HP 81200 System Installation Guide

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Documentation History

All Editions and Updates of this manual and their creation date are listed below. The first Edition of the manual is Edition 1. The Edition number increments by 1 whenever the manual is revised. New Editions are complete revisions of the guide reflecting alterations in the functionality of the instrument. Updates are occasionally made to the guide between editions.

Edition 1.1	July 1998	related to HP E4873A Software Version 1.10 or higher
		Literature Number: E4849-91012
Edition 2	April 1999	related to HP E4873A Software Version 2.00 or higher
		Literature Number: E4849-91013

On-line Information

Please check the following Internet address on a regular base for additional information or updates:

http://www.hp.com/go/dvt

and

http://www.hp.com/go/hp81200_support

General Safety and Warranty Information

Notice

Copyright

Warranty

The information contained in this document is subject to change without notice.
Hewlett-Packard makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties or merchantability and fitness for a particular purpose.
Hewlett-Packard shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

Safety

This is a Safety Class 1 instrument (provided with terminal for protective earthing). Before applying power, verify that the correct safety precautions are taken (see the following warnings). In addition, note the external markings on the instrument that are described under **Safety Symbols**. Do not operate the instrument with its covers removed. Replace fuse only with specified type.

Warning

Before turning on the instrument, you must connect the protective earth terminal of the instrument to the protective earth conductor of the (mains) power cord. The mains plug must only be inserted in a socket outlet with a protective earth contact. Do not negate the protective action by using an extension power cord without a protective grounding conductor. Grounding one conductor of a two-conductor outlet is not sufficient protection**.**

Service instructions are for trained service personnel. To avoid dangerous electric shock, do not perform any service unless qualified to do so. Do not attempt internal service or adjustment unless another person, capable of rendering first aid and resuscitation, is present.

If you energize this instrument using an auto-transformer (for voltage reduction) make sure that the common terminal is connected to the earth terminal of the power source.

Whenever it is likely that the ground protection is impaired, you must make the instrument inoperative and secure it against any unintended operation.

Do not operate the instrument in the presence of flammable gases or fumes. Operation of any electrical instrument in such an environment constitutes a definite safety hazard.

Do not install substitute parts or perform any unauthorized modification to the instrument.

Capacitors inside the instrument may retain a charge even if the instrument is disconnected from its source of supply.

Safety Symbols

The instrument is marked with this symbol when it is necessary for you to refer to the instruction manual in order to avoid the hazard of electric shock.

The instrument is marked with this symbol when it is necessary for you to refer to the instruction manual in order to protect against external voltage to the instrument.

The instrument is marked with this symbol when it is necessary for you to refer to the instruction manual in order to protect against electrostatic discharge to the instrument.

Protected conductor symbol

WARNING
The Warning symbol calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in personal injury or loss of life. Do not proceed beyond a Warning symbol until the indicated conditions are fully understood and met.

CAUTION
The Caution symbol calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the equipment. Do not proceed beyond a Caution symbol until the indicated conditions are fully understood and met.

Notice Continued

Warranty

This Hewlett-Packard product has a warranty against defects in material and workmanship for a period of three year from date of shipment. During the warranty period, Hewlett-Packard Company will, at its option, either repair or replace products that prove to be defective.

For warranty service or repair, this product must be returned to a service facility designated by Hewlett-Packard. The Buyer shall pay Hewlett-Packard's round-trip travel expenses.

For products returned to Hewlett-Packard for warranty service, the Buyer shall prepay shipping charges to Hewlett-Packard and Hewlett-Packard shall pay shipping charges to return the product to the Buyer. However, the Buyer shall pay all shipping charges, duties and taxes for products returned to Hewlett-Packard from another country.

Hewlett-Packard warrants that its software and firmware designated by Hewlett-Packard for use with an instrument will execute its programming instructions when properly installed on that instrument.
Hewlett-Packard does not warrant that the operation of the instrument software, or firmware, will be uninterrupted or error free.

Limitation of Warranty

The foregoing warranty shall not apply to defects resulting from improper or inadequate maintenance by the Buyer, Buyer-supplied software or interfacing, unauthorized modification or misuse, operation outside of the environmental specifications for the product, or improper site preparation or maintenance.

No other warranty is expressed or implied. Hewlett-Packard specifically disclaims the implied warranties of merchantability and fitness for a particular purpose.

Exclusive Remedies

The remedies supplied are the Buyer's sole and exclusive remedies. Hewlett-Packard shall not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort or any other legal theory.

Assistance

Product maintenance agreements and other customer assistance agreements are available for Hewlett-Packard products.
For any assistance, contact your nearest Hewlett-Packard Sales Office.

Certification

Hewlett-Packard Company certifies that this product met its published specifications at the time of shipment. Hewlett-Packard further certifies that its calibration measurements are traceable to the United States Institute of Standards and Technology, to the extent allowed by the Institute's calibrating facility, and to the calibration facilities of other International Standards Organization members.

End-User License Agreement

1) The HP 81200 System contains intellectual property, i.e. software programs, that is licensed for the end-user, customer's use (hereinafter "End-User").

2) This is not a sale of such intellectual property.

3) The End-User shall not copy, disassemble, reverse engineer, or decompile the software program.

4) The Microsoft software programs are provided to the End-User as is "without warranty of any kind, either expressed or implied, including but not limited to, warranties or non-infringent, merchantability, and/or fitness for particular purpose. The entire risk of the quality and performance of the software program is with you.".

5) Hewlett-Packard's suppliers shall not be held to any liability for any damages suffered or injured by the End-User (including, but not limited to, general, special, consequential or incidental damages including damages for loss of business profits, business interruption, loss of business information and the like), arising from or in conjunction with the delivery, use or performance of the software program.

Chapter 1 Getting Started

This Installation Guide should guide you through a set of steps to identify, install and configure your HP 81200 System or any component of this system.

The HP 81200 is a modular platform consisting of front-ends, modules, mainframes and user interfaces which can be tailored to your specific test needs and how you want to integrate the HP 81200 into your test environment. In general two different fundamental possibilities in configuring the system are provided:

1. The HP 81200 can be used as a proprietary system means that you cannot combine it with other VXI modules in one system. It can be controlled by a LAN or HPIB interface.

   Typically that system is factory pre-installed and only a small amount of activities is required to get this system up and running.

2. The modules of the HP 81200 system can be combined with other VXI modules to build an open VXI system.

   Due to the flexibility of that solution a different set of activities must be done to integrate these modules into a new or existing VXI system. In addition during system installation you must take care of the other system components building up your complete test system. Therefore please use the manuals coming with the other system components in addition to this one.

This guide is addressing:

- the installation procedure for both system combinations
- the software installation procedure for not factory pre-installed systems
- the software update procedure from a previous version
- required system modifications like adding printers or network connections

As soon as the user interface is running you should switch to on-line help or on-line documentation.

Steps to Get Started

Initial Inspection

When you receive your HP 81200 system inspect the container and its contents.

NOTE: If the contents are incomplete, if there is mechanical damage or if the instrument does not pass the selftest, notify your nearest Hewlett-Packard office. Keep the shipping materials for inspection by the carrier. The HP office will arrange for repair or replacement without awaiting settlement.

1 Inspect the shipping container and its contents for damage.

If the container or cushioning material is damaged, keep it until the contents of shipment have been checked for completeness and the instrument has been verified both mechanically and electrically.

WARNING **To avoid the hazard of electric shock, do not perform electrical tests when there are signs of shipping damage to any of the instrument's outer covers or panels.**

2 Check the contents of shipment.

NOTE: See the packing list which accompanied your system for exact details.

Determine Your System

Please use the box content list to determine your system configuration, than follow the setting up instructions provided for that system type.

Factory pre-installed as a proprietary system, the HP 81200 System has the following major configurations

- Based on the 3-slot small mainframe HP E4840A, see setup instructions *"Setting up an HP 81200 System based on HP E4840A Small Mainframe" on page 18*
- Based on the 10-slot mainframe HP E4849A/B, see setup instructions *"Setting up an HP 81200 System based on HP E4849A/B Mainframe" on page 22*
- Based on the mainframe HP E4849A/B and extender frame HP E4848A/B, see setup instructions *"Setting up an Extended HP 81200 System based on HP E4849A/B and HP E4848A/B Mainframes" on page 26*

  An extended HP 81200 system includes up to two HP E4848A/B Expander Frames, each equipped with an MXI/VXI Interface Card HP E1482B. Each Expander Frame has 12 free slots.

  The HP E4849A/B mainframe includes also an HP E1482A MXI/VXI Interface card, so there are 9 free slots.

If the HP 81200 System components are ordered to be used in an open VXI system your shipment may contain:

- at least on clock module, either an HP E4805A Central Clock Module or the HP E4831A Clock & Data Module.
- a number of HP E4841A Data Generator & Analyzer Modules equipped with the ordered front-ends.

- the HP E4873A HP 81200 User Software on CD-ROM

  To install modules and User Software into a new or existing test system, see ***"Setting up an Open VXI System" on page 39***

Additional Information

On-line Help

As soon as the HP 81200 User Software is installed, you can access on-line help via the HELP buttons or by pressing F1.

On-line Documentation

Via the on-line help system you can also launch several guides stored on your system. These guides are displayed using the Acrobat Reader also coming with this system. You can print the whole guide or just the required part using the Acrobat Reader's printing features:

- The User Guide provides a system introduction and how to use the features and functions.
- The Programming Reference gives an programming overview and a complete reference to SCPI commands for remote control of the instrument.
- The System Specification summarizes the specification for all components available for the HP 81200 System.

To verify the warranted performance of this system a Performance Verification Procedure is provide at:

drive:\HP81200\Dsr\Doc\perf_ver.pdf

Use the Acrobat Reader installed on your system to open and view this file.

If you are not familiar in using and configuring VXI systems and you would like to learn how to get started with VXI, we recommend to download the newest version of the "*Getting Started with VXI Guide*" from the Web available at:

www.tmo.hp.com/tmo/support/English/VXI_getting_started.html

World Wide Web

For latest information, frequently asked questions and related documentation, please check the following URL:

www.hp.com/go/hp81200_support

Chapter 2 Setting up a proprietary System

As the HP 81200 System is a very modular system which can be tailored to specific application needs, but offers the possibility to be upgraded for future requirements, there are mainly three pre-installed system configurations possible to order.

The initial setup of these HP 81200 System configuration is easy because the system is supplied fully hardware and software installed. Only some additional connections to peripherals or to interconnect the frames of an extended system need to be done.

NOTE: Large system configurations have higher power consumptions, so please make sure that the overall system power requirements can be satisfied and is present at the place where the system has to be installed.

For the next steps, please select from the following list the system configuration you have ordered and received, then go to the section mentioned and perform the steps to set up the HP 81200 System from the components you have received.

The HP 81200 System has the following major configurations

- Based on the 3-slot small mainframe HP E4840A, see setup instructions *"Setting up an HP 81200 System based on HP E4840A Small Mainframe" on page 18*
- Based on the 10-slot mainframe HP E4849A/B, see setup instructions *"Setting up an HP 81200 System based on HP E4849A/B Mainframe" on page 22*
- Based on the mainframe HP E4849A/B and extender frame HP E4848A/B, see setup instructions *"Setting up an Extended HP 81200 System based on HP E4849A/B and HP E4848A/B Mainframes" on page 26*

  An extended HP 81200 system includes up to two HP E4848A/B Expander Frames, each equipped with an MXI/VXI Interface Card HP E1482B. Each Expander Frame has 12 free slots.

  The HP E4849A/B mainframe includes also an HP E1482A MXI/VXI Interface card, so there are 9 free slots.

The Small and Economical System Configuration

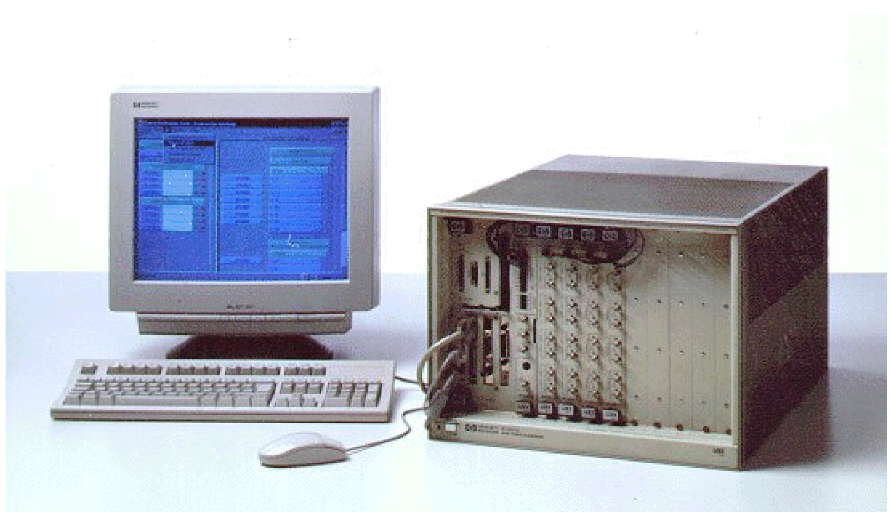
If you have received a small mainframe like the following, then go to *"Setting up an HP 81200 System based on HP E4840A Small Mainframe" on page 18*

Figure 1 **Small and Economical System Configuration**

The Medium System Configuration

If you have received one 13-slot mainframe like the following, then go to *"Setting up an HP 81200 System based on HP E4849A/B Mainframe" on page 22*

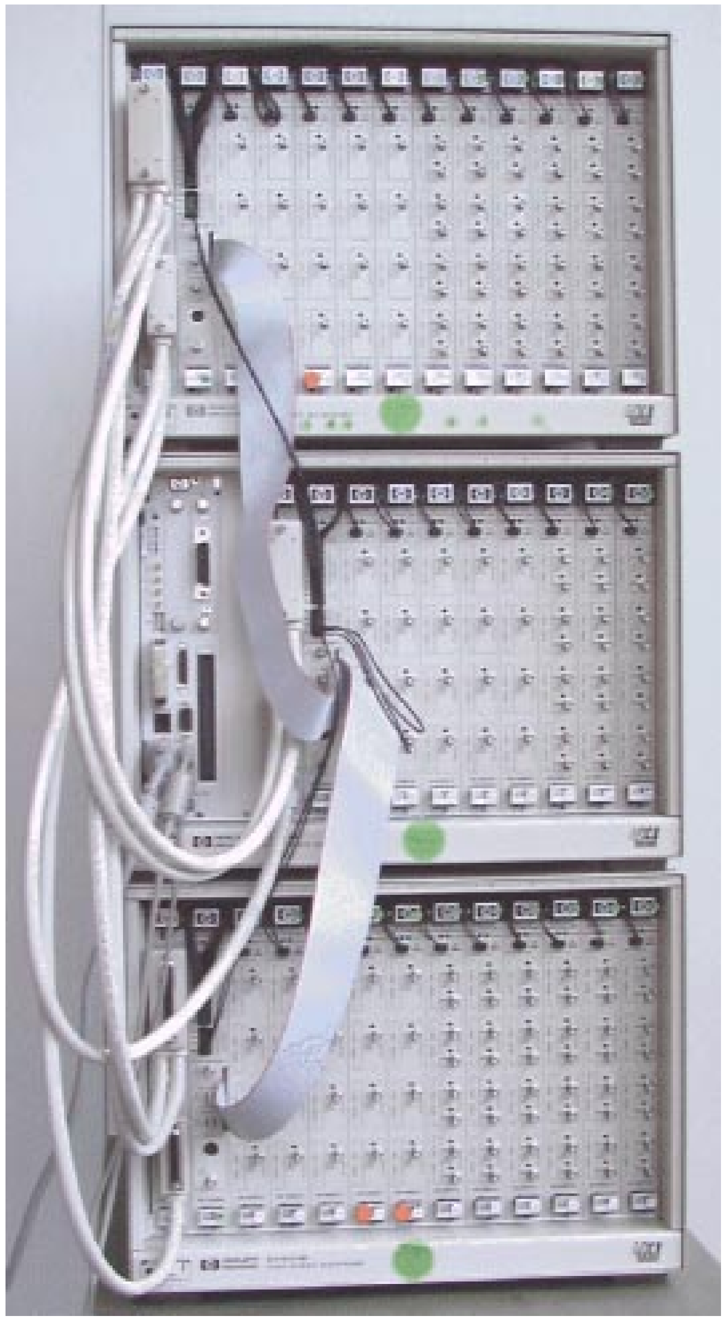
Figure 2 **Medium System Configuration**



The Extended System Configuration

If you have received two or three 13-slot mainframes like the following, then go to *"Setting up an Extended HP 81200 System based on HP E4849A/B and HP E4848A/B Mainframes" on page 26*

Figure 3 **Extended System Configuration**



Setting up an HP 81200 System based on HP E4840A Small Mainframe

The HP 81200 System consists of the bundled HP E4840A small mainframe. The HP E4840A is a 3-slot frame with built-in Pentium Processor, 32 MB RAM, 3.5” disk drive, Windows NT 4.0, HP E4873A user software, and HP SICL installed. An installation guide is also part of the shipment (you are actually reading it).

In addition there is in minimum one module installed, the HP E4831A, the Clock and Data Generator module.

It is possible to add up to two HP E4841A modules to this systems.

Figure 4 **A typical HP 81200 System based on HP E4849A/B Mainframe including Option 001, Display and Entry Panel**

WARNING **The HP HP 81200 System is not designed for outdoor use. Do not expose the HP 81200 System to rain or other excessive moisture. Protect the HP 81200 System from humidity and temperature changes which could cause condensation within the instrument.**

The systems comes along with all cable connections possible to do at the factory. Nevertheless it is recommended to check these connections as they can get loose during transportation

1. Check that all generator/analyzer modules are connected to the clock module by the clock distribution cable, HP part number E4805-61601.

Connecting external peripherals

For displaying and data entry with the HP E4840A based systems it is possible to connect either an optional available display and entry panel (Option 001), or a monitor, keyboard and mouse

A. Connecting the Option 001, Display and Entry Panel

On the Display and Entry Panel there are three cables. One cable has the label “Keyboard’, another cable has the label “Touchpad”, and the third cable is the display cable.

1. Connect the cable with the label “Keyboard” to the connector on the front panel of the mainframe with the keyboard symbol

2. Connect the cable with the label “Touchpad” to the connector on the front panel of the mainframe with the mouse symbol.
3. The third cable has to be connected to the connector named “DISPLAY & ENTRY” on the front panel.

Figure 5 **Option 001 Connections on the Front Panel**

Figure 6 **Option 001 connected to a standard HP E4840A small mainframe**

B. Connecting a monitor, keyboard and mouse to the system

If you have not ordered a display and entry panel (option #001), the following devices are required

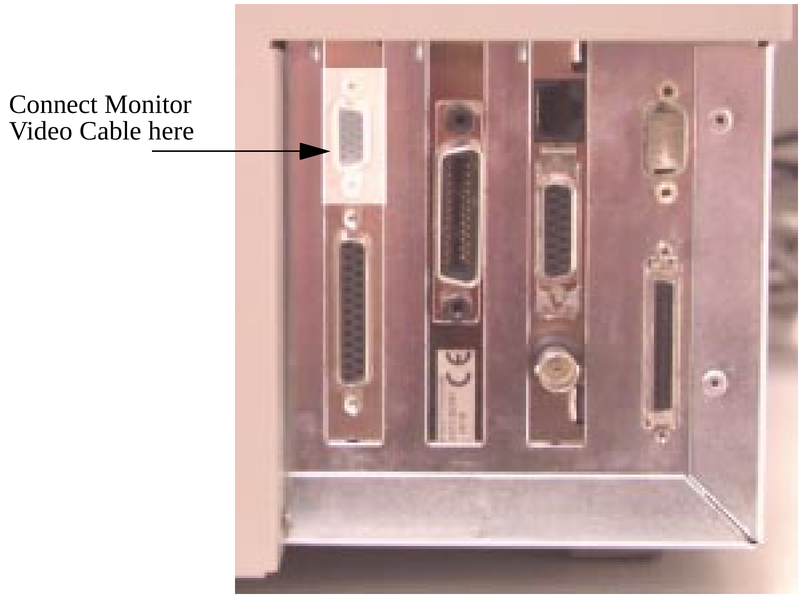
- Super VGA monitor
- Keyboard with PS2 connector.
- Mouse with PS2 connector.

NOTE: Monitor, Keyboard and Mouse are not supplied as part of the HP 81200 Data Generator and Analyzer System.

1. Connect the video cable of the monitor to the video in connector of the mainframe, this connector is on the right-side of the mainframe
2. Connect the keyboard cable to the connector with the keyboard symbol on the mainframe front panel
3. Connect the mouse cable to the connector with the mouse symbol on the mainframe front panel.

Figure 7 **Mouse and Keyboard to connect on the Front Panel of the HP E4840A Small Mainframe**

Figure 8 **Monitor to connect at the right side of the HP E4840A Small Mainframe**



Apply AC Line Voltage to the HP 81200 System

Connect the power cord delivered to the line in connector at the rear panel of the mainframe. Connect the other end of the power cord to an AC Line Voltage outlet which provides the required power.

Next Step

After making all the required connections the system can be started, go to *“Start the System” on page 45*

Setting up an HP 81200 System based on HP E4849A/B Mainframe

The HP 81200 System consists of the bundled HP E4849A/B mainframe. The HP E4849A/B consists of a 13-slot frame HP E1401B. an embedded Pentium Processor with min 64 MB RAM and 3.5” disk drive and with Windows NT 4.0, HP E4873A user software, HP SICL installed. An installation guide is also part of the shipment (you are actually reading it).

In addition there is in minimum one module installed, the HP E4831A, the Clock and Data Generator module.

It is possible to add up to nine HP E4841A modules to this systems.

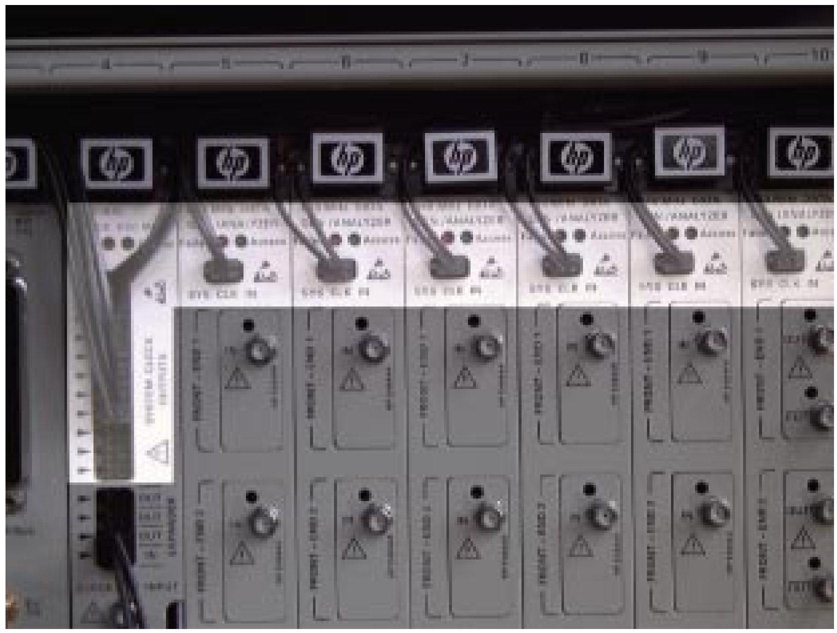
To have a maximum of nine HP E4841A modules working in this mainframe it is necessary to have the HP E4805A Central Clock module instead of the HP E4831A Clock and Data Generator Module.

Figure 9 **A typical HP 81200 System based on HP E4849A/B Mainframe**

WARNING **The HP HP 81200 System is not designed for outdoor use. Do not expose the HP 81200 System to rain or other excessive moisture. Protect the HP 81200 System from humidity and temperature changes which could cause condensation within the instrument.**

1. Check that all generator/analyzer modules are connected to the clock module by a clock distribution cable, HP part number E4805-61601.

Figure 10 **Check whether all modules are connected to clock module**



Connecting external peripherals

For displaying and data entry with the HP E4849A/B based systems it is possible to connect either an optional available display and entry panel (Option 001), or a monitor, keyboard and mouse

A. Connecting the Option 001, Display and Entry Panel

On the Display and Entry Panel there are three cables. One cable has the label “Keyboard’, another cable has the label “Touchpad”, and the third cable is the display cable.

1. Connect the cable with the label “Keyboard” to the connector on the front panel of the mainframe with the keyboard symbol
2. Connect the cable with the label “Touchpad” to the connector on the front panel of the mainframe with the mouse symbol.
3. The third cable has to be connected to the connector named “HP 81200 DISPLAY” on the front panel.

Figure 11 **Option 001 Connections on the Front Panel of the 3-slot Controller**

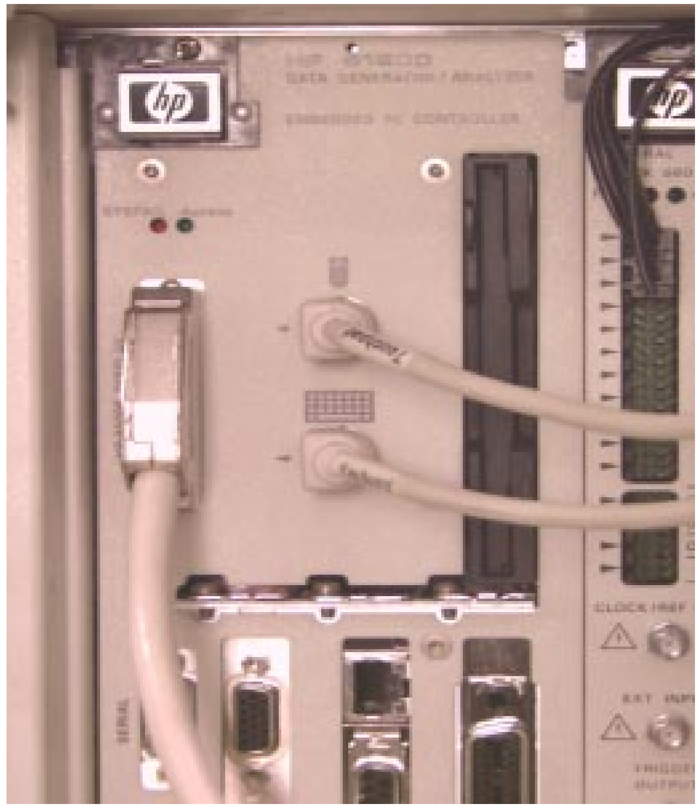


Figure 12 **Option 001 connected to a standard HP E4840A small mainframe**

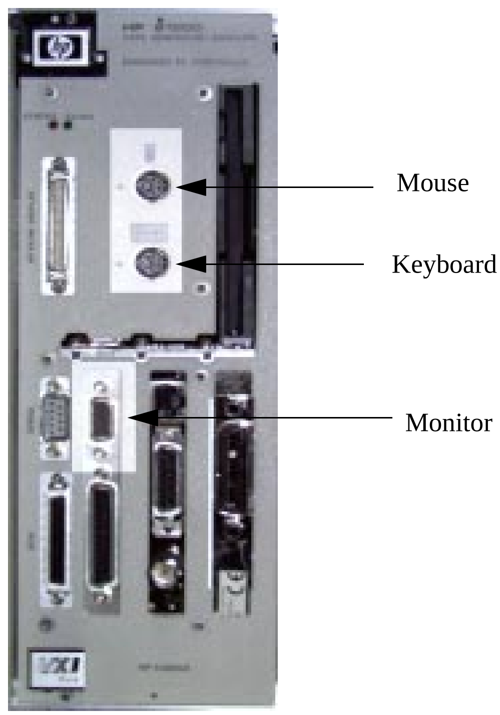
B. Connecting a monitor, keyboard and mouse to the system

If you have not ordered a display and entry panel (option #001), the following devices are required

- Super VGA monitor
- Keyboard with PS2 connector.
- Mouse with PS2 connector.

NOTE: Monitor, Keyboard and Mouse are not supplied as part of the HP 81200 Data Generator and Analyzer System.

Figure 13 **Monitor, keyboard and mouse to connect to a standard HP E4849A/B mainframe**



Apply AC Line Voltage to the HP 81200 System

1. Check that the mainframe is set to the appropriate voltage range, required in your country. The voltage range selector is located at the rear panel. Usually the mainframes leave the factory prepared for the correct voltage range for the country of destination.
2. Connect all mainframes and all peripherals which require line voltage to the ac line voltage. Connect the power cord delivered to the line in connector at the rear panel of the mainframe. Connect the other end of the power cord to an AC Line Voltage outlet which provides the required power.

Next Step

After making all the required connections the system can be started, go to *“Start the System” on page 45*

Setting up an Extended HP 81200 System based on HP E4849A/B and HP E4848A/B Mainframes

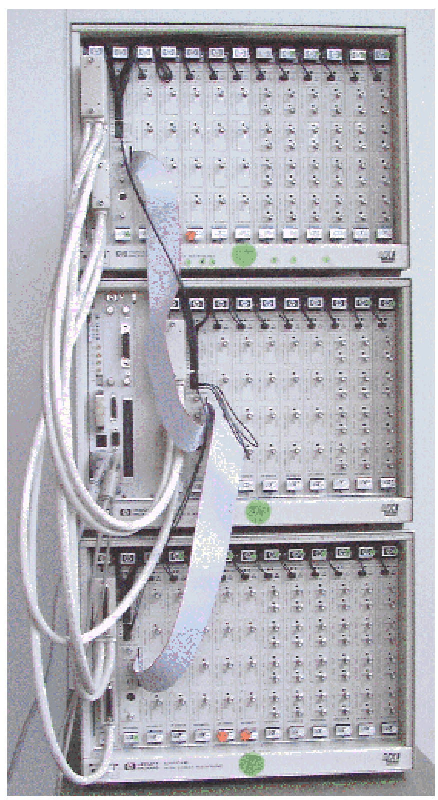
An extended HP 81200 System consists of one HP E4849A/B mainframe and up to two HP E4848A/B extender mainframes.

The HP E4849A/B consists of is a 13-slot frame HP E1401B and an embedded Pentium PC, with 64 MB RAM, and 3.5” disk drive, with Windows NT 4.0, HP E4873A user software, HP SICL installed. An installation guide is also part of the shipment (you are actually reading it).

Each of the HP E4848A/B and HP E4849A/B mainframes contain one HP E1482A MXI Interface card and one HP E4805A Central Clock module.

So, it is possible to add up to eight HP E4841A modules in the HP E4849A/B mainframe, and up to eleven HP E4841A modules in each of the extender frames to this systems.

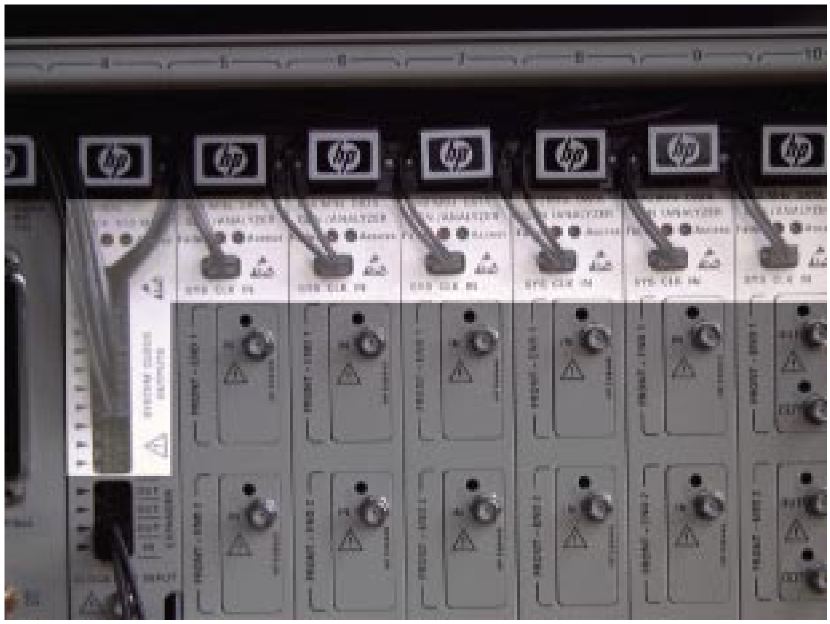
Figure 14 **A typical Extended HP 81200 System based on HP E4849A/B Mainframe and two Extender Frames**



WARNING **The HP HP 81200 System is not designed for outdoor use. Do not expose the HP 81200 System to rain or other excessive moisture. Protect the HP 81200 System from humidity and temperature changes which could cause condensation within the instrument.**

1. Check that all generator/analyzer modules are connected to the clock module by a clock distribution cable, HP part number E4805-61601.

Figure 15 **Check Clock Cable Connections in all Mainframes**



Connecting external peripherals

It is recommended to use monitor, keyboard and mouse with the extended system only.

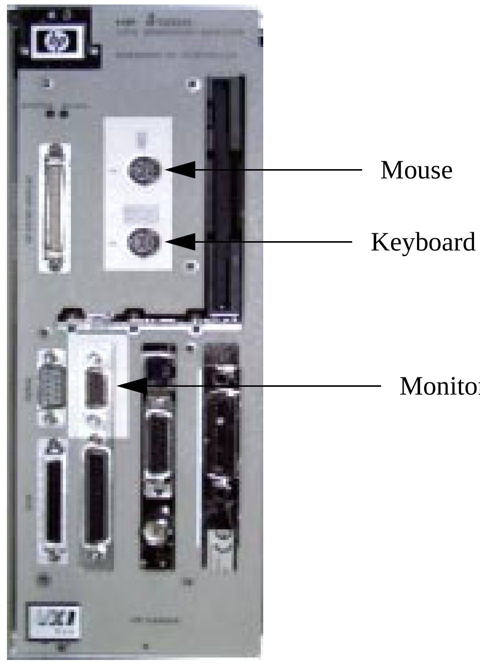
Connecting a monitor, keyboard and mouse to the system

If you have not ordered a display and entry panel (option #001),the following devices are required

- Super VGA monitor
- Keyboard with PS2 connector.
- Mouse with PS2 connector.

NOTE: Monitor, Keyboard and Mouse are not standard deliveries to the HP 81200 Data Generator and Analyzer System. But are available as options.

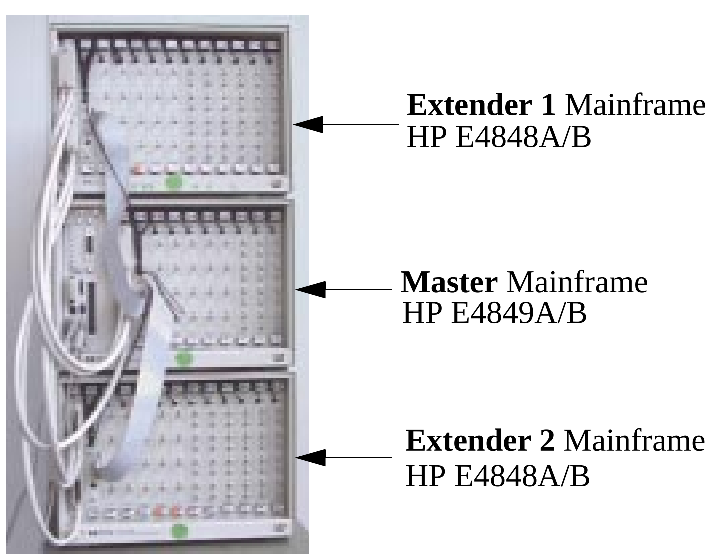
Figure 16 **Peripherals to connect to the HP E4849A/B Master Mainframe's Embedded Controller**



MXI/VXI and INTX Interconnection

Each of the mainframes is equipped with an HP E1482A MXI Interface Card. Use the delivered MXI cables to connect from one HP E1482A card in one mainframe to the other HP E1482A card in the other mainframe. Up to two additional mainframes can be connected.

Figure 17 **Recommended Positioning of Master and Slave Mainframes in a typical Extended HP 81200 System based on HP E4849A/B Mainframe and two Extender Frames**



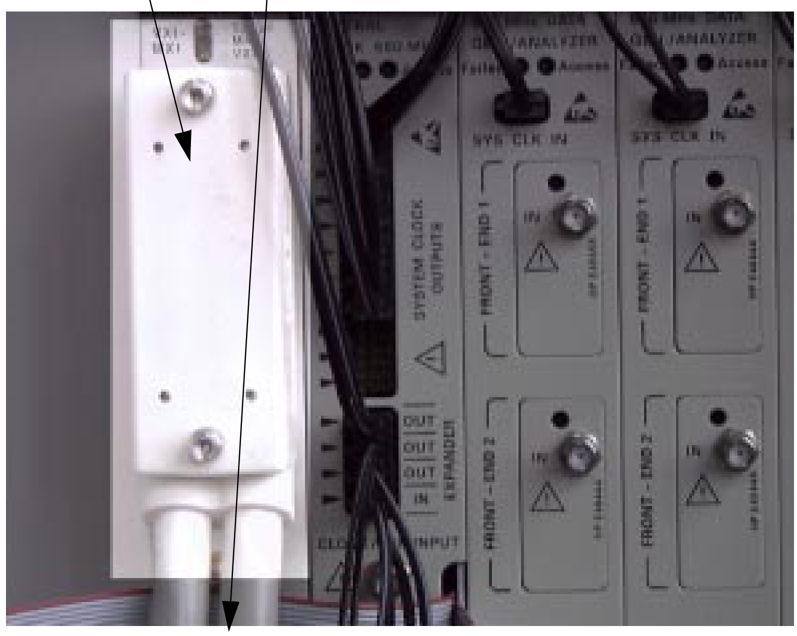
1. Connect the MXI and INTX Extender cables’ connectors where only single connection can be made to the HP E1482A card in the Master mainframe, see Figure.

Figure 18 **MXI/VXI Interconnection of the Extended HP 81200 System**

Connect the MXI and INTX cable to the HP E1482A card in the Master Mainframe

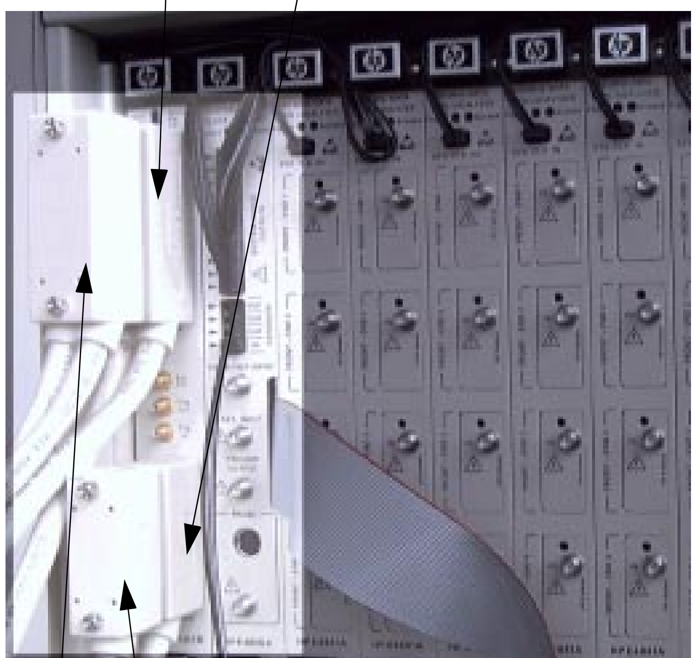
MXI cable

INTX cable is below the MXI cable



2. Connect the other end of the MXI and INTX cables coming from the Master mainframe to the HP E1482A card in the Extender 1 Mainframe.

Figure 19 **MXI/VXI Interconnection of the Extended HP 81200 System**



3. Connect the second set of MXI and INTX cables on top of the connectors of the cables coming from Master Mainframe, see Figure above.
4. Connect the other end of the second MXI and INTX cable set coming from the Extender 1 to the HP E1482A card in the Extender 2 Mainframe, see previous figure.

Clock Reference Interconnection

Tools Required

You need a flat screw driver and a TORX No. 362 screw driver. A TORX screw driver is attached to the shipment.

Steps to perform

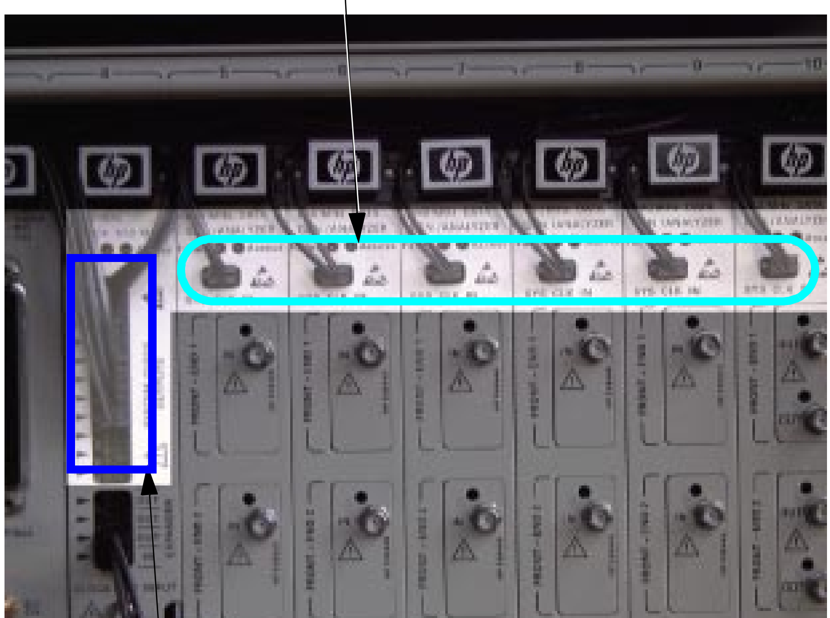
Each of the mainframes is equipped with an HP E4805A Central Clock Module. Use the delivered clock distribution cables (p/n E4805-61601, the cables are already connected to the clock module in the Extender mainframes) to connect from one HP E4805A module in one mainframe to the other HP E4805A module in the other mainframe. Up to two additional mainframes can be connected.

It is necessary to unplug the HP E4805A Central Clock Module from the Master mainframe, open the side panel and connect the flat cable from Extender 1 and Extender 2 into the connectors on the main board of the module.

1. In the Master mainframe, disconnect all clock distribution cables to the HP E4841A modules going from the Central Clock module of the Master mainframe.

Figure 20 **Disconnect all Clock Distribution Cables from the Clock Module**

This ends of the clock cables can be kept connected

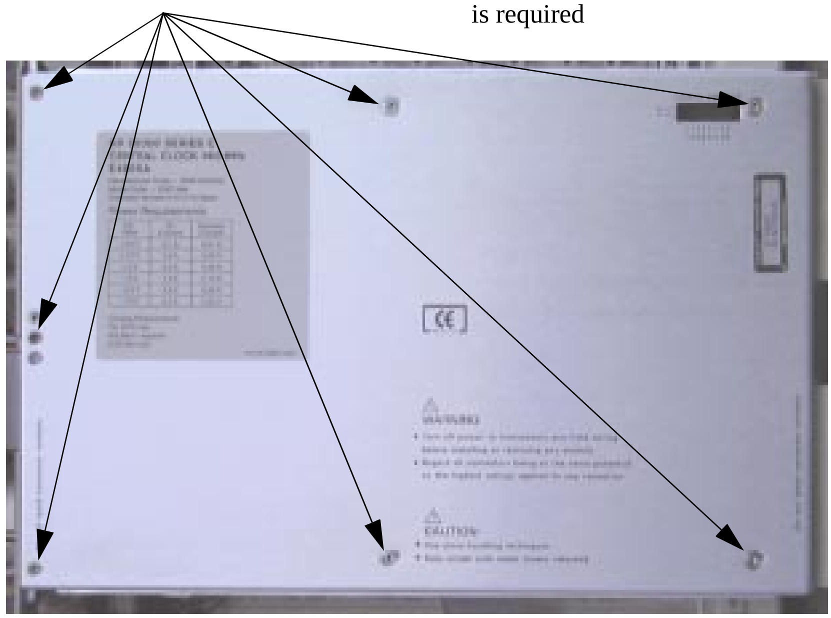


Disconnect all Clock Cables
from the HP E4805A Central Clock Module

2. Unscrew the two screws, on top and bottom of the front panel of the HP E4805A Clock Module, which secure the module to the mainframe. A flat screw driver is required.
3. Remove the HP E4805A Clock Module from the Master mainframe.

4. Unscrew the 7 screws securing the side panel of the module. A TORX No. 362 screw driver is required.

Figure 21 **Unscrew the 7 screws of the HP E4805A Clock Module to open it**

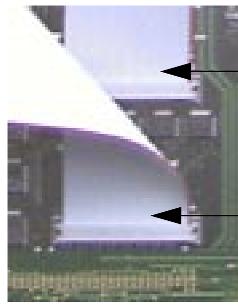


5. Put the opened clock module, with its front panel on top, vertical in front of the racked mainframes

Figure 22 **Put the Clock Module in front of the racked mainframes**

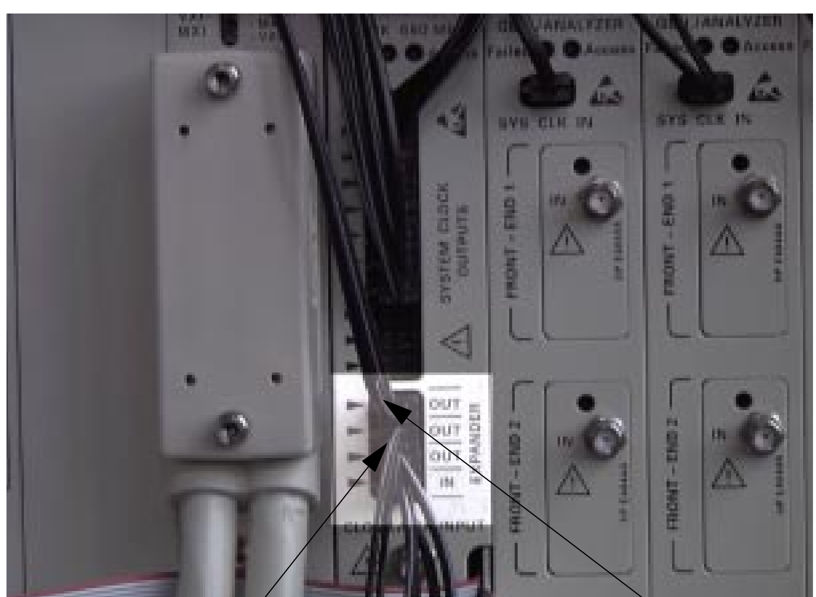
6. Connect the flat cables from Extender 1 and Extender 2 into the connectors on the main board of the HP E4805A Central Clock module which goes into the Master mainframe.

Figure 23 **Connect Flat Cables coming from Extender 1 and Extender 2**



7. Carefully refit the side panel again, start with the middle screw of the three ones which are close to the front panel. These three screws are short ones (5 mm). The other four screws are long ones (14 mm).
8. Plug in the HP E4805A Clock module into its place in the Master mainframe.
9. Re-connect all clock cables which go to the HP E4841A modules in the Master mainframe.
10. Now connect the two clock distribution cables which go from the Master mainframe's HP E4805A Clock Module Extender Connection to Extender 1 and Extender 2 mainframes, see next figure. The clock cable connects to Extender OUT in the Master mainframe and to Extender IN in the Extender mainframes.

Figure 24 **Clock Reference Distribution of the Extended HP 81200 System**



Apply AC Line Voltage to the HP 81200 System

1. Check that all mainframes are set to the appropriate voltage range, required in your country. The voltage range selector is located at the rear panel. Usually the mainframes leave the factory prepared for the correct voltage range for the country of destination.

2. Connect all mainframes and all peripherals which require line voltage to the ac line voltage. Connect the power cord delivered to the line in connector at the rear panel of the mainframe. Connect the other end of the power cord to an AC Line Voltage outlet which provides the required power.

Next Step

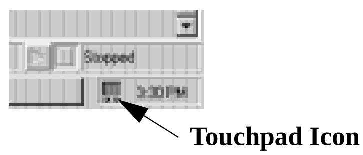
After making all the required connections the system can be started, go to *"Start the System" on page 45*

First steps to use the Touchpad of the Option 001 Display and Entry Panel

When Option 001, Display and Entry Panel is connected to the HP 81200 System, then a Touchpad (Glide Point) unit, which is part of the panel, is simulating a conventional mouse.

When the system has booted then there is a Touchpad icon in the right corner of the status bar, at the lower right-hand side corner of the display.

Figure 25 **Touchpad Icon in the Status Bar**

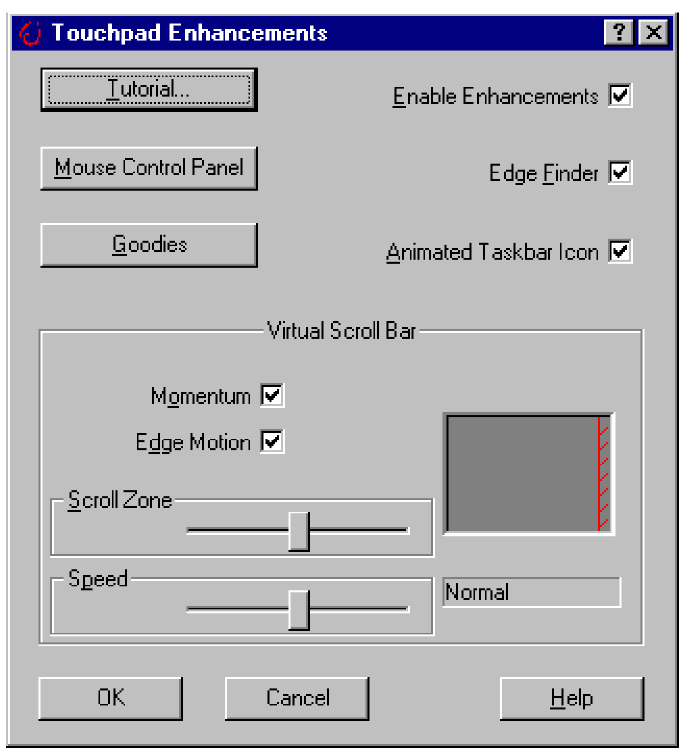


1 Put your finger tip onto the Touchpad. Keep your finger on the Touchpad and glide your finger across the pad and watch the movement of the cursor.

2 Now move the cursor to the Touchpad Icon.

3 Now tap on the surface of the Touchpad, this is the same as clicking the left mouse button. You will see the following touchpad enhancements menu.

Figure 26 **Touchpad Enhancements Menu**



4 When you click on Tutorial, you get additional information on how to get familiar with the touchpad

Display Control Panel

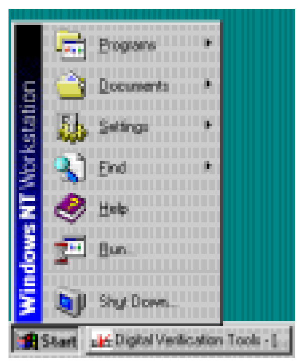
If the display and entry panel, Option 001, is used then the display resolution is automatically adjusted to 640 x 480.

It is possible to have in parallel a monitor connected. To use the higher resolution of the monitor it is possible to switch either to monitor (CRT) only or parallel use of CRT and display & entry panel (Panel)

To control the display mode perform the following steps

1. Click on **Start** in the task bar.

Figure 27 **Click Start in the Task Bar then click Shut Down**



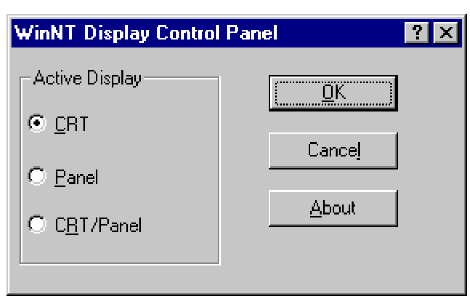
2. Point on **Settings** and click on **Control Panel**.

3. In the Control Panel window double-click on **WinNT Control Panel** icon

Figure 28 **Double-click on WinNT Control Panel Icon**

4. In the WinNT Display Control Panel window click on the required display mode, then click on **Ok**.

Figure 29 **Click on the Display Mode Required**



Chapter 3 Setting up an Open VXI System

If you are installing the HP 81200 System components into an existing or new VXI system maybe together with other modules to build up your own test system, you have to differentiate between:

- an embedded PC VXI system and
- an external PC VXI system

Depending on this main configurations you have different choices of interfaces and where to install the User Software.In both cases this PC needs to run Windows NT 4.0.

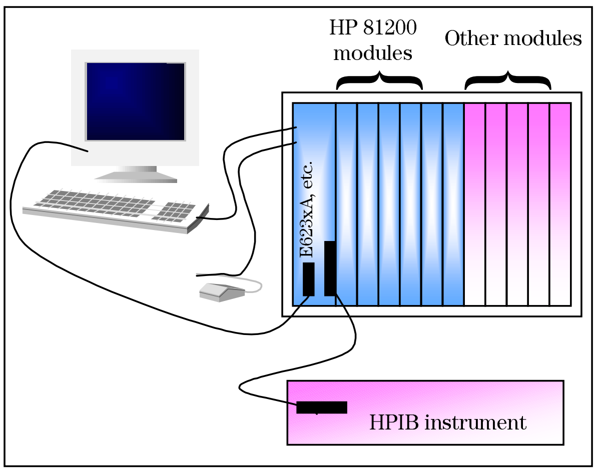
Use the System Configuration Overview to identify your system and after that follow the required steps to install hardware and software.

System Configuration Overview

Embedded PC VXI System

In this guide, embedded PC VXI systems are defined to consist of a Windows-based PC installed in slots 0 and 1 of a C-Size VXI mainframe.The interface to the HP 81200 modules is the VXI backplane. Peripherals and additional equipment are connected to this embedded PC.

Figure 30 **Embedded PC VXI System**

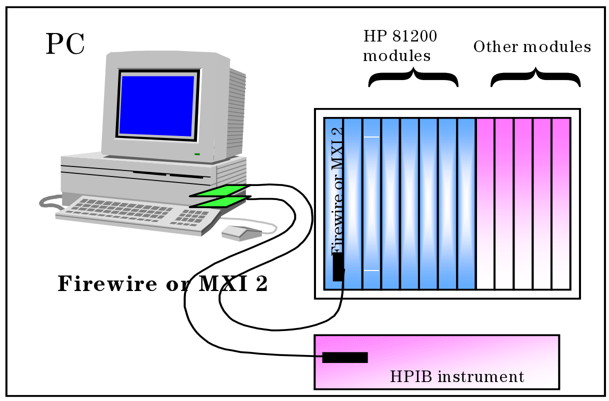


If you are installing the HP 81200 modules in such a system, please proceed with *“Installing HP 81200 Modules into Embedded PC VXI Systems” on page 42*

External PC VXI System

In this guide, external PC VXI systems are defined to consist of an external Windows-based PC and an interface between the PC and a VXI mainframe.

Figure 31 **External PC VXI System**



If you are installing the HP 81200 modules in such a system, please proceed with *"Installing HP 81200 Modules into External PC VXI Systems" on page 43*.

Installing HP 81200 Modules into Embedded PC VXI Systems

WARNING: **During all phases of installation, operation, service or repair of any equipment for any step in this guide, you must follow all safety instructions in the applicable manual or guide.**

Install VXI hardware

Install Mainframe(s)

As required, rack mount the mainframe(s) for your VXI system using the procedures in the applicable *Rack Mount Installation Guide*.

1. Install the ground connector (for 66 Hz and above operation ONLY), connect the power cord, and configure each mainframe as required as shown in the applicable Mainframe User/Service Manual.
2. Turn mainframe(s) power ON and observe the power-on sequence (if any) for the mainframe(s). See the applicable MAinframe User/Service Manuals for details.
3. Turn mainframe power OFF. If required, correct hardware errors and retest before installing the PC or any VXI instrument.

Install PC in Mainframe

1. Set any required switches on the PC. Then, install the PC in Slots 0 and 1 of the mainframe. See the applicable PC User’s Manual for details. Be sure to observe all ESD precautions when handling, installing and removing the PC.
2. Connect Interface devices, such as monitor, keyboard, mouse, external CD-ROM, etc. to the installed PC. See the applicable PC User’s Manual for instructions.

Install HP 81200 System Components

The HP 81200 System consists of one or multiple modules building the complete system. All modules must be kept together, other VXI modules can be added to the cardcage but must be plugged into adjacent slots of the cardcage.

Please refer to *“Adding a Module” on page 58* for details on how to set VXI Instrument Logical Addresses and how to install the modules.

Configure your PC

1. If not already done so, turn the PC ON and install the application programs you intend to use to program the VXI system, such as Visual C/C++, HP VEE, Visual Basic. etc.
2. Install the applicable I_O Library on the PC, if not already done as part of the HP VEE installation process or an adequate program.The version of the HP I/O Library must be G.xx.xx.xx or higher.
3. Install the HP 81200 User Software E4873A on your PC following *“Software Installation & Update” on page 53*.

Installing HP 81200 Modules into External PC VXI Systems

WARNING: **During all phases of installation, operation, service or repair of any equipment for any step in this guide, you must follow all safety instructions in the applicable manual or guide.**

Configure your PC

1 If not already done so, turn the PC ON and install the application programs you intend to use to program the VXI system, such as Visual C/C++, HP VEE, Visual Basic. etc.

2 Then turn the PC OFF and install required PC I_O cards into your PC. See the applicable PC I_O Card Installation Guide for instructions.

3 Turn the PC ON and verify proper operation of the PC.

4 Connect peripherals to the PC as required.

5 As required, connect the PC to your network. See your System Administrator for connection requirements.

Install VXI Hardware

Install Mainframe(s)

As required, rack mount the mainframe(s) for your VXI system using the procedures in the applicable *Rack Mount Installation Guide*.

1 Install the ground connector (for 66 Hz and above operation ONLY), connect the power cord, and configure each mainframe as required as shown in the applicable Mainframe User/Service Manual.

2 Turn mainframe(s) power ON and observe the power-on sequence (if any) for the mainframe(s). See the applicable MAinframe User/Service Manuals for details.

3 Turn mainframe power OFF. If required, correct hardware errors and retest before installing the PC or any VXI instrument.

Install Slot 0 Card

As Slot 0 Controller Card, you can choose between:

- HP-IB Command Module
- IEEE-1394 PC Link to VXI
- MXI-2 Interface Module

or similar.

Install the VXI Slot 0 Card into your VXI mainframe. See the applicable Slot 0 Controller User’s Manual for installation steps.

Install HP 81200 System Components

The HP 81200 System consists of one or multiple modules building the complete system. All modules must be kept together, other VXI modules can be added to the cardcage but must be plugged into adjacent slots of the cardcage.

Please refer to *"Adding a Module" on page 58* for details on how to set VXI Instrument Logical Addresses and how to install the modules.

Connect Interface Cable

Connect one end of the interface cable to the PC I_O card you installed during configuring your PC. Connect the other end of the cable to the Slot 0 Controller card.

If you have HP-IB Rack & Stack equipment in your system, you can also connect the HP-IB cable to the Rack & Stack instruments.

Install Libraries and User Software

1. Install the applicable I_O Library on the PC, if not already done as part of the HP VEE installation process or an adequate program.The version of the HP I/O Library must be G.xx.xx.xx or higher.
2. Install the HP 81200 User Software E4873A on your PC following *"Software Installation & Update" on page 53*.

Chapter 4 Start the System

1. Switch ON all peripherals connected to the mainframe and if applicable Extenter mainframes
2. Switch ON the mainframe itself

   Configured as a proprietary HP 81200 system (HP E4840A or HP E4849A/B), the Windows NT automatic log-in script is enabled. After power on, you are automatically registered as user DVT and the Windows desktop appears.

   Configured as a open HP 81200 system you have to login as user or administrator defined for your Windows NT operating system.
3. Select the kind of display you are using

   The display driver is set to a mode that supports both CRT and the flat panel option. The resolution is 640 x 480 pixels.

   This should always be the first step after power on. Problems can arise, if you operate Windows or the HP 81200 software without specifying your display.See *"Select your kind of Display" on page 46* for more details.
4. Select the System Operating Mode

   Depending on the operating modes LOCAL, CONTROLLED or REMOTE you can define which software components need to be started.See *"Select the System Operating Mode" on page 48*.
5. Start the system in a chosen operating mode.See *"How to Start the HP 81200 User Software" on page 50*
6. Verify your system

Select your kind of Display

NOTE: This step is required only for proprietary systems based on the HP E4840A or E4849A/B. For others your Windows NT Display properties are taken.

At power on the display driver is set to a mode that supports both CRT and the flat panel option 001 (Display and Entry Panel). Therefore the resolution is set to 640 x 480 pixels.

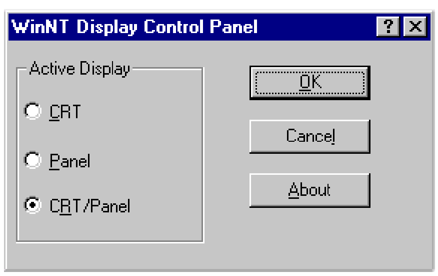
Once the Windows desktop is displayed, you need to inform the operating system about your display:

- if you are using the Display and Entry Panel, the display properties should remain unchanged
- if you are using an external monitor define the appropriate settings

How to Set the Kind of Display

1. Double-click the WinNT Control icon on the Windows desktop or in the “Start” –> “Settings”–> ”Control Panel”
2. Activate your display from the window

Figure 5 **WinNT Display Control Panel**



- Select CRT if you have connected a monitor to the controller
- Select Panel if you are using the Display and Entry Panel option
- Select CRT/Panel if you are using both, CRT and Display and Entry Panel. The display resolution is determined by the Display and Entry Panel.

3. Click OK.

How to Set the Resolution of a CRT Display

The standard screen controller supports resolutions up to 1024 x 768 pixels. The default setting after activating CRT is 800 x 600 pixels.

To set or reset the screen to 1024 x 768 pixels:

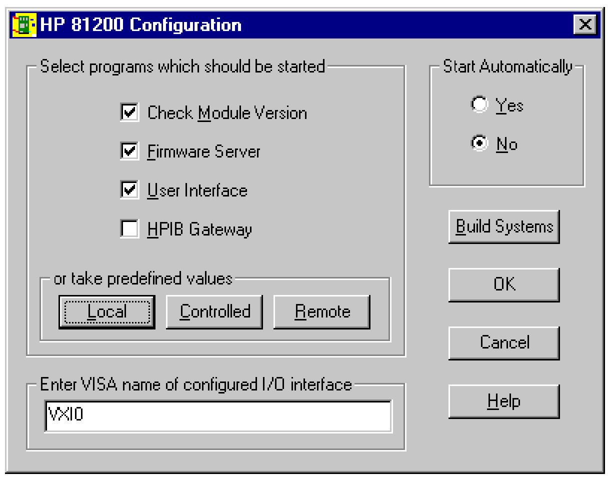
1. Press Ctrl+Esc.
   This opens the Windows START menu. The Windows task bar may not be accessible.
2. Click Control Panel (alternatively, press the Cursor down key and then Enter).
   This opens the system control menu.

3. Double-click Display.
4. Click the Settings tab.
5. Set the desired resolution,
6. If you are sure that your monitor will make it, click Apply. If not, click Test, check the result and finally click Apply.

Select the System Operating Mode

After installation of the HP E4873A User Software the HP 81200 Configuration screen pops up automatically. In other cases it can be opened with double-click the “HP 81200 Config” icon on the Windows desktop.

Figure 6 **HP 81200 Configuration Window**



The HP 81200 software can be run in one of three modes. Selecting one of these modes automatically selects the recommended programs required for that mode.

- Local:
  Used, if the hardware shall be controlled and the system operated from the same embedded computer. The HP 81200 server and user interface are started.
  Also needed, if the system is controlled via an IEEE-1394 or MXI-2 interface by an external PC.
- Controlled:
  Used, if the hardware shall be controlled but the system shall not be operated from the built-in computer. The system can then be operated via HP-IB or LAN. The HP 81200 server is started.
- Remote:
  Used to operate a system which is in controlled mode remotely. The HP 81200 user interface is started.

Changing this predefined values is recommended for experienced users only:

- Check Module Version
  If activated, the firmware located on hardware modules is checked for consistency with the current used User Software during power up. In case of inconsistency a BIOS update program is activated to guide you through the procedure. Field should be deactivated if the User Software is used in off-line mode or remotely.
- Firmware Server
  Must be activated on the machine controlling the hardware, because it build the connection between hardware modules and interfaces.

- User Interface provides the user access
- HPIB Gateway

  If you intend to start the system in controlled mode and operate it via HPIB, you must enable the HP-IB Gateway.

  If you intend to start the system in controlled mode and operate it via LAN, you can disable the HP-IB Gateway.

Select Auto Start Option

Start Automatically

If “Yes” is activated the User Software starts automatically after logon. This can be useful for a controlled system where you don't have to care about display properties. The setting takes effect as soon as the DVT user logs in.

Build your System

Build Systems

Checks the available modules and creates new configuration files dvtsys txt and dvtits.txt. The present files are saved as dvtsys.bak and dvtits.bak.

NOTE: Executing Build System twice will overwrite your backup files.

The default generated system name is DSRA. If the mainframe contains more than one master clock module, additional systems (DSRB, DSRC,...) are automatically set up.

Build System must be processed due to any change in your hardware.

Build System is not needed if you are upgrading from a previous User Software version without changing hardware.

Define your I/O Interface

Enter the VISA name according to your chosen VXI I/O configuration.

Please refer to “Start”–> “HP I_O Libraries”–> “I/O Config” to find the appropriate VISA name for your configured interfaces.

Typically the VISA name for a VXI interface is VXI0, for a HP-IB interface it is GPIB0.

If you are upgrading from a previous User Software version, you need to enter the interface name you have used before to ensure that you can still run existing programs after the upgrade. Please refer to the file dvtits.txt to find your previously used interface name.

How to Start the HP 81200 User Software

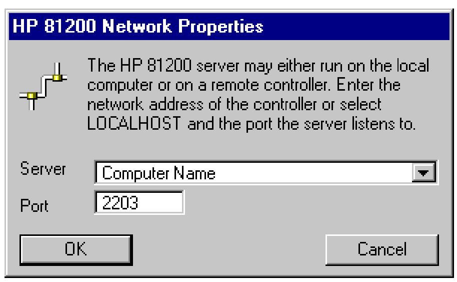
Double-click the HP 81200 User Software icon on the Windows desktop to start the User Software in the mode defined in the HP 81200 Configuration Window, which could be Local, Controlled or Remote.

In Local Mode the user interface windows will appear on your display.

In Controlled Mode the firmware server and gateways will be started assuming the user interface to be on a different computer.

If the system is started in Remote Mode, a screen pops up asking for hostname and network port number.

Figure 7 **HP 81200 Start in Remote Mode**



Enter the computer name or the IP and the associated port of the instrument controller you would like to connect to. You will find the appropriate setting on the controlled machine by opening the HP 81200 DVT Server located on the task bar.

Getting Help

For context-sensitive help press Fl, the help button on the window or

The Help menu is supposed to be self-explanatory. You can also start with the table of contents or search from the alphabetical index.

How to Test your System

The System menu has functions for testing the systems integrity. These tests can be performed at any time, as long as no test is running. It is highly recommended to execute these test after changing the hardware components or after software upgrades.

Note that the optional Diagnostics software package provides additional tests which in case of problems can identify defective field replaceable units.

System Self-test

Provides a window, from which the complete self-test or subsets can be started. Ensures that all modules respond. Returns the current firmware revisions of the modules and the identification numbers of installed front-ends.

Module Self-test

Enables you to check all or single modules. Checks the front-ends built into the modules and may take a minute.

Power On Test

Is automatically performed at power on. Checks all modules. The result of this test can be reviewed.

BIOS Revisions

Returns the current firmware revisions of the modules.

Chapter 5 Software Installation & Update

Factory pre-installed systems based on the HP E4840A or the HP E4849A/B mainframes have the HP E4873A User Software already installed.

You should follow this procedure if you are upgrading from a previous version

or

if the HP 81200 System User Software HP E4873A needs to be installed on an other system than mentioned above.

Installing/Updating the HP E4873A User Software

Prerequisites

- CD-ROM drive
- HP I/O Libraries for Instrument Control Revision G or higher
- HP 81200 User Software
- Windows NT 4.0 as the Operating system
- TCP/IP Network Protocol must be enabled

Installation Procedure

1. Prepare system for software update

Power down and switch off the system. Connect the CD-ROM drive to the appropriate SCSI connector of the controller. You can find the connector on the right side of the HP E4840A mainframe or at the front of the HP E4849A frame. Make sure you have selected a free SCSI ID number, ID=3 is recommended. Switch on the CD-ROM, after that switch on the system and wait until the boot is finished. For instructions how to connect the CD-ROM drive please refer to ***"Connecting a CD-ROM Drive to the HP 81200 System" on page 63***.

2. Login as administrator

Under "Start"–>"Shut Down" select "Close all programs and logon as a different user?". Click on the "Yes" button and immediately afterwards the SHIFT key and keep it down until the logon window appears. Change the user to Administrator and enter the administrator password DVTADM (factory default).

3. Check the status of your HP I/O Library

Execute "Start"–>"Programs"–>"HP I_O Libraries"–>"I_O Config". After the I/O Config Application appears, select in the upper main window "Help"–>"About I/O Config". The version shown must be G.xx.xx.xx or higher. If that is the case no update is required and you should proceed with step 8.

4. Uninstall the existing HP I/O Library

Go to "Start"–>"Settings"–>"Control Panel"–>"Add/Remove Programs" and select HP E4801/E4806 I/O Library.Press add/remove and confirm dialog. Select HP I/O Libraries and press add/remove and confirm dialog.

Double check within the Windows NT explorer that the complete directory "Siclnt" or "Sicl" is removed from your C: drive. If that is not true, delete any remaining part.

5. Install the new HP I/O Library

Insert the HP I/O Library CD into your CD-ROM drive and follow the instructions on the cover.

Check the box "Install HP 8491 VXI Components" only, if you have installed an IEEE-1394 to VXI interface. Disable "Configure interface" and enable "No, I will restart my computer later", because additional software needs to be installed.

6. Install an additional HP I/O Library

This step is required only, if your system is based on an E4840A mainframe or an E4849A/B mainframe equipped with the 3-slot Embedded PC Controller.

Insert the HP 81200 User Software CD into the CD-ROM drive. If auto start is enabled on your system, the install shield will start automatically. Exit the HP81200 installation program and execute the following file: CD:\drivers\Hpfvxi\Hpfvxi3.exe.

Follow the instructions and leave all defaults.

7. Configure the HP I/O Library

Reboot the system and login as administrator.

Go to "Start"–>"Programs"–>”HP I_O Libraries"–>"I_O Config".

Select E4801A/E4806A if shown in the selection list, press Configure and accept all defaults. Finish this step with OK.

If your system is equipped with an E623xA Controller, select HP-22/EXM-22 HPIB. Otherwise select HP 82340/82341 HP-IB and press Configure.

Set the following values:

- SICL Interface Name = hpib or any preferred name
- Bus Address = 11
- Deactivate System Controller if system should be controlled via HPIB by another controller.

Finish Interface Configuration with OK.

8. Install the HP 81200 User Software

Insert the HP 81200 User Software CD into the CD-ROM drive. Execute CD:\setup.exe and follow the instructions on screen.

A Microsoft Internet Explorer is required for on-line help. The installation procedure checks your system for an appropriate version and suggests installing an Internet Explorer if that isn’t the case. Please follow the instructions on screen, reboot the system when it is requested and logon as administrator again to finalize the installation.

Verify your display properties:

"Start"–>"Settings"–>"Control Panel"–>"Display"–>"Settings".

Your setting should be:

- Color Palette = 65536 Colors
- Font Size = Small Fonts

When the installation is completely done, reboot your system again.

9. First Login

If you are using a HP E4840A or E4849A/B System you can login as administrator or as user ’dvt’ with password ’DVT’. The user ’dvt’ is factory default.

NOTE: The administrator password DVTADM is set from the factory. When the HP 81200 System will be connected to the local network it is highly recommended to change this password.

After logging in the first time the HP 81200 Configuration window pops up which allows defining your preferred operating mode.

If the HP 81200 Application should start automatically after logon enable "Yes" in the ’Start Automatically" field.

Start the application by pressing the HP 81200 User Software Icon.

For more details on how to configure your system for first time usage please refer to ***“Start the System” on page 45***.

Using a different Controller

If you are using the HP 81200 modules in a VXI system controlled by a non-HP controller, make sure that you have installed the appropriate I/O library for this controller. Please use the documentation coming with this controller.

Standalone or Connecting to the LAN

Please contact your network administrator for the necessary information, if you are connecting the system to your local area network.

If the system is not connected to the LAN make sure that the network is configured as follow:

- IP Address: 192.000.000.001
- Subnet Mask: 255.255.255.0
- Default Gateway: none
- Domain: standalone

Updating the Firmware (BIOS)

If you have upgraded from a previous version, the new HP E4873A User Software may be incompatible with the firmware version installed in your modules.

Starting the HP E4873A User Software checks whether a firmware update is necessary as long as this check is activated. Starting the User Software the first time after an update automatically launches the HP 81200 Configuration Window. Please make sure, that the “Check Module Version” option is activated to ensure an automatic version test each time you are starting the system.

If a version conflict is detected a window pops up letting you know that a firmware update is highly recommended. Please press the OK button.

After the firmware update it proceeds with starting the new application software.

NOTE: For downgrading the BIOS to be used with a previous User Software version refer to the HP 81200 Support page on the web.

Next Step

You will find more details on how to select the different configuration possibilities in *“Start the System” on page 45*.

Chapter 6 Modify Your System

This chapter describes the following procedures:

Adding a Module

All modules available are one-slot, C-sized VXI modules to be plugged into a VXI mainframe.

Installing the module requires the following steps:

- Shutdown the HP 81200 System
- Select a mainframe slot.
- Set the VXI instrument logical address.
- Install the instrument in the mainframe.
- Build the new system
- Deskew the module

The first step to install the VXI instrument is to select a free slot in the VXI mainframe.

When you have selected a slot, enter the instrument model number, name, and serial number for the instrument in the VXI Mainframe Overview table. You should maintain such a table for each mainframe in order to keep track of the installed instruments.

Slot	Model Number	Instrument Name	Logical Address	Serial Number
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

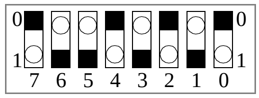
Setting the VXI Instrument Logical Address

When you have selected the slot for the VXI instrument, the next step is to set the instrument logical address (LADDR) as required. In general, you can use the factory-set (default) logical address.

If you need to set another logical address, use the following guidelines.

The logical address for each VXI instrument is set by the Logical Address (LADDR) switch on the instrument. The logical address value is the sum of the values of the logical address switches set to the closed position.

The following figure shows an example:



Address Switches set to 106

After setting the address switches, record the logical address in the VXI Mainframe Overview table.

Installing the Instrument in the Mainframe

After setting the logical address as required, you can now install the instrument in the mainframe.

1 Turn mainframe power off.

2 Install the instrument in the slot you previously identified.

Make sure, that either an HP E4805A Central Clock Module or a HP E4831A Clock and Data Generator Module are at the leftmost position.

Make sure, that no VXI Module other than HP 81200 System Components are installed in between this set of modules building the system.

3 Secure the module to the mainframe with the two retaining screws on top and bottom of the front panel.

4 Connect Clock Distribution Cable

Build the new System

After powering up the system, open the HP 81200 Configuration Window and press the “Build System” button. A diagnostic tool will be started which automatically updates your system configuration files. If that step is not done, the User Software will not recognize new modules.

Deskew the Module

After installing new modules or after replacement of front-ends a Zero Adjust procedure has to be performed to synchronize the outputs or inputs of the new module to the existing ones. Please refer to the chapter “Using Auxiliary Functions” in the User Guide located on your system or just use the on-line help system.

Removing Modules

Removing a module is the reverse procedure of adding a module

1. Shutdown the HP 81200 System
2. Remove the two screws on the top and bottom of the front panel.
3. Press the upper release to the top, and the lower release to the bottom and pull out the module from the slot.

Build the new System

After powering up the system, open the HP 81200 Configuration Window and press the “Build System” button. A diagnostic tool will be started which automatically updates your system configuration files. If that step is not done, the User Software will not recognize that a modules is being removed.

Adding the Trigger Input Pod

If you have ordered the 8-line Trigger Input Pod E4805A Option 002 separately, you need to install it into the HP81200 System.

Prerequisites

Prerequisites for this installation are:

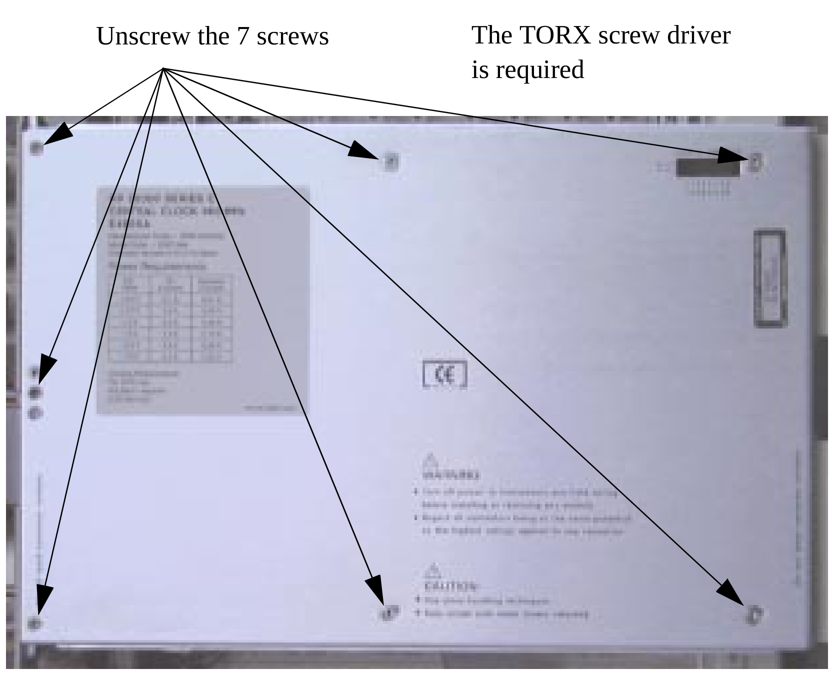
- an HP E4805A Central Clock Module, the serial number of this module must be higher than DE37800166
- the HP E4873A User Software Revision 2.0 or higher
- a flat screw driver and a TORX No.362 screw driver

Installing the Trigger Input Pod

To connect the Trigger input pod, it is necessary to unplug the E4805A module from the mainframe, to open the module and to plug the pod cable into the board.

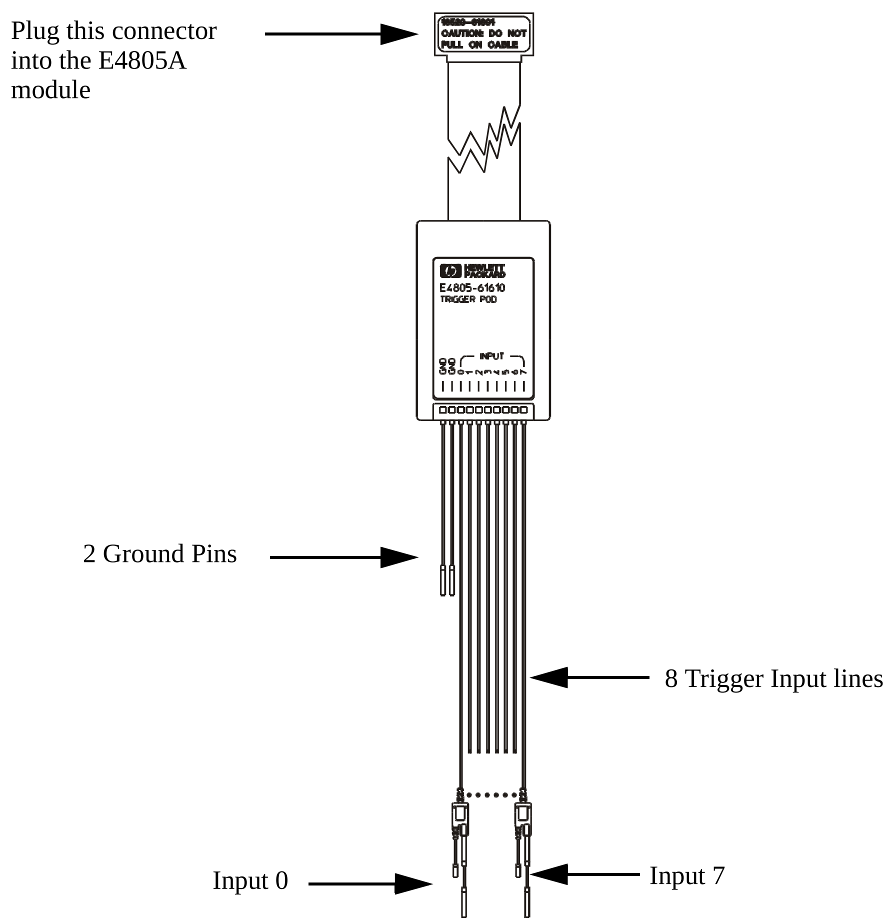
1. Switch off the system and disconnect the power cord
2. Disconnect all cables from the E4805A Central Clock Module. If necessary, mark the cables to make it easier to re-connect the cables into the right position
3. Remove the E4805A Central Clock Module from the mainframe
4. Unscrew the 7 screws to open the side panel of the module using a TORX screw driver

Figure 32 **Open the HP E4805A Central Clock Module**



5. Plug the connector attached to the ribbon cable into the appropriate 16-pin socket on the E4805A board
6. Carefully refit the side panel. Start with the three screws located nearby the front panel, which are the shorter ones
7. Plug the module into the mainframe again and fasten the module
8. Re-connect all cables disconnected during step 2

Figure 33 **Trigger Input Pod**



Replacement

Call the HP support if you need additional probe leads. The required part number is16520-62102.

You need to remove the leads from the probe adapter header before plugging them into the pod housing.

Connecting a CD-ROM Drive to the HP 81200 System

Figure 34 **SCSI Interface of the HP E4840A Mainframe**

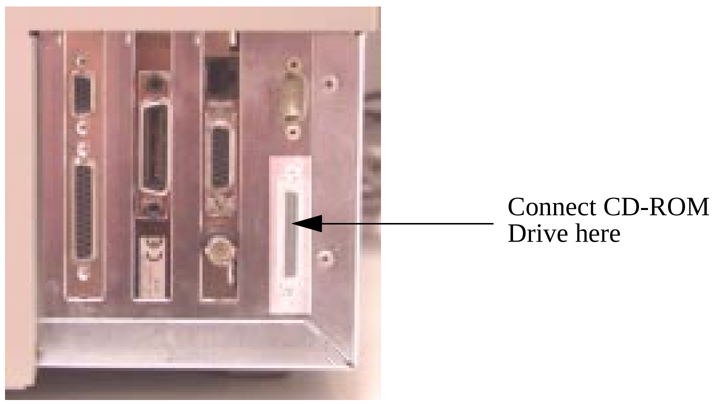
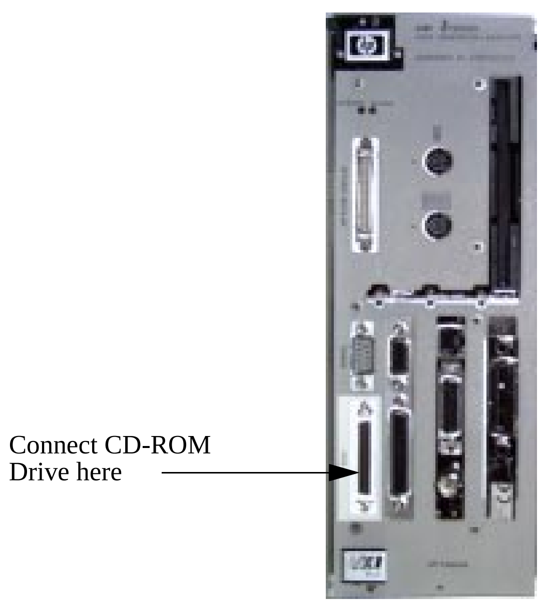
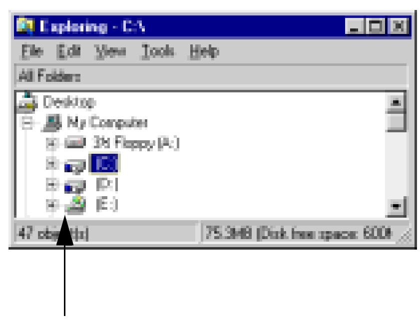


Figure 35 **SCSI Interface of the HP E4849A/B with 3-slot Controller**



1. Shutdown the HP 81200 System
2. Check the CD-ROM drives SCSI ID Number. It should be in the range from 0 to 6. Recommended SCSI ID Number for the CD-ROM Drive is 3.
3. Remove the SCSI terminator, actually connected to the SCSI connector of the embedded controller. It is recommended to connect this SCSI terminator to the second SCSI connector of the CD-ROM drive.
4. Connect the CD-ROM Drive to the HP 81200 System by a 50 pin high density SCSI cable.
5. Connect the CD-ROM Drive to the line power, and switch it on, if necessary (some drives are automatically powered when connected to line power).
6. Now switch on the HP 81200 System.
7. When the boot process has finished you can verify whether the CD-ROM Drive was recognized by opening the Windows NT Explorer and checking whether a E: drive with a CD-ROM icon is present, see figure on next page.

Figure 36 **CD-ROM Drive is connected**



CD-ROM Drive is connected

Connecting a Local Printer to the HP 81200 System

Connect a local printer to the HP 81200 System's parallel port located as shown in the figures below.

Figure 37 **Parallel Port of the HP E4840A Mainframe**

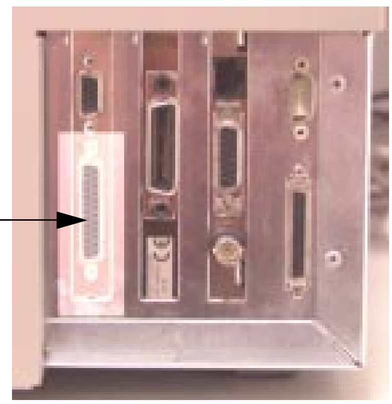
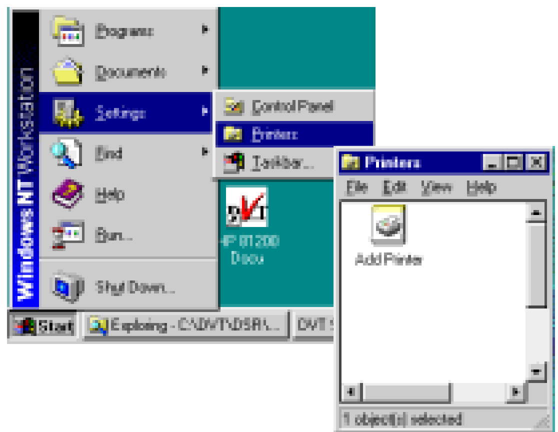


Figure 38 **Parallel Port of the HP E4849A/B 3-slot Controller**

Installing a Local Printer

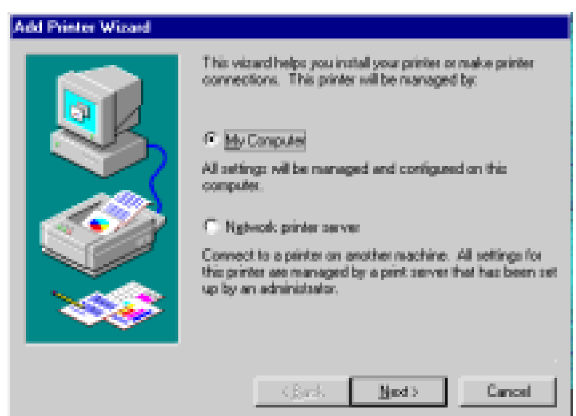
1. Click the **Start** button, point to **Settings**, and then click **Printers**. The Printers folder appears.

Figure 39 **Start Adding A Printer**



2. Double-click **Add Printer**. The Add Printer Wizard dialog box appears. The default procedure is adding a local printer to “My Computer”.

Figure 40 **Add Printer Wizard**

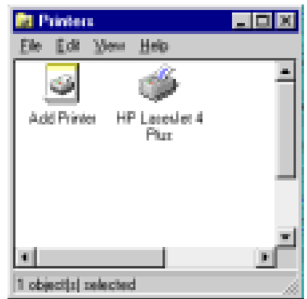


3. Follow the instructions on the screen.
4. During the printer setup you are asked to specify the location where the printer drivers can be found.

   The printer drivers are located on the d: drive in the ‘i386’ directory, so please browse to this directory and select the required printer driver.

5. When you have finish this procedure, then the icon for your printer appears in the Printers folder. Your printer is ready for you to use.

Figure 41 **Local Printer Added**



Installing a Network Printer

Prerequisite is that the HP 81200 System is connected to a network (see *“Connecting the HP 81200 System to LAN” on page 69*) where a network printer is present.

What you should know before installing a network printer:

- name of the printer server in the network.
- name of the printer in the network.

Please contact your system or network administrator to find out the required information.

1. Click the **Start** button, point to **Settings**, and then click **Printers**. The Printers folder appears.
2. In the Add Printer Wizard click on “Network printer server”. Then follow the instructions on your screen.

Connecting the HP 81200 System to LAN

The HP 81200 System has an Ethernet Interface card installed.

NOTE: Connecting the HP 81200 System to LAN can only be done with administrator privileges.

Receiving Administrator Privileges

The HP 81200 System has the Windows NT auto-logon and auto-start feature set. So, whenever the HP 81200 System is switched on it automatically logs on as user “DVT” and starts automatically the user software of the HP 81200 System.

To logon as a different user, especially as Administrator, the following steps have to be performed.

1. Close the HP 81200 System’s user software.
2. Click the **Start** button, point to **Shut Down**, and select the **Close all programs and log on as a different user** in the **Shut Down Window**.
3. Now hold down the Shift key and keep it pressed until the new logon dialog box appears.
4. Click on the **Yes** button in the **Shut Down Window**.
5. When the new logon dialog box is displayed you can release the Shift key again.
6. In the new logon dialog box type in *Administrator* as the User name. Enter as Password *DVTADM*. The password is case sensitive, so type it in as shown.

NOTE: When you switch on the HP 81200 System the next time you will get an error dialog, stating that the password was not typed correctly. This is due to the Windows NT feature to logon as the last known user, e.g. “Administrator”. As the auto-logon is set, also, the password for the “DVT” user is used, as this is not the correct password for the “Administrator” an error dialog is displayed. To come across this error state, you only have to close the error dialog and enter the user “DVT” and the password “DVT” in the logon dialog box, then click the OK button.

NOTE: All passwords used in this chapter are the factory set default passwords. It is recommended to change these passwords. If the passwords are changed, it is important to remember them as they have to be used for future support tasks or software updates.

Configuring the HP 81200 System for LAN Connection

1. Connect a network cable with a 10base-T connector to the HP 81200 System.

Figure 42 **Ethernet Interface of the HP E4840A**

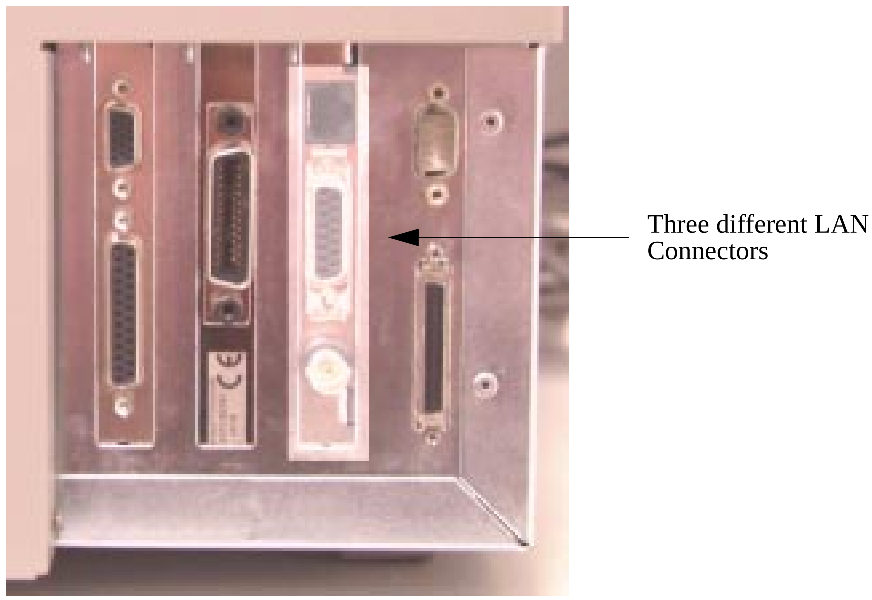
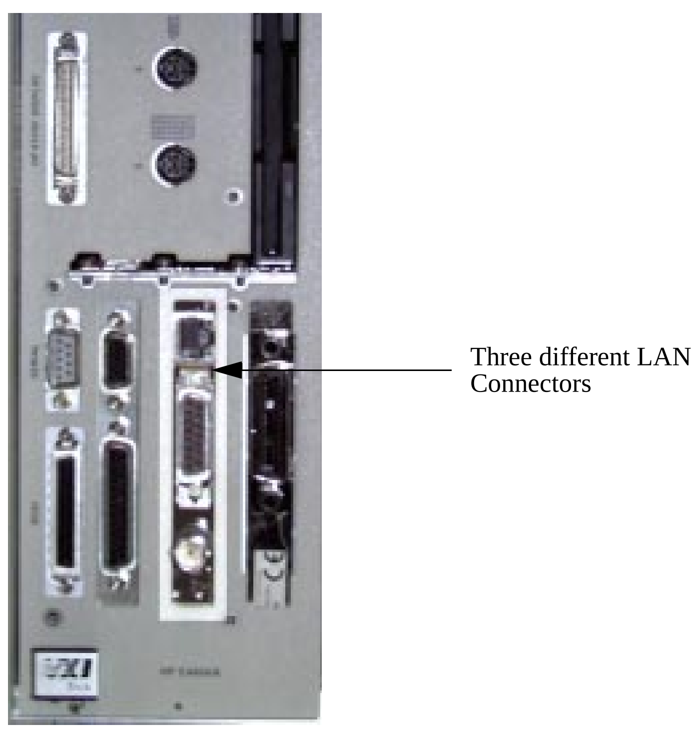


Figure 43 **Ethernet Interface of the HP E4849A with 3-slot Controller**



The Windows NT 4.0 operating system in the HP 81200 System is configured to support the following network protocols:

- TCP/IP
- NetBIOS

The HP 81200 System is shipped with default settings of the network parameters, which are:

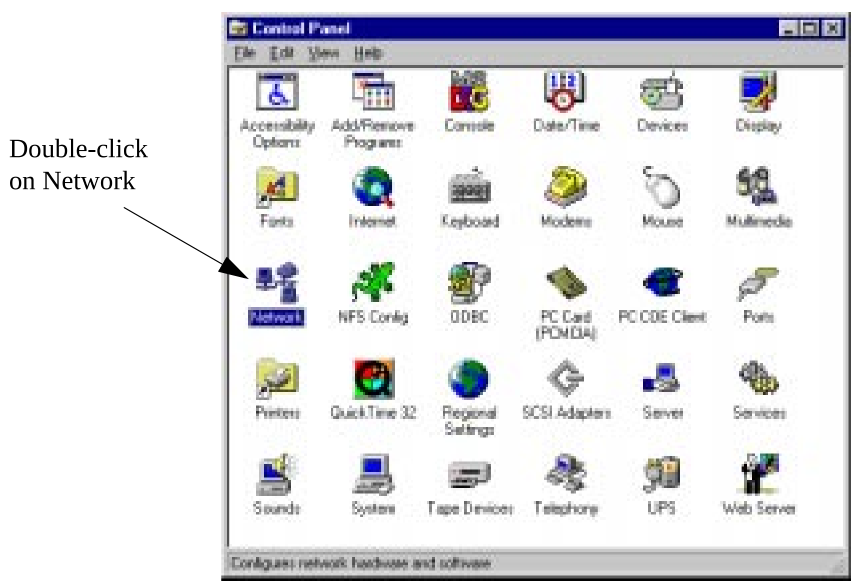
- IP Address: 192.0.0.1
- Subnet Mask: 255.255.255.0
- Default Gateway: none
- Domain: standalone

You have to collect the necessary information you require in your network. Please ask your local system or network administrator for help.

When you have collected all the data, please follow the following steps:

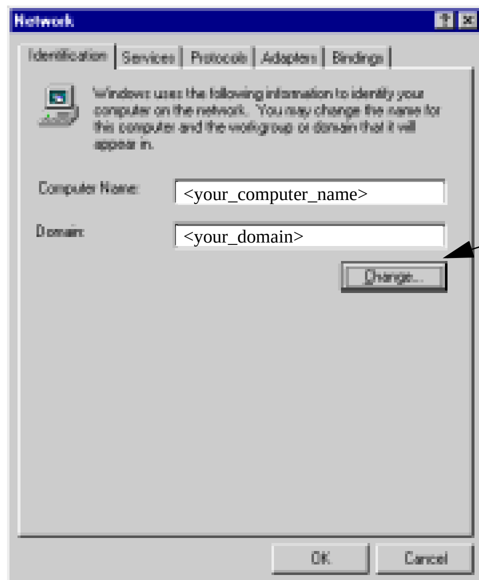
1. Click **Start** button, point to **Settings**, and then click on **Control Panel**.
2. Double-click on **Network**.

Figure 44 **Open Control Panel**



3. To change the default Computer Name, Workgroup and Domain on the Identification card click on the Change button.

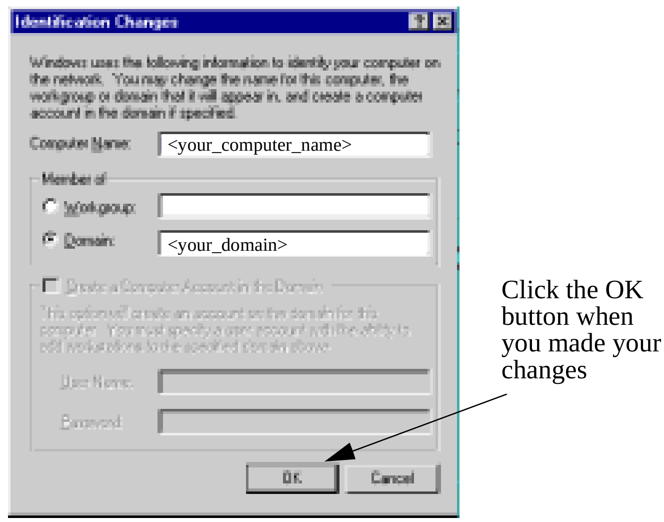
Figure 45 **Change Identification**



Click here to change the computer identification

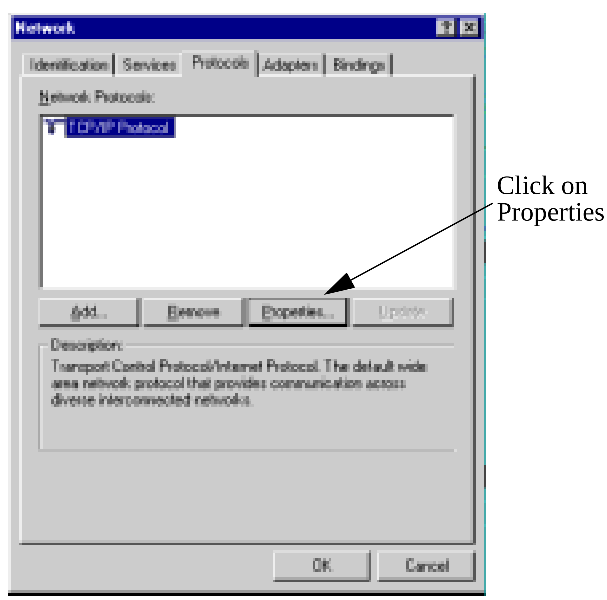
4. The Identification Changes window appears. Make the necessary changes and click **OK**.

Figure 46 **Make your changes**



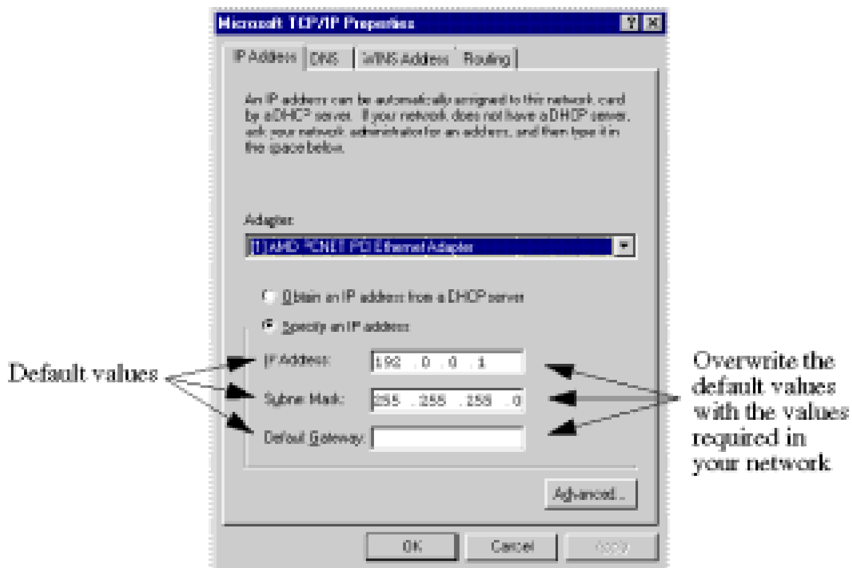
5. Select the Protocol card and click on the Properties button to make the necessary changes to IP Address, Subnet Mask and Default Gateway.

Figure 47 **Protocol Card**



6. Make the necessary changes to the TCP/IP Properties and click the OK button.

Figure 48 **Make your changes to the TCP/IP Properties**



7. You have made all necessary changes and entries. Click as often OK button to leave the Network setup. Then click the  button in the upper right-hand side corner of the Control Panel

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