

86100C-06

S E R V I C E N O T E

Supersedes:
NONE

86100C Infiniium DCA-J Wide Bandwidth Oscilloscope

Serial Numbers: [0000A00000 / 9999Z99999]

New A8 Touchscreen Controller Assembly May Require a Replacement Kit; has implications for Hard Drive Replacement

To Be Performed By: Agilent-Qualified Personnel or Customer

Possible Parts Required:

P/N	Description	Qty.
86100-60134	Touch Screen Controller Replacement Kit	1

Software that may be required:

- 1150-7829 Touchscreen drivers
- 0960-2590 Touchscreen drivers

Tools Required:

- 1819-0240 USB Memory Stick

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION: INFORMATION ONLY
AUTHOR: DL PRODUCT LINE: 8F
ADDITIONAL INFORMATION:

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Situation:

The A8 Touch Screen Controller Assembly, 1150-7826, is not longer available. This can present challenges when replacing the A8 Touch Screen Controller Assembly and when replacing the A9 Hard Disk Drive.

Solution/Action:

86100C serial numbers MY45031518 and below have the 1150-7826 Touch Screen Controller installed from the factory. When replacing this assembly, use the 86100-60134 Touch Screen Replacement kit. This kit includes all the necessary hardware and instructions to install the new Touch Screen Controller Assembly into the DCA. Software drivers must be downloaded from the Agilent Support (internal) web site.

On 86100C serial numbers MY46520101 and above, the 0960-2590 touch screen controller is installed from the factory.

When changing from one touch screen controller to the next, the software drivers located on the hard drive must be replaced at the same time. After the software drivers are replaced, the hard drive will need to have a new backup image of the C partition.

Hard drive replacement:

When replacing hard drives on the DCA you must be aware of the part number of the touch screen controller installed. The software drivers for each controller are different and must be accounted for. Refer to Service Note 86100C-07 for information on ordering a hard drive with the correct image associated with the touch screen controller.

This service note explains how to change the touch screen drivers from one touch screen controller part number to the other.

Touch Screen Controller Identification:

To identify which touchscreen controller is installed in the 86100C mainframe, refer to figures 1 and 2 below.

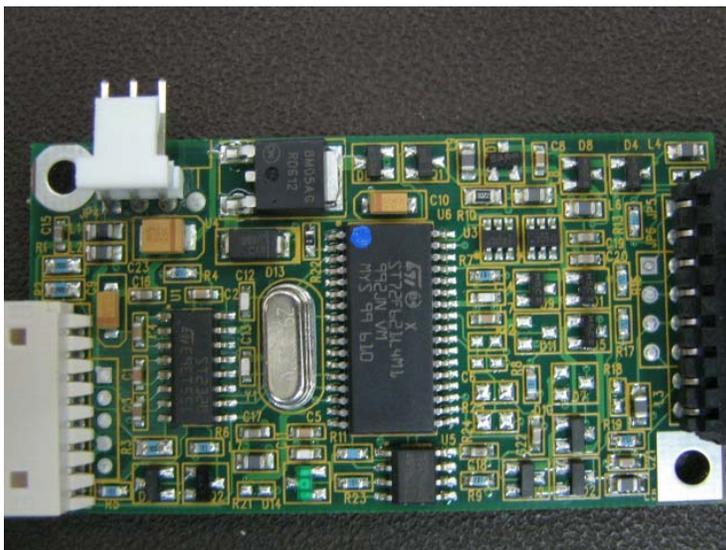


Figure 1, New Touchscreen Controller, Part Number 0960-2590



Figure 2, Original Touchscreen Controller, Part Number 1150-7826

To install software drivers for the 0960-2590 touch screen controller follow the steps below:

1. Download the 0960-2590 drivers from the following web site:
http://lwd.marketing.agilent.com/Service_Support/Product_Support/86100/infiniumdca.htm
2. Turn on the instrument.
3. After the DCA is booted, exit the DCA application by clicking File, Exit.
4. Copy the file *MT7.11.2Win32.zip* from the support web site into a USB memory stick or other temporary memory location.
5. Unzip the files. You should have the following files in the memory stick after the unzipping process:
 - *TwTouch.inf*
 - *TwTouch.sys*
 - *media.inf*
 - *Readme.txt*
 - *Setup.exe*
 - *setup.jar*
 - *TwFactory.cfg*
 - *TwSilentCreate.bat*
 - *TwSilentCreate.bat*
 - *TwSilentRun.bat*
 - *twtouch.cat*
6. Connect the memory stick to the DCA's USB port.
7. Using Windows Explorer on the DCA, open the directory where the unzipped files are located.
8. Double-click *Setup.exe* to install the new Touch Screen Controller drivers in the DCA.
9. Remove the old drivers: click START. Select Control Panel then Add Remove Programs. Locate the Universal Pointer Device Driver and remove it from the DCA.
10. Copy *Redirect.zip* from the support web site to a temporary memory location such as a USB memory stick.
11. Unzip the following files from *Redirect.zip* and copy them to the folder *C:\scope\touchscreen* on the DCA:

- *Microsoft.VC80.CRT.manifest*
- *msvcm80.dll*
- *msvcp80.dll*
- *msvcr80.dll*
- *tbmorph.exe*

Note: You will be asked to overwrite *tbmorph.exe*. Overwrite the file.

12. Start the DCA application by double-checking on the 86100C Infiniium DCA shortcut on the Desktop.
13. Perform a touchscreen calibration by touch clicking Utilities, Touch Screen Calibration.

To install software drivers for the 1150-7826 touch screen controller follow the steps below:

1. Connect a keyboard and mouse to the DCA.
2. Turn on the instrument.
3. After the DCA is booted, exit the DCA application by clicking File, Exit.
4. Access the 1150-7826 drivers from the following web site:
5. http://lwd.marketing.agilent.com/Service_Support/Product_Support/86100/infiniiumdca.htm
6. Download *Old Driver.zip* from the support web site into a USB memory stick or other temporary memory location.
7. Unzip the files. You should have the following files in the memory stick after the unzipping:
 - *Setup.exe*
 - *Shortcut to v3_8_24.lnk*
 - *SYSDIR1.cab*
 - *Tbbundle.h*
 - *DRV32_1cab*
 - *MAINDIR1.cab*
 - *MAINDIR2.cab*
 - *readme.txt*
8. Connect the memory stick to the DCA's USB port.
9. Using Windows Explorer on the DCA, open the directory where the unzipped files are located.
10. Double-click *Setup.exe* to install the Touch Screen Controller drivers in the DCA.
11. Remove the old drivers: click START. Select Control Panel then Add Remove Programs. Locate the Universal Pointer Device Driver and remove it from the DCA
12. Download the "old" *tbmorph.exe* from 1150-7826 location on the support web site and copy it to a temporary memory location such as a USB memory stick.
13. Copy *tbmorph.exe* to C:\scope\touchscreen on the DCA.

Note: You will be asked to overwrite *tbmorph.exe*. Overwrite the file.

Note: There are two different versions of the file *tbmorph.exe*. The DCA firmware is “hardwired” to use this file to launch the touchscreen calibration routine; therefore, the file name must remain the same in order for the DCA to operate properly.

Note:

tbmorph.exe used with the 0960-2590 is 57,344 bytes; datetime is 8/10/2006; 11:17 AM

tbmorph.exe used with the 1150-7826 is 1,173 bytes; datetime is 6/1/2003; 10:53 PM

Differences in the touch screen configuration look and feel

After clicking “Utilities, Touch Screen Config...” you will see one of two different touch screen calibration user interfaces. Figure 3 shows the touch screen calibration for the 0960-2590 touch screen controller. Figure 4 shows the 1150-7826 controller.

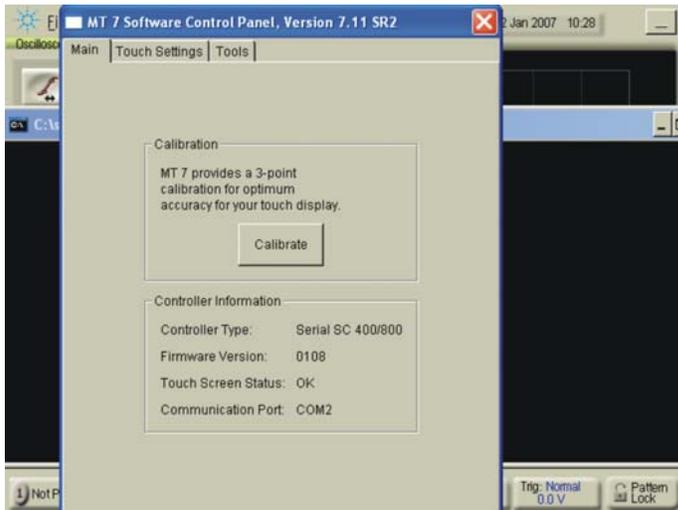


Figure 3, 0960-2590 Touch Screen Configuration

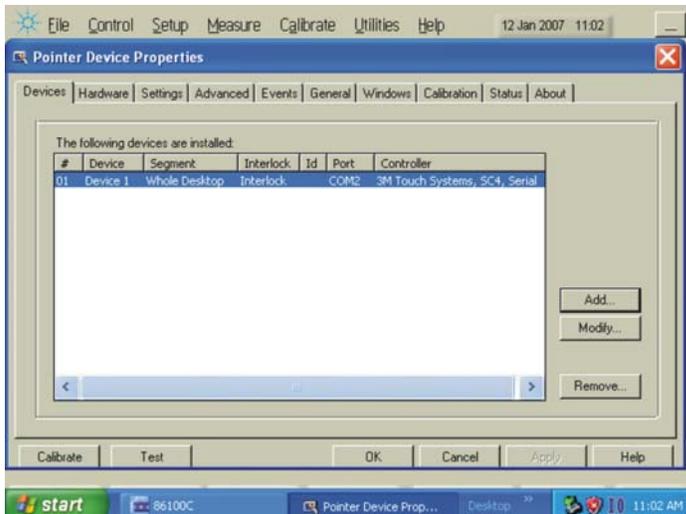


Figure 4, 1150-2826 Touch Screen Configuration

Create a new backup image on the hard drive

If the touch screen driver was changed on the hard disk drive, a new backup image of drive C should be created. This creates a backup copy of the C partition with all the recently created files, and stores it on a hidden partition.

1. Connect a keyboard to the instrument.
2. Turn the instrument on.
3. Repeatedly press the function key F8 as it boots up.
4. If done correctly the Windows Advanced Options Menu will eventually be displayed as shown below:

Windows Advanced Options Menu

Please select an option

- Safe Mode
- Safe Mode with Networking
- Safe Mode with Command Prompt
- Enable Boot Logging
- Enable VGA Mode
- Last Known Good Configuration (your most recent settings that worked)
- Directory Services Restore Mode (Windows domain controllers only)
- Debugging Mode
- Disable automatic restart on system failure
- Start Windows Normally
- Reboot
- Return to OS Choices Menu

Use the up and down arrow keys to move the highlight your choice.

5. Select "Return to OS Choices Menu" and hit Enter.

Note: If instead you see the "Welcome to the Windows XP Setup Wizard", click Next and do not accept the agreement. Click Next, Exit the Setup, Close the Fatal Error dialog box and start the process over by going to Step 1 and repeating the procedure.

6. The following text will be displayed:

Please select the operating system to start:

- 86100C Infinium DCA
- Emergency Backup And Recovery

7. Press the down arrow key on the keyboard to select Emergency Backup And Recovery. Then, press the Enter key. "The FreeDOS Project" copyright message and the prompt: "Press Any Key to Continue..." will be displayed.

8. Pressing any key will display the following text:

- 86100C Infinium DCA
- Recovery Options

Choose One of the Following:

1. Recover Factory Backup Image
2. Exit

Enter a Choice:

9. Press F at this point to create a factory backup image file.

Note: "F" is not a choice that is displayed on the screen, it is a hidden function used only in the factory and field to create a new backup image of the C partition.

Note: The system will perform a quick integrity check of the file structure on the C: partition. It will then copy the C: partition to an image file and store it on the System Recovery partition. This process will overwrite the original Factory Recovery Image.

10. Press C to continue or E to exit. Read the on-screen message then press C to continue or E to exit one more time.

11. Wait for the factory image backup process to complete.

12. Even though the on-screen instructions say to press CLT+ALT+DEL, don't do it. Power off the DCA using power button.

This completes the process to create a new back up image.