
Release Note

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Updating Firmware

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Firmware gives your emulation probes and the trace port analyzers a “personality” for a particular processor or processor family. You need to update your E5900A #800 and E5903A #800 to use with the Toshiba TX39/H2 processors. The trace port analyzer can only be updated from the Toshiba TX19/39 family.

This document describes the following.

- Updating your trace port analyzer using your emulation probe with E8151P firmware
- Updating your emulation probe with E8151A firmware
- Performance verification tests.

Trace Port Analyzer Update

Preparing the update files

The trace port analyzer update files are placed in the provided floppy disks. You must copy all the files from the floppy disks to your local directory.

- 1 Create a directory on your hard disk and copy all files from the provided floppy disks to the new directory. (Copy files from both disks to the same directory)

On MS-DOS machines, this can be done with the following commands:

```
md c:hprobe  
copy *.* c:\hprobe
```

Repeat the procedure for both disks provided (copy files to the same directory)

On HP-UX machines with built in floppy drives, use the following sequence with <floppy device> replaced with the name of the raw device file, typically "/dev/rst/0s1" or "/dev/ffloppy/c0t1d0":

```
mkdir hprobe  
cd hprobe  
doscp <floppy device>:/* .
```

On Sun Solaris machines with built in floppy drive, use the following commands:

```
volcheck  
mkdir hprobe  
cd hprobe  
cp /floppy/floppy0/* .  
eject
```

Updating the emulation probe with the E8151P firmware

On SunOS 4.1 machines, there is no standard utilities for reading MS-DOS format floppies. To find out if there are any non-standard means of reading MS-DOS floppies on your machine, check with your system administrator.

For all UNIX machines, you can copy the files from a LAN based PC using a LAN file transfer utility like ftp or rcp. Use binary mode to transfer all files. Depending on the tools used, the file names may be all upper case or all lower case on UNIX after the transfer. The programs and instructions below assume all filenames are lower case. If the names appear as all upper case on the UNIX machine, the *.X files must be renamed to all lower case names, the PRGFLASH.XXX command must be given as all upper case and the full name of the .CFG file must be used. You may also have to make the prgflash.xxx executable with the command `chmod 555 prgflash.xxx` (where xxx is either sun, sol or hp7 as described below).

Updating the emulation probe with the E8151P firmware

- 1 Turn the power on to emulation probe only. (Make sure that Trace Port Analyzer is not connected to the emulation probe)
- 2 `cd` (change directory) to the local directory where you prepared the update files.
- 3 Pick the appropriate prgflash program for your host:

`prgflash.hp7` - for HP-UX series 700 (over LAN)

`prgflash.sun` - for Sun OS 4.1 (over LAN)

`prgflash.sol` - for Sun Solaris 5.1 (over LAN)

`prgflash.exe` - for Windows 95 and NT (over LAN)

- 4 Execute the below command for updating the emulation probe with the E8151P firmware".

```
prgflash.xxx -v <ip addr> e8151p
```

Where xxx is hp7, sun, sol or exe depending on host as described above and <ip addr> is the ip address of your emulation probe.

Update the trace port analyzer using the emulation probe

- 1 When you are finished with updating your emulation probe with E8151P firmware, unplug your emulation probe from the power supply.
- 2 Connect your emulation probe, trace port analyzer with a 50pin cable and a DC-DC cable. TIM (A small PC-board attached to the trace port analyzer) must be detached.
- 3 Turn on your emulation probe by attaching a power supply.
- 4 Use "telnet" from your workstation or PC to connect your emulation probe.
- 5 From the terminal prompt, enter "pldpgm " command. The command finishes after about five minutes. Confirm that messages below appear on the terminal screen.

```
q>pldpgm
Reprogramming Trace Port PLD
Reprogramming Trace Port Front End
!STATUS 878! Reprogrammed Trace Port PLD
!STATUS 878! Reprogrammed Trace Port Front End
q>
```

- 6 Enter "ver -a" command at the prompt. Confirm that messages below appear on the terminal screen. (Firmware version/date maybe different)

```
q>ver -a
```

```
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```

```
HPE3499B Series Emulation System
Version: A.07.63 08Mar00
Location: Generics
```

```
HPE8151A Toshiba TX39/H2 Emulator
Version: A.01.00 09Mar00
```

```
HPE8151P Toshiba TX39/H2 Trace Port Analyzer
Version: P.01.00
```

```
!ERROR 876! Please re-install processor firmware, update with E8151A
!ERROR 876! Please re-install processor firmware, update with E8151A
q>
```

Emulation Probe Update

Updating the emulation probe with the E8151A firmware

- 1 When you have successfully completed the trace port analyzer update, proceed to turn off the emulation probe and disconnect the 50pin cable, DC cable and the trace port analyzer from the emulation probe.
- 2 `cd` (change directory) to the local directory where you prepared the update files.
- 3 Pick the appropriate `prgflash` program for your host:

`prgflash.hp7` - for HP-UX series 700 (over LAN)
`prgflash.sun` - for Sun OS 4.1 (over LAN)
`prgflash.sol` - for Sun Solaris 5.1 (over LAN)
`prgflash.exe` - for Windows 95 and NT (over LAN)

- 4 Execute the below command for updating the emulation probe with the E8151A firmware".

```
prgflash.xxx -v <ip addr> e8151
```

Where `xxx` is `hp7`, `sun`, `sol` or `exe` depending on host as described above and `<ip addr>` is the ip address of your emulation probe.

If there is a power failure during a firmware update

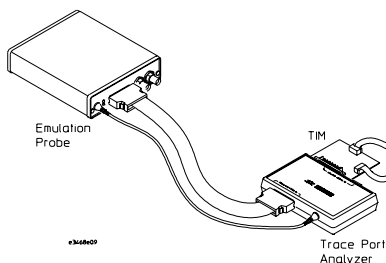
If there is a power glitch during a firmware update, some bits may be lost during the download process, possibly resulting in an Agilent\ processor probe that will not boot up.

- Set switch S4 to OPEN, then cycle power. This tells the Agilent processor probe to ignore everything in the Flash EPROM except the boot code.
- Repeat the firmware update process.
- Set switch S4 to CLOSED, then cycle power. This restores the processor probe to its normal mode.

Performace Verification Tests

Performing the TIM and the trace port analyzer PV tests with the emulation probe

- 1 Plug the 20-pin cable into the target connector and the loop-back connector on the TIM.



- 2 Telnet to the emulation probe.
- 3 Enter **pv 1** command.

The result will appear on screen as below. (Make sure that E8151A TIM/TP tests passed)

```
Testing: HPE3499B Series Emulation System
Test  1: Powerup PV Results           Passed!
Test  2: LAN 10Base2 Feedback Test    Not Executed!
Test  3: LAN 10BaseT Feedback Test    Not Executed!
Test  4: Break In and Trigger Out BNC Feedback Test  Failed! <<<<<
Test  5: Target Probe Feedback Test   Not Executed!
Test  6: Boundary Scan Master Test    Not Executed!
Test  7: I2C Test                     Not Executed!
Test  8: Data Lines Test              Passed!
Testing: HPE8151A Toshiba TX39/H2 Emulator
Test  1: E8151 TIM/TP Test            Passed!
FAILED Number of tests: 1             Number of failures: 1
```

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Release Note: Updating Firmware
If a performance verification test fails

HPE3499B Series Emulation System
Version: A.07.63 08Mar00
Location: Generics

HPE8151A Toshiba TX39/H2 Emulator
Version: A.01.00 09Mar00

HPE8151P Toshiba TX39/H2 Trace Port Analyzer
Version: P.01.00

If a performance verification test fails

- Details of the failure can be obtained through using a -v option ("verbose" level) of 2 or more.
- Check that the 20pin cable is loop-backed.
- If the problem persists, contact Agilent for assistance.