

MODIFICATION AVAILABLE – PERFORMANCE ENHANCEMENT  
CHARGEABLE TO CUSTOMER SERVICE / RELIABILITY  
ENHANCEMENT CHARGEABLE TO CONTRACT IF THERE IS ONE.

**86100C-04**

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

Supersedes:  
NONE

## 86100C Infiniium DCA-J Wide Bandwidth Oscilloscope

**Serial numbers: MY45031040 and below except MY45031048 & MY45031049**

**Serial numbers: SG45030118 and below**

**Add Diode Limiter to DCA trigger port to prevent A14 Counter Assembly electrical overstress damage.**

**To be installed during an A14 Counter Assembly replacement.**

**To Be Performed By: Agilent-Qualified Personnel or Customer**

**Parts Required:**

P/N	Description	Qty.
N9355-66002	Diode Limiter	1
86100-20082	Cable, SW2 to A15P1	1

### ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
<b>MODIFICATION AVAILABLE</b>		
ACTION CATEGORY:	X AGREEABLE TIME	PERFORMANCE ENHANCEMENT X SERVICE / RELIABILITY ENHANCEMENT
LOCATION CATEGORY:	CUSTOMER INSTALLABLE ON-SITE X SERVICE CENTER	AVAILABLE UNTIL: End of support.
AUTHOR: DL    PRODUCT LINE: 8F		
ADDITIONAL INFORMATION:		

© AGILENT TECHNOLOGIES, INC. 2006  
PRINTED IN U.S.A.



August 30, 2006

**Situation:**

The A14 Counter Assembly (86100C Option 001 only) is susceptible to electrical overstress through the DCA's front panel Trigger port. Adding the diode limiter to the input of the counter assembly will improve the reliability of the DCA.

We are recommending that the diode limiter be added only in the situation where the counter assembly has been damaged through electrical overstress. DCAs built after June 1, 2006 has the diode limiter installed at the factory.

**Solution/Action:**

During the A14 Counter Assembly replacement process, a new cable and limiter are installed.

Refer to the procedures in the 86100C Infiniium DCA Service Guide under "To Remove the A13 Acquisition and 86100C A14 Counter Assembly (Option 001)".

**Procedure:**

1. Once the A13 Acquisition Assembly and the A14 Counter Assembly are removed from the DCA chassis, position them as shown in the figures below. Remove the existing cable W31, part number 86100-20053, from the A14J2 INPUT and discard.

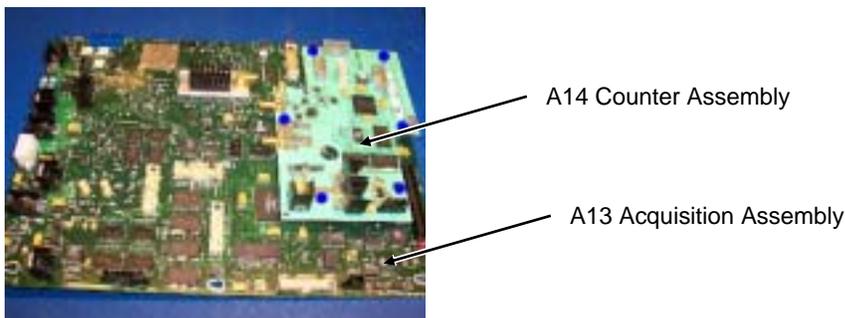


Figure 1, A14 Counter board Mounted on the A13 Acquisition Assembly

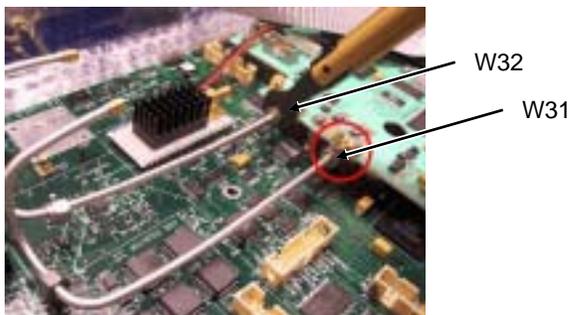
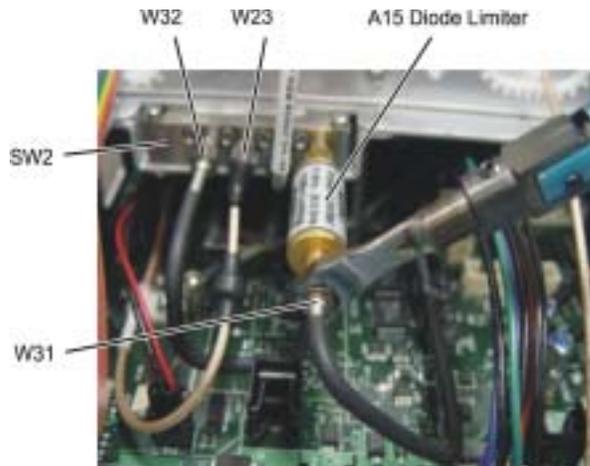


Figure 2, Cables W32 and W31 (circled)

2. Connect the new W31, part number 86100-20082, to A14J2 INPUT. The W32 cable remains connected to the A14J3 OUTPUT.
3. Install the A13 Acquisition Assembly and the A14 Counter Assembly into the DCA chassis.
4. Connect cable W32 (from A14J3) to SW2P1 as shown in Figure 3 below. Torque the 5/16" connector to 8 in-lbs.



**Figure 3, A15 Diode Limiter and SW2 Cable Connections**

5. Connect the A15 Diode Limiter to SW2P4 as shown in Figure 3 above. Torque the connector to 8 in-lbs using a 5/16" torque wrench.
  6. Locate W31 from A14J2 and connect it to the A15 diode limiter.
- NOTE:** When connected, do not allow W32 and W32 to touch the A13 Acquisition Assembly
7. Reinstall the instrument cover, calibration access plug, rear-panel feet, and side handles.
  8. Turn on the instrument, and allow it to warm up for 1 hour.
  9. Perform the timebase adjustment using the equipment and procedures outlined in the 86100A/B/C Service Guide.
  10. Be sure to perform verification procedures, including the Option 001 tests, which required the VISION test software and equipment. These tests cannot be done manually.
  11. This completes the retrofit of the diode limiter.