



# **Modem Command Guidelines (Advanced Users Only)**

## **Compaq Notebook Series**

Document Part Number: 267638-001

**April 2002**

This document, designed for programmers, software engineers, system administrators, and other advanced users, provides guidelines for working with modem commands.

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# Modem Command Guidelines

## Accessing HyperTerminal

An easy way to issue commands to the modem is via HyperTerminal, included with Microsoft Windows operating systems. To access HyperTerminal:

1. If you are using Windows 98, Windows 2000, or Windows Me, select Start > Programs > Accessories > Communications > HyperTerminal.
2. If you are using Windows XP Home or XP Professional, select Start > All Programs > Accessories > Communications > HyperTerminal.

## Entering a Command



**CAUTION:** Only programmers, software engineers, system administrators, and other advanced users should access or use modem commands. For help with modem problems, refer to the *Modem and Networking* guide on this CD or contact your Compaq authorized dealer, reseller, or service provider.

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Use the following guidelines when issuing modem commands:

- When using AT commands, start every command line (except the *A/* and *+++* commands) with the attention (AT) code characters; otherwise, the modem will not execute the command.

- Type commands following the AT prefix in uppercase or lowercase letters or a combination of both.
- Always type the AT prefix in the same case (not At or aT).
- Enter telephone numbers with or without punctuation; for example, (123) 456-7890 or 1234567890.

## **Identifying the Modem Type**

To verify which manufacturer's modem is included with your notebook, follow these steps:

### **Windows 98:**

1. Right-click My Computer > Properties > Device Manager.
2. Double-click Modems.
3. Double-click the drop-down icon and verify the modem manufacturer listed on the General tab.

### **Windows 2000 Professional:**

1. Right-click My Computer > Properties > Hardware tab > Device Manager button.
2. Double-click Modems.
3. Double-click the drop-down icon and verify the manufacturer listed on the General tab.

### Windows XP Home and Windows XP Professional:

1. Select Start.
2. Right-click My Computer > Properties > Hardware tab > Device Manager button.
3. Double-click Modems.
4. Double-click the drop-down icon and verify the manufacturer listed on the General tab.

For details on modem commands, refer on this CD to *Lucent/Agere Command Set* or Conexant's manual, *Commands for Host-Processed or Host-Controlled Modems*. For updates to these modem commands, visit <http://www.Agere.com> or <http://www.Conexant.com>.

## Editing and Executing a Command

If you make an error while typing a command, simply backspace over the mistake, then retype. You cannot backspace over the AT prefix because it is interpreted immediately after it is typed.

To execute a command line, press **enter**. (Pressing **enter** instructs the modem to process the command line.)

## Omitting a Parameter in a Command Line

If you enter a command that normally includes a numeric parameter, such as ATHn, without the numeric parameter, the missing parameter is assumed to be the default parameter.

For example, the Hn (hang-up) command can have a numeric parameter of zero (H0), which is the default, or of one (H1). However, if the parameter is missing, ATH plus the **enter** key is the equivalent of ATH0 plus the **enter** key. This rule does not apply to the D (dial) command.

## Repeating a Command

You can repeat the last command line issued by entering the *A/* command. Because it also repeats the AT prefix and the **enter** key function, you are not required to enter the AT prefix or press **enter** when repeating this command.

The last command entered remains in the command buffer until the modem is reset or power to the modem is turned off. Both actions clear the buffer and make the *A/* command invalid since there is no command for the modem to repeat.

## Understanding Result Codes

A result code is the modem's response to a command. It may be issued in either of two possible formats: words (the long form, also known as verbose) or numeric characters (the short form, represented by digits). The result code format is set using the *Vn* command:

- V1 for words (default)
- V0 for numeric characters

## Using Online Mode

In the online mode, the transmitting modem receives characters from the computer, converts the data to analog signals, then transmits these signals over the telephone line.

The process of altering a signal for transmission is called modulation. The receiving modem receives analog signals from the telephone when in the online mode and converts or demodulates the signal, returning it to the digital form that can be used by the computer.

## Escaping from Online Mode to Online Command Mode

Use the following steps to break out of a data transfer session (online mode) and enter the online command mode. The established connection is maintained, but input is interpreted locally and not transmitted to the remote connection.

1. Press and hold **shift** and type `+++`.  
An OK result code is displayed.
2. Enter modem commands as needed.
3. Return to online mode by entering `AT0` command or terminate the connection with the `ATH0` command.

## Creating a Command Mode Shortcut

You can create a shortcut for accessing HyperTerminal and sending commands to the modem. To create a command mode shortcut on the Windows desktop:

1. Create a Command Mode icon.
  - a. Access HyperTerminal
  - b. Double-click the Hypertrm.exe icon. The Connection Description dialog box is displayed.
  - c. Type Command in the Name option.
  - d. Select OK. The Phone Number dialog box is displayed.

- e. Select Connect Using > Direct to Com (X) where X is the number of the COM port used by your modem.



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To verify which COM port is used by your modem, perform the following:

- Windows XP Home and XP Professional: select Start > Control Panel > Phone and Modem Options icon > Modems tab > Attached To. Verify the COM port.
  - Windows 2000: Select Start > Settings > Control Panel > Phone and Modem Options icon > Modems tab > Attached To. Verify the COM port.
  - Windows 98: Select Start > Control Panel > Modems icon > General tab. Select the installed modem. Select Properties > Port. Verify the COM port.
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- f. Select OK. The Modem Port Settings dialog box is displayed.
  - g. Select OK. The command mode screen is displayed with a blinking cursor in the upper-left corner. Commands can now be sent to the modem, and the modem responds with a result code.
  - h. Select File > Save (to save the session).
  - i. Select File > Exit (to quit). A command mode icon is displayed in the HyperTerminal dialog box.
2. From the HyperTerminal dialog box, select the Command icon.
  3. Right-click the Command icon or select File > Create Shortcut.
  4. A Command Mode Shortcut icon is displayed.
  5. Select and drag the shortcut icon to the desktop.
  6. To quit HyperTerminal, select File > Exit.