

Instructions



050-3541-00 & 050-3542-00 and Above Front-Panel Board Replacement TDS7000 Series

075-0761-01

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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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, 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.

Kit Description

Use these instructions to replace the front-panel board on the products listed in the *Products* section of these instructions.

This document supports Tektronix modification: BV4011, ECO30346

Products

TDS7104	B010100 - B052705
TDS7054	B010100 - B041315
TDS7404	B010100 - B031125
TDS7254	B010100 - B020355

Minimum Tool and Equipment List

Required tools and equipment	Part number
Screwdriver handle	620-440
T-10 Torx tip	640-235
T-15 Torx tip	640-247
¹ / ₈ inch flat-bladed screwdriver	Standard tool
#0 phillips screwdriver	Standard tool
Angle-Tip Tweezers	Standard tool
MA-800G Soldering Aid	Standard tool

Kit Parts List

Quantity	Part number	Description
1 ea.	075-0761-xx	KIT INSTRUCTIONS
1 ea.	679-5795-xx	CKT BD SUBASSY, FRONT PANEL
1 ea.	260-2790-xx ¹	KEYPAD SWITCH ASSY; 050-3541-xx
1 ea.	260-2779-xx ¹	KEYPAD SWITCH ASSY; 050-3542-xx

¹ Depending on your product type, you will receive either one or the other of the listed keypad switch assemblies.

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 your nearest Tektronix, Inc., Service Center or 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.*

Remove

Use the following procedures to gain access to the parts you will replace.

Front-Panel Knobs

1. *Assemble equipment and locate modules to be removed.*
2. *Orient the instrument:* Set the instrument so its bottom is down on the work surface and its front is facing you.
3. *Remove the knob(s):* Grasp any knob you want to remove and pull it straight out from the front panel $\frac{1}{4}$ inch to create some clearance between the base of the knob and the front panel. Insert the angled-tip tweezers between the knob and front panel and use them to remove the knob. See Figure 1.

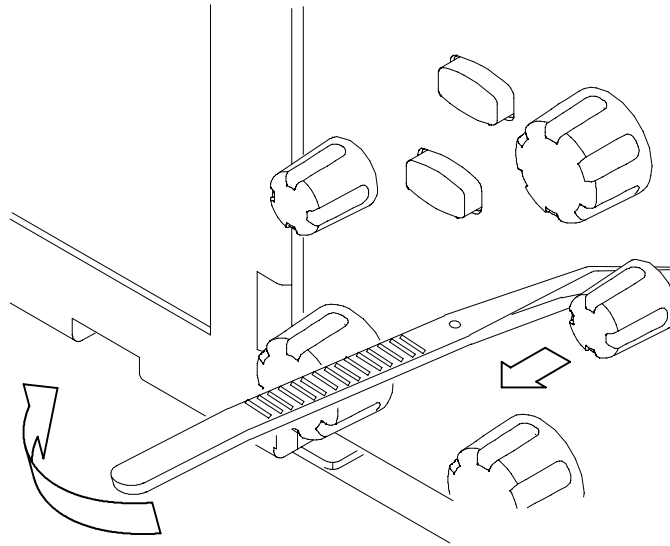


Figure 1: Knob removal

- Trim**
1. *Locate module to be removed:* Locate the Trim in Figure 2, page 7.
 2. *Remove the front-panel trim:* Use Figure 2, page 7, as a guide.
 - a. To prevent the power button from falling out of the front-panel trim, place a piece of tape over the button.
 - b. Grasp the trim ring by its top edge and pull toward you to detach the three plastic snaps. (Alternatively, you can use a flat-bladed screwdriver or other small prying tool to help you detach the snaps.)
 - c. Swing the bottom of the trim upward and off the front panel.

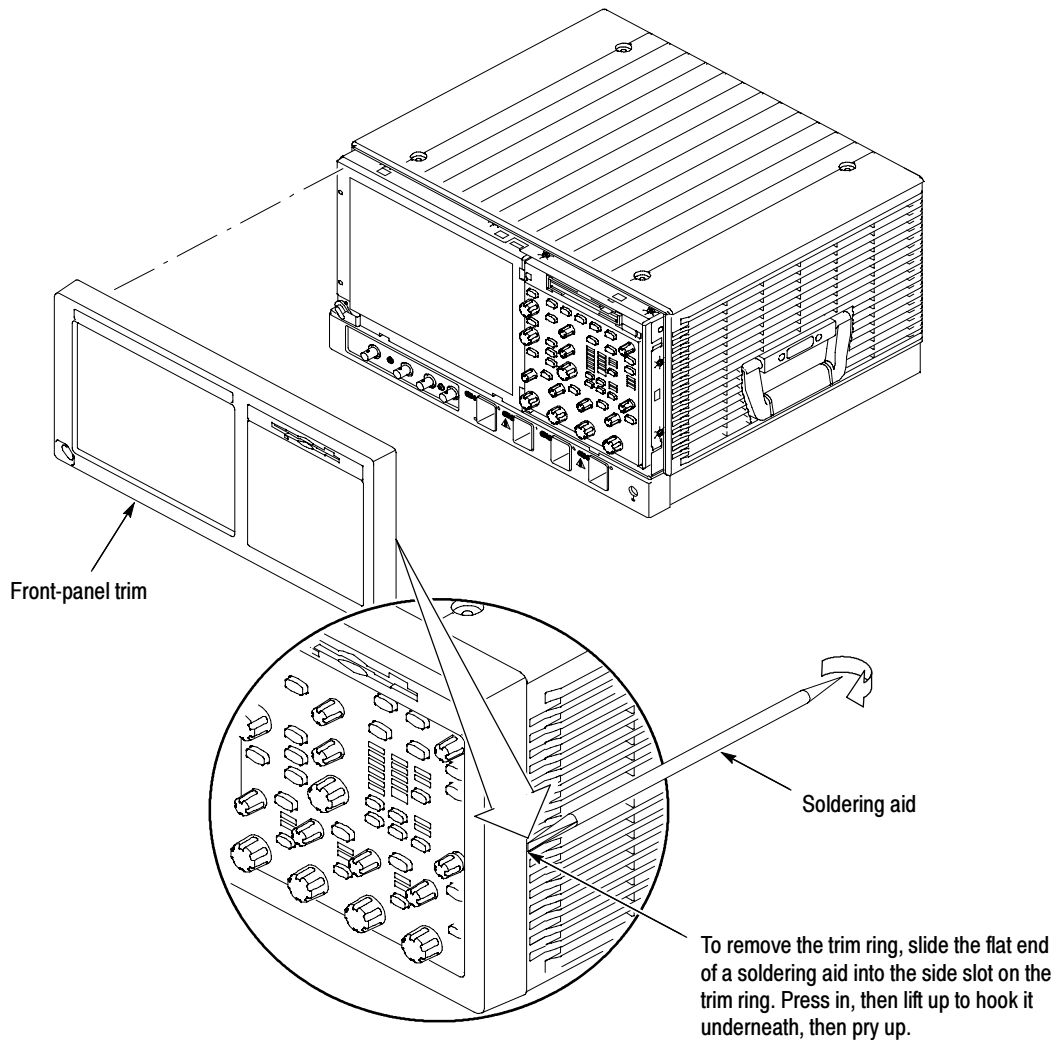


Figure 2: Trim removal

Front-Panel Assembly

1. *Locate module to be removed:* Locate the Front-panel assembly in Figure 3, on page 8.
2. *Remove the Front-panel assembly:* See Figure 3, page 8.
3. *Orient the instrument:* Set the instrument so its bottom is down on the work surface and its front panel is facing you.
 - a. Remove the six T-15 Torxdrive screws that secure the Front-panel assembly to the front chassis.

- b. Grasp the top of the front-panel assembly and pull forward to allow access to the ribbon-cable connector on the front-panel board.
- c. Use the $\frac{1}{8}$ inch flat-bladed screwdriver to carefully lift the J1 cable connector lock up to disconnect the J1 flex cable from the display module assembly. See Figure 4, page 9. Note the connector's pin 1 index mark and the black stripe on the cable for later reassembly.
- d. Pull the front-panel assembly forward and remove from the instrument.

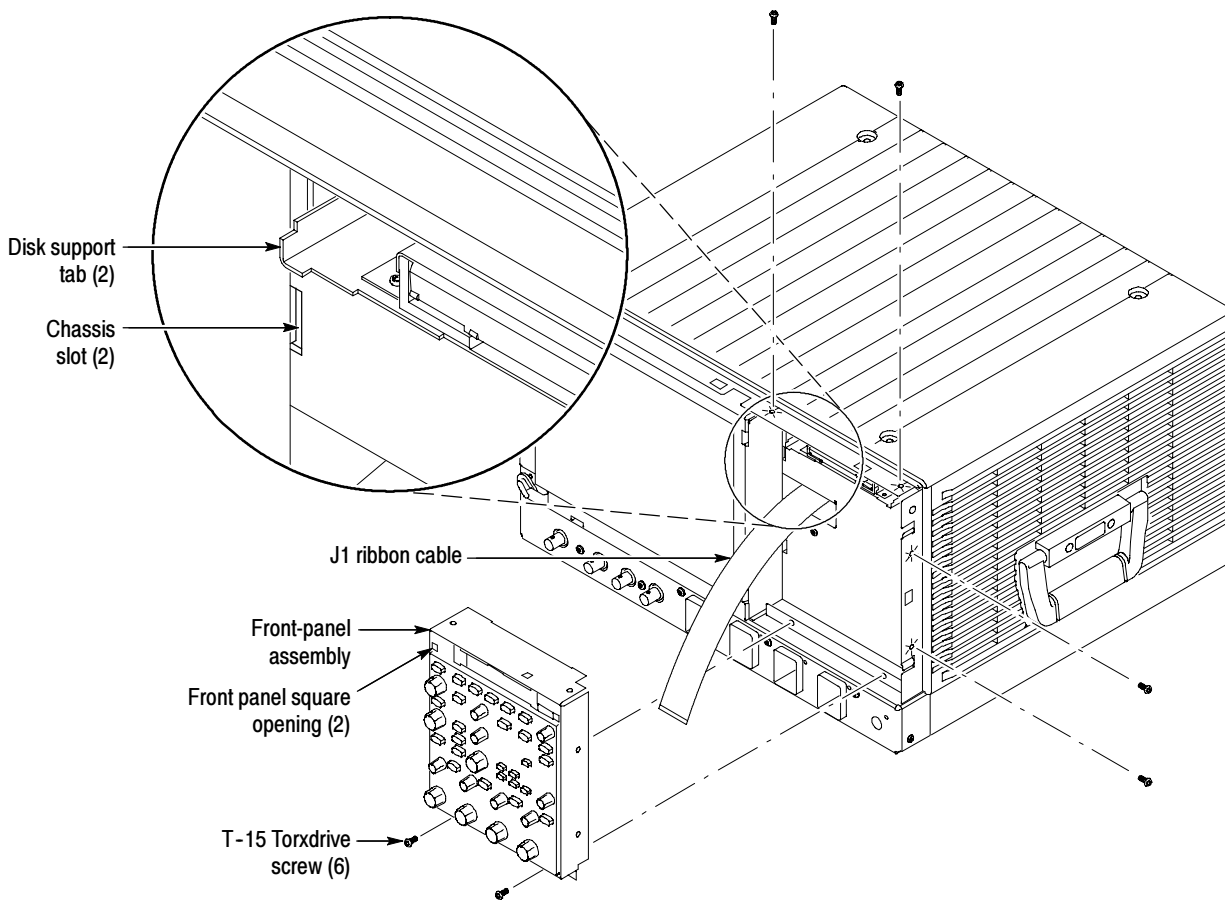


Figure 3: Front-panel assembly removal

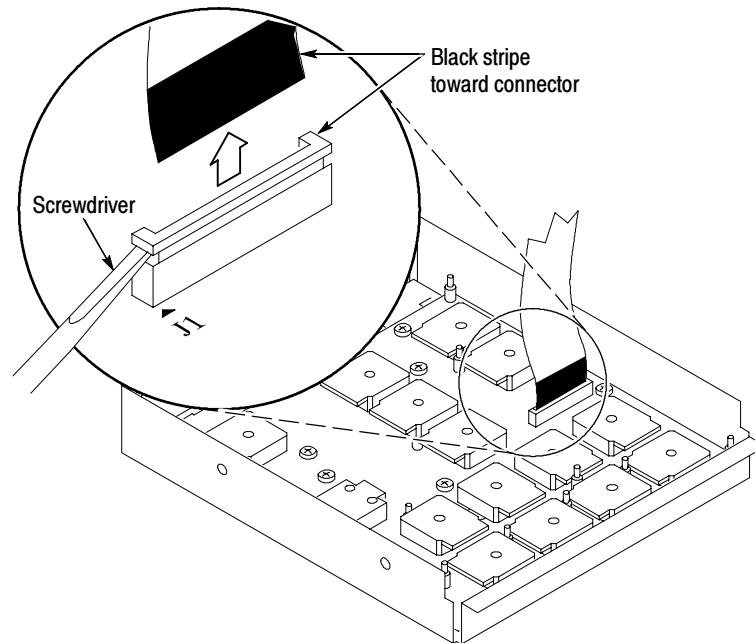


Figure 4: J1 flex cable connector removal

Front-Panel Board

1. *Locate module to be removed:* Locate the Front-panel assembly in Figure 3, page 8.
2. *Remove the Front-panel board:* See Figure 5, page 10.
 - a. Remove the eight T-15 Torxdrive screws that secure the front-panel board to the front-panel assembly.
 - b. Pry the board up off the alignment studs. Place a flat bladed screwdriver in the pry point access holes to pry the board up from the assembly.
 - c. Remove the board from the assembly.

Install

Use the following procedure to install your new front-panel board and keypad.

Front-Panel Keypad

Install the Front-panel keypad: See Figure 5.

1. Carefully align the keypad on the front-panel board.

NOTE. Make sure the keypad is aligned properly on the Front-panel board.

2. Push on each of the keypad support guides to attach the keypad to the front-panel board.



CAUTION. When removing or installing the keypad, make sure you do not touch the switch contacts with your fingers. The oils in your fingers will degrade or damage the switch contacts. To help prevent damage to the keypad use cotton gloves when removing or installing the keyboard pad.

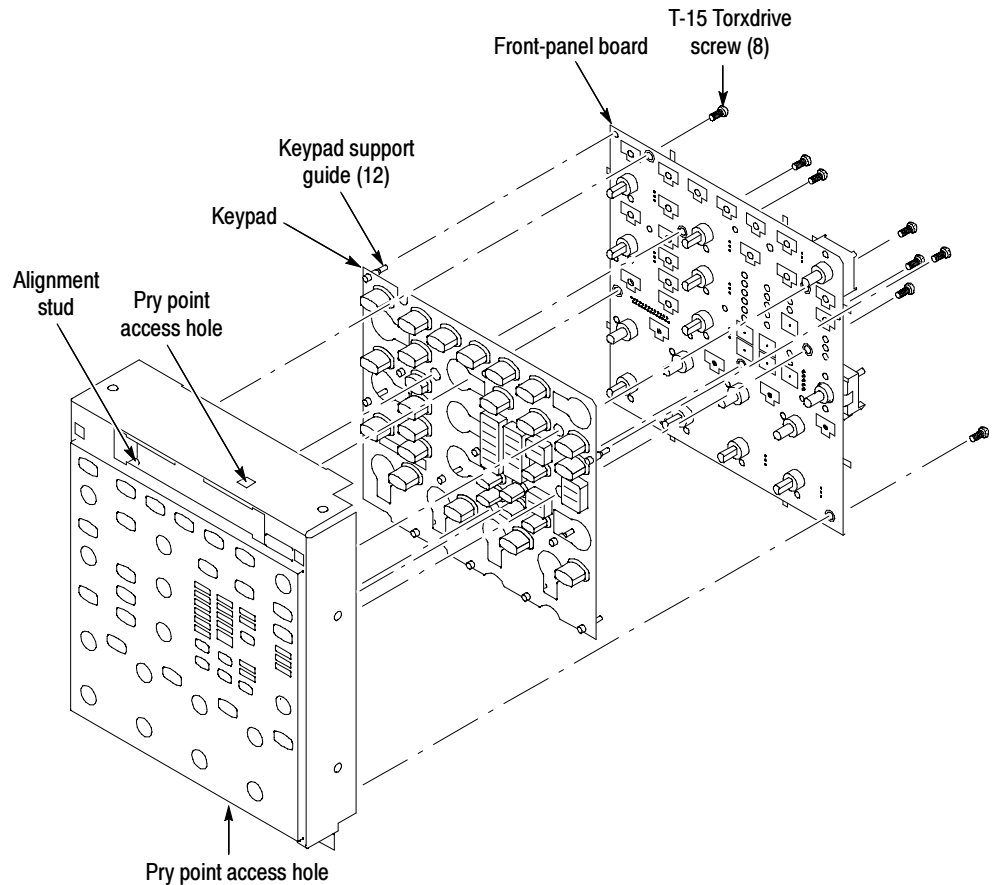


Figure 5: Front-panel board and keyboard assembly

Reassemble

Use the following procedure to reassemble your instrument:

1. To reinstall the front-panel board, do in reverse steps 2a through c of *Front-Panel Board* on page 9.

NOTE. Make sure the ribbon cable is routed correctly when installing the front panel into the chassis.

Insert the two disk support tabs into the front panel square openings. Both left front-panel tabs must go into the chassis slots. See Figure 3, page 8.

2. To reinstall the front-panel assembly, do in reverse steps 3a through d of *Front-Panel Assembly* on page 7.
3. To reinstall the trim, do in reverse step 2 of *Trim* on page 6.



CAUTION. To prevent damage to the encoders located on the circuit board, apply pressure to the encoders while pushing the knob on the shaft.

4. To reinstall the front-panel knobs, align each knob to the shaft and push it in until it snaps.

■ End of document ■

