

Instructions



**050-3540-00 and above
TDS5000 Series
CD-RW Drive Replacement Kit
075-0789-01**

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.

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

Service Safety Summary

Only qualified personnel should perform service procedures. Read this *Service Safety Summary* and the *General Safety Summary* in the product service manual or the instruction manual.

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 and disconnect test leads before removing protective panels, soldering, or replacing components.

To avoid electric shock, do not touch exposed connections.

Kit Description

The following kit instructions describes the replacement of the CD-RW drive for your bench-top TDS5000 Series oscilloscope.

This document supports Tektronix modification: ECR 30450

Products

TDS5000 Series All Serial Numbers

Kit Parts List

Quantity	Part number	Description
1 ea	065-0666-XX	Drive: Optical, CD-W224E-A93 CD-RW and packaging
1 ea	063-3575-XX	Software package: Click'N Burn, license and CD
1 ea	063-3666-XX	Software package: floppy disk with Click'N Burn software patch to support the CD-W224E-A93 CD-RW drive
1 ea	075-0789-01	Kit Instructions: CD-RW Drive Replacement Kit, TDS5000 Series, 050-3540-XX

NS - Not Saleable

Installation Instructions

This section contains all procedures needed to replace the CD-RW drive in the TDS5000 Series instruments.

These instructions are for personnel who are familiar with servicing the product. If you need further details for disassembling or reassembling the product, refer to the appropriate product manual. Contact your nearest Tektronix Service Center or Tektronix Factory Service for installation assistance.

Minimum Tool and Equipment List

The following tools are required to install this upgrade. All tools are standard tools that are readily available.

Table 1: Tools required for module removal

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 oscilloscope screws. Torx®-driver bit for T-15 size screw heads	640-247
3	1/8 inch flat-bladed screwdriver	Screwdriver for unlocking cable connectors	Standard tool
4	#0 phillips screwdriver	Screwdriver for removing small phillips screws, CD, floppy & hard drive	Standard tool

Preparation



CAUTION. Before doing this or any other procedure in this manual, read the Safety Summary found at the beginning of this manual. To prevent static discharge damage, service the product only in a static-free environment. Observe standard handling precautions for static-sensitive devices while installing this kit. Always wear a grounded wrist strap, grounded foot strap, and static resistant apparel while installing this kit.

This subsection contains the following items:

- The preparatory information you need to properly do the procedures that follow.
- List of tools required to remove and disassemble all modules.
- Procedures for removal and reinstallation of the electrical and mechanical modules.
- A disassembly procedure for removal of all the major modules from the oscilloscope at one time and for reassembly of those modules into the oscilloscope.



WARNING. Before doing any procedure in this subsection, disconnect the power cord from the line voltage source. Failure to do so could cause serious injury or death.

NOTE. Read Equipment Required for a list of the tools needed to remove and install modules in this oscilloscope. See Table 1, page 5.

Equipment Required. Most modules in the TDS5000 Digital Oscilloscope can be removed with a screwdriver handle mounted with a size T-15, Torx® screwdriver tip. Use this tool whenever a procedure step instructs you to remove or install a screw unless a different size screwdriver is specified in that step. All equipment required to remove and reinstall each module is listed in the first step of its procedure.

Procedures for External Modules

The following procedures are found here and are listed in order presented.

- Line Cord
- Trim (all)
- Left and Right covers

Line Fuse and Line Cord

1. *Orient the oscilloscope:* Set the oscilloscope on the work surface and with the rear of the oscilloscope facing you.
2. *Remove the line cord:* Pull the line cord away from the AC power connector.

Trim and Carrying Handle

3. *Remove the feet and top cover:* Locate the Trim in the locator diagram. See Figure 3, page 9.
 - a. Remove the feet from the top rear of the oscilloscope by removing the two T-15 Torxdrive screws.
 - b. Open the accessory tray door or printer door and pull the door straight up to remove it from the hinge.
 - c. Remove the accessory tray or internal printer (two T-15 Torxdrive screws). See Figure 1.
 - d. If the internal printer is installed, disconnect the cable from the printer. See Figure 2 on page 8.
 - e. Slide the top cover towards the rear of the oscilloscope allowing the tabs to clear the cover openings, then pull out to remove the cover from the oscilloscope.

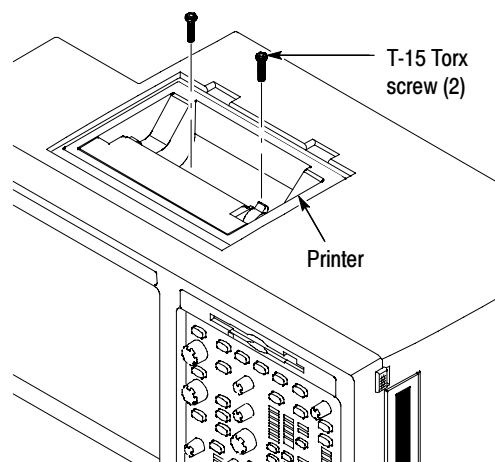


Figure 1: Printer screw mounting

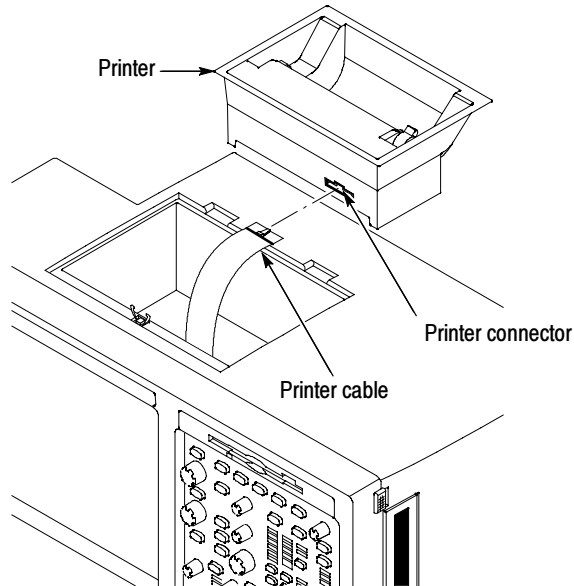


Figure 2: Printer cable connection

4. *Remove the right side panel:* Use Figure 3, page 9 as a guide. Remove the CD Drive trim by inserting a flat blade screwdriver in the bottom slot of the CD trim and gently prying the trim piece out of the side panel. Pull the trim up and out from the oscilloscope.
5. *Orient the instrument:* Set the instrument on the work surface with the bottom of the oscilloscope facing the installer.
6. *Remove the trim panels:* Remove all nine T-15 Torxdrive screws that secure the left, right, and bottom trim panels. Remove all panels from the instrument.
7. *Remove the VGA panel:* Remove the VGA panel by gently pulling the trim up and out from the oscilloscope. Refer to Figure 3, page 9 as a guide.
8. *Remove the front panel and acquisition trim:* Remove the three T-15 Torxdrive screws that secure the front panel trim to the oscilloscope.

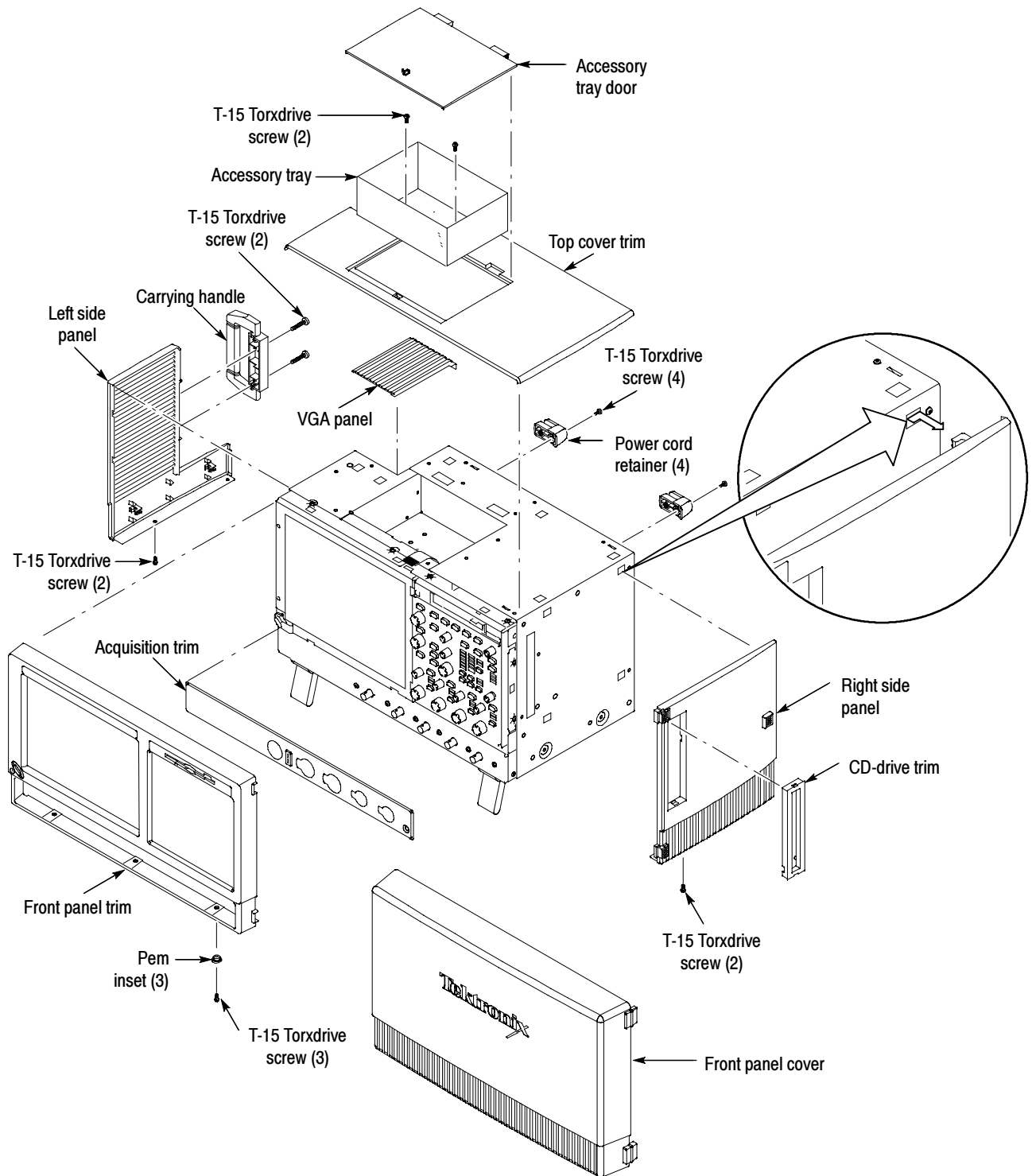


Figure 3: Trim removal

Right-Side Cover

1. *Remove the right-side cover:* See Figure 4.
2. *Orient the oscilloscope:* Set the oscilloscope on the work surface with the front of the oscilloscope facing you.

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

- a. Remove the fourteen T-15 Torxdrive screws that secure the right-side cover to the top and right sides of the chassis.
- b. Remove the right-side cover.



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

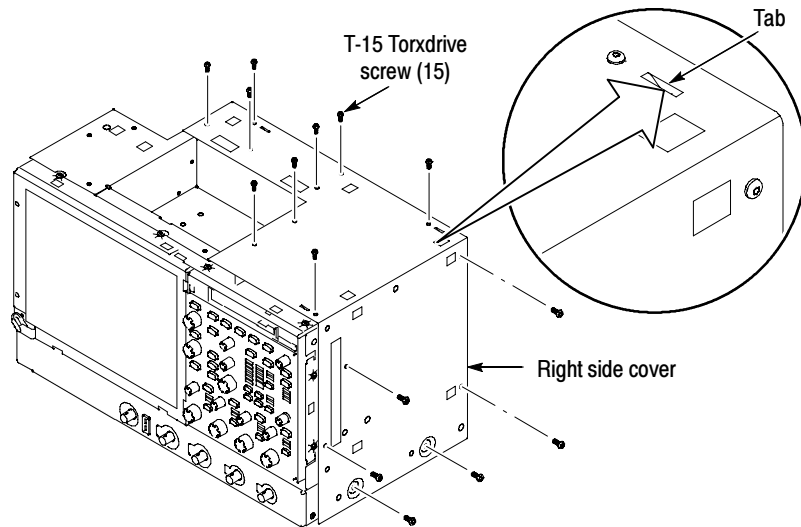


Figure 4: Right-side cover removal

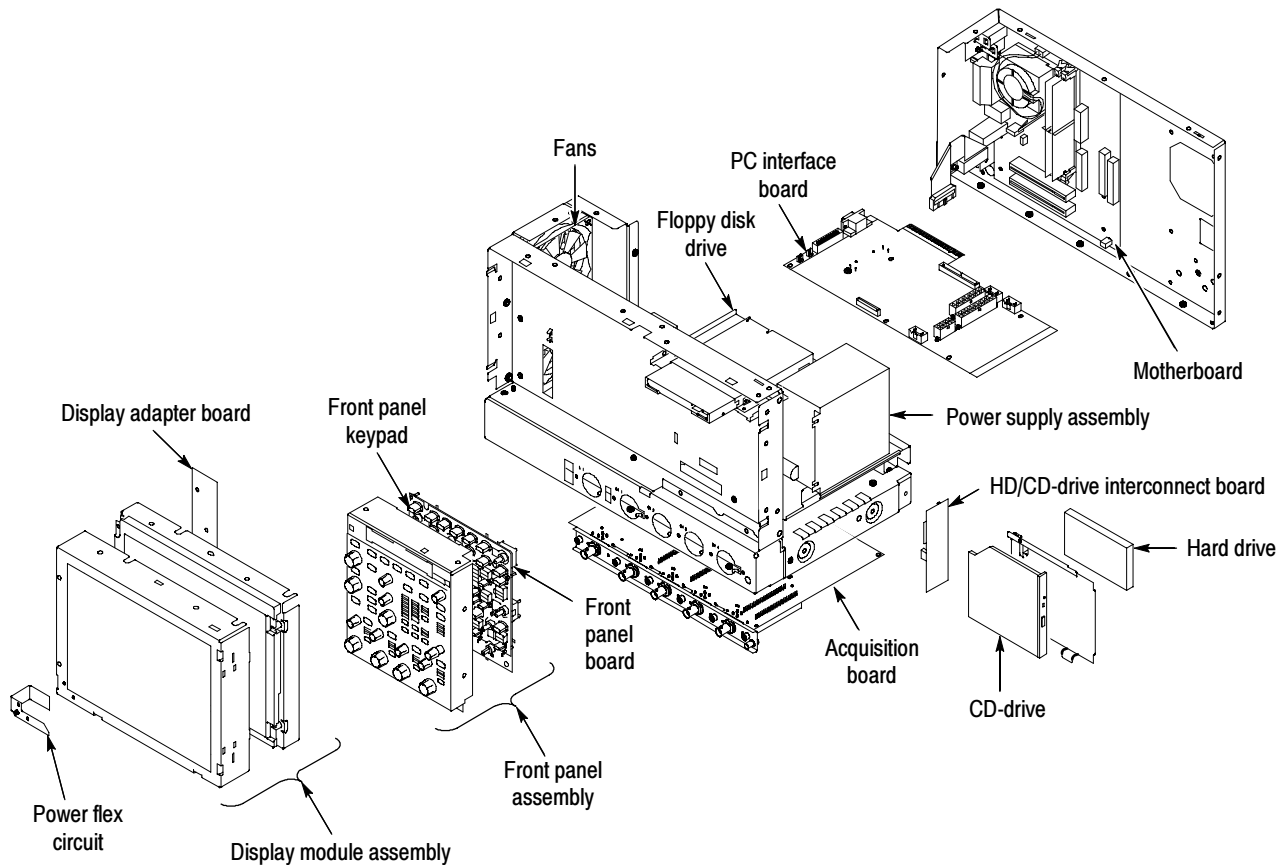


Figure 5: Internal modules

Remove the CD-RW Disk Drive

1. *Locate module to be removed:* The CD-RW and Hard Disk Drives are mounted on a common CD/Hard Disk Drive assembly which must first be removed to gain access to either drive. Locate the assembly in Figure 5.



CAUTION. Do not remove the hard drive when the oscilloscope is powered on.

The hard disk drive may be permanently damaged if it is removed while the oscilloscope is powered on.

Always power off the oscilloscope before removing the hard disk drive.

2. *Orient the oscilloscope:* Set the oscilloscope on the work surface with the right-side panel facing you.
3. *Remove the floppy disk drive:* Remove the two screws that hold the floppy disk drive in place and then remove the floppy disk drive.

4. *Remove the CD/Hard Disk Drive assembly:* See Figure 6.
 - a. Remove the T-15 Torx screw that secures the CD/Hard Disk Drive assembly to the chassis.
 - b. Pull the CD/Hard Disk Drive assembly away from the chassis far enough to access the drives.

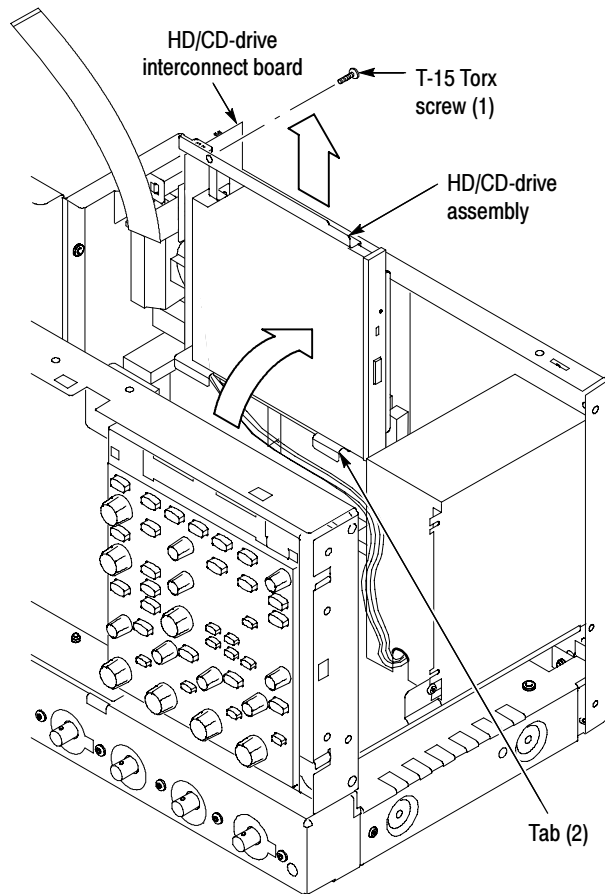


Figure 6: CD/Hard disk drive assembly removal

5. *Remove the CD-RW Drive from the assembly:* See Figure 7.
 - a. Remove the four Phillips screws that secure the drive to the bracket.
 - b. Gently pull the CD-RW drive away from the connector and remove the drive from the bracket.

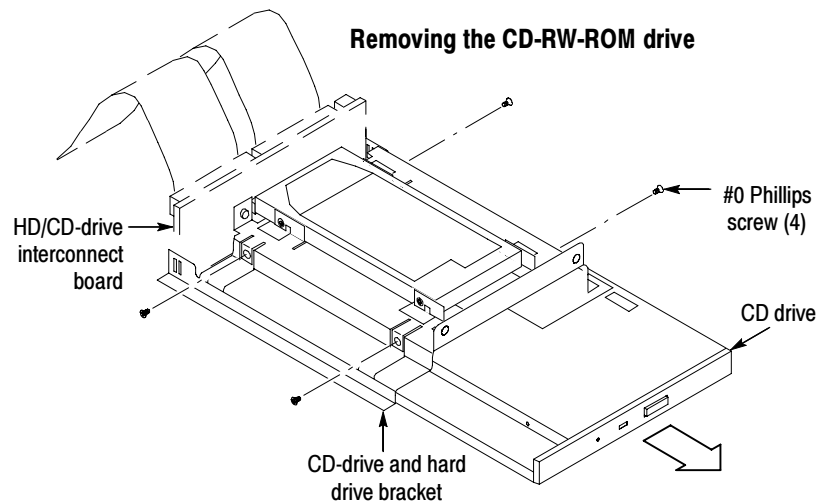


Figure 7: Remove the CD-RW drive from the bracket

Install the CD-RW into the instrument

1. To avoid damaging connector pins, use the following procedure to install CD/Hard Disk Drive assembly:
 - a. Slide the new CD-RW disk drive (provided in this kit), provided in this kit, into the CD-drive and hard drive bracket.
 - b. Connect the replacement drive to the interconnect board by carefully aligning the connector and gently seating it to the drive.
 - c. Install the four screws that secure the drive to the bracket.
 - d. Align the tabs at the bottom of the CD/Hard Disk Drive assembly to the slots on the back of the front panel assembly.
 - e. Install the T-15 Torx screw that secures the CD/Hard Disk Drive assembly to the chassis.
2. *Reinstallation:* Do in reverse the steps to reinstall the right-side cover, top cover, handle, and trim panels.

Installing the Software

Complete the following steps after you have installed the CD-RW drive and have reassembled the instrument.

1. If you haven't already done so, reconnect the power cord, power on the instrument, and verify that the diagnostics pass.
2. Keep the Click'N Burn jewel case handy as you will need information on the back cover to install the software.
3. Refer to the instructions that came with this kit to install the Click'N Burn software.
4. After installing the Click'N Burn software, insert the floppy disk with the Click'N Burn software patch into the floppy disk drive.
5. Run PxEngineUpdate342.exe from the floppy disk and follow the on-screen instructions to install the patch.

■ End of document ■