

MODIFICATION RECOMMENDED

**N6705A-03A**

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

Supersedes:  
N6705A-03

**N6705A DC Power Analyzer**

**Serial Numbers: MY47000111 / MY47000322  
SG47000101/SG47000124**

**Possible voltage may be present on the AC Input Filter Module**

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

**Parts Required:**

P/N	Description	Qty.
0757-0344	RESISTOR 1M .25W	1

**ADMINISTRATIVE INFORMATION**

SERVICE NOTE CLASSIFICATION:			
<b>MODIFICATION RECOMMENDED</b>			
ACTION CATEGORY:	X IMMEDIATELY <input type="checkbox"/> ON SPECIFIED FAILURE <input type="checkbox"/> AGREEABLE TIME	STANDARDS: LABOR: 1.5 Hours	
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE X ON-SITE X SERVICE CENTER	SERVICE INVENTORY: <input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP X SEE TEXT	USED PARTS: <input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP X SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	NO CHARGE AVAILABLE UNTIL: October 31 2009	
AUTHOR: WIU		PRODUCT LINE: SP	
ADDITIONAL INFORMATION:			

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**Situation:**

The N6705A unit is missing a 1Mohm bleeder resistor (P/N 0757-0344) on the AC Input Filter Module (P/N 9135-5209). This causes the capacitor in the AC Input Filter Module to hold any charge that it contains when the unit is turned off and unplugged.

**Solution/Action:**

A 1Mohm bleeder resistor will be soldered across the load terminals of the AC Input Filter Module, in order to discharge the capacitor after the unit is turned off.

**Testing Note**

After the updates described below have been completed turn on the unit and allow the instrument to complete self-test. This update will not affect the calibrating or performance specifications.



Disconnect the AC input to the instrument before doing this modification

**Electrostatic Discharge (ESD) Precautions**

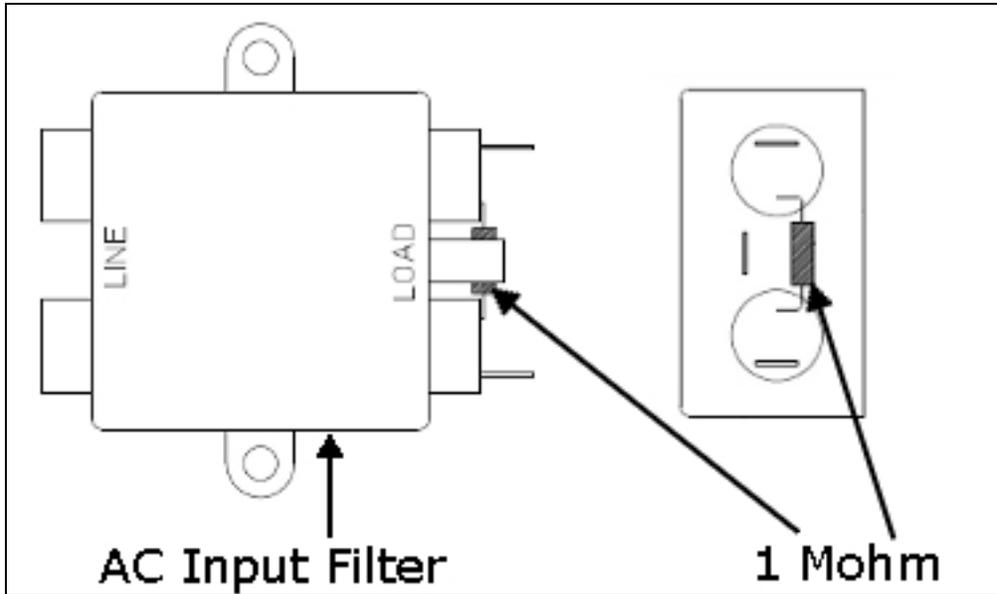
Electrical components can be damaged by electrostatic discharge (ESD) during handling. Component damage can occur at electrostatic discharge voltages as low as 50 volts. The following guidelines will help prevent ESD damage when servicing the instrument or any electronic device.

- Disassemble instruments *only* in a static-free work area.
- Use a conductive work area to reduce static charges.
- Use a conductive wrist strap to reduce static accumulation.
- Minimize handling.
- Keep replacement parts in original static-free packaging.
- Remove all plastic, foam, vinyl, paper, and other static-generating materials from the immediate work area.

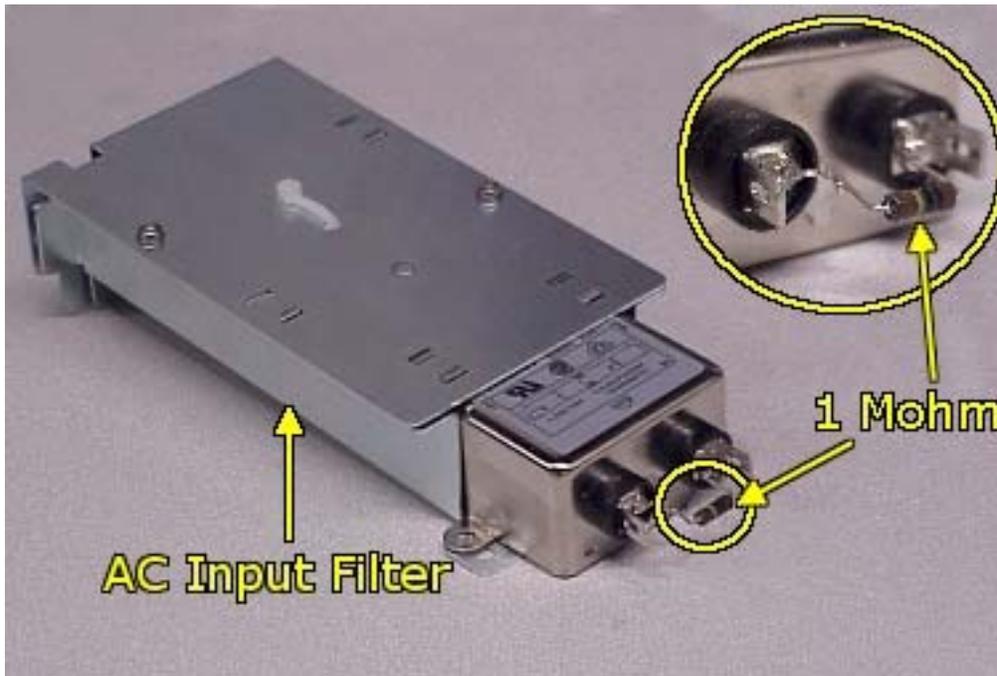
**Disassembly**

Follow the instructions on page 55-56 of the N6705A Service Manual to remove AC Input Filter Module

**Figure 1.** CAD drawing of the 1Mohm bleeder resistor across the load terminals of the AC Input Filter



**Figure 2.** Demonstration of soldering the 1Mohm bleeder resistor across the load terminals of the AC Input Filter Module



Begin by shorting the load terminals of the AC Input Filter Module to discharge the internal capacitor.



This test should NOT be done with the AC line voltage present.



Be careful not to place your finger across the load terminals, because the internal capacitor may still hold a charge.

Check the AC Input Filter to make sure that the LOAD terminals of the EMI filter are showing. If not disassemble the AC Input filter by removing the two T-10 screws on the top. Rotate the EMI filter until the LOAD terminals will be showing. Reassemble the AC Input Filter.

**Figure 3.** Demonstration of adjusting leads of the 1Mohm bleeder resistor



Adjust the leads of the 1Mohm bleeder resistor until it looks similar to **Figure 3**.



Make sure that the 1Mohm bleeder resistor will not obstruct the terminals on the AC Input Filter Module before soldering it.

Tin the leads of the 1Mohm bleeder resistor and the terminals of the AC Input Filter Module to make soldering easier.



Be careful not to overheat the terminals on the AC Input Filter Module. Too much heat may cause the surrounding plastic to melt.

After soldering the 1Mohm bleeder resistor your AC Input Filter Module should look similar to **Figure 2**. above.



Carefully inspect your solder. Make sure that there are no cold solders.

### Reassembly

Make sure that all other cables are fully inserted before reassembly. Follow the instructions on page 55-56 of the N6705A Service Manual to install the AC Input Filter Module.