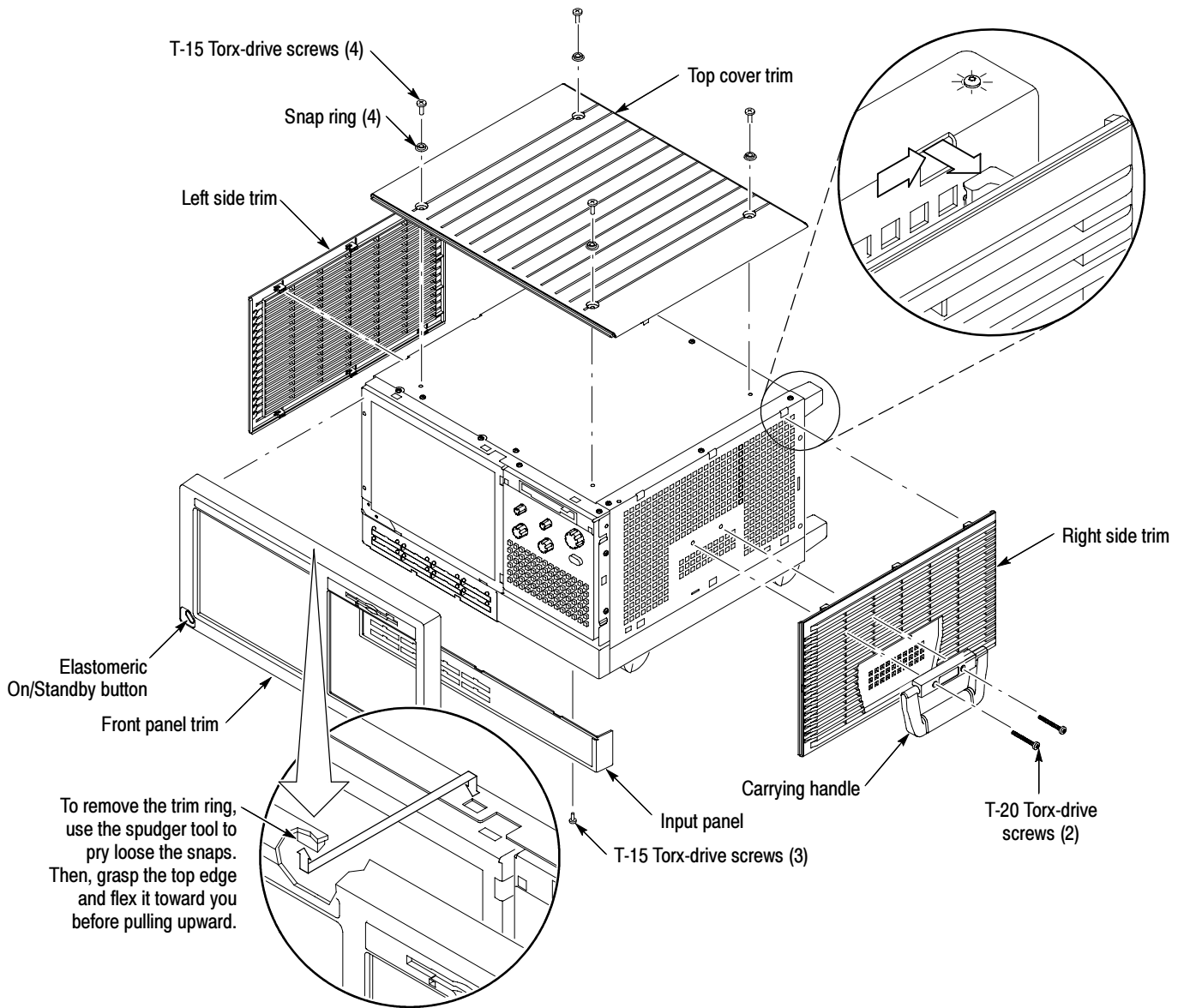


Figure 1-2: TLA61X/62X trim removal

Remove the TLA60X Closed Face Bracket

Remove the TLA60X closed face bracket to gain access to the internal hard disk drive. You will need a screwdriver with a T-15 Torx tip to perform this procedure.

Removal To remove the TLA60X closed face bracket, follow these instructions:

1. Remove the ten T-15 Torx-drive screws that secure the closed face bracket to the logic analyzer, as shown in Figure 1-3.
2. Disconnect the ribbon cable connector from the display circuit board.

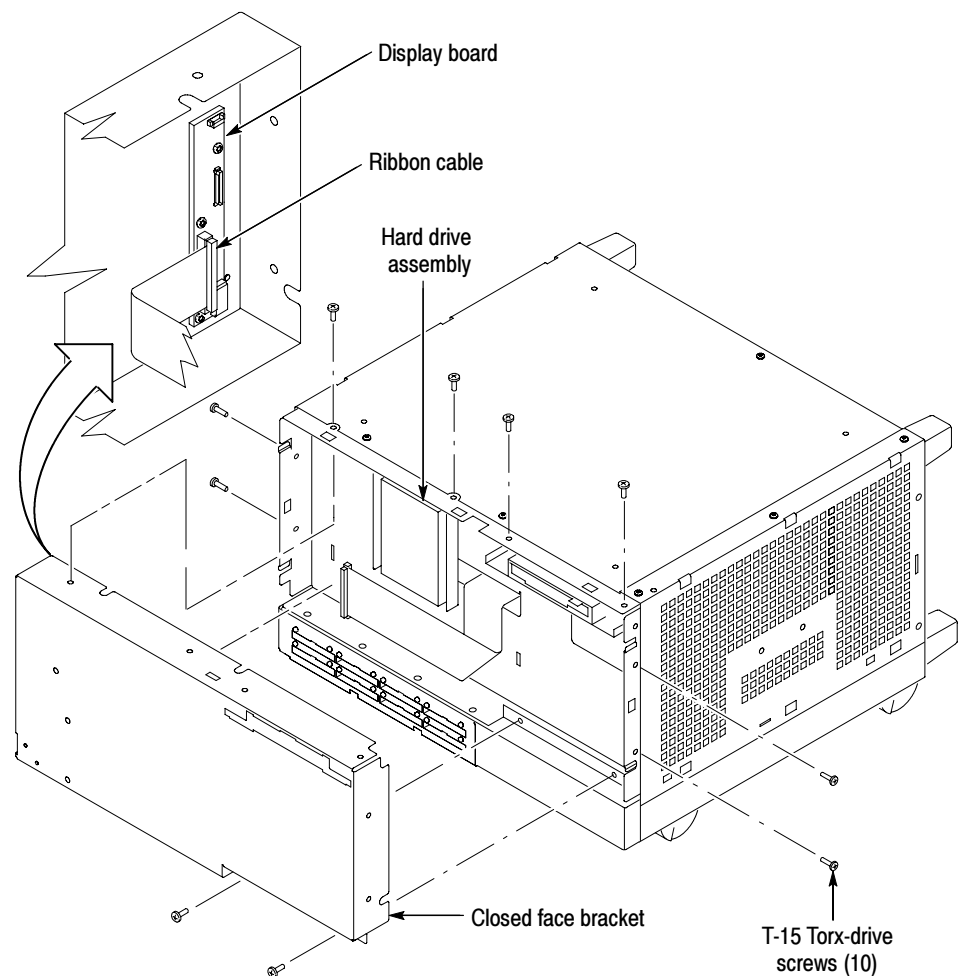


Figure 1-3: TLA60X closed face bracket removal

Remove the TLA61X/62X Flat Panel Display

Remove the TLA61X/62X flat panel display to gain access to the internal hard drive. You will need a screwdriver and a T-15 Torx tip to perform this procedure.

Removal To remove the display, follow these instructions:

1. Remove the four T-15 Torx-drive screws that attach the display assembly to the chassis, as shown in Figure 1-4 on page 1-9.
2. Grasp the top edge of the display assembly and pull forward far enough to allow access to the ribbon cable connector.
3. Disconnect the ribbon cable from the display assembly. Remove the display module assembly from the instrument.
4. Lift the bottom edge of the flat panel display assembly and rotate it upward and off the front face of the instrument.



CAUTION. To avoid damage to the front panel standby/on switch assembly, do not set the display module assembly face-down on a work surface. Sliding the instrument over the edge of the work surface could break off the standby/on switch LED illuminator.

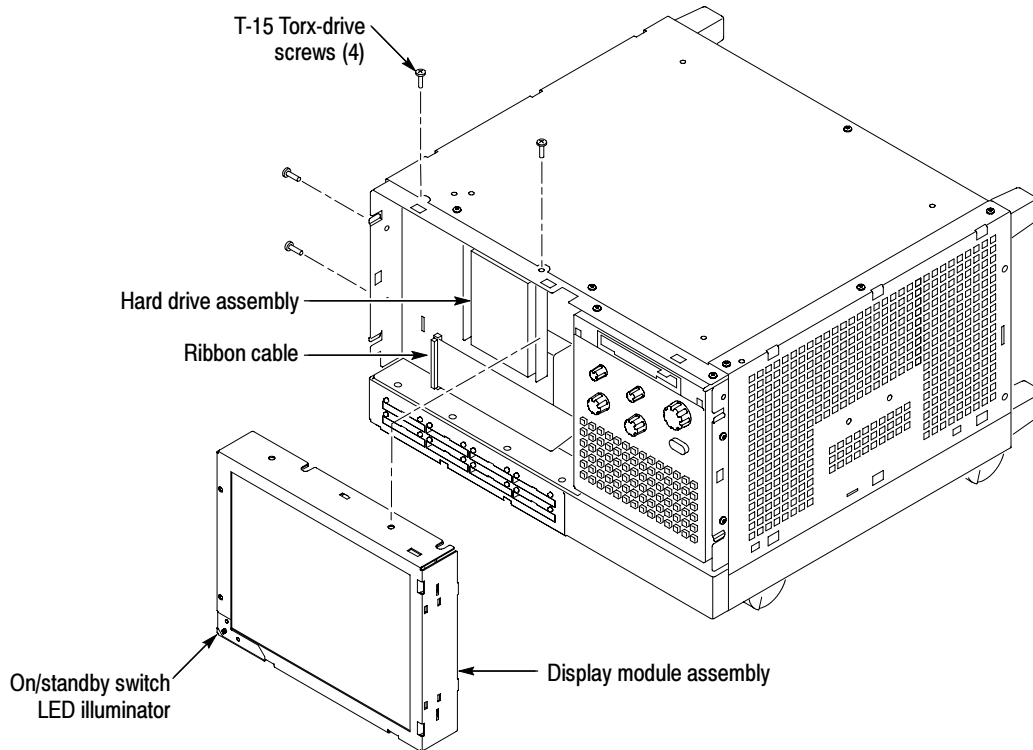


Figure 1-4: TLA61X/62X display assembly removal

Replace the Hard Disk Drive

You will need a screwdriver with a size T-15 Torx tip and a #1 Phillips screwdriver to perform this procedure.

Removal Use the following procedure to remove the hard disk drive:

1. Locate the hard disk drive shown in Figure 1-5 on page 1-10.
2. Remove the four T-15 Torx-drive screws that secure the hard disk drive bracket to the chassis.
3. Disconnect the ribbon cable connector at the top of the hard disk drive by pulling up (away from the hard disk drive) on the connector.
4. Lift the hard disk drive and bracket out of the chassis.
5. Remove the four #1 Phillips screws that attach the hard disk drive to the bracket.
6. Lift the hard disk drive out of the bracket.

Installation

Use the following procedure to install the new hard disk drive:

1. Insert the new hard disk drive into the bracket.
2. Install the four #1 Phillips screws that mount the hard disk drive to the bracket.
3. Reconnect the cable connector to the hard disk drive connector.
4. Place the hard disk drive and bracket back into the chassis.
5. Install the four T-15 Torx-drive screws that secure the hard disk drive bracket to the chassis.

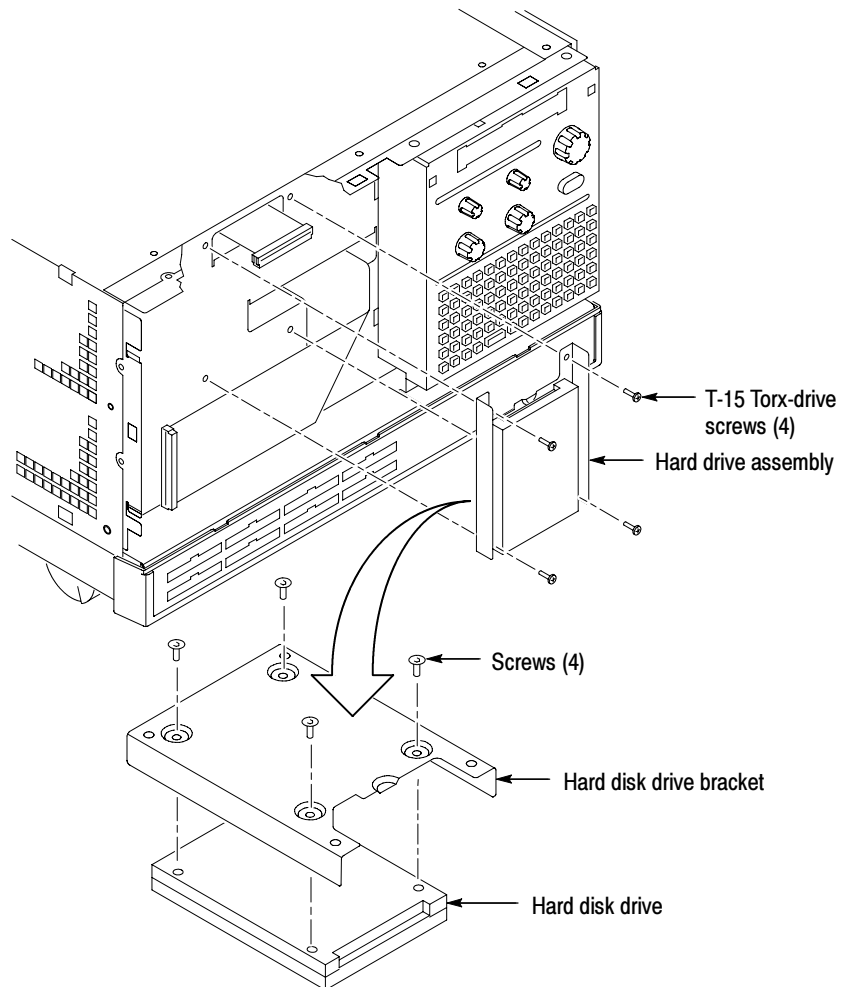


Figure 1-5: Hard disk drive replacement

Remove the Covers and Install the Memory

Use the following procedure, and Figure 1-6 on page 1-12, to remove the logic analyzer internal covers and install an additional DRAM memory board. You will need a screwdriver and a T-15 Torx tip to perform this procedure.

1. Remove the bottom cover (with feet) using the following procedure:
 - a. Remove the four T-15 Torx-drive screws that secure the bottom cover to the instrument.
 - b. Remove the bottom cover from the instrument.
2. Remove the bottom-right and top-left covers using the following procedure:

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

- a. Remove the eleven T-15 Torx-drive screws that secure the covers to the top and both sides of the chassis.
 - b. Remove the seven T-15 Torx-drive screws that secure the covers to the bottom of the chassis.
 - c. Pull the bottom-right cover down and slide to the right to remove it from the instrument. Pull the top-left cover upward and slide to remove it from the instrument.
3. Remove any existing memory boards from the instrument and then install the new memory boards in the location shown in Figure 1-6 on page 1-12. This avoids having mixed memory modules.



CAUTION. Use care not to bind or snag the covers on the instrument's internal cabling as you remove or install.

4. *Reinstallation:* Do in reverse steps 1 and 2 to reinstall the internal covers.

NOTE. You must reinstall the top-left cover before reinstalling the bottom-right cover to ensure that the top trim, described on page 1-13, will fit properly.

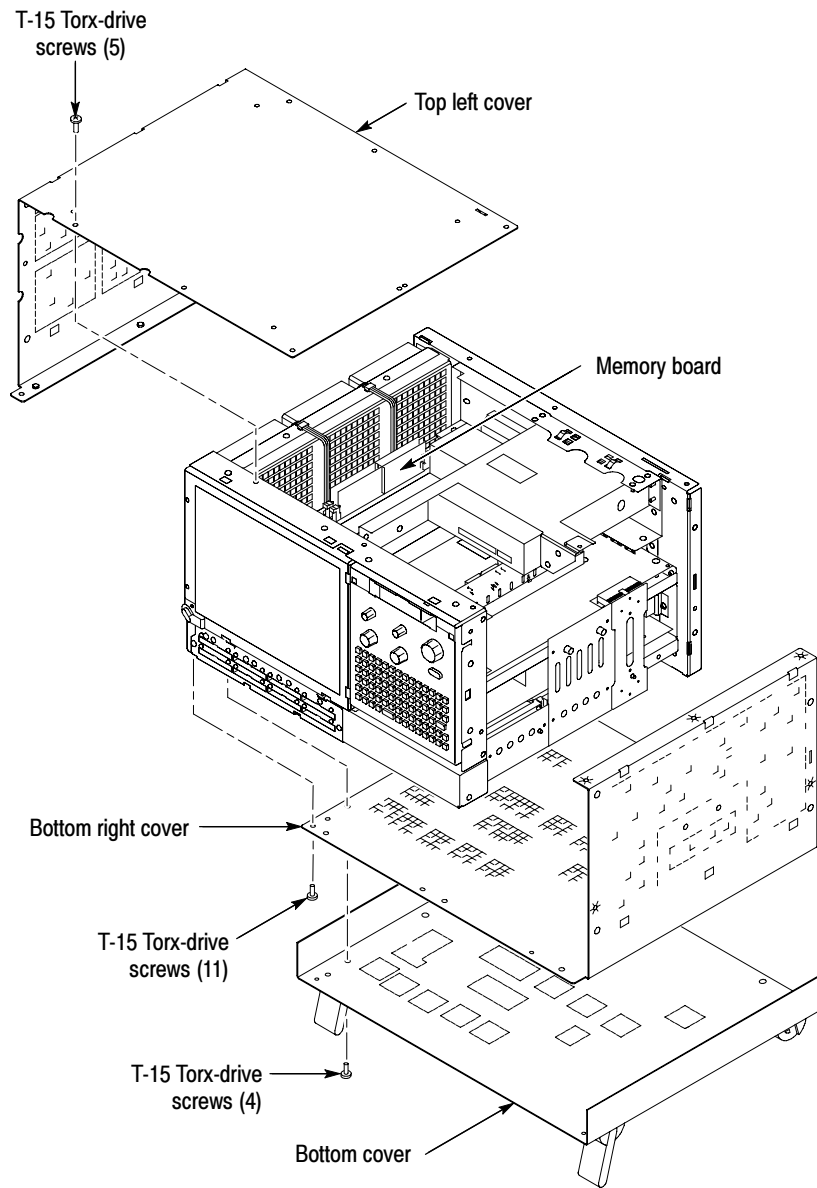


Figure 1-6: Internal covers and memory board location

Reassembly

Use the following procedure to reassemble the instrument:

Reinstall the TLA60X Closed Face Bracket

Use the following procedure to install the TLA60X closed face bracket, as shown in Figure 1-3 on page 1-7.

1. Reattach the ribbon cable connector to the display adapter circuit board.
2. Reinsert the closed face bracket into the logic analyzer.
3. Reinstall the ten T-15 Torx-drive screws that secure the closed face bracket to the chassis.

Reinstall the TLA61X/62X Display

Use the following procedure to install the TLA61X/62X display assembly, as shown in Figure 1-4 on page 1-9.

1. Reattach the ribbon cable connector to the display assembly.
2. Reinstall the flat panel display assembly by first inserting the top edge and then rotating it downward into position.
3. Reinstall the four T-15 Torx-drive screws that attach the flat panel display assembly to the chassis.

Reinstall the Trim

Use the following procedure to install the trim as shown in Figure 1-1 on page 1-5 and Figure 1-2 on page 1-6.

1. Replace the elastomeric on/standby button.
2. Replace the trim ring on the front panel. Align the tabs on the sides of the front panel. Then, start at the top edge and work around to the bottom (using care not to damage the elastomeric on/standby button or switch), until the three plastic snaps engage.

Press the trim ring down all around the edges until it is completely seated.

3. Reinstall the right/left side trim and carrying handle.
 - a. Starting from the rear of the instrument, slide the side trim panels toward the front of the instrument until the tabs lock into the cover openings.
 - b. Replace the handle to the right side trim and reinstall the two T-20 Torx-drive screws that secure the handle to the instrument. Tighten the screws to 8in-lbs.

4. Reinstall the top cover trim.
 - a. Reinstall the top cover trim on the instrument.
 - b. Reinstall the four T-15 Torx-drive screws that secure the snap rings to the top cover, and secure the top cover trim to the instrument.
 - c. Reattach the accessory pouch to the top of the instrument.
5. Replace the input panel; Reinstall the three T-15 Torx-drive screws that secure the input panel to the instrument.
6. Reinstall probes that were removed during disassembly.
7. Connect the power cord to the logic analyzer.

Software Installation

Before you reinstall the software that came with your TLA600 series logic analyzer, you may need to flash the BIOS on your logic analyzer and install a software utility that is required for setting the drive speed of your new hard disk drive.

Verify the TLA600 BIOS

Use the following steps to determine if you have the correct BIOS.

NOTE. *If you have a TLA61X/62X logic analyzer, you will need to attach an external display to your instrument in order to complete the following procedure.*

1. Power on the logic analyzer and then press function key F2 to enter the BIOS setup.
2. Under the Main menu, check that the BIOS version is SU81010A.86A.0009-P09.
3. If you have the correct version:
 - a. Insert the IBM/Hitachi HDD Feature Tool floppy disk.
 - b. Exit the BIOS without saving changes.
 - c. Skip steps 4 through 11 and continue with *IBM/Hitachi HDD Feature Tool* on page 1-18.
4. Insert the TLA600 BIOS disk, Version P09, in the floppy disk drive.
5. Restart the logic analyzer and allow it to boot from the floppy disk. After booting from the floppy disk, the program on the floppy disk will automatically flash the BIOS on the TLA600 controller.



CAUTION. Do not remove the TLA600 BIOS disk or turn off the power during the BIOS flash operation. Doing so will cause the system to become inoperable.

6. Wait for the BIOS flash procedure to complete.
7. After the flash procedure has completed, turn the logic analyzer off and remove the floppy disk.
8. Power on the logic analyzer and press function key F2 *before* the logic analyzer boots the Windows operating system.
9. Press function key F9, select Yes and press Enter to set the default settings, and verify that both the hard disk was auto-recognized and that the correct size of the hard disk is displayed in the Primary Master setting.
10. Verify that all of the settings are the same as the settings in Table 1-3.
11. Press function key F10 to exit and save the BIOS setup.

Table 1-3: TLA600 Controller BIOS setup

Parameter	Setting/Description	2 nd Field setting	Memo
Main			
BIOS Version	SU81010A.86A.0009.P09		No active selections
Processor Type	Intel (R) Celeron™		No active selections
Processor Speed	500 or 566 MHz		No active selections
Cache RAM	128 KB		No active selections
Total Memory	64, 128, 256, or 512 MB		Total memory installed
Memory Bank 0	64, 128, or 256 MB		Typically
Memory Bank 1	Not Installed		Will be installed as an option
System Time	[set to the current time]		
System Date	[set to the current day]		
Advanced			
► Boot Configuration			
Plug & Play O/S	[No]		
Reset Configuration Data	[No]		
Numlock	[Off]		
► Peripheral Configuration			
Serial Port A	[Auto]		
Serial Port B	[Disabled]		
Parallel Port	[Auto]		

Table 1-3: TLA600 Controller BIOS setup (Cont.)

Parameter	Setting/Description	2 nd Field setting	Memo
Mode	[ECP]		
Audio Device	[Enabled]		
LAN Device	[Enabled]		
Legacy USB Port	[Enabled]		
▶ IDE Configuration			
IDE Controller	[Both]		
Hard Disk Pre-Delay	[Disabled]		
▶ Primary IDE Master	[Mfg. name - model] (HDD)		e.g.: Autodectable
▶ Primary IDE Slave	[Not installed]		
▶ Secondary IDE Master	[Mfg. name - model] (CD ROM)		e.g.: Autodectable
▶ Secondary IDE Slave	[Not installed]		
▶ Diskette Configuration			
Diskette Controller	[Enabled]		
Floppy A	[1.44/1.25 MB 3 1/2]		
Diskette Write Protect	[Disabled]		
▶ Event Log Configuration			
Event Log	[Space Available]		Not Active Selections
Event Log Validity	[Valid]		Not Active Selections
▶ View Event Log		Event Log: Pre-Boot Error: CMOS Checksum Error	Displays after "Mark Events as Read" is set below
Clear Event Log	[No]		
Event Logging	[Enabled]		
▶ Mark Events as Read		[Yes]	
▶ Video Configuration			
Primary Video Adapter	[PCI]		PCI = Internal Display (TLA61x or TLA62x) AGP = External Monitor (TLA60x)

Table 1-3: TLA600 Controller BIOS setup (Cont.)

Parameter	Setting/Description	2 nd Field setting	Memo
Security			
Supervisor Password Is	[Not Installed]		Not Active Selections
User Password Is	[Not Installed]		Not Active Selections
▶ Set Supervisor Password		Enter Password	
▶ Set User Password		Enter Password	
Power			
Power Management	[Enabled]		
Inactivity Timer	[Off]		
Hard Drive	[Enabled]		
Video Power Down	[Disabled]		
ACPI Suspend State	[S1 State]		
Boot			
Quiet Boot	[Disabled]		
Quick Boot	[Enabled]		
Scan Upper Flash Area	[Disabled]		
After Power Failure	[Last State]		
On Modem Ring	[Stay Off]		
On LAN	[Power On]		
On PME	[Stay Off]		
1 st Boot Device	[Floppy]		
2 nd Boot Device	[IDE-HDD]		
3 rd Boot Device	[ATAPI CDROM]		
4 th Boot Device	[Intel UNDI, PXE-2.0 (b)]		
5 th Boot Device	[Disabled]		
▶ IDE Drive Configuration			
	▶ Primary IDE Master	[1 st IDE]	
	▶ Primary IDE Slave	[2 nd IDE]	
	▶ Secondary IDE Master	[3 rd IDE]	
	▶ Secondary IDE Slave	[4 th IDE]	

**IBM/Hitachi HDD
Feature Tool**

The following procedure describes how to install the IBM/Hitachi HDD Feature Tool floppy disk, which allows you to set your hard disk drive speed to 33 Mhz (UDMA Mode 2).

NOTE. If you have installed a hard disk drive that is manufactured by a company other than IBM or Hitachi, it must operate at ATA33 (UDMA Mode 2) speed and you must obtain and use a switch utility from that hard disk drive manufacturer.

1. If you have not already done so, install the IBM/Hitachi HDD Feature Tool floppy disk in the floppy disk drive.
2. Reboot the logic analyzer. After booting from the floppy disk, the program on the floppy disk will display its license agreement.
3. Review the software license agreement. If you agree with the terms of the agreement, click the I Agree button. The system responds by displaying a list of current disk drive settings.
4. Select Change Ultra DMA mode from the Feature menu or type ALT+U. The Change the Maximum ULtra DMA Mode window displays.
5. Click the Ultra DMA mode 2 setting and then click okay. The software will change the DMA mode settings and then displays an Information window.
6. Click OK to leave the Information window.
7. Exit the application (type Alt+X), turn off the logic analyzer and remove the floppy disk.

Reinstalling Software

The steps to reinstall the software on your instrument after you have upgraded the hard disk drive and memory will depend on your situation. Read through the scenarios and follow the steps that best describe your situation:

Restoring Version 3.2 TLA Application Software. If your logic analyzer has Windows 98 Second Edition operating system with the Version 3.2 TLA application software and you *do not* intend to upgrade the application software, follow the procedures in *Installing Software on the TLA600 Series* section in the *Tektronix Logic Analyzer Family Version 3.2 Software User Manual* (071-0729-00).

Upgrading from Version 3.2 TLA Application Software to Version 5.1 TLA Application Software. If your logic analyzer has Windows 98 Second Edition operating system with the Version 3.2 TLA application software and you intend to upgrade your TLA application software and operating system, follow the TLA6UP Option 35 procedures in *TLA Application Software and Windows Operating System Upgrade* beginning on page 3-1 to upgrade the TLA Application Software to Version 4.4. Then follow the TLA6UP Option 42 procedures in *Application Software Upgrade* beginning on page 4-1 to upgrade to TLA Application Software Version 5.1.

Restoring Version V4.0–V4.4 TLA Application Software or Upgrading to Version 4.4 TLA Application Software from Version 4.0–4.3 TLA Application Software. Use the EasyRestore software to install the Windows 2000 Professional operating system and the TLA application software. Then use the appropriate TLA600 Hard Disk Image CD for your application software version. Follow the instructions under *Install Software* beginning on page 3-4 to install the operating system and the TLA application software.

Upgrading to Version 5.1 TLA Application Software from Version 4.4 TLA Application Software. If your logic analyzer has Version 4.4 TLA application software, follow the TLA6UP Option 42 procedures in *Application Software Upgrade* beginning on page 4-1 to upgrade to TLA Application Software Version 5.1.

TLA6UP Option 10: Verify Operation

After installing TLA6UP hardware upgrades, use the following procedures to verify that both the MAX hard disk drive and additional DRAM are recognized and are operating properly.

Verify MAX HDD Operation

Reboot the instrument after completing the fixed hard disk drive upgrade instructions to confirm that the hard disk drive is operating properly.

Verify MAX DRAM Operation

Follow the steps below to ensure that your instrument recognizes the newly installed DRAM after completing the upgrade:

1. Click the Start button, and then point to Programs.
2. Click Accessories.
3. Click System Tools. The system responds by displaying the Microsoft System Information dialog.
4. Verify that the Microsoft System Information dialog indicates that Total Physical Memory is equal to 512 MB.

CheckIt Utilities

If you already have TLA Application Software Version 4.1 (or higher) installed on your logic analyzer, you can also use the CheckIt Utilities to verify the hard disk and the available memory. To use the CheckIt Utilities, select Start → Program → CheckIt Utilities.

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 TLA6UP kit label as shown in Figure 1-7.

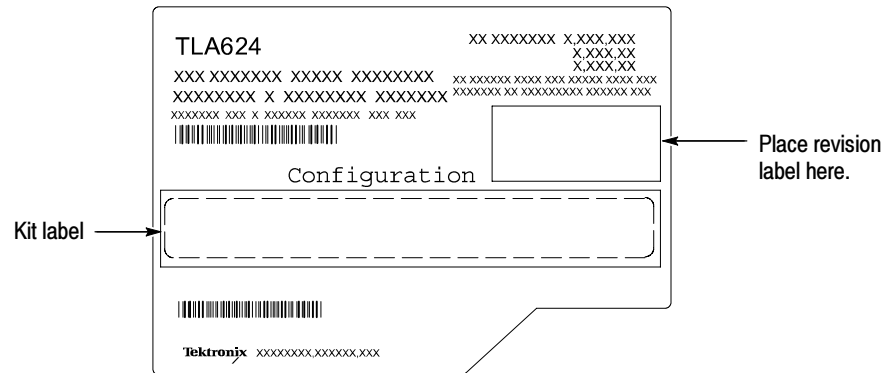


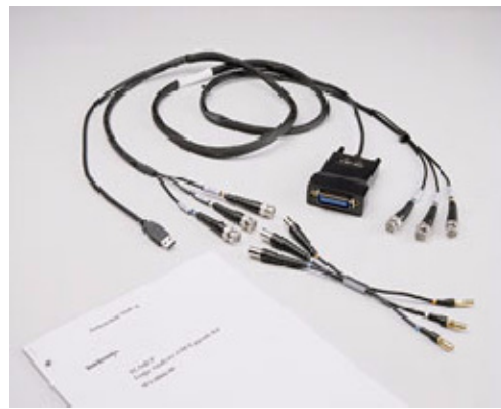
Figure 1-7: Kit label locations



TLA6UP Option 15

TLA6UP Option 15: iView External Oscilloscope Cable Installation

TLA6UP option 15 provides the capability of connecting your logic analyzer to an external Tektronix oscilloscope through the iView cable. Please order TLA6UP Option 35 and 42 to get the latest TLA Application software.



Instruments

TLA600 Series Logic Analyzers

All Serial Numbers

Minimum Tool and Equipment List

No special tools or equipment are required.

Parts List

Table 2-1: TLA6UP Option 15 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	TLA6UP kit label

Installation Prerequisite

Requires the latest TLA Application Software, Windows 2000 Professional operating system, and 256 MB minimum mainframe memory (512 MB preferred).

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 TLA6UP kit label as shown in Figure 2-1.

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

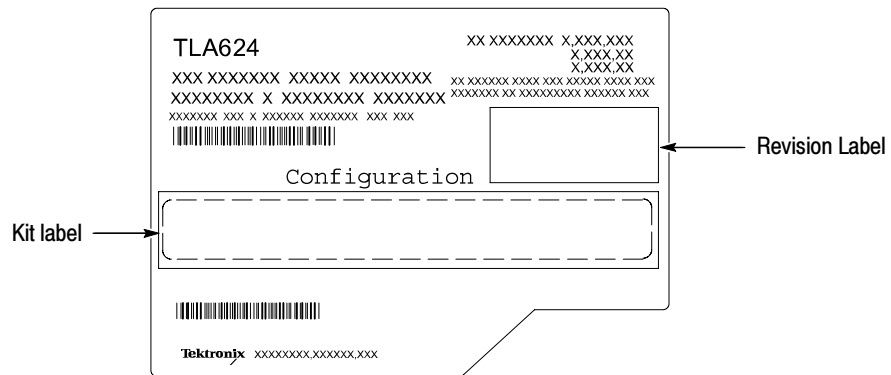


Figure 2-1: Kit label locations



TLA6UP Option 35

TLA6UP Option 35: Application Software and Windows Operating System Upgrade

TLA6UP option 35 supports the upgrade to TLA application software version 4.4 and Multi-language Windows 2000 Professional operating system (Service Pack 4). TLA application software version 4.4 will only run on Tektronix instruments with the Windows 2000 Professional operating system.

You can also use this kit to upgrade TLA600 series logic analyzers with TLA application software 4.3 and below using the restore CD. This process overwrites 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

TLA600 Series Logic Analyzers

All Serial Numbers

System Requirements

- Minimum 10 GB hard drive
- 256 MB RAM minimum, 512 MB recommended

Minimum Tool and Equipment List

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

Parts List

Table 3-1: TLA6UP Option 35 parts list

Quantity	Part number	Description
1 ea	N/A	Tektronix Logic Analyzer Family Application Software V4.4 (TLA App SW and TLAVu Offline software)
1 ea	N/A	Tektronix Logic Analyzer Family TLA600 Restore Media V4.4 (dual 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	TLA6UP kit label
1 ea	N/A	TLA600 BIOS floppy disk
1 ea	N/A	IBM/Hitach HDD Feature Tool floppy disk
1 ea	N/A	CheckIt Utilities sticker
1 ea	N/A	Easy Restore license
1 ea	N/A	RecordNow MAX license

TLA6UP Option 35: Application Software and Windows Operating System Instructions

These instructions guide you through the process of upgrading your TLA600 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 overwrites 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 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 3-2 lists some of the software that you may have installed on your logic analyzer.

Table 3-2: 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.
PC Card Software	Refer to the instructions that come with your PC Card.
Other Software	Refer to the instructions that come with your software.

Update the BIOS

If you have just installed TLA6UP Option 10, you can skip this section and continue with *Install Software* on page 3-4.

You may need to flash the logic analyzer controller BIOS with the latest flash image before reinstalling software on the hard disk drive. To verify or update your BIOS settings and the hard disk drive UDMA mode, refer to the following procedures beginning on page 1-14 and then return to this section:

- *Verify the TLA600 BIOS*
- *IBM\Hitachi HDD Feature Tool*

Install Software

The Tektronix Logic Analyzer field upgrade kit comes with restore media, which contains Microsoft Windows 2000 Professional operating system and TLA Application Software V4.4. 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.

Back Up Files

Before loading the restore media, back up any files, applications, and personal files. Use the Windows Search utility to locate the files to back up. Table 3-3 lists examples of file suffixes that you may want to back up.

Table 3-3: 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
.stk	Stack files
.spz	Protocol files

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. This process may take several minutes.

Change the BIOS Boot Settings and Load the Restore Media. Before installing the restore media, 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 to boot from the CD first.
5. Insert the restore media 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. 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 EasyRestore detects errors and prompts you to allow the program to fix them, click Yes to continue the upgrade process.

NOTE. *If you receive any warning or error messages indicating that new PCI bridge devices were found, refer to PCI-VXI Bridge Driver Reinstallation on page 3-6 for the proper action before continuing the next step. Otherwise, continue with the next step.*

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.

Reset the BIOS Boot Settings (Optional). After you have successfully installed the software, if you wish to reset the BIOS settings and disable booting from CD-ROM do the following, otherwise continue with *PCI-VXI Bridge Driver Reinstallation* on page 3-6.

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. Set the Boot devices as shown below to disable booting from the CD-ROM:

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

4. 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.

PCI-VXI Bridge Driver Reinstallation. Some TLA600 systems are configured with PCI devices that are not fully compatible with the restore media in this release. The first time you boot your logic analyzer, you may receive several warning and error messages indicating that new PCI devices were found and are being installed.

Without confirming or closing the displayed messages, perform the following steps:

1. Use your mouse to select and drag the messages to an alternate location on your desktop, allowing access to the Insert Disk dialog.
2. Select the Insert Disk dialog and click the OK button. The system responds by displaying the Files Needed dialog.

NOTE. *You do not need to insert a CD labeled "PCI-VXI Bridge Driver" into your CD-ROM drive. Use the Files Needed dialog to specify the path to driver information on your hard disk drive.*

3. Select the Files Needed dialog and enter the following path information in the Copy Files From field:

C:\WINNT\system32\drivers

4. Click the OK button. The system responds by installing the required PCI bridge driver.
5. Reboot the logic analyzer and verify that no further warning or error messages display.

Upon confirming that your system boots without error, return to the *Reset the BIOS Boot Settings* procedure, step 10 located on page 3-5.

Upgrading to TLA Application Software V5.1

To upgrade the TLA application software to V5.1, install the upgrade kit label as described under *Attach the Upgrade Kit Label to the Instrument* on page 3-8. Then, follow the instructions for TLA6UP Option 42: Application Software Upgrade beginning on page 4-1. Otherwise continue with the next section in this document.

Upgrade the TLA600 Firmware

Use the following procedure to upgrade the firmware for the TLA600 Series Logic Analyzers. Complete the following steps if a startup message indicates that you need to upgrade the firmware:

1. Disconnect any probes connected to the logic analyzer.
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 mainframe 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 TLA6xx.lod file.
8. Click OK. When asked to confirm your action, click Yes.
9. When the firmware loading completes, exit the 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.

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 software revision label and the TLA6UP kit label as shown in Figure 3-1.

NOTE. If there is an upgrade kit label already installed, install the new label just above or below the old one, wherever there is room. However, ensure that you install the software revision label over the old revision label to indicate the current version of software on your instrument.

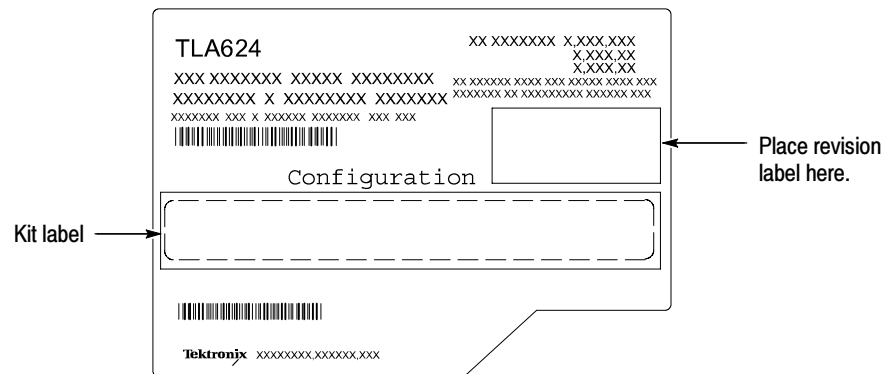


Figure 3-1: Revision and kit label locations



TLA6UP Option 42

TLA6UP Option 42: Application Software Upgrade

TLA6UP 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 TLA600 Series logic analyzer with TLA application software version 4.0 or higher. This software will only run on instruments with the Windows 2000 Professional operating system purchased from Tektronix.



Instruments

TLA600 Series Logic Analyzers

All serial numbers

System Requirements

- Minimum 10 GB hard drive
- 256 MB RAM minimum, 512 MB recommended

Parts List

Table 4-1: TLA6UP 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	TLA6UP kit label

Minimum Tool and Equipment List

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

TLA6UP Option 42: Application Software Instructions

The following instructions direct you through the process of upgrading the TLA application software on your TLA600 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

The basic upgrade procedure is to manually remove the older software, update the drivers, 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 in 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.

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 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 vary depending on the software version), click the Change/Remove button, and follow the on-screen instructions to remove the software:
 - Adobe Acrobat Reader
 - CheckIt Utilities (V6.5.5)
 - Logitech Mouseware (V9.41.2 or earlier)
 - Click'N Burn Pro
 - NI-488.2
 - NI-Max
 - QA+Win32
 - SnagIt
 - Stomp RecordNow MAX
 - Macromedia Flash Media Player
 - Tektronix TLA Application
6. Windows will uninstall the selected application. If any messages appear asking you 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 to remove the old PCI-VXI Bridge driver and to install the new one required by the TLA.

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 **AdobeRdr70_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-B**.
 - 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 Software

The TLA software uses a wizard to install the following software applications (if they are not already installed) for your instrument:

- TLA Application
 - Pattern Generator Application
 - Microsoft's .NET Framework
 - OpenChoice TekVisa
 - TPI Client
 - PPI Client
1. Log on as Administrator.
 2. Browse to the TLA Application folder on the CD and double-click **Setup.exe**.
 3. Follow any on-screen instructions. If you are asked for permission to overwrite any read-only files, select **Yes to All**.
 4. After the software has been successfully installed, restart Windows.

Install CheckIt Utilities

1. Log on as Administrator.
2. Exit the TLA application.
3. Install TLA V5.1 Application Software CD 2 in the CD drive.
4. Browse to the CheckIt folder on the CD and double-click **Start.exe**.
5. Click Next to start the installation.
6. Read and accept the license agreement.
7. When prompted for the CheckIt serial number, use U7-999999.
8. Follow any on-screen instructions and use all of the default choices provided by the installer.
9. Before clicking Finish, clear any check boxes that ask you to start the application or to view the Readme file.
10. After the software has been successfully installed, restart Windows.

Install Flash Player

1. Log on as Administrator.
2. Exit the TLA application
3. Browse to the Macromedia folder on the CD and double-click **flashplayer6_winax.exe**.
4. Follow the on-screen instructions.
5. After the software has been successfully installed, restart Windows.

Install Logitech Mouseware

1. Log on as Administrator.
2. Exit the TLA application
3. Browse to the Mouseware folder on the CD and double-click **Setup.exe**.
4. Follow the on-screen instructions.
5. After the software has been successfully installed, restart Windows.
6. Follow the on-screen instructions in the Device Setup Wizard to set the mouse to the factory recommended settings.

Install the Nero Suite 3 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.

Optional Software

Tektronix offers the following service-related software for running the performance verification software.

- TLACAL

You should only need to install this software if you are running performance verification procedures with the appropriate test fixtures.

1. Log on as Administrator.
2. Exit the TLA application
3. Browse to the appropriate folder on the CD and double-click **Setup.exe**.
4. Follow the on-screen instructions.
5. After the software has been successfully installed, restart Windows.

Upgrade the TLA600 Firmware

Use the following procedure to upgrade the firmware for the TLA600 Series Logic Analyzers. Complete the following steps if a startup message indicates that you need to upgrade the firmware:

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 TLA6xx.lod file.
8. Click OK. You will be asked to confirm your action; click Yes when prompted.
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 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.

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 or PatGenVu 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 V5.1:

- The NI-GPIB-USB 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.

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-B**.
 - 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)**.
4. Browse to the SnagIt folder on the CD and run the Setup.exe program. 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 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, 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 software revision label and the TLA6UP kit label as shown in Figure 3-1.

NOTE. *If there is an upgrade kit label already installed, install the new label just above or below the old one, wherever there is room. However, ensure that you install the software revision label over the old revision label to indicate the current version of software on your instrument.*

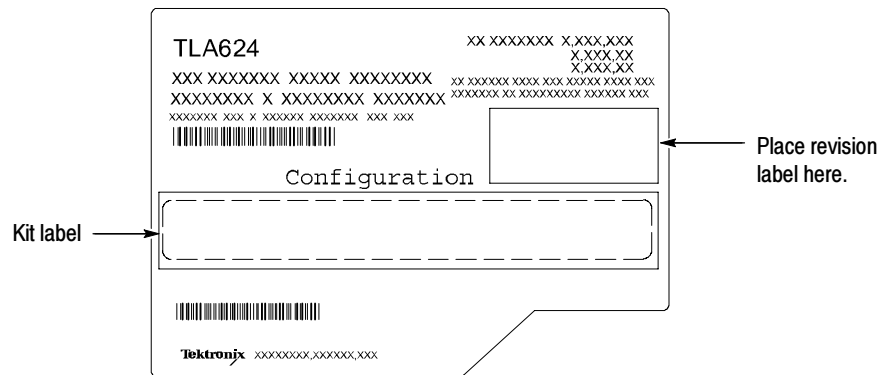


Figure 4- 1: Revision and kit label locations



TLA6UP Option PF

TLA6UP Option PF: PowerFlex Utility Upgrade

TLA6UP Option PF installs the TLA PowerFlex Utility on your TLA600 series logic analyzer. You can use the PowerFlex Utility to determine possible upgrades for your logic analyzer to increase your state speed or memory depth. The PowerFlex Utility comes with online help that describes the upgrade processes.

The TLA PowerFlex Utility is installed on all TLA600 with TLA Application Software Version 4.3 or later. You only need to order this upgrade if your TLA600 has TLA Application Software Version 4.2 or earlier.

Instruments

TLA600 Series Logic Analyzers

All Serial Numbers

Minimum Tool and Equipment List

No special tools or equipment are required to install this option. The PowerFlex Utility software comes on a CD as a part of this upgrade kit.

Installation Prerequisite

No Requirements

Installation Instructions

Complete the following steps to install the PowerFlex Utility on your TLA600 series logic analyzer:

1. Install the PowerFlex CD in the CD drive of the TLA600 logic analyzer.
2. If required, log on to the instrument as Administrator.
3. Click Run in the Windows Start menu to display the Run dialog box.
4. Enter D:\PowerFlex\Disk 1\Setup.exe in the Run dialog box.
5. Follow the on-screen instructions. If any messages appear asking you for permission to overwrite any read-only files, select Yes to All.

Start the PowerFlex Utility

Complete the following steps to start and use the PowerFlex Utility:

NOTE. *You must exit the TLA application before you start the PowerFlex Utility. You cannot run the PowerFlex Utility and the TLA application at the same time.*

1. Exit the TLA application.
2. Start the PowerFlex Utility using the Windows Start menu. Select Start → Program Files → Tektronix Logic Analyzer → TLA PowerFlex Utility.
3. The PowerFlex window displays the current configuration of your logic analyzer. Refer to the PowerFlex Utility online help for information on using the utility to order and install the upgrade.



TLA6UP Option IF

TLA6UP Option IF: Upgrade Installation Service

TLA6UP option IF provides installation of product upgrades performed at a Tektronix service location.

NOTE. *Availability of installation and on-site services depend on the type of product and may vary by geography.*

Instruments

TLA601	All Serial Numbers
TLA602	All Serial Numbers
TLA603	All Serial Numbers
TLA604	All Serial Numbers
TLA611	All Serial Numbers
TLA612	All Serial Numbers
TLA613	All Serial Numbers
TLA614	All Serial Numbers
TLA621	All Serial Numbers
TLA622	All Serial Numbers
TLA623	All Serial Numbers
TLA624	All Serial Numbers

