

Instructions



TLASWUP Software Installation Instructions 075-0860-00

Warning

The 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.

www.tektronix.com



075086000

Copyright © Tektronix, Inc. All rights reserved. Licensed software products are owned by Tektronix or its suppliers and are protected by United States copyright laws and international treaty provisions.

Use, duplication, or disclosure by the Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013, or subparagraphs (c)(1) and (2) of the Commercial Computer Software - Restricted Rights clause at FAR 52.227-19, as applicable.

Tektronix products are covered by U.S. and foreign patents, issued and pending. Information in this publication supercedes that in all previously published material. Specifications and price change privileges reserved.

Tektronix, Inc., P.O. Box 500, Beaverton, OR 97077

TEKTRONIX and TEK are registered trademarks of Tektronix, Inc.

General Safety Summary

Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it.

To avoid potential hazards, use this product only as specified.

Only qualified personnel should perform service procedures.

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

To Avoid Fire or Personal Injury

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.

Powering Off. The power cord provides Mains disconnect.

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.

Symbols and Terms

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



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




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


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


CAUTION
Refer to Manual


WARNING
High Voltage


Protective Ground
(Earth) Terminal


Mains Disconnected
OFF (Power)


Mains Connected
ON (Power)


Standby


Chassis Ground

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.

TLASWUP Description

The TLASWUP software upgrade kit provides instructions and software to upgrade your Tektronix Logic Analyzer to TLA application software, version 4.4. This option also supports the upgrade to Version 1.6 Pattern Generator application software for those instruments with TLA7PG2 Pattern Generator modules. The TLA application software version 4.0 and higher will only run on instruments with the Windows 2000 Professional operating system that were purchased from Tektronix.

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.
- The procedures in this manual may only be performed by a qualified service person.

Be sure to follow all warnings, cautions and notes.

Instruments

TLA5000 Series Logic Analyzers	All serial numbers
TLA714 Portable Mainframe	All serial numbers
TLA715 Portable Mainframe	All serial numbers
TLA720 Benchtop Mainframe	All serial numbers
TLA721 Benchtop Mainframe	All serial numbers
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 are required to install this software.

Parts List

Table 1: Parts list

Quantity	Part number	Description
1 ea	NS	Tektronix Logic Analyzer Family Application Software Version 4.4 (dual CD-ROM set: TLA App SW and TLAVu Offline software)
1 ea	NS	Tektronix Logic Analyzer Family Product Documentation CD
1 ea	075-0860-00	TLASWUP Software Upgrade Kit Instructions
1 ea	NS	RecordNow MAX license
1 ea	NS	CheckIt Utilities sticker
1 sheet	NS	Software revision labels
3 ea	NS	Kit labels: TLA5000, TLA600, TLA700

NS - Not Saleable

Installation Instructions

The following instructions direct you through the process of upgrading the TLA application software on your TLA logic analyzer. These instructions apply only to instruments with TLA Application Software Version 4.0 or higher.

Contact your nearest Tektronix, Inc., Service Center or Tektronix Factory Service for installation assistance.

Upgrade Instruction Overview

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

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

- Throughout this procedure you will see the term “log on as Administrator.” The instrument is set up to automatically log on as Administrator (with no password) so you may not see the log 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.
- You may be asked to remove some software packages that may not be loaded on your instrument. If this is the case, skip those instructions.

Remove the Old Software

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

1. If you have not already done so, power on the logic analyzer and log on as Administrator.
2. After logging on, wait for the instrument to complete the start-up sequence.
3. Exit the TLA application (and pattern generator application if you have it installed).
4. Open the Control Panel by clicking Start → Settings → Control Panel.
5. Double-click the Add or Remove Programs icon.
6. For each of the following software packages, select the software package (the exact names may 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
 - Click'N Burn Pro
 - NI-488.2
 - NI-Max
 - QA+Win32
 - SnagIt
 - Macromedia Flash Player
 - RecordNow MAX
 - Tektronix Pattern Generator
 - Tektronix TLA Application
7. 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.
8. After the software has been successfully removed, restart Windows.

General Software Installation

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

Install Adobe Acrobat Reader

1. Log on to the instrument as Administrator.
2. If you have not already done so, install Disc 1 of the Tektronix Logic Analyzer Family Application Software in the CD drive of the logic analyzer.
3. Start Windows Explorer, and browse to and execute D:\Documentation\AdobeReader60Install.exe.
4. Click Next to start the the installation. Follow the on-screen instructions.
5. After the software has been successfully installed, restart Windows.

Install CheckIt Utilities

1. Log on to the instrument as Administrator.
2. Start Windows Explorer, and browse to and execute D:\CheckIt\Util7.exe.
3. Click Next to start the installation.
4. Read and accept the license agreement.
5. When prompted for the CheckIt serial number, use U7-999999.
6. Follow any on-screen instructions and use all of the default choices provided by the installer.
7. Before clicking Finish, clear any check boxes that ask you to start the application or to view the Readme file.
8. After the software has been successfully installed, restart Windows.

Install SnagIt

1. Log on to the instrument as Administrator.
2. Start Windows Explorer, and browse to and execute D:\SnagIt\Setup.exe.
3. Click Next to start the installation.
4. Read and accept the license agreement.
5. Follow any on-screen instructions and clear the check box for starting SnagIt automatically. Use the remaining default choices provided by the installer.
6. After the software has been successfully installed, restart Windows.

Install RecordNow Max

1. Log on to the instrument as Administrator.
2. Start Windows Explorer, and browse to and execute D:\RecordNow MAX\Setup.exe.
3. Click Next to start the installation.
4. Read and accept the license agreement.
5. Follow any on-screen instructions and use all of the default choices provided by the installer.
6. Clear any check boxes that ask you to start the application or to view the Readme file.
7. Cancel the installation of the Stomp DLA software.
8. After the software has been successfully installed, restart Windows.

Install NI-GPIB

1. Log on to the instrument as Administrator.
2. Start Windows Explorer, and browse to and execute D:\NI-GPIB-USB-B\Setup.exe.
3. Click Next to start the installation.
4. Accept the license agreement and click Next for all other responses.
5. If error 1706 displays, ignore it, and click OK to continue with the installation.

6. When the GPIB Hardware wizard displays, click Cancel.
7. Restart Windows when prompted.
8. When the Getting Started wizard displays, select “Do not show this at Windows startup,” and then click X to exit.

Install Flash Player

1. Log on to the instrument as Administrator.
2. Start Windows Explorer, and browse to and execute D:\Macromedia\flash-player6_winax.exe.
3. Click Yes to perform the installation, and then click OK when the installation is complete.
4. After the software has been successfully installed, restart Windows.

Install Microsoft.NET Framework 1.1

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

Install TLA Application Software Version 4.4

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

Install Pattern Generator Application Software Version 1.6

1. Log on to the instrument as Administrator.
2. After the TLA application has completed startup, exit the TLA application.
3. Start Windows Explorer, and browse to and execute D:\Pattern Generator Application SW\Setup.exe.
4. Click Next to start the installation.
5. Follow any on-screen instructions. If any messages appear asking you for permission to overwrite any read-only files, select Yes to All.
6. After the software has been successfully installed, restart Windows.

Final Software Adjustments

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

1. Log on to the instrument as Administrator.
2. After the TLA application starts, select Options from the System menu to display the System Options dialog box.
3. Select the Tools tab.
4. Click the item in the list and then click the Edit button.
5. Change the Menu Name box from &Paint to &SnagIt, if necessary.
6. Click the Browse button and choose the following path:
C:\Program Files\TechSmith\SnagIt 7\SnagIt32.exe
7. Leave the Arguments and Initial Directory blank, and then click OK twice to apply the changes.
8. If desired, delete the SnagIt icons from the desktop and the task bar.
9. Restart Windows.

Upgrade the Firmware

The firmware upgrade procedures depend on your logic analyzer.

TLA5000 or TLA600 Series Logic Analyzers

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. If you have a TLA5000 Series Logic Analyzer click the TLA520x.lod file.
8. If you have a TLA600 Series Logic Analyzer click the TLA6xx.lod file.
9. Click OK. You will be asked to confirm your action; click Yes when prompted.
10. 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.

TLA700 Series Logic Analyzers

If you need to upgrade the firmware on your logic analyzer modules, a startup message appears telling you that you need to upgrade.

1. Note the modules that require new firmware.
 - a. For TLA7Axx/TLA7NAx series logic analyzer modules skip steps 2–8 and go directly to step 9 on page 14.
 - b. For all other module types continue with step 2.
2. Turn off the logic analyzer and disconnect the power cord.
3. Remove the modules from the logic analyzer.
4. Refer to Figure 1 and locate the flash programming pins on the rear of each module.
5. Install a jumper on the flash programming pins.
6. Reinstall the module(s) in the logic analyzer.

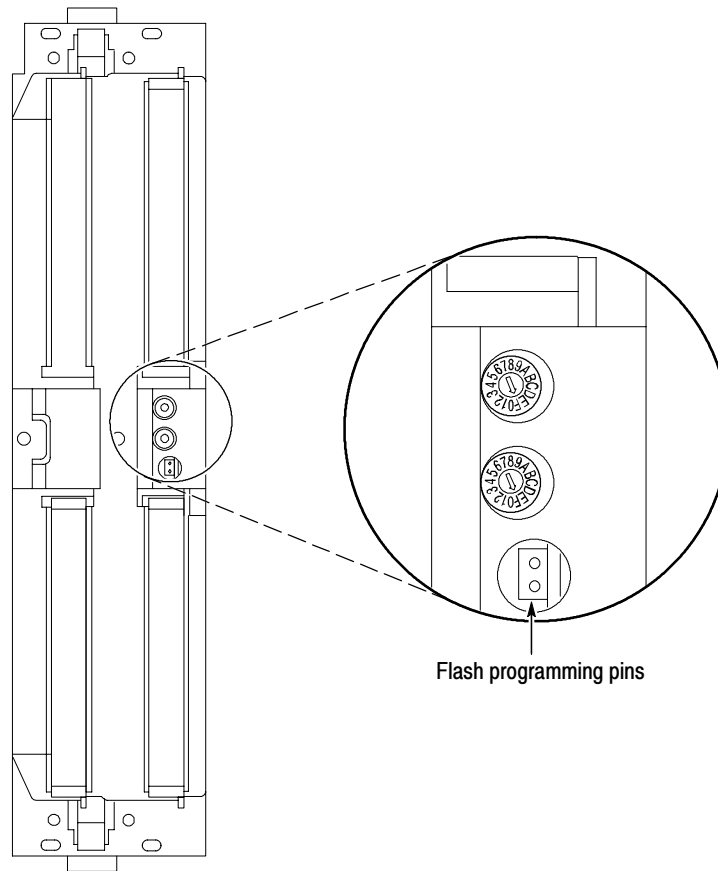


Figure 1: Flash programming pins

7. Reconnect the power cord and then power on the logic analyzer.
8. Log on as Administrator and then wait for the TLA application to start.

NOTE. Any modules with the flash programming jumper installed will not display in the System window.

9. Exit the TLA application (and pattern generator application if you have it installed on your instrument).
10. Click Start → Programs → Tektronix Logic Analyzer → TLA Firmware Loader.
11. Select the modules that you want to update from the list of modules displayed in the Supported list box near the top of the window. This selects the modules for the upgrade. If you are upgrading more than one module at a time, note the slot location of the module in the selection box.

12. Select Load Firmware from the Execute menu.
13. Click the proper .lod file for the selected module; refer to Table 2 if necessary.

NOTE. Be sure to select the proper .lod file for each module. Note the slot number in the title bar so that you select the correct module for the .lod file.

Table 2: TLA firmware files

Module type	.lod file
TLA7NAX logic analyzer modules	TLA7NAX.lod
TLA7Axx logic analyzer modules	TLA7AXX.lod
TLA7Nx, TLA7Px, TLA7Qx logic analyzer modules	TLA7NPQ.lod
TLA7Lx and TLA7Mx logic analyzer modules	TLA7LM.lod
TLA7Dx and TLA7Ex DSO modules	FirmwareDSO.lod
TLA7PG2 Pattern Generator modules ¹	tla7pg2.lod

¹ The .lod files for the pattern generator modules are located in the C:\Program Files\Tektronix Pattern Generator\Firmware folder. All other files are located in the C:\Program files\TLA 700\Firmware folder.

14. Click OK. When prompted to confirm your action; click Yes.

NOTE. The program will not allow you to load firmware to an incompatible module. For example, the program will not load DSO firmware to a logic analyzer module.

The program will load the firmware for each module one at a time. The process may take several minutes per module.

15. When the upgrade is complete, exit the program.
16. Turn off the logic analyzer and disconnect the power cord.
17. Remove the module from the instrument and remove the jumper from the Flash programming pins on the rear of the module. Keep the jumper for future updates.
18. Locate the big label on the side of the module.

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

19. Attach a new revision label and kit label on the big label for each module as shown in Figure 2.

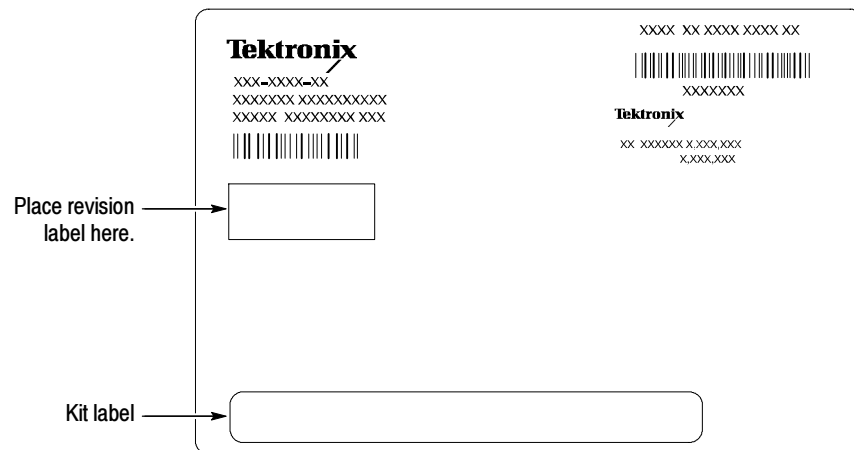


Figure 2: TLA700 module revision and kit label locations



WARNING. Dangerous voltages may be present when the instrument is connected to the Target system. To avoid electrical shock, always tighten the hold-down screws that secure the module to the mainframe.

20. Reinstall the module in the logic analyzer, latch it in place, and tighten the hold-down screws.
21. Reconnect the power cord and power on the instrument.
22. Verify that the power-on diagnostics pass.

Verify Proper Operation

After you have installed all of the latest software and upgraded the module firmware, you are ready to verify proper operation.

1. If you have not already done so, power on the logic analyzer and log on as Administrator.
2. After logging on, wait for the instrument to complete the start-up sequence.

3. Verify that the Power-on diagnostics pass (if any Power-on diagnostics fail, the Power-on Diagnostics dialog box automatically displays in the System window).
4. In the System window, verify that all installed modules appear in the window.
5. If you have a TLA700 series instrument with any missing modules in the System window, you can verify the status of the modules by doing the following steps:
 - a. Select System Properties in the System menu.
 - b. Click the Modules tab.
 - c. Note the information under the Messages column for any installed modules. If any modules indicate invalid or similar messages, you must update the firmware for those modules. (See *Upgrade the Firmware* on page 13).
 - d. If any of the modules indicate that the jumper is installed, power down the logic analyzer, remove the module, and then remove the jumper from the rear of the module. Reinstall the module in the instrument and try again.

Calibrate the Logic Analyzer and DSO Modules

After verifying proper operation it is recommended that you calibrate the logic analyzer and DSO modules if they are installed in your instrument (pattern generator modules do not require calibration).

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 all of the modules in the dialog box and Click Run.

NOTE. *The calibration process may take several minutes for each module.*

5. Verify that the Status column for each module changes to Calibrated.
6. After all of the modules have been calibrated close the dialog box and power down the instrument.

Upgrade the TLAVu or PatGenVu Offline Software (Optional)

The TLAVu and PatGenVu software allow you to view data and create setups for your logic analyzer or pattern generator on a PC. You must ensure that the versions of the TLAVu or PatGenVu software are the same as that of TLA or pattern generator applications and that your PC has the Microsoft.NET Framework software installed.

Complete the following steps to install the Microsoft.NET Framework software and upgrade the TLAVu or PatGenVu application software on your PC. If you have an older version already installed on your PC, the installation program will automatically detect it and replace it during the upgrade process.

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

NOTE. The ReadMe file for the offline applications contains most of the information that you need to run the applications. Access the ReadMe files by selecting either: Start → Programs → Tektronix Logic Analyzer → TLA Documentation → TLAVu ReadMe or Start → Programs → Tektronix Pattern Generator → Pattern Generator Documentation → PatGenVu ReadMe.

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.

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

TLA5000, TLA600, or TLA700 Portable Mainframe

Locate the big label on the rear of the instrument, and then attach the software revision label and the kit label as shown in Figure 3 for TLA5000 series instruments or TLA600 series instruments. For TLA700 Portable Mainframes, see Figure 4 on page 20.

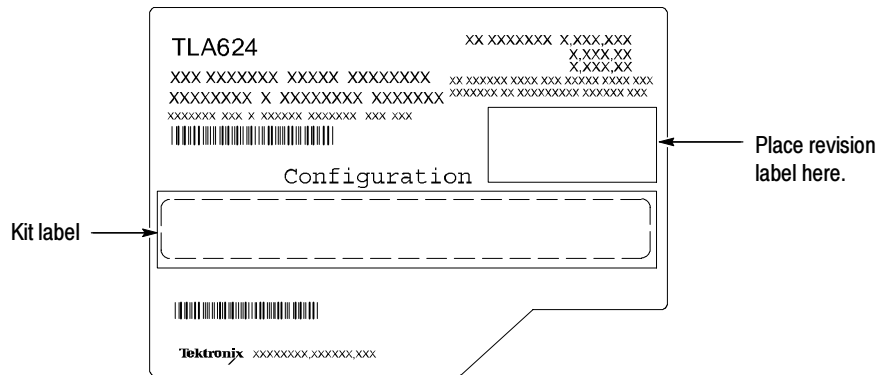


Figure 3: TLA5000 or TLA600 revision and kit label locations

TLA700 Benchtop Mainframes

On the TLA700 Benchtop Mainframes, the software label is located on the side of the Benchtop Controller. You must remove the controller from the mainframe before you can install the software revision label.



CAUTION. *To avoid damaging the mainframe or the controller, always power down the mainframe before removing the controller.*

1. Power down the mainframe.
2. Loosen the four hold-down screws that secure the front of the controller to the mainframe.

3. Remove the controller from the mainframe and set the controller on a clean working surface.
4. Locate the big label on the side of the controller and attach the software revision label and the kit label as shown in Figure 4.

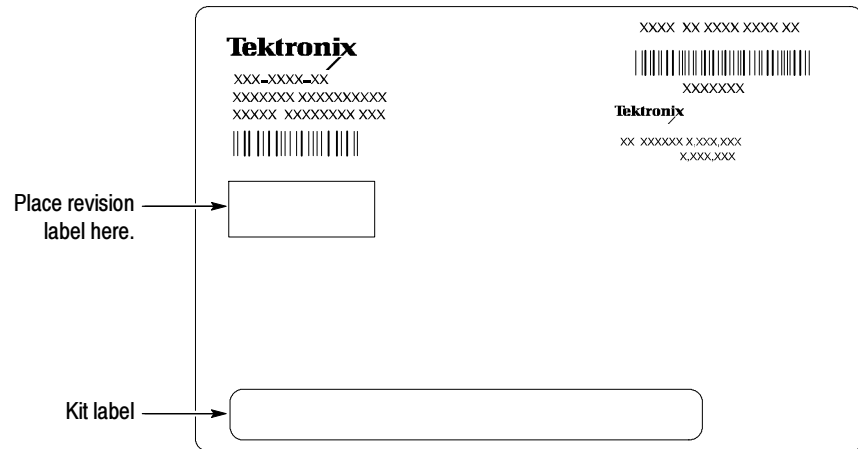


Figure 4: TLA700 revision and kit label locations



WARNING. *Dangerous voltages may be present when the instrument is connected to the Target system. To avoid electrical shock, always tighten the hold-down screws that secure the module to the mainframe.*

5. Reinstall the controller in the benchtop mainframe, tighten the hold-down screws.
6. Power on the mainframe and verify that all diagnostics pass.

■ End of document ■