

Copying Files to a PC

NOTE: Files to be copied to a PC (including the current test) must first be stored in internal memory or floppy disk. And the PC must have the Tektronix Test Data Storage (TDS) software installed.

1. Establish setups for communicating with the PC. Push the Setup softkey. Then push the SELECT button to access the I/O-Dir menu. Use the arrow keys to set External Port to Serial, plus Band Rate and Flow Control as needed (*never set Flow Control to XON/XOFF*). Push the Exit softkey to exit setups.
2. Access TFS3031 internal memory or floppy disk for file transfer. Push the Store or Print softkey. Then push the SELECT button to choose the Copy option. Push the Internal/Floppy softkey to access the storage medium for copying or receiving files.
3. Push the Copy To PC softkey. A pop-up message on the TFS3031 prompts you to prepare your PC for file transfer.
4. To prepare your PC, connect the COM1 or COM2 port (COM1 is the default) to the TFS3031 serial port.
5. Access the PC source directory for file transfer.
6. Install the Tektronix TDS application software in the PC by following the user instructions supplied with the TDS software package.
7. To copy files from the TFS3031 to the PC use these softkeys:
Send Selected. Copies the selected file to the PC. Use the arrow keys to select the file.
Send All Files. Copies all files to the PC.
Abort Send. Stops copying before completion.

Printing Files

1. If using a Seiko 411 printer and the recommended parallel port, set the switches on the bottom of the printer as follows:
Switch #1: 2, 3, 5, 6 - OFF; 1, 4, 7, 8 - ON
Switch #2: 3, 4, 5, 6 - OFF; 1, 2 - ON
If using the serial port, set Switch #1: 1 - OFF. The Epson printer uses the setups in its user manual.
2. Connect the printer to the parallel port (or serial port), and power on the printer.
3. Power on the TFS3031. If necessary, complete a new test.
4. Push the Store or Print softkey, then the SELECT button to select the Print option.
5. Push the Internal/Floppy softkey to select the memory source of the file to be printed, then use the arrow keys to select the file for print. To print a newly completed test that is not in memory, select Current Acquisition at top screen.
6. Push the Printer Setup softkey. Set External Port to Parallel if using the parallel port. If using a Seiko 411 printer and serial port, set External Port to Serial, Band Rate to 9600, and Flow Control to CTS/RTS.
Push the Done softkey to resume the Print screen.
7. Print the file(s) by pushing one of these softkeys:
Print Selected. Prints the selected file. The Abort Print softkey stops printing the selected file before completion.
Print All. Prints all files on the screen. Turn off the printer to stop printing all files before completion.

Cleaning Laser Output Ports

To access the Laser Output port for cleaning, remove the connector adapter by unscrewing it counterclockwise and pulling it off the port.

To clean the Laser Output port and fiber connector, gently wipe across and around the object with a lint-free swab or paper wipe moistened with electronics-grade alcohol.

Dry the port/connector with a dry swab or wipe.

General Troubleshooting

Need service help? Call 800-833-9200 (toll free USA/Canada only), or 503-923-0333 worldwide.

No Power On. Recharge or replace the battery, or power the instrument with the power/charger adapter. Otherwise contact Tektronix service.

No Power On with Fully Charged Battery. Disconnect the battery cable for one minute, then reconnect. Otherwise contact Tektronix service.

Poor Front Panel Connection Message. Follow directions in the message on the screen.

Error Message or Fatal Error Code. Turn the TFS3031 off and on again. If the message or error code reappears, contact Tektronix service.

Recharging the NiCad Battery



The battery charge level indicator is always displayed in upper right screen (together with the power plug indicator when the power/charger adapter is plugged in).

A 30-minute-remaining warning message, or a 10-minute-remaining flashing LED BATTERY LED indicates that the battery is in need of recharging.

To recharge the battery, plug the power/charger adapter into the 2.5 mm DIN port on the top of the TFS3031, and into an active power source.

CAUTION: Do not connect the power/charger adapter or cigarette lighter adapter power cord to the TFS3031 when the ambient temperature exceeds 40° C (104° F).

Whether the TFS3031 is powered on or off, the battery recharges as long as the power/charger adapter remains connected.

The BATTERY LED flashes *quickly* as the battery recharges.

The BATTERY LED glows a steady *quick* when the battery reaches full charge.

The BATTERY LED is *off* when the power/charger adapter is disconnected.

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Tektronix

TFS3031 TekRanger
Mini Optical Time-Domain
Reflectometer

063-2096-01

This reference card provides a brief overview on how to use the TFS3031. For more detailed user information refer to the *TFS3031 User Manual*.

For help with any application or service problem, call 800-833-9200 (toll free USA/Canada only) or 503-923-0333 worldwide.

Changing Setups

1. Push the Setup softkey to access the setup menus.
Setup menus are: *Test* (test setups); *Format* (display setups); *System* (system and default setups); *I/O-Doc* (printer, PC, and file setups).
Test modes are: *IntelliTrace* (full automatic testing); *Manual* (specific user-set test setups, real-time and high-density testing); *End of Fiber* (quickly locates and measures end of fiber only).

2. Push the SELECT button to select each setup menu.

3. Push the ▲ or ▼ arrow key to select a setup in a menu. Selections are highlighted.

Automatic and currently disabled setups are skipped.

4. Push the ◀ or ▶ arrow key to select a setup parameter. A parameter is in effect when it is highlighted or appears on the screen.

5. When finished changing setups, push the START button to begin a test using the new setups.

NOTE: To save currently changed setups as the next power-on defaults, before powering off the TFS3031:

- a. Push the SELECT button to choose the System menu.
- b. Push the ▼ arrow key to choose Power-On Defaults.
- c. Push the ◀ arrow key to select Last Used.
- d. Push the Exit softkey to exit setups.

See the *User Manual* for other default options.

Testing a Fiber Zooming the Waveform

1. Connect the fiber under test to the connector adapter on Laser Output port.
2. Push the ON/OFF button to power on the TFS3031.

3. (OPTIONAL) After power-on self test, push the Setup softkey, and check and verify your setups.

4. Push the START/STOP button to begin testing the fiber. The flashing red LASER LED on the front panel indicates that the test is in progress.

5. Test results are displayed on the screen as either a waveform or event table. Push the Table/Trace softkey to toggle the screens.

6. With the waveform screen displayed, position cursors A and B on the events to be measured.

Push the SELECT button to choose the Cursor option. Then hold down either the ▶ arrow key to scroll the active cursor along the waveform, or the ▲ arrow key to jump the active cursor from event to event, until it is positioned on the first point on the leading edge of the first event to be measured.

Switch active cursors by pushing the Cursor A/Cursor B softkey. Then use the arrow keys to position the second cursor on the first point on the leading edge of the second event to be measured.

You now have a complete fiber test showing measurements at both cursor locations.

7. **Zooming the Waveform.** To see more detail in an event, zoom the waveform.

- a. Move the active cursor to the event in question, and push the SELECT button to choose the Zoom option.

- b. Push the ◀ or ▶ arrow key to adjust the zoom window horizontally, and the ▲ or ▼ arrow key to adjust the zoom window vertically, to encompass the area in question. The smaller the zoom window the greater the magnification.

- c. Push the Zoom On softkey. The area within the zoom window fills the screen. To cancel zoom and resume the waveform screen, push the Zoom Off softkey.

Real-Time Testing High-Density Testing

1. In the Test menu choose Manual fiber test mode.
2. Complete a test and display the waveform.
3. Select the area to be tested, and zoom the waveform as explained in *Zooming the Waveform*.

To begin a real-time test, hold down the START/STOP button for at least two seconds. The laser fires repeatedly, and waveform data is updated quickly and continually.

To begin a high-density test, push the START/STOP button. Data is acquired at high density for the distance range on the screen.

4. To stop a real-time test, push the START/STOP button. Allow a high-density test to finish.

Add/Delete User-Placed Events Editing Events

With the waveform displayed, push the Edit Events softkey.

To add or delete an event:

Add Event. To add an event, push SELECT to choose the Cursor option. Push the ◀ or ▶ arrow key to locate a point on the waveform to add an event. Then push the Add Event softkey.
Delete Event. To delete an event, push the ▲ or ▼ arrow key to select an event for deletion. Then push the Delete Event softkey.

To edit or reposition an event:

Edit Event. To edit an event, push SELECT to choose the Event option. Then push the ▲ or ▼ arrow key to select the event for editing.

Push the Edit Event Notes softkey. An Event Notes box is displayed at bottom screen.

Use the same editing procedure as described for the Edit File Name softkey.

Reposition Event. To reposition the currently selected event, push the ◀ and ▶ arrow keys to move the event back and forth along the waveform.

Saving/Loading/Viewing Editing File Names

Push the Store or Print softkey to access the storage options (Save, Load, and Delete files).

▶ Saving Files In Storage

Push SELECT to choose the Save option.

The Save File softkey saves the current waveform and/or event table (or setups) in storage.

The File Setup softkey changes storage setups.

The Edit File Name softkey allows editing of the name of the file to be stored. A pop-up alphanumeric window appears on the screen, and a Name box is displayed at bottom screen.

When editing, the only SELECT button option is *Alphabet*, which enables use of the arrow keys to select characters in the alphanumeric window for inclusion in the Name box.

Insert a character into the Name box by pushing either the SELECT button or Insert Char softkey.

Delete a character from the Name box by pushing the Delete Char softkey.

To move around in the Name box for editing, push the ◀ softkey to move left or the ▶ softkey to move right.

The Undo softkey aborts editing.

The Done softkey saves and exits editing.

The Edit Notes softkey adds notes to a file. Use the same editing procedure as described for the Edit File Name softkey.

▶ Loading Files Onto the Screen for Viewing

Push SELECT to choose the Load option.

The Load File softkey loads a file from storage onto the screen. Push the Internal/Floppy softkey, then use the arrow keys to select the file. Push the Exit softkey to view the file after loading.

▶ Deleting Files from Storage

Push SELECT to choose the Delete option.

The Delete Selected softkey deletes a file from storage. Use the arrow keys to select the file before pushing the Delete Selected softkey.

The Delete All Files softkey deletes all files from storage.