

**54831D-10**

**S E R V I C E N O T E**

---

Supersedes:  
None

**54831D - Digitizing Oscilloscope**

**Serial Numbers: All**

The stock of four slot mother boards is depleted so any motherboard failures will need to be replaced with the three slot motherboard. The three slot motherboard gives no additional capability or improvement over the four slot motherboard. Use this service note when replacing a defective four slot motherboard.

**Parts Required:**

<b>P/N</b>	<b>Description</b>	<b>Qty.</b>
0960-2568	Three slot motherboard	1
54855-66515	PCI combo card	1
1400-2120	Filer panel	1
0515-0372	Screw	1
The below parts might also be required		
54855-68704	IDE HD replacement kit	1
54831-69524	Refurbished acquisition board	1

**ADMINISTRATIVE INFORMATION**

SERVICE NOTE CLASSIFICATION:	
<b>INFORMATION ONLY</b>	
AUTHOR: KO	PRODUCT LINE: 1A
ADDITIONAL INFORMATION:	

© AGILENT TECHNOLOGIES, INC. 2010  
PRINTED IN U.S.A.

July 27, 2010  
Rev. 17



**Situation:**

The stock of four slot motherboards is depleted and you need to replace the defective with a three-slot motherboard. You also have to replace the old PCI and GPIB cards with a combo card that has the PCI and GPIB functionality on one card. It is also possible you may have to replace the HD and the acquisition board.

**Solution/Action:**

1. Use the instructions in the service manual to remove the old motherboard.
2. Install the replacement 0960-2568 motherboard.
3. Install the old display cards from the defective motherboard.
4. Install the 54855-66515 combo card.
5. Install filler panel to cover vacant slot on the rear panel
6. Complete the installation of the remaining cables and screws used on the old motherboard.
7. Refer to the below to determine your situation.

- If your scope has windows 98, then you have to upgrade to Windows XP. Use the 54855-68704 HD recovery kit and follow the instructions supplied with the kit.

- If Windows does not boot up or you see a message about missing drivers, you need a fresh image of Windows XP which has the correct drivers for the motherboard and combo card. Use the 54855-68704 HD recovery kit and follow the instructions supplied with the kit. The drivers are part of the Windows XP installation and we do not have separate drivers to send you.

- If Windows XP boots up but the scope application does not boot, remove the combo card and replace with the old PCI card. The GPIB card is not required to get the scope to boot up. The scope application should boot normally now. This indicates you have an old acquisition board in your scope and you need to replace the acquisition board. Replace the acquisition board and install the combo card.

**Agilent service centers only**

Charge just the cost of replacing just the acquisition board to factory warranty. All other parts and labor are charged back to the customer unless the customer has a repair contract in place.

**Customers**

You either have to purchase a replacement acquisition board or send the scope back to an Agilent service center for them to replace the acquisition board under warranty.

8. Once you have Windows XP booting up and the scope application booting up, you can reinstall the PCI combo card and the covers. Warm up the scope for at least 20 minutes and perform the self cal in the utility menu.

9. Install any licenses you have for the scope. Licenses purchased with the scope should be listed on the rear panel of the scope. Licenses ordered after the scope purchase can be found at the [www.agilent.com/find/softwarelicenses](http://www.agilent.com/find/softwarelicenses). You will need your certificate to look up the license strings. If you have problems go to [www.agilent.com](http://www.agilent.com) and select contact us near the top of the page.