
E2650A Ethernet Adapter

Installation Guide

The E2650A installation kit provides hardware and software for installing an Ethernet Adapter in Infiniium series oscilloscopes.

The Ethernet adapter enables data and setup files transfers and the use of network printers. The ethernet adapter supports most popular network operating systems including:

- Novell Netware
- Microsoft
- Banyan
- VINES
- SCO UNIX
- IBM

The ethernet adapter provides 10 Mbps operation and complies with IEEE 802.3 Ethernet and ISO/IEC 8802-3 Ethernet standards. The adapter is fully compatible with TCP/IP protocols.

The ethernet adapter card provides two terminations for connection to the local area network: RJ-45 and BNC. Only one connector may be used at a time.

This E2650A Installation Kit contains the following items:

Agilent Part Number	Description	Quantity
1150-2064	Ethernet adapter board	1
	Current version of Infiniium software upgrade	1 pouch
8710-1622	Torx Screwdriver (T-15)	1
E2610-68700	AT compatible keyboard	1
E2650-92001	This installation note	1

ESD Precautions

When using any of the procedures in this installation note you must use proper ESD precautions. As a minimum you must place the instrument on a properly grounded ESD mat and wear a properly grounded ESD wrist strap.

CAUTION

Failure to implement proper antistatic measures may result in damage to the instrument.

Tools Required

The following tools are required for these procedures.

- Torx driver T15 (one is provided with this kit)
- Torque driver, 2.3 Nm (21 in-lbs), Torx T15 drive

Equipment Required

The following equipment is required for these procedures:

- Keyboard (one is provided with this kit)
- Mouse (or similar pointing device)

CAUTION

Do not remove or replace any circuit board assemblies in this instrument while power is applied. The assemblies contain components which may be damaged if the assembly is removed or replaced while power is connected to the instrument.

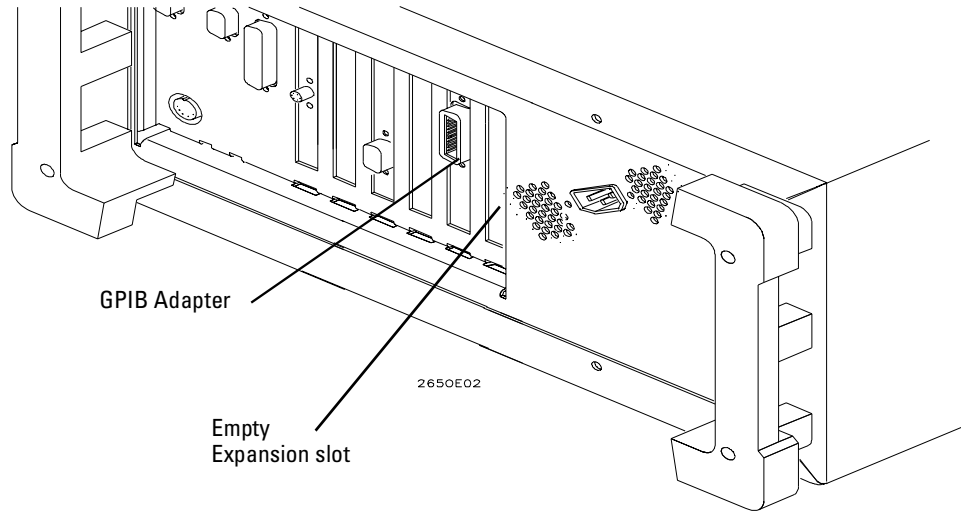
WARNING

SHOCK HAZARD! To avoid electrical shock, adhere closely to the following procedures. Also, after disconnecting the power cable, wait at least three minutes for the capacitors on the power supply and sweep boards to discharge before servicing this instrument. Hazardous voltages exist on the inverter for the display monitor.

Do You Need this Installation Kit?

This installation kit contains both a hardware and a software upgrade. To determine if your Infiniium oscilloscope has the LAN card installed:

- 1 With the power off, look at the back panel of the instrument.
- 2 The expansion slot next the GPIB adapter should be blank.



To verify the Infiniium software version:

- 1 Apply power and wait for the Infiniium main screen to appear.
- 2 Move the mouse pointer to the graphical interface enable button and click once.



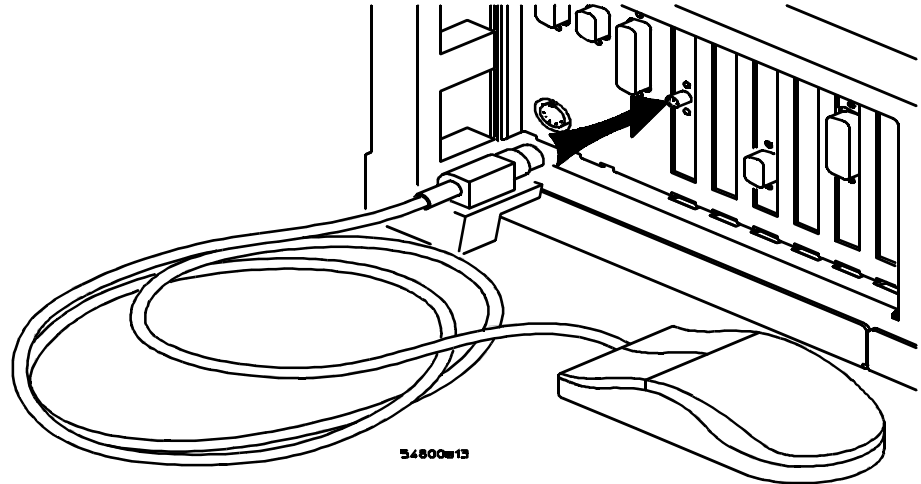
With the mouse pointer on the right hand button, click the mouse to enable the graphical interface

- 3 Move the mouse pointer to the Help menu and click once.
- 4 Choose About Infiniium... from the drop down list and click once.
- 5 Infiniium software upgrade required if the software revision number is 1.12 or lower.
- 6 Click Close.

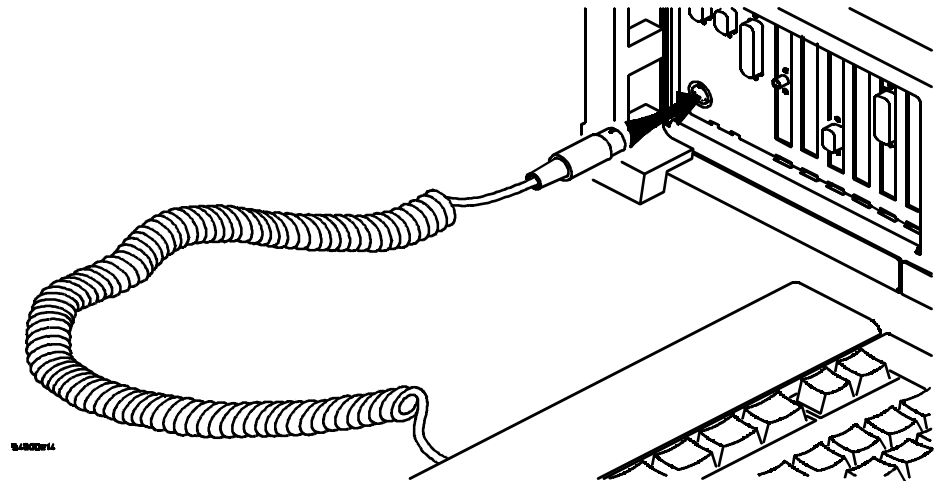
Prepare the Infiniium

To prepare the Infiniium:

- 1** Turn the instrument off and remove the power cable.
- 2** If not already installed, connect the mouse or other pointing device.



- 3** Connect the keyboard.



- 4** Re-install the power cable

Installation Procedure

There are four main steps to complete the LAN card installation:

- 1** Upgrade the Infiniium software.
- 2** Install the LAN card.
- 3** Allow the operating system to recognize the plug-n-play LAN card, install the LAN card drivers, and setup the initial network identification.
- 4** Connect the network to the LAN card and install or modify the network resources and drivers.

This installation note details steps 1 through 3. Steps 1 through 3 will take approximately 45 minutes to complete.

Step 4 is outlined but not described in this installation note. To successfully complete step 4 you will need mechanical connections, network drivers or software, and information from the network administrator.

To Upgrade the Infiniium Software

CAUTION

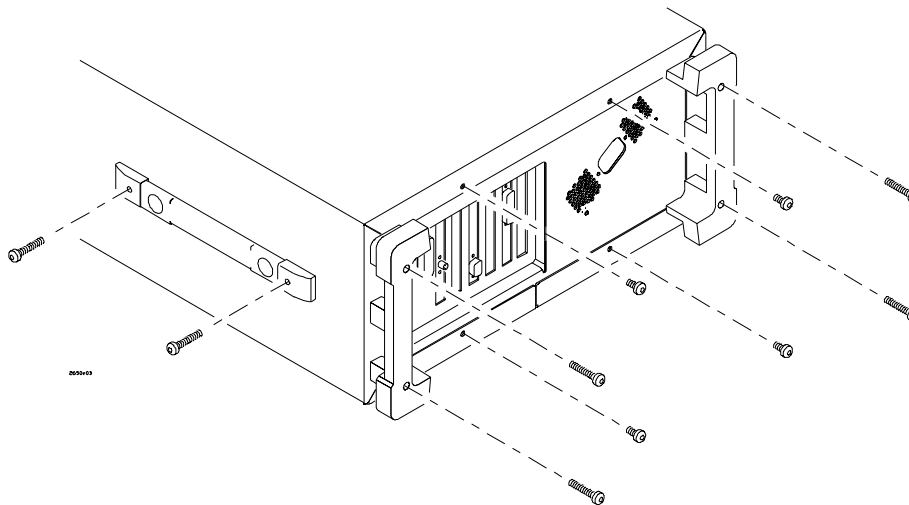
Be sure to follow this procedure to install the Infiniium software upgrade. DO NOT attempt to perform this upgrade using the Windows '95 interface.

- 1** Turn on the Infiniium oscilloscope and wait for the main screen to appear.
- 2** Enable the graphical interface (see page 3).
- 3** On the main menu, select Utilities, then Upgrade Software... from the drop down list.
- 4** Click the Start Upgrade button in the dialog box that appears.
- 5** Insert software upgrade disk number 1 in the floppy drive.
- 6** Follow the on-screen instructions, inserting additional disks as prompted.
- 7** When the last disk has been copied, a prompt appears with the instructions to remove the disk from the floppy drive and cycle power on the instrument. Click OK, remove the floppy disk and turn off the Infiniium.
- 8** Turn the Infiniium on. The message "Beginning System Upgrade" will appear as the system begins extracting and installing the new files.
- 9** When the new system installation is complete, verify the software version in Help>About Infiniium... (see page 3). The new version should be 2.0 or higher.
- 10** Click Close.

To install the LAN card

Use the following steps to remove the instrument cover and install the LAN adapter board.

- 1** Disconnect the power cable.
- 2** Disconnect all scope probes and BNC input cables from the front panel.
- 3** Disconnect any other cables, such as mouse, keyboard, printer, or GPIB cables.
- 4** Remove the two Torx T15 screws securing the side handle.
- 5** Remove the four Torx T15 screws that secure the rear feet (two in each foot).
- 6** Remove the four Torx T15 screws that secure the cover to the chassis.



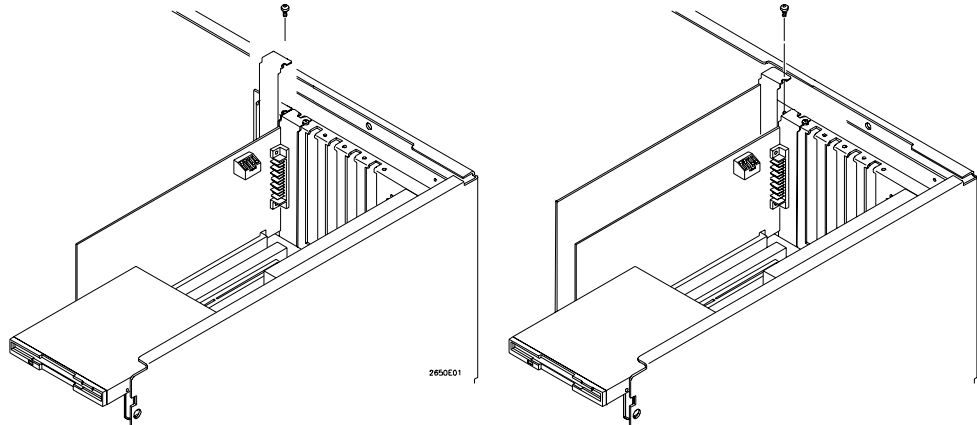
- 7** Set the instrument on its side. Carefully slide the cabinet off the frame by pulling the front panel and the cover away from each other.
- 8** Set the instrument upright. Remove the Torx T15 screw that secures the last expansion slot cover (the LAN interface board must be installed in the last slot, next to the GPIB interface board). Remove and discard the cover. Save the T-15 screw.

- 9 Insert the LAN interface board into the connector. Position the LAN interface board through the expansion hole in the rear panel and press down firmly to seat the board in the connector.

CAUTION

When installing the board, be careful not to snag the acquisition cable W11. You may unplug W11 to make installing the LAN interface board easier. Be sure to reconnect any cables you remove.

- 10 Install the Torx T15 screw to secure the LAN interface board to the rear panel.



- 11 Replace the instrument cover by reversing steps 4 through 7. Be sure to keep ribbon cables out of the way when replacing the cover, particularly the flex cable and connector for the AutoProbe assembly at the bottom front of the oscilloscope.

CAUTION

During replacement, tighten the side handle and rear feet screws to 2.3 Nm (21 in-lbs).

- 12 Replace the mouse, keyboard, printer, and GPIB cables. Replace the power cable.

CAUTION

DO NOT apply power with the instrument cover removed.

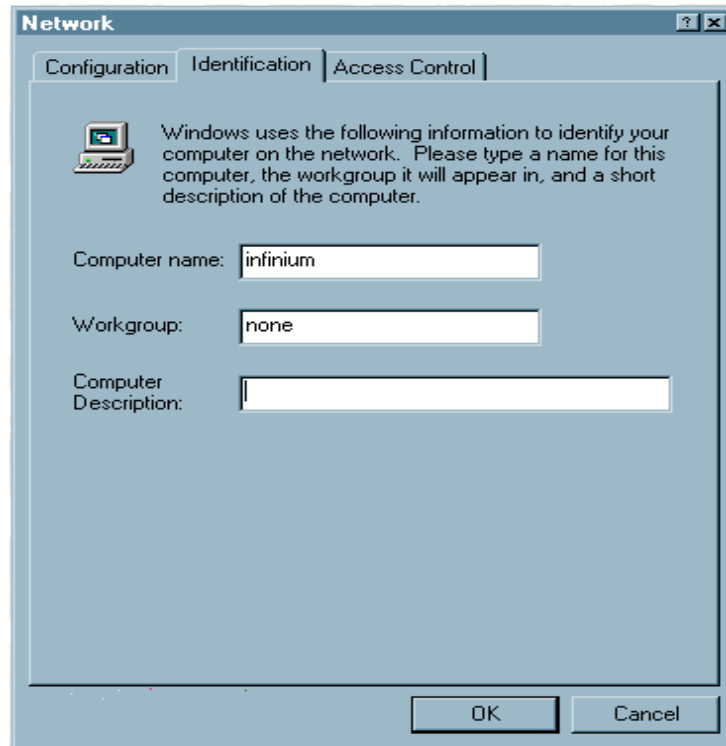
To Setup the Network Adapter

- 1** Turn on the Infiniium.
A message indicating “New Hardware Found”, followed by the message “Windows is installing new software for your hardware” will appear.
- 2** Once Windows ‘95 has installed the software, the message “You must provide computer and workgroup names that will identify this computer on the network” will appear. Click OK.
- 3** Provide a computer name and workgroup name in the screen that appears.

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To Setup the Network Adapter

To complete this procedure set the computer name to Infinium and the workgroup name to None.



Note

If you know the computer name and workgroup where the Infinium will be used, you may enter them in this screen.

- 4 Once the names are entered, click OK.
- 5 A dialog box will appear asking if you wish to restart the computer. Click Yes.
- 6 Wait for the computer to restart. A dialog box asking for a user name and password will appear, click Cancel and the Infinium application will start.

To Verify the LAN Card Installation

- 1** Turn on the Infiniium.
- 2** When asked for the network user name and password, click Cancel. Verify the Infiniium application starts.
- 3** Turn on the graphical user interface (see page 3).
- 4** Press the control and the escape keys (CTRL-ESC) on the keyboard at the same time. The Windows '95 Start menu will appear.
- 5** With the mouse pointer, highlight Settings... in the Start menu and then click on Control Panel.
- 6** In the control panel window, select and double click the System icon to open the System Properties dialog box.
- 7** Select Device Manager and View Devices by Type.
- 8** In the list of devices, click on the + next to Network adapters to show the adapter installed.
- 9** With Infiniium Network Interface Card highlighted, click Properties to show the Infiniium Network Interface Card Properties dialog box.
- 10** Select General and verify the Device Status box contains the phrase "This device is working properly."
- 11** Click OK to close the Infiniium Network Interface Card Properties dialog box. Click Cancel to close the System Properties dialog box. Close the Control Panel.

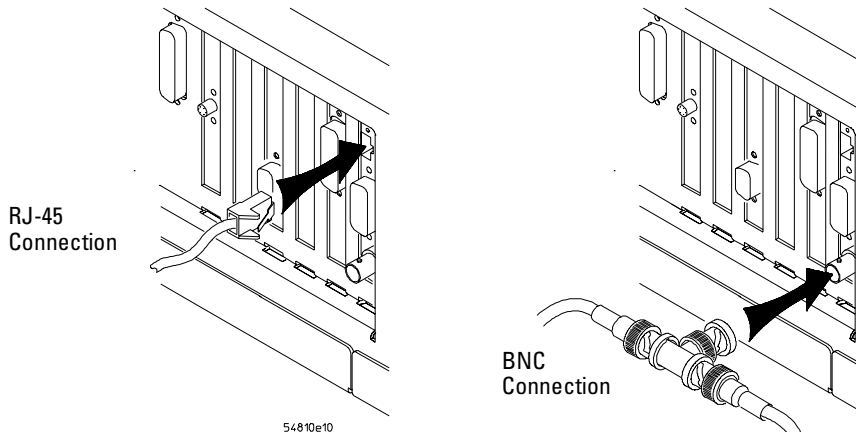
What to do Next

You have completed the Infiniium software upgrade and LAN adapter installation. To successfully complete the network installation you will need mechanical connections, network drivers or software, and information from the network administrator. These steps are outlined on the next two pages. Detach the following pages and provide them to the network administrator.

To Install the Infiniium on the Network

The following steps will guide you through the network installation process.

- 1 Make the electrical connections to your network. Connect your LAN cable to one of the connectors on the LAN card. Make sure the connection is secure. Two connections are possible on the LAN card: the RJ-45 connection and a BNC connection.



- 2 Turn on the Infiniium.
The Infiniium should have a mouse or other pointing device installed.
- 3 A dialog box asking for a user name and password will appear, click Cancel and the Infiniium application will start.
- 4 Move the mouse pointer to the graphical interface enable button and click once.



With the mouse pointer on the right hand button, click the mouse to enable the graphical interface

- 5 Press the control and the escape keys (CTRL-ESC) on the keyboard at the same time. The Windows '95 Start menu will appear.
- 6 With the mouse pointer, highlight Settings... in the Start menu and then click on Control Panel.

- 7** In the control panel window, select and double click the Network icon to open the Network dialog box.
- 8** In the Network dialog box, select Configuration. Use Add and Remove to install network clients and protocols.

By default, the following components are installed:

- Client for Microsoft Networks
- Client for Netware Networks
- Infiniium Network Interface Card
- IPX/SPX - compatible Protocol
- NetBEUI

You may need to provide appropriate network driver disks to install your network components. In general, you should remove components that your network will not use.

- 9** Set the appropriate Primary Network Logon and File and Printer Sharing options.
- 10** Select Identification and enter a computer name, workgroup name, and computer description.

By default the computer name is set to Infiniium and the workgroup is set to none.
- 11** Close the Network dialog box and verify the network functions as expected.

Note

To prevent Windows '95 from displaying the password dialog box when power is applied to the Infiniium:

In the Control Panel, select and double click Passwords. In the Password Properties dialog box, select User profiles and set "All user of this PC use the same preferences and desktop settings." Close the dialog box.

In the Control Panel, select and double click Network. In the Network dialog box, select Configuration and set the Primary Network Logon to "Windows Logon". Close the dialog box.



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