

Instructions

Tektronix

**TDSXFHD
Hard Disk Upgrade
TDS 500C/D, TDS 600C & TDS 700C/D/L
Digitizing Oscilloscopes**

071-0442-02

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.



071044202

Copyright © Tektronix, Inc. All rights reserved.

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.

Printed in the U.S.A.

Tektronix, Inc., P.O. Box 1000, Wilsonville, OR 97070-1000

TEKTRONIX and TEK are registered trademarks of Tektronix, Inc.

WARRANTY

Tektronix warrants that the parts, assemblies and supplies ("products") 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 a product proves defective during this warranty period, Tektronix, at its option, either will repair the defective product without charge for parts and labor, or will provide a replacement in exchange for the defective product.

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

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate maintenance and care. Tektronix shall not be obligated to furnish service under this warranty a) to repair damage resulting from attempts by personnel other than Tektronix representatives to install, repair or service the product; b) to repair damage resulting from improper use or connection to incompatible equipment; c) to repair any damage or malfunction caused by the use of non-Tektronix supplies; or d) to service a product that has been modified or integrated with other products when the effect of such modification or integration increases the time or difficulty of servicing the product.

THIS WARRANTY IS GIVEN BY TEKTRONIX IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED. TEKTRONIX AND ITS VENDORS DISCLAIM ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TEKTRONIX' RESPONSIBILITY TO REPAIR OR REPLACE DEFECTIVE PRODUCTS IS THE SOLE AND EXCLUSIVE REMEDY PROVIDED TO THE CUSTOMER FOR BREACH OF THIS WARRANTY. TEKTRONIX AND ITS VENDORS WILL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IRRESPECTIVE OF WHETHER TEKTRONIX OR THE VENDOR HAS ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES.

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 Caution When Servicing the CRT. To avoid electric shock or injury, use extreme caution when handling the CRT. Only qualified personnel familiar with CRT servicing procedures and precautions should remove or install the CRT.

CRTs retain hazardous voltages for long periods of time after power is turned off. Before attempting any servicing, discharge the CRT by shorting the anode to chassis ground. When discharging the CRT, connect the discharge path to ground and then the anode. Rough handling may cause the CRT to implode. Do not nick or scratch the glass or subject it to undue pressure when removing or installing it. When handling the CRT, wear safety goggles and heavy gloves for protection.

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.

X-Radiation. To avoid x-radiation exposure, do not modify or otherwise alter the high-voltage circuitry or the CRT enclosure. X-ray emissions generated within this product have been sufficiently shielded.

Service Safety Summary

Kit Description

This document supports installing Option HD in the oscilloscopes listed below.

Products

- TDS 520C/D** All serial numbers
- TDS 540C/D** All serial numbers
- TDS 580C/D** All serial numbers
- TDS 654C** All serial numbers
- TDS 680C** All serial numbers
- TDS 684C** All serial numbers
- TDS 694C** All serial numbers
- TDS 714L** All serial numbers
- TDS 724C/D** All serial numbers
- TDS 754C/D** All serial numbers
- TDS 784C/D** All serial numbers
- TDS 794D** All serial numbers

Minimum Tool and Equipment List

Required tools and equipment	Part number
Service manual: TDS 500C, TDS 600B & TDS 700C TDS 500D, TDS 600C, TDS 700D & TDS 714L	070-9875-03 071-0271-00, 071-0495-00, 071-0627-00, or later
Firmware: TDS 714L V6.6 or above TDS 500D & TDS 700D V6.2.1 or above TDS 500C & TDS 700C V5.3 or above TDS 600C V5.0.1 or above	063-3087-06 or later 063-3087-02 or later 063-2770-02 or later 063-3131-00 or later

Kit Parts List

Quantity	Part number ¹	Description
1 EA	679-4850-0	CKT BD ASSY:HARD DISK (OPTION HD)
1 EA	650-3972-03	HARD DRIVE,FORMATTED W Pull TAB 334-0575-00
1 EA	407-4697-00	RETAINER BRACKET,HARD DISK BD
1 EA	679-4095-00	CKT BD ASSY:OPTION CONNECTOR BD

Kit Description

Quantity	Part number ¹	Description
4 EA	210-0457-00	NUT,PL,ASSY WA6 32X0.312,STL CD PL,W/LOCKWASHER
1 EA	071-0442-02	MANUAL,TECH;TDSXFHD
1 EA	NS ²	Label

¹ Part numbers may vary due to part or circuit improvements.

² NS – Not Saleable

Installation Instructions

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 Tektronix Factory Service for installation assistance.



CAUTION. *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.*

These instructions are provided to assist you in installing option HD in your oscilloscope. Refer to your oscilloscope service manual for detailed information.

Install

To install Option HD, perform the following steps:

1. If your oscilloscope contains Option 5, remove the Option 5 assembly as described in the *Removal and Installation Procedures* in your service manual.
2. Remove the CPU board using the *All Processor/Display Board* procedure in your service manual.
3. Install the hard disk circuit board, supplied with this upgrade, using step 4 of the *Hard Disk Drive* procedure in your service manual.
4. Install the hard disk supplied with this upgrade (use Figure 1 as a guide).
5. Reassemble the oscilloscope.
6. If the oscilloscope firmware is not the version or a newer version than that listed in the Minimum Tool and Equipment List (see page 1), install the firmware version or a newer version than that listed.
7. If you install firmware on an oscilloscope with option 3C or 4C, perform the option 3C or 4C optical probe calibration.
8. Perform a signal path compensation.
9. Install the label supplied with this kit to the rear panel of the oscilloscope.

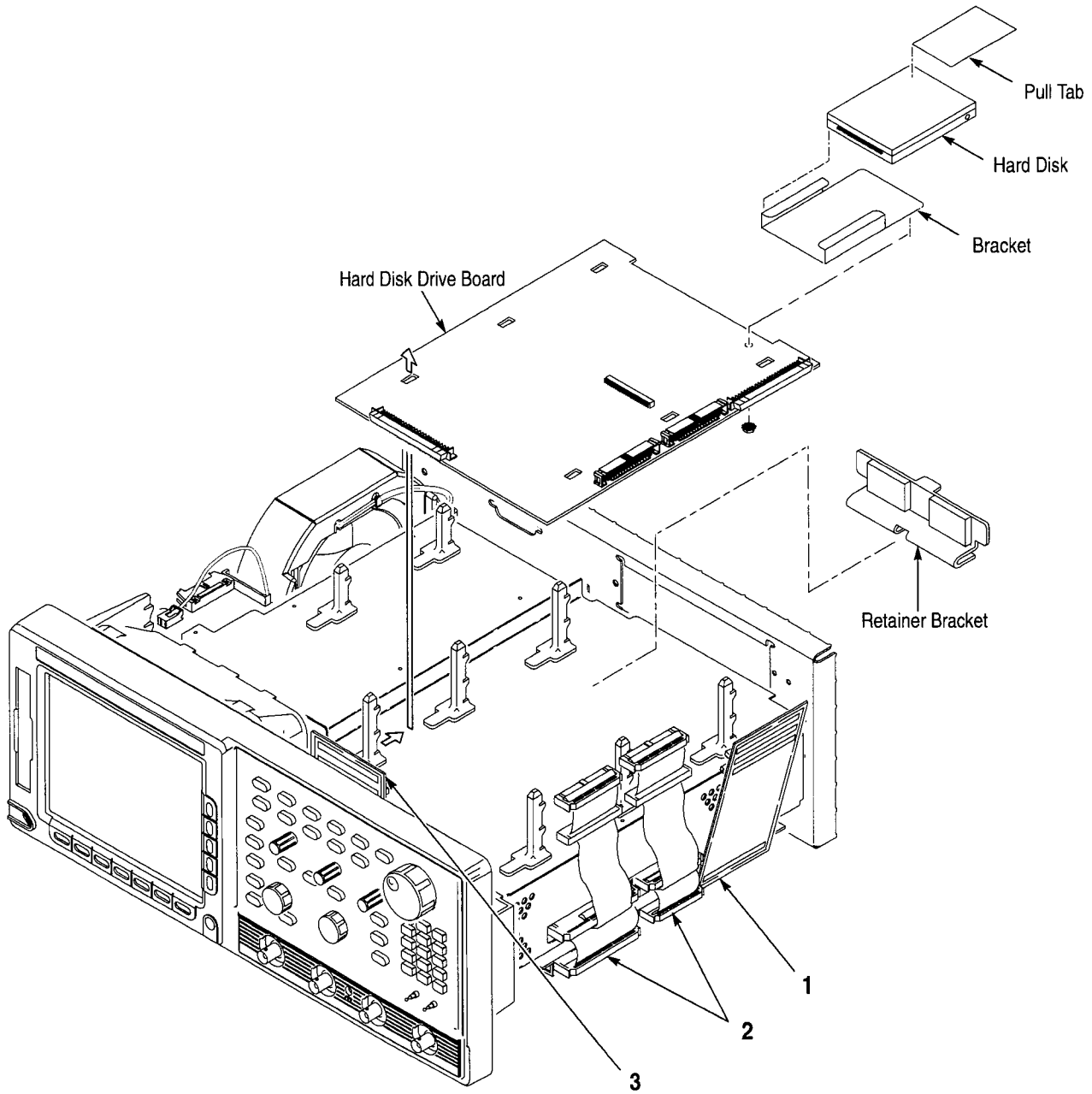


Figure 1: Hard disk removal

Verify Operation

Refer to the *Performance Verification* section in the service manual. Verify oscilloscope performance by performing the *Verify the File System* procedure. If you can successfully save and recall a waveform or a setup to the hard disk (hd0:), installation was successful.

■ End of document ■