



E7495A/B Remote Operation

Configuring and controlling the E7495A/B via a PC interface

The E7495A/B “Remote graphical user interface (GUI) program” is a simple tool that places a remote version of the E7495A/B GUI on a PC, allowing the user to control the E7495A/B from a PC. Application examples include the following:

1. Direct connect to PC to facilitate over the air measurements (e.g. place the E7495A/B in the rear of the vehicle and control it via a PC while driving the network.)
2. Remote monitoring of problematic/intermittent failure base stations
3. Trouble shooting base stations with limited resources (e.g. lead tech can easily monitor/assist other technicians remotely.)
4. Training

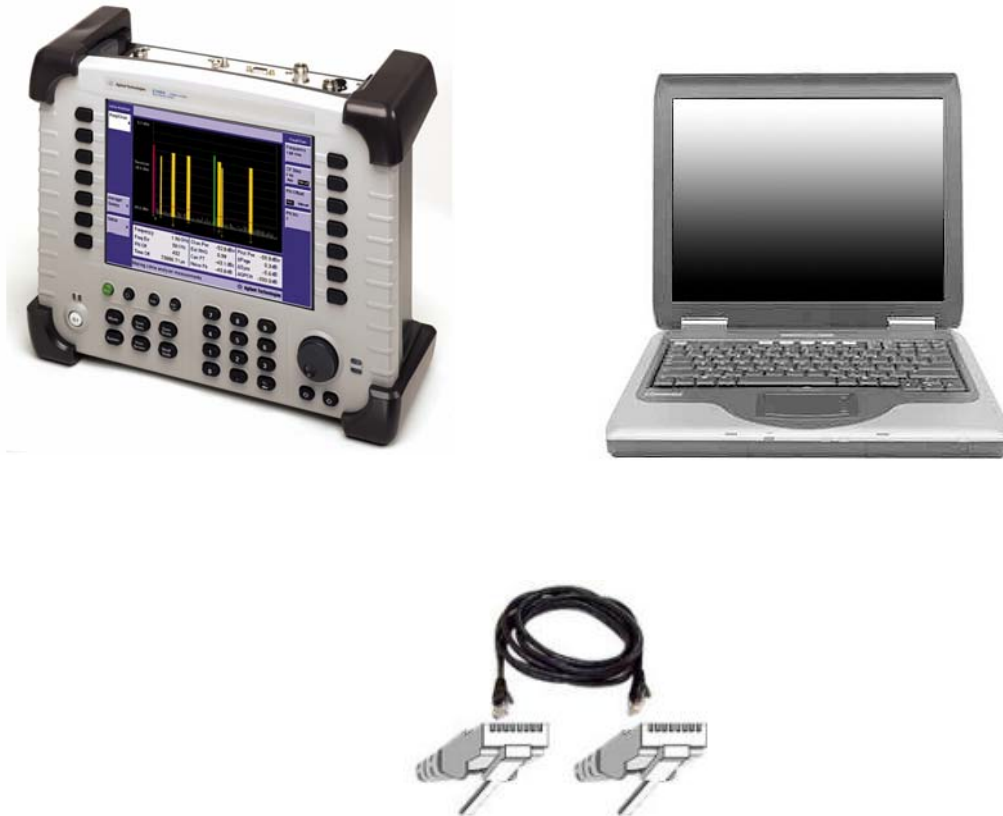


The following step-by-step procedure illustrates how to link the E7495A/B to a PC. It is broken down into two specific procedures:

- 1) Connecting and controlling the E7495A/B with a remote PC via a network connection (LAN)

- 2) Connecting and controlling the E7495A/B with a remote PC via a *direct* connection (LAN crossover cable)

Hardware Needed for Connecting the E7495A/B to a PC for Remote Operation



To Connect the E7495A/B to a PC, there are 3 items needed: A PC with a LAN adaptor (windows 2000 or higher), an E7495A/B, and a CAT5 LAN cable (normal network connection) or a CAT5 LAN Cross-Over cable (used to connect the E7495A/B directly to the PC.)

NOTES:

The Remote GUI utility only supports firmware version 3.0 or above in the E7495A/B. The intent of this package is to provide a value added tool (at no charge) to our respected E7495A/B customers. Since this is a free SW utility, Agilent Technologies, Inc. does not warrant that the operation of the software will be uninterrupted or

error free. Additionally, this utility will be supported on a best effort basis.

Steps Required for Connecting the E7495A/B to a PC for Remote Operation

Setting up and Configuring the E7495A/B for Remote Operation (DHCP)

Installing the software on the PC.

Configuring the Software

Running the Software

NOTES:

This step-by-step document is written within the context of Windows 2000. Different operating systems like Windows XP may vary slightly in process.

1.) Configuring the E7495A/B for network connection

1. Connect the E7495A/B to a network connection or router with a standard RJ-45 Ethernet CAT5 cable, then cycle instrument power.
2. When the “Mode” screen appears the IP address will be displayed in the bottom left corner of the screen. If the IP address appears, proceed to the next section “Installing the Software on the PC.” If the IP address does not appear (or reads all 0s), recycle power with the LAN cable connected. If it still does not appear, proceed to step 3 as DHCP settings need to be verified on the E7495A/B.



NOTES:

The E7495A/B will accept DHCP from a network or a router.

Checking for DHCP on the E7495A/B

3. On the E7495A/B, press the “System” button (next to the power switch).
4. On the left side of the E7495A/B, press the “Controls” soft key.
5. On the right side of the E7495A/B, press the “IP Admin” soft key.
6. Check to see if DHCP is ON. If it is on, and an IP address is still not displayed at the “mode screen,” contact Agilent support. If it is set to OFF, then follow steps 9 through 11.



7. Press the DHCP soft key to turn it to ON.
8. Press the SAVE soft key on the screen.
9. Press the “yes” soft key to restart the E7495A/B with DHCP.

Installing the Software on the PC

Software Download

1. Download the “E7495xRemoteGui.zip” file from the Agilent Technologies website: <http://www.agilent.com/find/E7495B>.



2. Extract the files to the PC. This will create a folder named “E7495xRemoteGui” that contains the following files needed to control the test set:

Egclient.jar

JimiProClasses.zip

RemoteGui Readme.pdf

RemoteGui.jar

NOTE:

*The file “JimiProClasses.zip” is required by the GUI for the **Print Screen** operation.*

Java Installation

The remote GUI requires the installation of Java 1.4 or greater to allow the E7495A/B screen to be viewed on the PC. The Java runtime environment (J2SE or Java VM) is free and can be downloaded over the web from <http://java.sun.com/> --
Downloadable file: J2SE v



1.4.2_04

1. Save file to disk drive, then install the Java program that is contained in the zip file “j2se-1_4_2_04-windows-i586.exe”

NOTE:

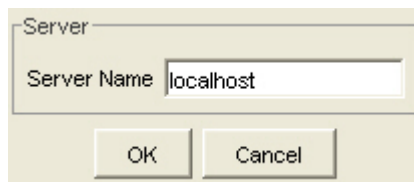
This will allow the E7495A/B screen to be viewed on the PC.

Running the Remote GUI Program

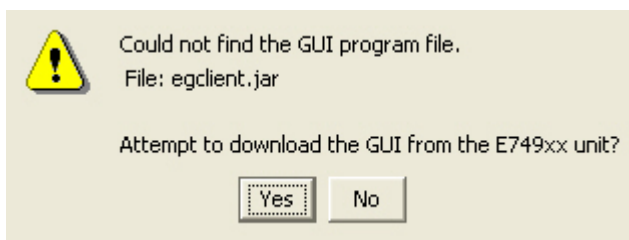
1. Locate the “RemoteGui.jar” file and double click it to start the E7495A/B remote interface.



This will bring up the launcher application.



2. Highlight “localhost” and type in the E7495A/B IP Address, press OK. At this time, the launcher will verify you have the right version of the GUI for that box and then launch the GUI.
3. If there is a version mismatch or the file is missing, the launcher will offer to download the correct version of the GUI from the E7495A/B. (This will only occur if differences in GUI versions exist between the E7495A/B firmware and the GUI stored in the program.)



- a. Select the “Yes” button to accept the file. The Remote GUI program WILL NOT work if the file is not downloaded!
- b. The program will then start to download the file egclient.jar from the E7495A/B Test Set into the E7495xRemoteGui directory. When prompted to save the file, insure the directory path is correct and then select “Save.”

- c. The program will prompt you that a version of egclient.jar already exists in the E7495xRemoteGui directory and ask if you want to overwrite the file. Select “Yes” to finish loading the correct version of the GUI that is required for the program to operate properly.

Controlling The E7495A/B

Upon application initiation, the E7495A/B maintains default control. The screen on the PC will read **“REMOTE”** in the upper right corner. The GUI emulation on the PC will follow the commands entered directly to the E7495A/B.

1. To switch control from the instrument to the PC, use the mouse and click on the “Esc/Loc” soft key. At this time, the E7495A/B will indicate **“REMOTE”** in the upper right corner of its display.

A rectangular button with a light blue background and the text "Esc/Loc" in black.

2. Use the mouse to select buttons and control the E7495A/B. Numbers can be selected with either the mouse or keyboard.



2.) Configuring the E7495A/B for direct connection

If a network is not available, or if the individual wants to directly connect to the instrument, (e.g. connect a PC to the E7495A/B to conduct over-the-air measurements in a vehicle, to provide demo via a projector in a training environment, etc.) connect the E7495A/B to a PC via a “Cross-over” LAN cable and assign a static IP addresses on both the E7495A/B and the PC.

The cross over cable is similar to a null modem cable in that the transmit and receive conductors have been crossed over at the connectors. This allows for communication between two devices without a node that assigns IP addresses.

The following steps will illustrate how to configure the E7495A/B and the PC for static IP addresses.

Configuring the E7495A/B for a Static IP

1. Power on the E7495A/B.

When the “Mode” screen appears, press the “System” button (under the Mode button).



On the left side of the E7495A/B, press the “Controls” soft key.

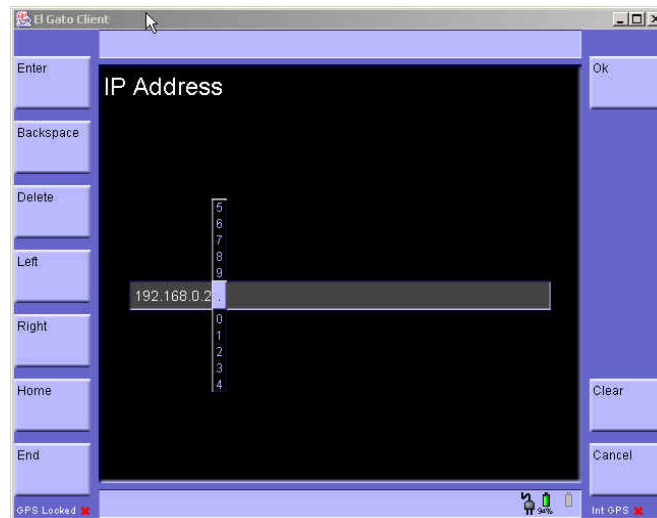
On the right side of the E7495A/B, press the “IP Admin” soft key.

Set the DHCP soft key to OFF.

Press the IP Address soft key.

Configuring the E7495A/B for a Static IP (Cont.)

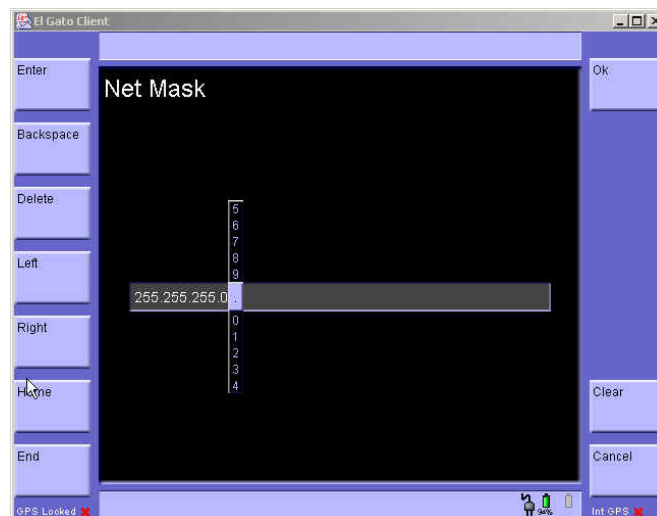
Press the clear soft key and enter the following example as the IP address:
192.168.0.2



Press the Ok soft key.

Press the Net Mask Soft key.

Press the clear soft key and input the following as the net mask address:
255.255.255.0



Press the Ok soft key.


Press the SAVE soft key to accept changes. Press yes, *this will reboot the E7594A/B*. Configuring the PC for a Static IP


NOTES:

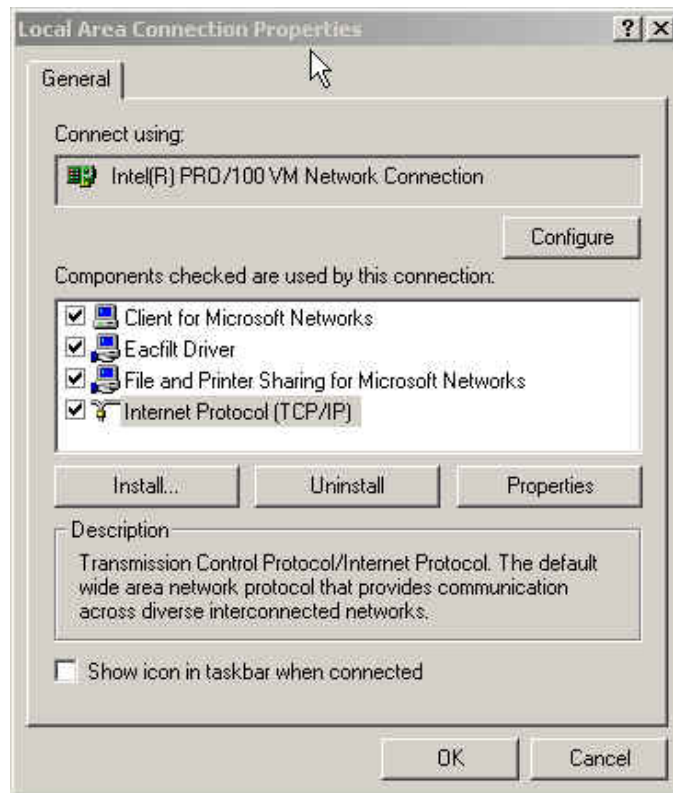
The PC's PROXY setting may have to be turned off in order for the PC to communicate with the E7495A/B.

This part of the step-by-step guide is written around Windows 2000. If a different operating system is being used, these steps may be different (but similar conceptually).

1. Open the Control Panel.

Double click on the  Network and Dial-up connections icon.

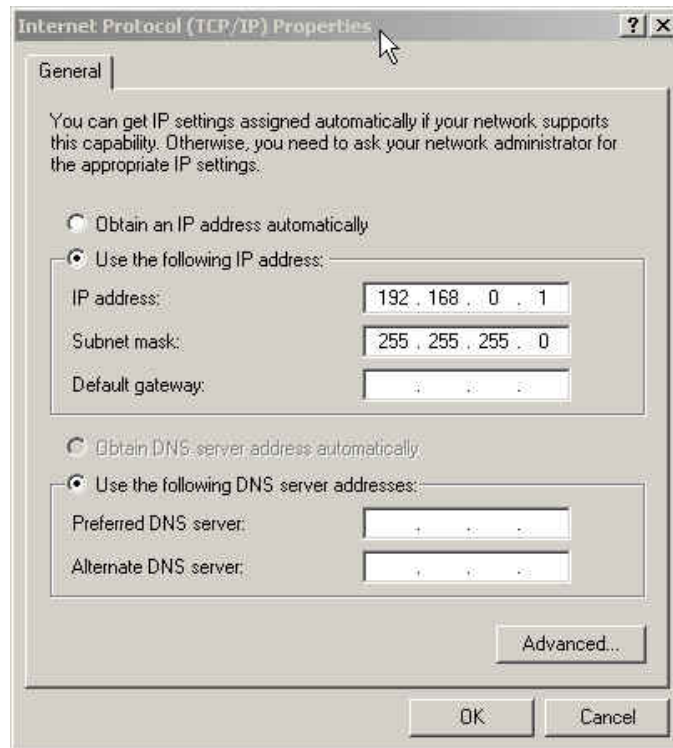
Right click on the  Local Area Connection icon and select Properties from the list of choices.



Select the Internet Protocol (TCP/IP) and go to its properties.

Configuring the PC for a Static IP (Cont.)

Click on the radial soft key called "Use the following IP address:"



Enter the following example IP address: **192.168.0.1**

Enter the following subnet mask: **255.255.255.0**

Click OK twice.

Proceed to "Controlling the E7495A/B" (page 7)

NOTES:

*It is very important that you use the IP address listed. The first three sets of number **MUST** match exactly i.e. xxx.xxx.xxx. The last number **MUST** be different. The windows default IP address has been chosen for the PC and the E7495A/B is only different by one number.*

DON'T FORGET TO CHANGE THE PC BACK TO DHCP, AUTOMATIC DNS, AND ENABLE THE PROXY SETTINGS FOR NETWORK CONNECTIVITY!!!!!!!

Uninstalling the Software on the PC

Software uninstall

From the folder named “E7495xRemoteGui,” simply delete the following files and main folder:

E7495xRemoteGui.zip

Egclient.jar

JimiProClasses.zip

RemoteGui Readme.pdf

RemoteGui.jar

E7495xRemoteGui folder

Optional: desktop shortcut

NOTE:

Modifications have NOT been made to the Windows configuration (e.g. no registry entries) during this installation process.