



N4865A GPIB-to-LAN Adapter

Troubleshooting Guide

The following procedures should be followed when servicing the N4865A GPIB-to-LAN adapter.

If there are system failures present, follow the steps below to diagnose and fix the problem:

- Power on the oscilloscope and then the N4865A. Check the following for errors (NOTE: Wait at least 3 minutes after the oscilloscope application starts running before checking for these errors):
 - First, check the N4865A's ON/OFF switch to make sure it is set to **ON**.
 - Then check the power LED and make sure it is illuminated.
 - Make sure the USB port the power cable is plugged into is a USB 1.0 or 2.0 port and that it is not a low power USB port.

If power is being supplied and the switch is on, but no indicator light is illuminated then replace the N4865A unit.

- Check for connectivity problems
 - First, determine if the problem is in the LAN or GPIB communication by using the indicator lights on the N4865A. If the LAN communication is properly working then the LAN indicator should be solid green (cannot be blinking or off). If the GPIB communication is properly working then the RDY indicator should be solid green (cannot be blinking or off).
 - If the problem is with the LAN communication then:
 - Check the oscilloscope IP address settings.
 - Check the ICS IP address settings - The oscilloscope and ICS IP addresses must be in the same B range (169.254.XX.XX) unless the subnet mask was changed by the customer. The 7000 Series oscilloscopes can also be set to an AutoIP (not DHCP) address. To change the oscilloscope IP address, consult the Agilent N4865A Quick Start Guide. To change the N4865A IP address, consult the ICS 4865 User's Guide.
 - Check the indicator lights for cable connectivity.
 - If the problem is with the GPIB communication then:



- Check the GPIB addresses on the PC and the ICS unit.
- Check for cable problems
 - First, reseal all cables.
 - Then check for a damaged or incorrect cable.

If the problem still remains then perform the following problem isolation:

- Swap N4865A units, if possible
- Swap oscilloscopes, if possible

If the problem follows the oscilloscope, refer to the oscilloscope service procedures.

If the problem follows the converter, swap the cables if possible.

If the problem still follows the converter then escalate to ICS support (see below for contact information).

If there is a Remote Command or Data Failure, follow these corrective steps:

- If feasible, check the command with a GPIB-enabled oscilloscope.
 - If the remote command works on the GPIB-enabled oscilloscope then escalate to ICS (see below for contact information).
 - If the remote command does not work on the GPIB-enabled oscilloscope then refer to the oscilloscope's *Programmer Reference* to verify the command syntax.
- If you cannot check with a GPIB-enabled oscilloscope, first confirm that the command is accurate by referencing the oscilloscope's *Programmer Reference*. If the command is valid then escalate to ICS (see below for contact information).

ICS Service and Support Contact Information:

- phone: +1 925.416.1000 x2
- e-mail: ASupport@icselect.com

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Printed in USA, June 2009



Document part number: N4865-97000