

THE MODEM IS NOT WORKING

Cause: The modem is incompatible.

Solution: If you have access to another computer with an Internet connection, check the list of compatible modems in the Microsoft Windows Hardware Compatibility List at the Microsoft website (<http://www.microsoft.com/>)

Cause: The modem is not connected properly or is turned off.

Solution: Verify that the modem is connected properly to the correct port on your computer. If the modem is external, verify that the power is on.

To test a modem

1. Open phone and modem options in Control Panel.
2. On the Modems tab, click the modem that you want to test.
3. Click Properties, then click Diagnostics, then click Query Modem.

Notes

- To open a Control Panel item, click Start, point to Settings, click Control Panel, and then double-click the appropriate icon.
- You must be logged on as an administrator or a member of the Administrators group in order to complete this procedure. If your computer is connected to a network, network policy settings may also prevent you from completing this procedure.
- This procedure sends standard AT commands to your modem and displays the responses to indicate features supported by your modem.

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UNABLE TO CONNECT UPON DIAL IN

Cause: The modem bank is not running.

Solution: Ask your system administrator to verify that the modem bank is running. If the server is down, the administrator needs to check the error and audit logs to see why the service stopped. After the problem is fixed, restart the service. If the service is running, the administrator needs to check whether other remote access clients can connect properly. If other clients can connect, the problem may be specific to your workstation.

Cause: You do not have a valid user account, or you do not have remote access permission.

Solution: Verify with your system administrator that your user account has been established, and that you have remote access permission.

Cause: You dialed the wrong number, or you dialed the correct number but forgot to dial an external line-access number, such as 9.

Solution: Verify that the number is correct as dialed.

Cause: Your modem cannot negotiate with the modem of the server.

Solution: Try using the same type of modem as the server.

Cause: The modem cabling is faulty.

Solution: Do not use the 9-to-25-pin converters that are included with most mouse hardware because some of them do not carry modem signals. To be safe, you should use a converter made especially for this purpose.

Cause: The telephone line (for example, in your hotel room) does not accommodate your modem speed.

Solution: Select a lower bits-per-second (bps) rate (or call the hotel manager to request a direct line).

To change the maximum modem port speed

1. Open phone and modem options in Control Panel.
2. On the Modems tab, click the modem that you want to configure, then click Properties.
3. On the General tab, in the Maximum Port Speed list, click the speed for the modem.

Notes

- To open a Control Panel item, click Start, point to Settings, click Control Panel, and then double-click the appropriate icon.
- You must be logged on as an administrator or a member of the Administrators group in order to complete this procedure. If your computer is connected to a network, network policy settings may also prevent you from completing this procedure.
- This value is usually set correctly when the modem is installed.
- This speed represents the maximum speed programs are allowed to transmit data to the modem and is normally faster than the modem speed. For example, this is usually set to 57,600 bps for a 33.6 Kbps (V.34) modem.
- Changing this setting also sets the current speed for the modem. To set a different value for the current speed, see Related Topics for the procedure to change the data connection preferences.

Cause: The line you are trying to use is digital.

Solution: Most modems work only with analog phone lines. Verify that you have analog phone lines installed or, if you have digital phone lines installed, verify that the servers and clients have digital modems.

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When trying to connect, a message is received that says the remote access server is not responding.

Cause:

- At higher bits-per-second (bps) rates, your modem is incompatible with the modem of the server.
- There is a lot of static on the phone line, which prevents a modem from connecting at a higher bps rate.
- There is some kind of switching equipment between the client and server that prevents the two modems from negotiating at a higher bps rate.

Solution: Adjust the speed of your modem to a lower bit-per-second (bps) rate.

See also: To change the maximum modem port speed.

Cause: The remote access server is not running.

Solution: Ask your system administrator to verify that the server is running.

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The modem always connects at a lower bits-per-second (bps) rate than specified.

Cause: The modem and telephone line are not operating correctly. Excessive static on the telephone line causes sessions to be dropped.

Solution: You can use modem diagnostics to confirm correct modem operation.

To log and view modem commands

1. Open Phone and Modem Options in Control Panel.
2. On the Modems tab, click the modem whose commands you want to log.
3. Click Properties, then click the Diagnostics tab.
4. In Logging, select the Append to Log check box if you are working on a computer running Windows 2000 Professional or Record a Log if you are working on a computer running Windows 2000 Server.

Notes

- To open a Control Panel item, click Start, point to Settings, click Control Panel, and then double-click the appropriate icon.
- You must be logged on as an administrator or a member of the Administrators group in order to complete this procedure. If your computer is connected to a network, network policy settings may also prevent you from completing this procedure.
- Click View Log to display the log file.
- Commands sent to the modem are captured in the file Systemroot\ModemLog_Model.txt. Systemroot is usually C:\Winnt\System32. Model is the name of the modem as it appears in the list of installed modems on the Modems tab of Phone and Modem Options.
- On Windows 2000 Professional, logging is always turned on and the log is overwritten at the beginning of every session unless you select the Append to Log check box. On Windows 2000 Server, logging is turned off unless you select the Record a Log check box.

Cause: The destination server is not running properly.

Solution: Ask your system administrator to verify that the destination server is running properly. Try connecting to the same server from another workstation. If other workstations are having the same problem, there may be problems with server applications or hardware. If not, the problem is specific to your workstation.

Cause: The quality of your line is insufficient.

Solution: Contact your telephone company to verify the quality of your line.

Cause: The line you are dialing is affecting the speed.

Solution: If you can connect to your remote access server by using more than one number, try another number and see if the speed improves.

Cause: Your modem software needs to be updated.

Solution: Check with your modem manufacturer for modem software updates.

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The sessions with a remote access server on the network keep getting dropped.

Cause: Call waiting is disrupting your connection.

Solution: Verify that the phone has call waiting. If so, disable call waiting and try calling again.

To change dialing properties for a location

1. Open Phone and Modem Options in Control Panel.
2. On the Dialing Rules tab, click the location to modify, and then click Edit.
3. Click a tab to make changes to the General settings, Area Code Rules, or Calling Card for the location.

Notes

- To open a Control Panel item, click Start, point to Settings, click Control Panel, and then double-click the appropriate icon.
- See Related Topics for more information about locations or changing specific elements of a location.

Cause: The remote access server disconnected you because of inactivity.

Solution: Try calling again.

Cause: Someone picked up the phone. Picking up the phone automatically disconnects you.

Solution: Try calling again.

Cause: Your modem cable is disconnected.

Solution: Verify that the modem cable is connected properly.

Cause: Your modem software needs to be updated.

Solution: Check with your modem manufacturer for modem software updates.

Cause: Your modem settings need to be changed because of a remote access server change.

Solution: Verify the modem settings with your system administrator.

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Connections are disconnecting abnormally.

Cause: The remote access server is not running.

Solution: Ask your system administrator to verify that the server is running.

Cause:

- Your modem is unable to negotiate correctly with the modem of the remote access server.
- The serial port of the computer cannot keep up with the speed you have selected.

Solution: Try to connect at a lower initial port speed.

See also: To change the maximum modem port speed.

Cause: Your modem software needs to be updated.

Solution: Check with your modem manufacturer for modem software updates.

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When trying to connect, a hardware error is received.

Cause: The modem is turned off.

Solution: Verify that the modem is turned on. If the modem is turned off, turn it on and redial.

Cause: Your modem is not functioning properly.

Solution: Enable modem logging to test the connection.

See also: To log and view modem commands.

Cause: Your cable is incompatible.

Solution: If your modem communicates through Terminal, but not through Network and Dial-up Connections, the cable that attaches your modem to the computer is probably incompatible. You need to install a compatible cable.

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When trying to connect by using ISDN, a "No Answer" message is received.

Cause: The remote access server did not answer because it is turned off or the modem is not connected.

Solution: Contact your system administrator.

Cause: The line is busy.

Solution: Try calling later, or contact your system administrator.

Cause: There is a problem with the hardware.

Solution: Verify that the ISDN adapters are installed and configured correctly.

Cause: Your phone number is not configured correctly.

Solution: In some cases, each B channel on an ISDN line has its own number, while in other cases both B channels share a single number. Your telephone company can tell you how many numbers your ISDN line has.

Cause: If you are located in the United States or Canada, your Service Profile Identifier (SPID) is configured incorrectly. The SPID normally consists of the phone number with additional digits added to the beginning, the end, or both. The SPID helps the switch understand what type of equipment is attached to the line and routes calls to appropriate devices on the line. If an ISDN channel requires a SPID, but it is not entered correctly, then the device cannot place or accept calls.

Solution: Verify that the SPID is entered correctly.

Cause: A poor line condition (for example, too much static) interrupted your connection.

Solution: Wait a few minutes and try dialing again.

Cause: You did not enable line-type negotiation, or a connection cannot be made with the line type you selected.

Solution: Enable line-type negotiation.

Cause: Your ISDN switching facility is busy.

Solution: Try again later.

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When using a laptop to connect to an ISP, some or all of the applications do not run properly.

Cause: The WinSock Proxy Client may be preventing your applications from running properly when you use the ISP connection.

Solution: If you are a mobile user and use your laptop in your corporate environment, you may need to disable the Microsoft WinSock Proxy Client (WSP Client in Control Panel) when you use the same computer to dial to an ISP or other network. For example, if you use a laptop in your office and use the same computer to connect to an ISP or other network from your home, you may have problems running all of your applications when you use the ISP connection. (For example, your applications may not be able to find the resources or servers they need.) If this is the case, you should disable the Microsoft WinSock Proxy Client (WSP Client in Control Panel) to run the applications that you typically run when you use your laptop in the corporate office.

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Incoming connection clients cannot see resources beyond the incoming connection computer.

Cause: If the addresses that are being allocated to incoming clients are not a subset of the network to which the incoming connection computer is attached, you must create a route to the incoming client computers on the intranet computers.

Solution: Reconfigure your range of IP addresses that are being allocated to incoming clients so that it is a subset of the network to which the incoming connections computer is attached. If you cannot do this, then configure your intranet hosts with the IP address of the incoming connections computer as a default gateway.

- If your intranet hosts are configured to obtain an IP address automatically and a Dynamic Host Configuration Protocol (DHCP) server is present, you can configure your DHCP server to assign the default gateway.
- If your intranet hosts are configured to obtain an IP address automatically and a DHCP server is not present (you are using the Automatic Private IP Addressing feature of Windows 2000 and Windows 98), then you must manually configure all of your intranet hosts with an IP address, subnet mask, and default gateway.

Cause: The calculated range of addresses allocated to connecting clients is larger than the range that you configured.

Solution: Most TCP/IP networks use subnets in order to effectively manage routed IP addresses. For the range that you specified in From and To, Windows 2000 calculates the closest matching subnet. The range of addresses in the closest matching subnet may exceed the range that you specified. Unless the addresses specified in From and To are subnet boundaries, the range based on the calculated subnet will be larger than the range that you specified. To avoid this, specify a range that falls on subnet boundaries. For example, if you are using the 10.0.0.0 private network ID for your intranet, a range that falls on subnet boundaries is 10.0.1.168 to 10.0.1.175. Or, if you are using the 192.168.0.0 private network ID for your intranet, a range that falls on subnet boundaries is 192.168.1.0 to 192.168.1.255.

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