

# Instructions



**050-3635-00**

**Inverter Board and Cable Replacement Kit**

**TLA715 and TLA7UP**

**TDS5000, TDS6000, CSA/TDS7000, CSA/TDS8000,  
TLA600, and VM5000 Series**

**075-0908-00**

**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](http://www.tektronix.com)**



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## **Contacting Tektronix**

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For product information, sales, service, and technical support:

- In North America, call 1-800-833-9200.
- Worldwide, visit [www.tektronix.com](http://www.tektronix.com) to find contacts in your area.

# 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

**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.

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

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

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

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

**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.

**Symbols and Terms**

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



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

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

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**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.

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



CAUTION  
Refer to Manual



WARNING  
High Voltage



Protective Ground  
(Earth) Terminal

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

To avoid electric shock, do not touch exposed connections.



## Kit Description

This kit contains instructions and parts to replace the Display Inverter board and cable in the mainframes listed below. The cable enables proper connection from a new connector in the new Inverter board to your current instrument. This document supports Tektronix modification ECR30574.

## Products

Mainframes			
TDS	TLA	CSA	VM
5032, 5032B, 5034, 5034B	611, 612, 613, 614	7154, 7404	5000, 5000HD
5052, 5052B	621, 622, 623, 624	8000, 8000B, 8200	
5054, 5054B, 5054BE	715, 7UP		
5054B-AF, NV, NV-AV, NV-T			
5104, 5104B, 5104B-AF			
6404, 6604			
7054, 7104, 7154, 7254			
7404, 7UP			
8000, 8000B, 8200			

## Minimum Tool and Equipment List

Refer to the service manual for your mainframe to see a list of tools required for mainframe disassembly to, and reassembly from, the Inverter board level. If you do not already have a copy, you can download a service manual from the Tektronix Web site at [www.tektronix.com](http://www.tektronix.com).

## Kit Parts List

Quantity	Part number	Name & Description
1 ea	119-6806-00	Power supply: Inverter board, for NEC 10.4 in LCD
1 ea	174-5278-00	Cable assy sp: Ribbon, CPR, 28 AWG, 9.5 L, 1x5, 0.049CTR, LZ series, MOLEX 50058 S
1 ea	075-0908-xx	Kit Instructions





# Removal and Installation Instructions

This section contains procedures needed to install your new Inverter board and cable into your mainframe. 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 service manual. Contact your nearest Tektronix, Inc., Service Center or Tektronix Factory Service for installation assistance.

## Preparation



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**WARNING.** Before doing this or any other procedure in this document, read the Safety Summary starting on page 3.

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Before replacing your Inverter board and cable, refer to the service manual for your mainframe for instructions on proper disassembly of the main instrument down to the Inverter board level.

Once you have reached the Inverter board, follow the instructions in the next section.



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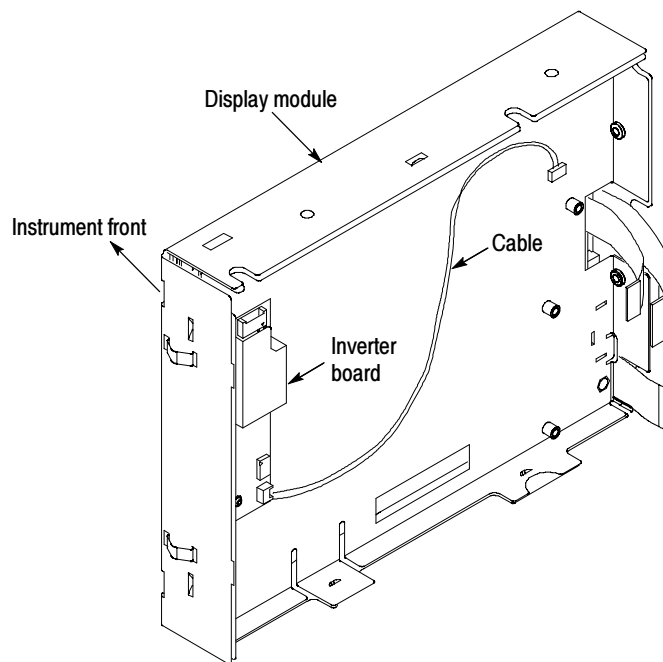
**CAUTION.** To prevent static discharge damage, service the product only in a static-free environment. Observe standard handling precautions for static-sensitive devices while installing this kit. Always wear a grounded wrist strap, grounded foot strap, and static resistant apparel while installing this kit.

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## Replace Inverter Board and Cable

To replace the Inverter board and cable, do the following steps:

1. Disassemble the mainframe down to the Inverter board level using the instructions you find in the service manual for your mainframe.
2. Locate the Inverter board assembly and cable. These will be on the back of the Display module, as shown below in Figure 1.
3. Remove the cable and the Inverter board from the Display module.
4. Install the new cable and new Inverter board.
5. Reassemble the mainframe by following the instructions in your service manual.



**Figure 1: Inverter board and cable located on back of Display module. A TDS5000B series oscilloscope is shown.**

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