V.92 56K USB Modem

Quick Installation Guide

H50113

System Requirements

- Computer with Pentium 200 MMX or higher processor.
- Windows 2000, Windows XP Home / Professional, XP Professional x64 Edition, Vista 32 / 64 Families, Windows 7 32 / 64 Families, and Windows Server 2003, 2008 R2 64-bit.
- 20 MB Hard Disk free space or above
- Sound card for voice features
- 1 available USB port.
- CD-ROM drive.

Package Includes

The box contains the following items:

- 56Kbps USB Modem
- RJ11 Phone Line Cable
- USB cable
- Utility CD with Drivers and User's Manual
- Quick Installation Guide

If any of these items are missing or damaged, please contact your dealer or sales representative for assistance.

Hardware Setup

This chapter contains detailed instructions how to install and configure the 56Kbps USB modem, as well as how to verify if your installation is correct. We recommend that you follow the steps accordingly to avoid future problems.

ESD Precautions

Electrostatic discharge (ESD) can damage your processor, disk drives, expansion boards, and other system components. Always observe the following precautions before you install any system component.

1. Do not remove a component from its protective packaging until you are ready to install it.

2. Wear a wrist grounding strap and attach it to a metal part of the system unit before handling components. If a wrist strap is not available, maintain contact with the system unit throughout any procedure requiring ESD protection.

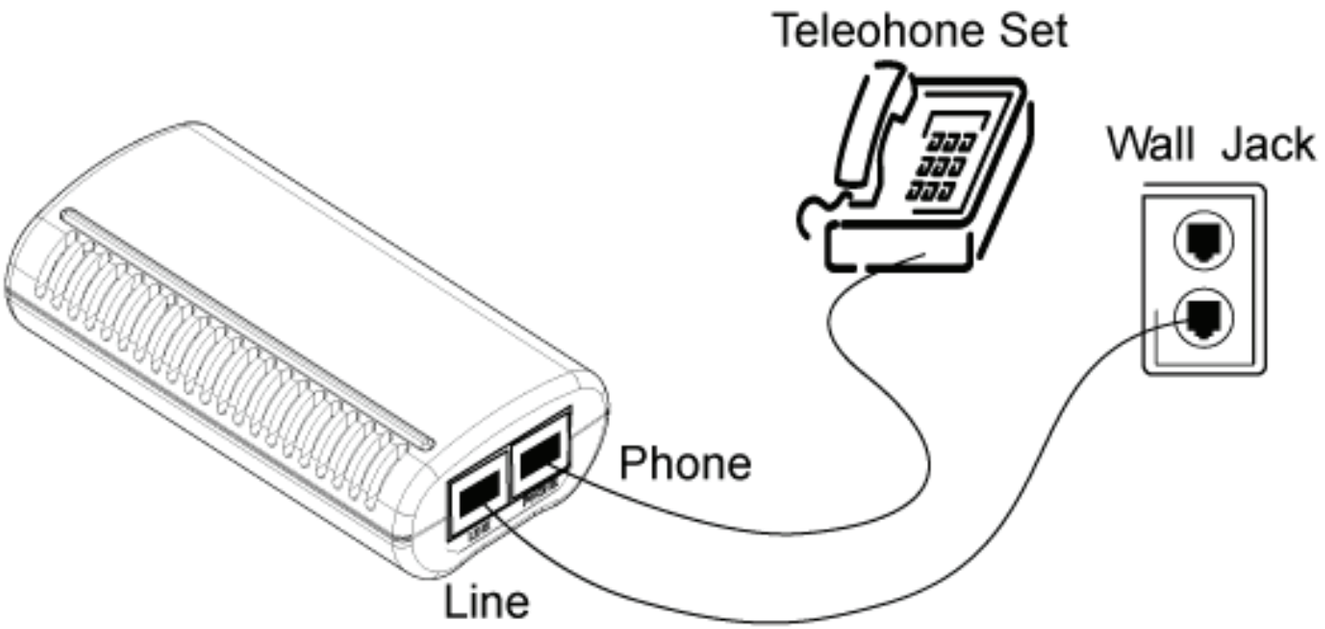
Installing the 56Kbps USB Modem

1. Turn off the System and unplug the AC power supply from the system.
2. Please connect USB modem and PC with USB cable.
3. Please connect 56Kbps USB modem to the telephone line and telephone set, as following procedures.

a. Locate an available RJ-11 modular jack telephone outlet.

b. Insert one end of the modular cord that came with your USB 56Kbps modem into the RJ-11 modular jack marked “LINE” on the modem. Then plug the other end into the modular jack on wall outlet. See below Figure.

c. Plug the RJ-11 jack of the telephone set into the RJ-11 jack marked “PHONE” on the modem, if required. See below figure.



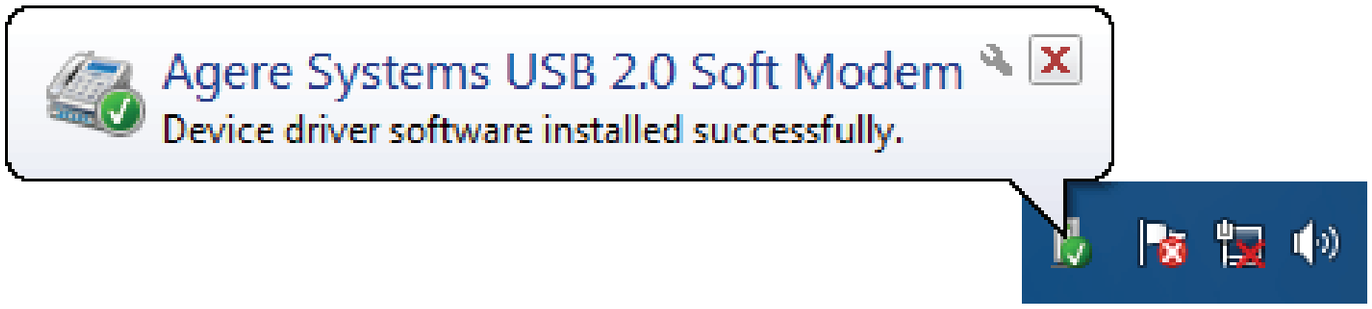
d. If telephone set connected with 56Kbps USB modem via a telephone cord, life the telephone handset, and check for a dial tone.

Configure the Modem on Win98 / WinME / Win2000 / WinXP / 2003 / Vista / 2008/ Win7

1. Please turn on your computer.

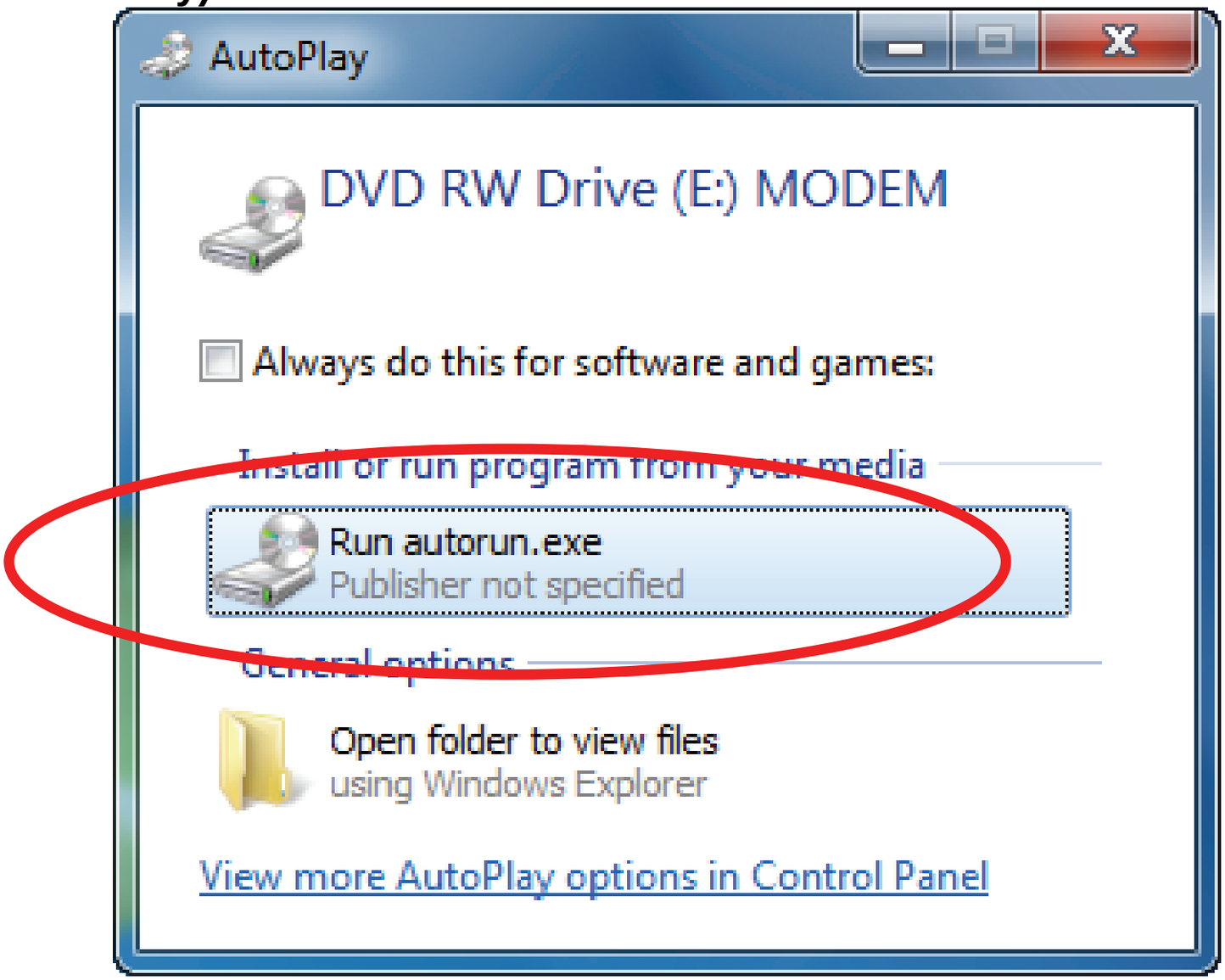
   For Windows 98/2000/ME/XP/2003 User:
   As Windows starts, it will detect a new hardware has been plugged or added, and start the **" Add New Hardware Wizard / Found New Hardware Wizard "**. Click on **" Cancel "**.

   For Windows Vista/Win7/2008 User:
   As Windows starts, the following will appear on screen.



2. Please insert the USB 56Kbps modem Utility CD into your CD-ROM driver.

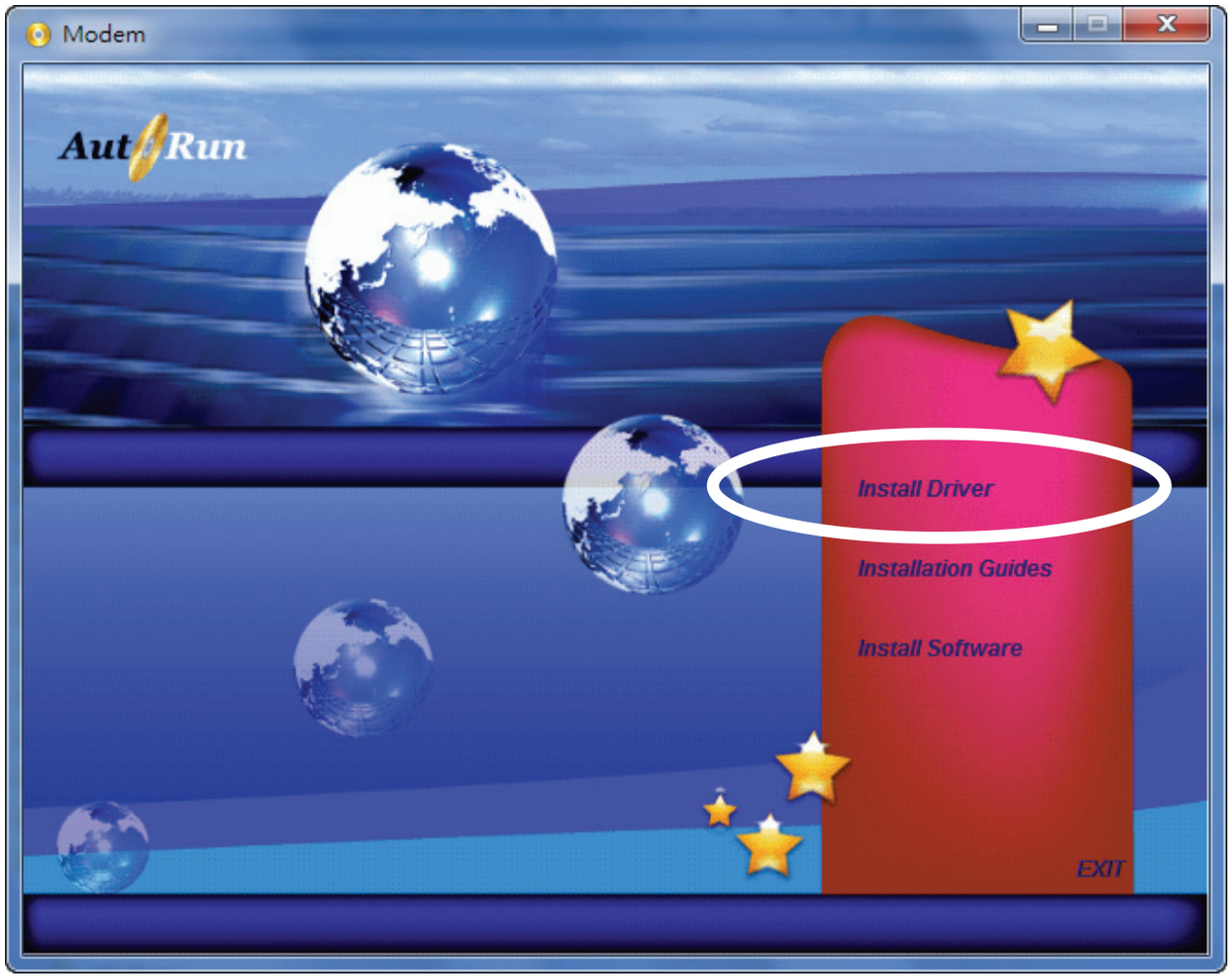
3. Click **" Run autorun.exe "**. **(For Windows Vista/2008/7 User only)**



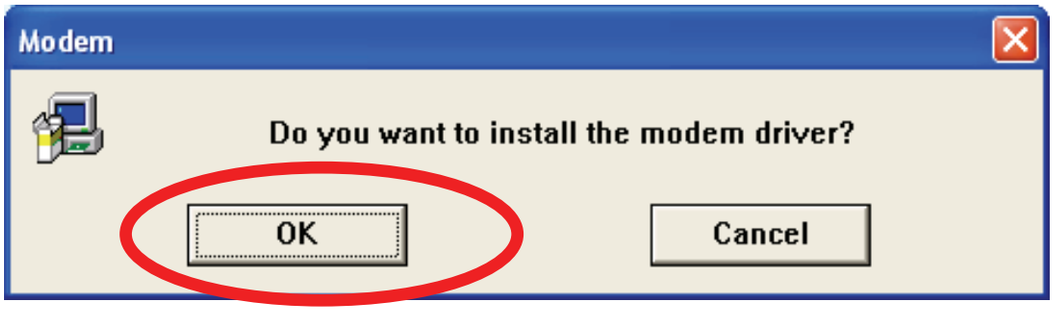
4. The CD should auto-start, displaying the following windows. If it does not start properly, please click on Start – Run and type in **CD:\autorun.exe** (where CD is as the location of the CD-ROM driver) .

5. For Security reasons Windows 7/Vista requires the installer program to have administrator privileges so the new policy called **" User Account Control "** has been introduced in Windows 7/Vista. If UAC is enabled Windows pops up a window **" User Account Control "** Windows need your permission to continue. User needs to click **" Yes / Allow / Continue "** to proceed with the installation.

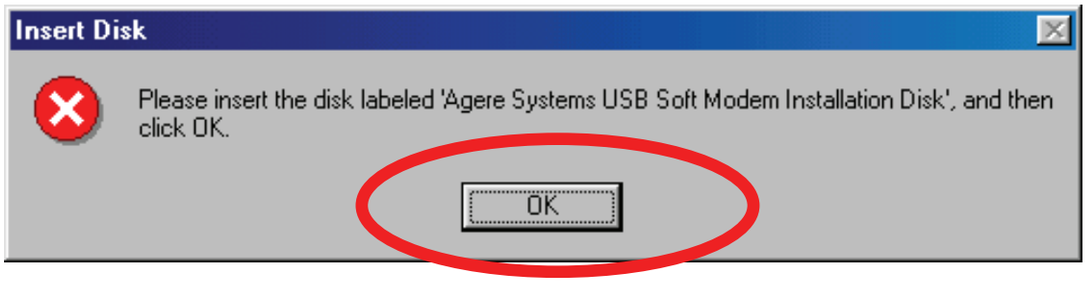
6. Please select **" Install Driver "**



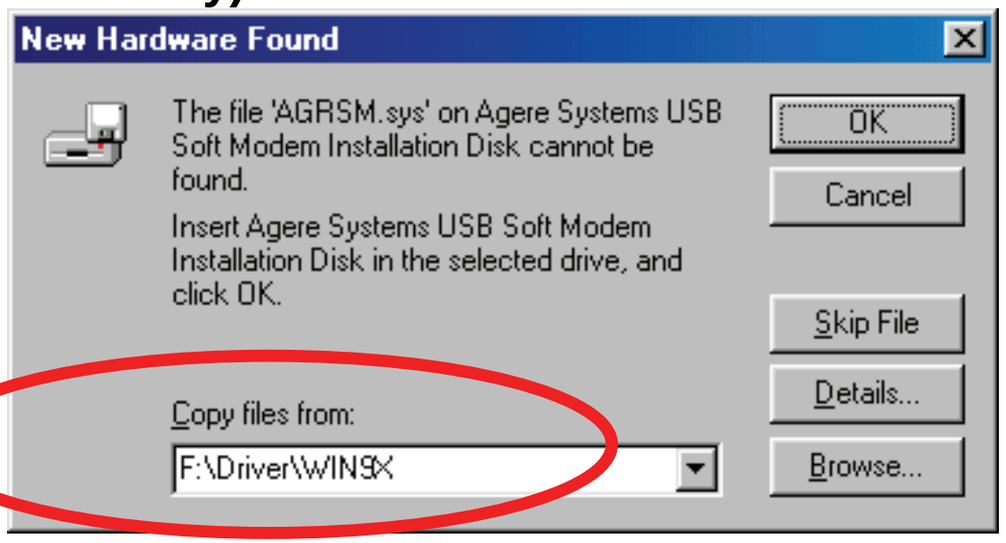
7. Click **" OK "**.



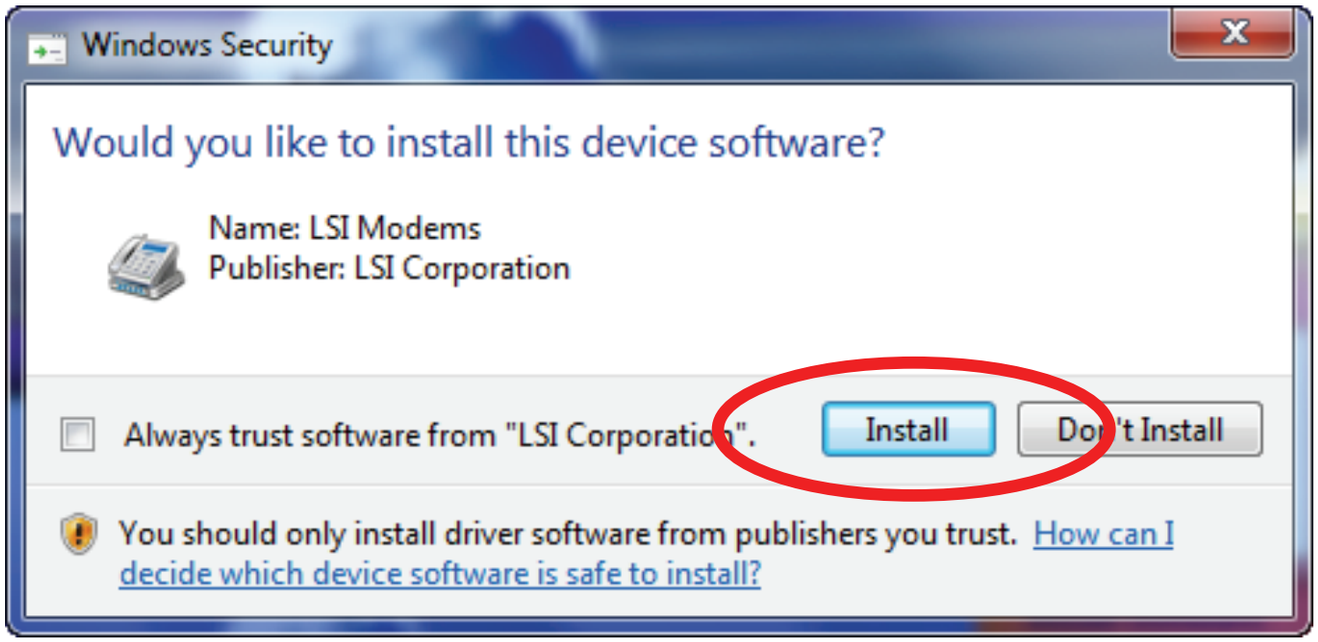
8. Click **" OK "**. **(For Windows 98 User only)**



9. Browse to **CD:\Driver\WIN9X** (where CD is as as the location of the CD-ROM driver) and then click **" OK "**. **(For Windows 98 User only)**



10. Click **" Install / Yes "** to finish the installation. **(For Windows 2008/7 User only)**



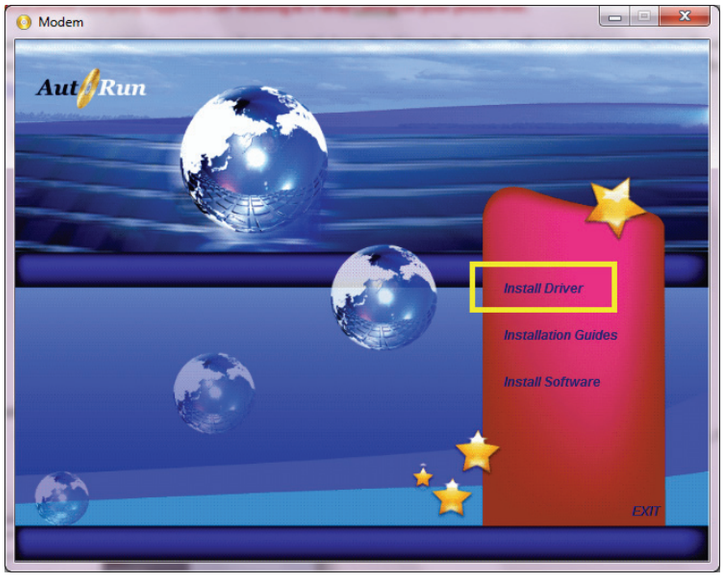
Note: - If you can not perform these procedures smoothly as above, please perform the file directly:
CD:\Autorun.exe

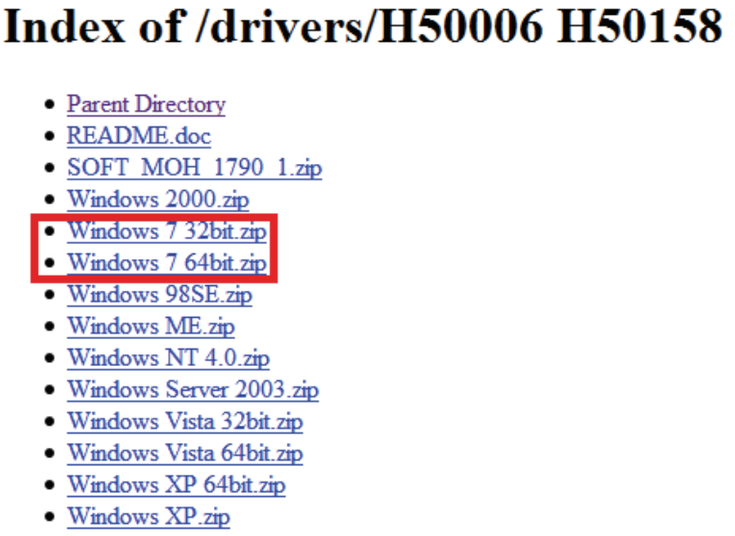
(Where CD is the drive letter of your CD-ROM drive)

How to Setup Modem-On-Hold

In order to use Modem-On-Hold feature, please make sure that your ISP (Internet Service Provider) supports V.92 standard, and your local phone company supports Call-Waiting & 3-Way calling on your phone line.

1. Windows Vista or 7 may already have the driver built-in and will install them automatically when you first install your modem. However, this particular driver may omit certain features including Modem-On-Hold; therefore it is necessary to install the complete driver from the CD, or download & install from our web site http://www.hiroinc.com/drivers. For more information about installation & unzip procedure, please refer to the "**General Download and Installation**" documentation online.



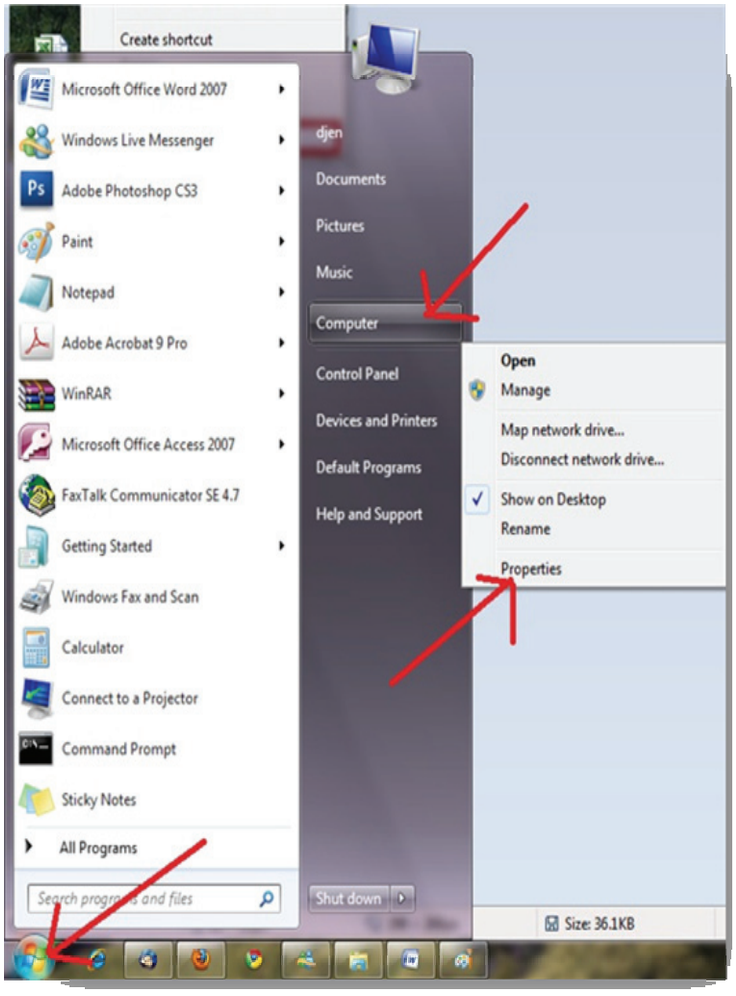


Index of /drivers/H50006 H50158

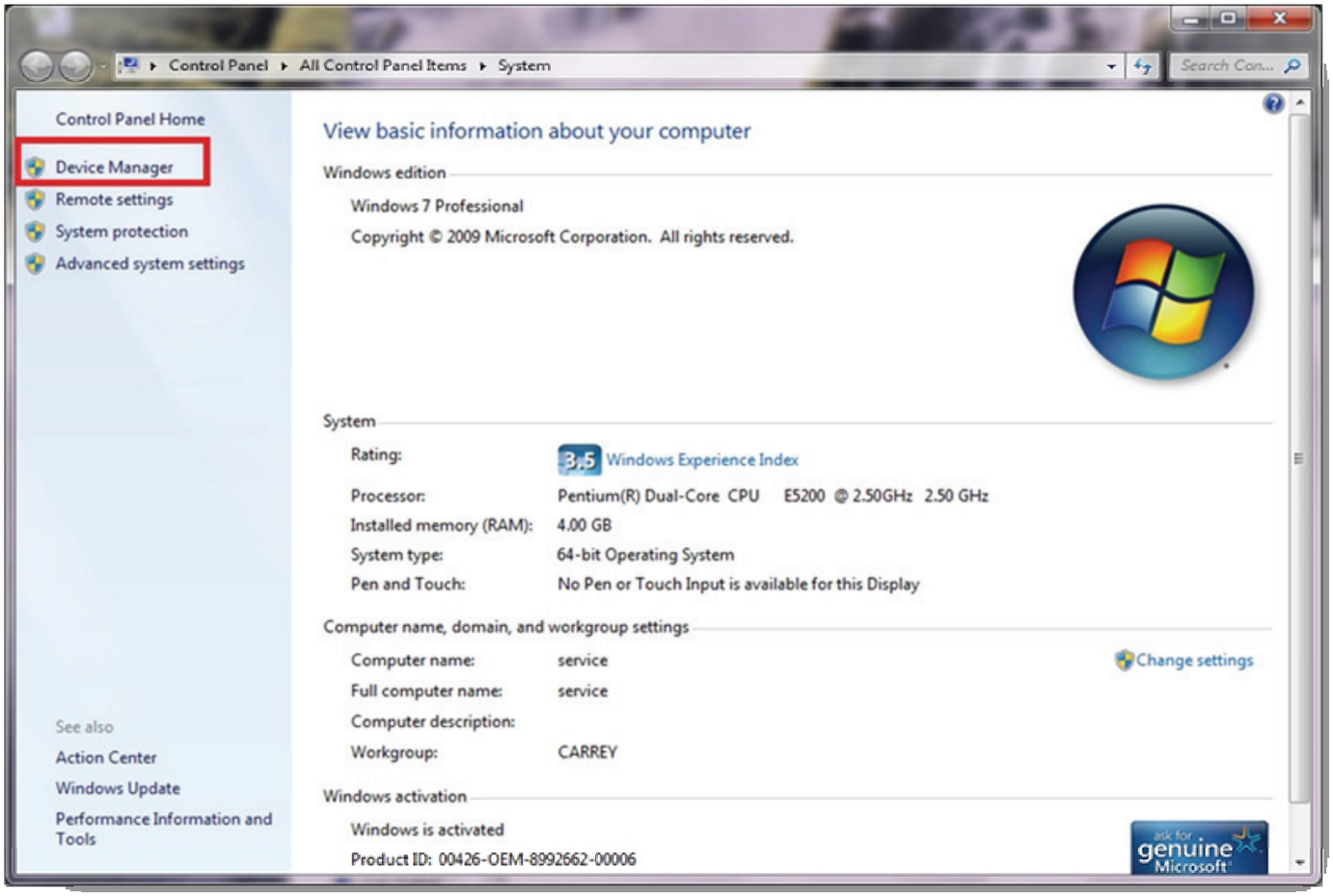
- Parent Directory
- README.doc
- SOFT_MOH_1790_1.zip
- Windows 2000.zip
- Windows 7 32bit.zip
- Windows 7 64bit.zip
- Windows 98SE.zip
- Windows ME.zip
- Windows NT 4.0.zip
- Windows Server 2003.zip
- Windows Vista 32bit.zip
- Windows Vista 64bit.zip
- Windows XP 64bit.zip
- Windows XP.zip

2.Install the driver accordingly, and then restart the computer. Please verify the driver version:

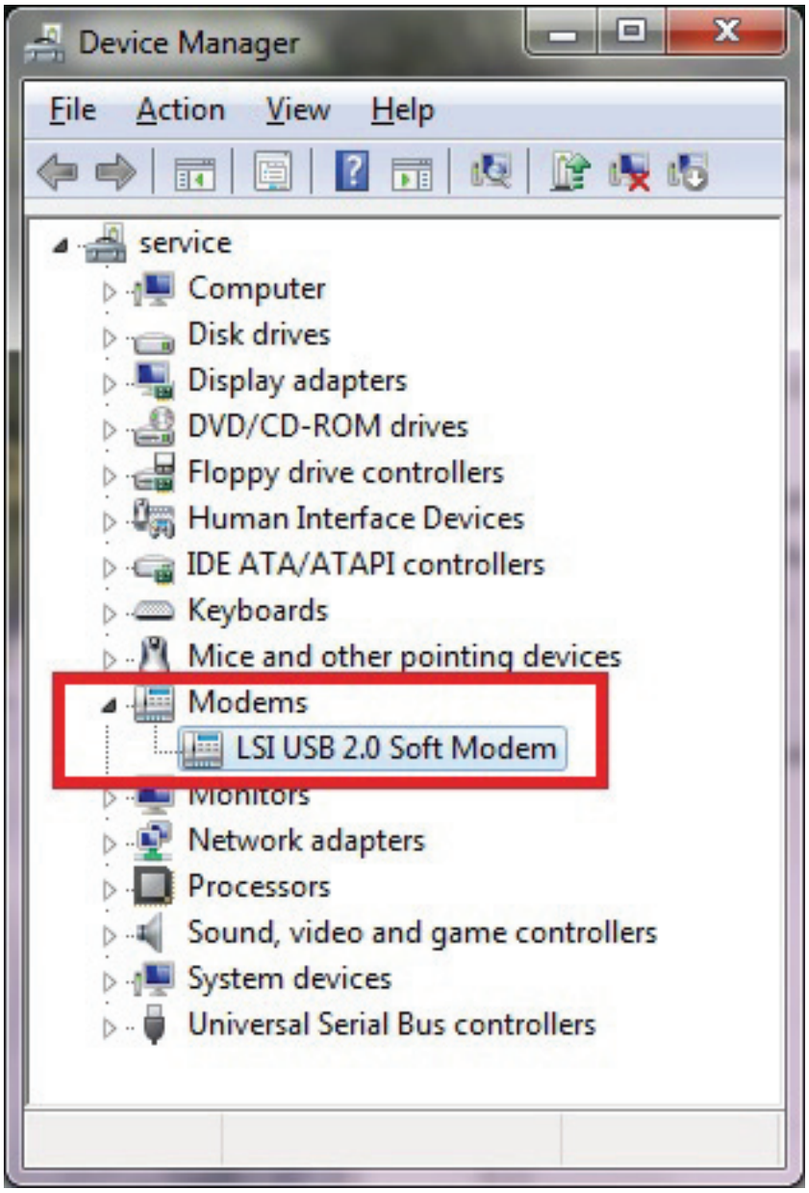
a.Look for the "**My Computer**" icon on your desktop or "**Computer**" from your starting menu. Right-click, then select "**Properties**"



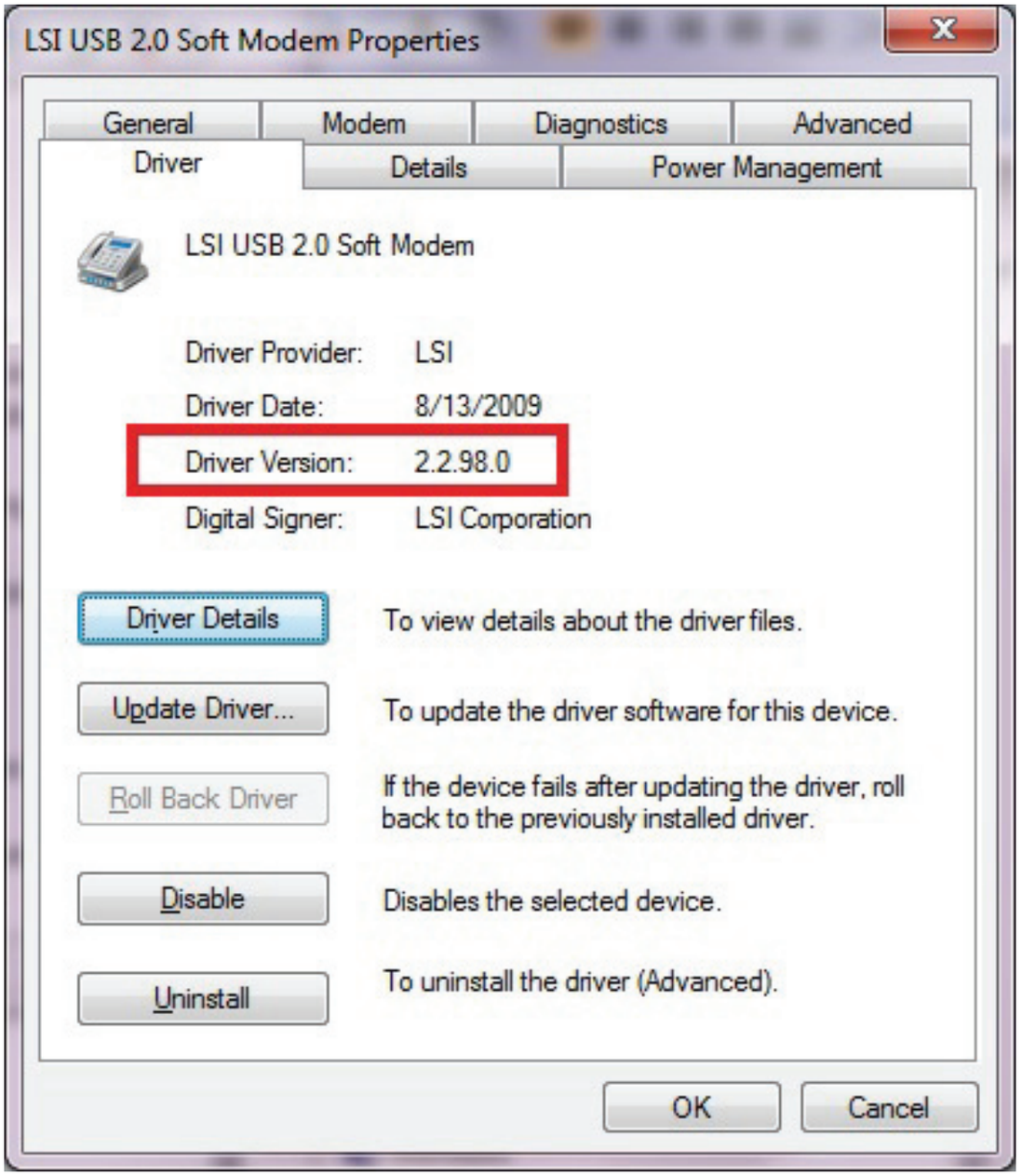
b.Look for the “**My Computer**” icon on your desktop or “**Computer**” from your starting menu. Right-click, then select “**Properties**”



c.On the device manager, please locate the line “**Modems**” and expand it. Please then double-click on the sub-line and bring out the modem’s properties.



d.On the Modem Properties, please click on the Driver tab and verify that the version. For H50006, H50113, & H50158, it is **2.2.98.0**. For H50159, it should be **2.7.1.0**.



3.For SoftMOH procedure, please open the driver CD then “Software” folder, and copy the **SOFT_MOH_1790_1** folder onto your desktop. Or, please create a new folder on your desktop, download & unzip the **SOFT_MOH_1790_1** from http://www.hiroinc.com/drivers, and save all the files into this folder.

Index of /drivers/H50006 H50158

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- Windows Vista 64bit.zip
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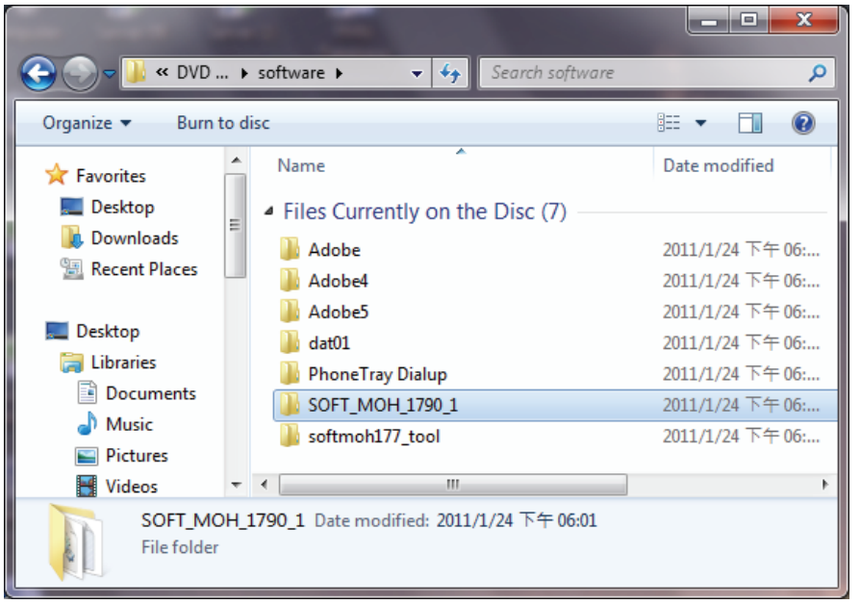
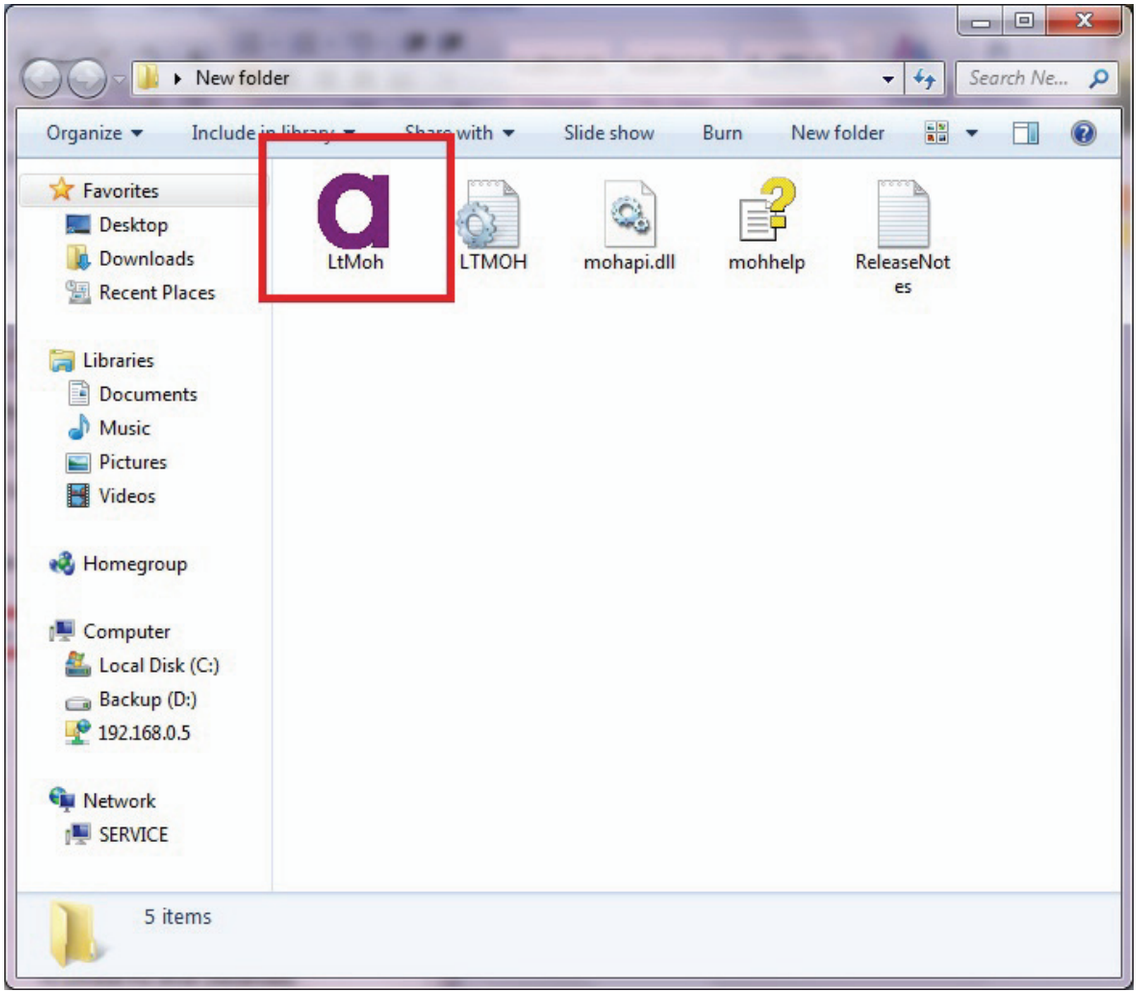
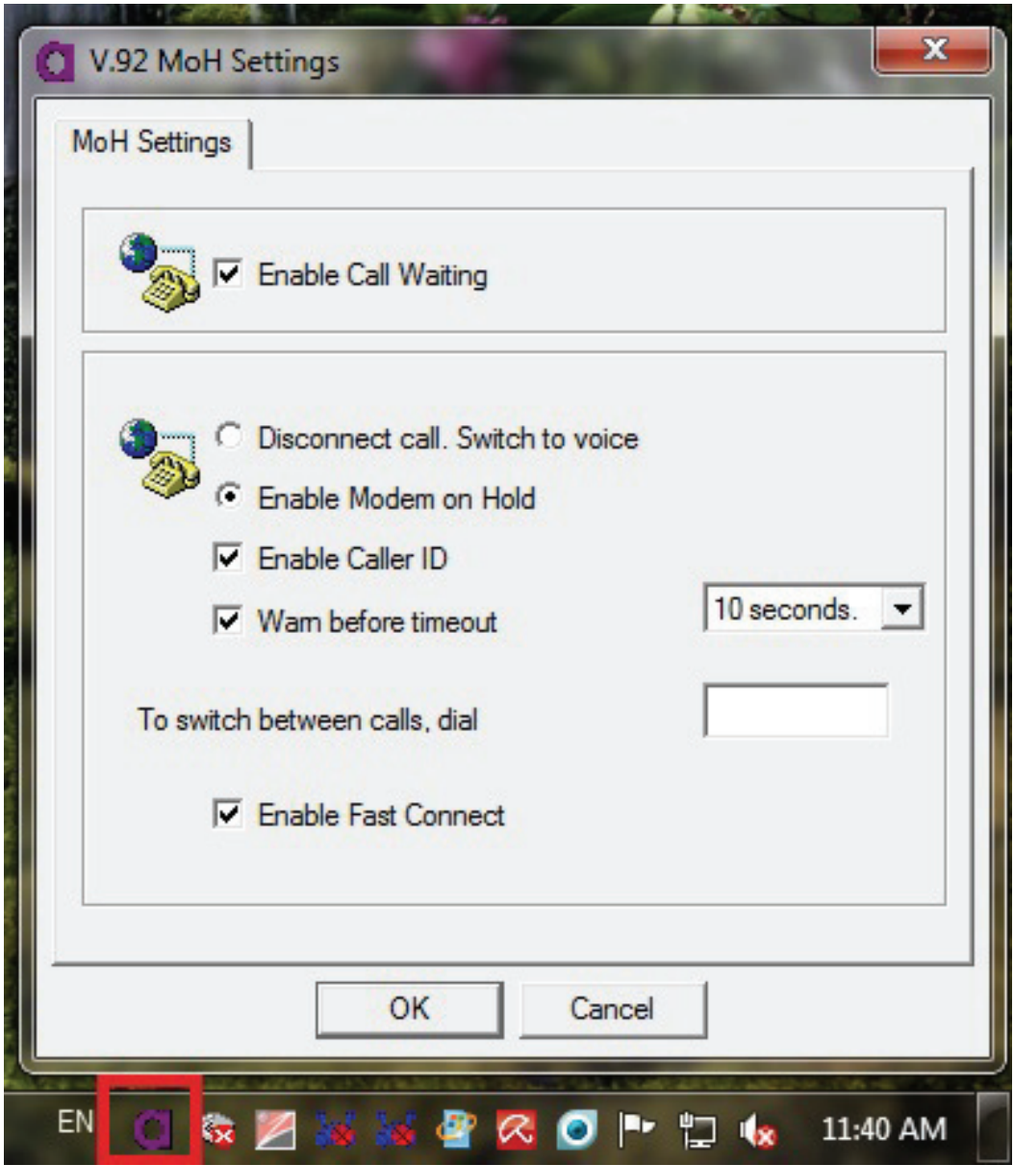


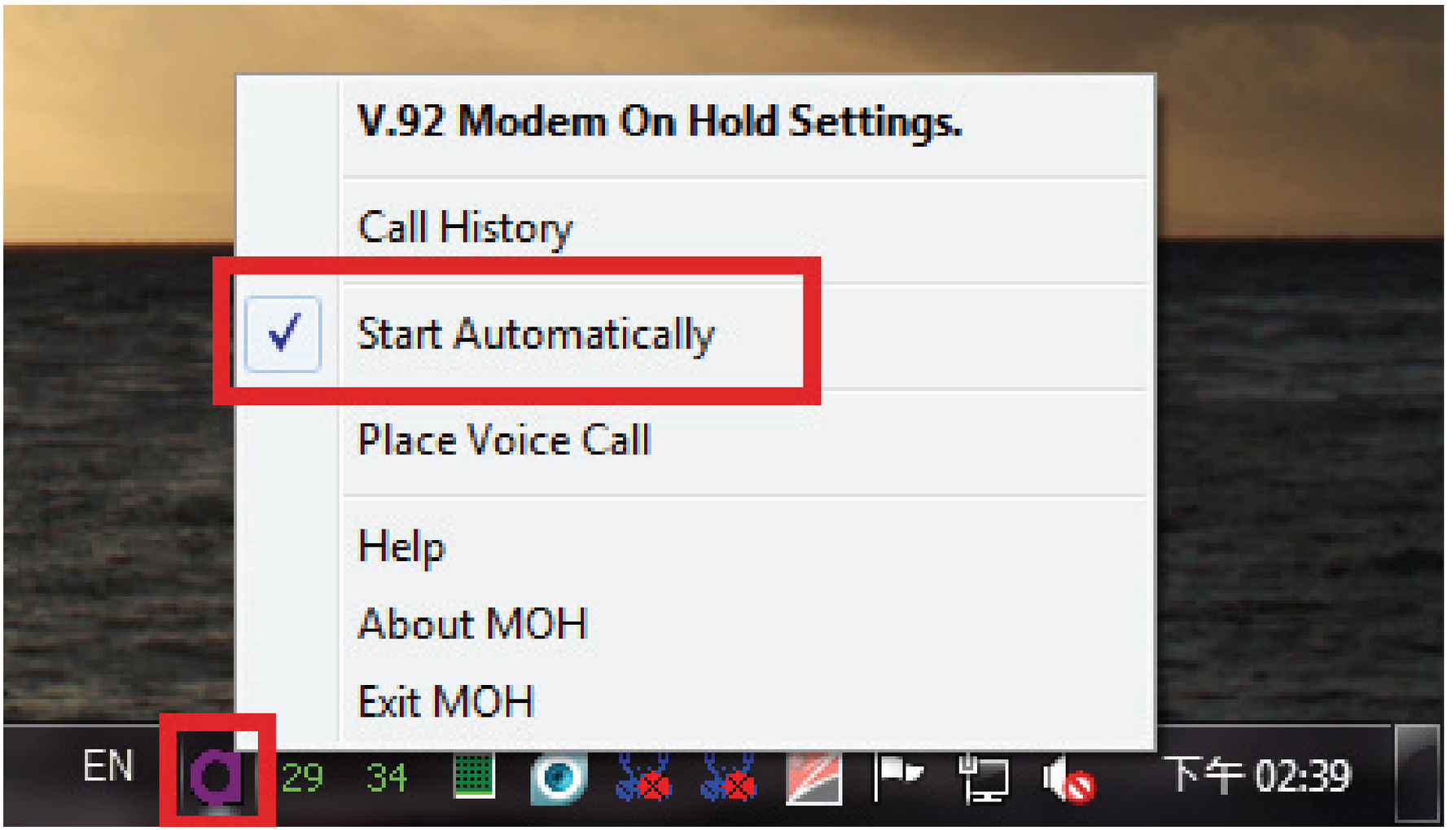
4.Double-click on the file "**LtMOH.exe**."



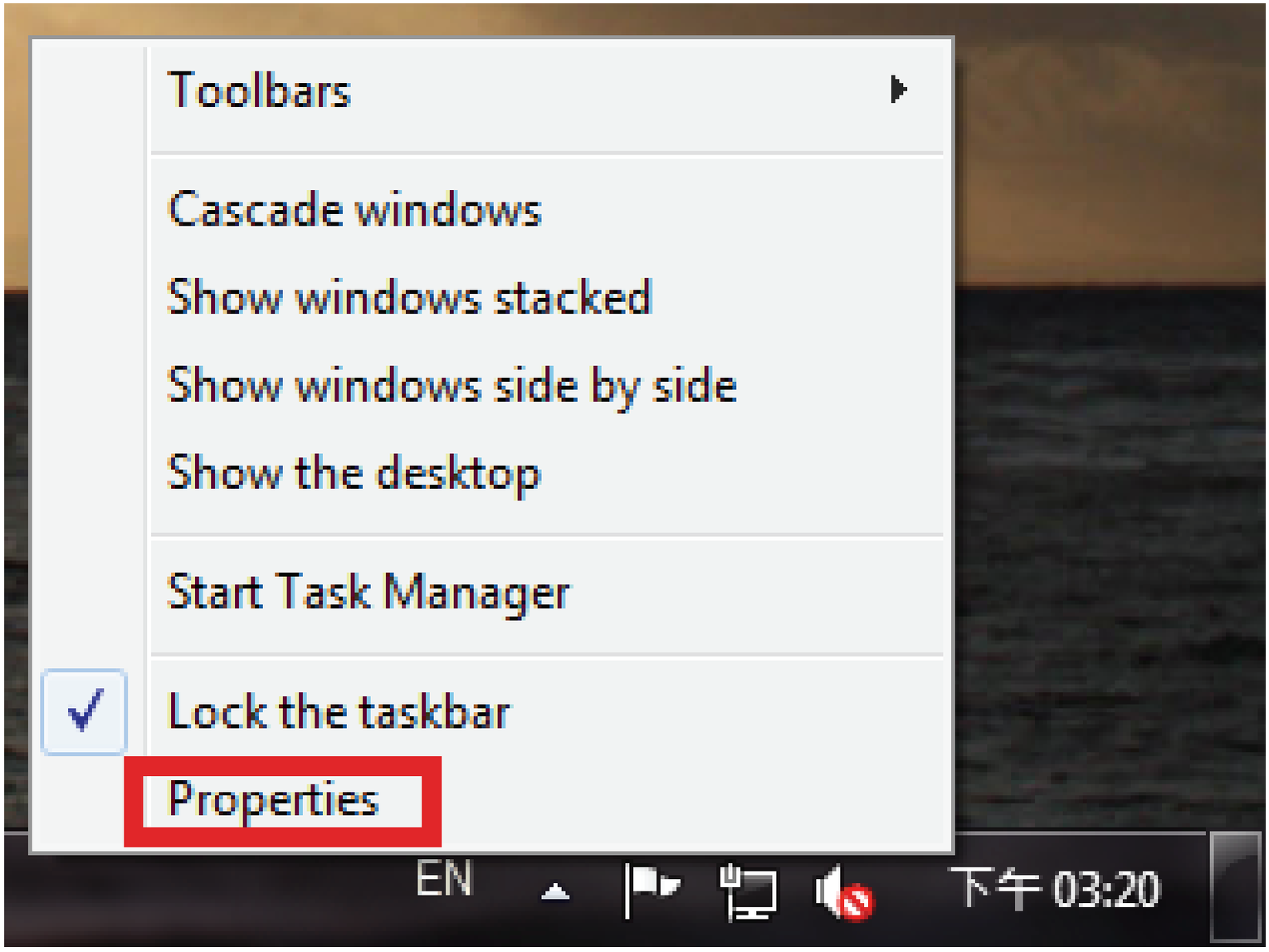
5.The purple 'a' should appear on the task bar. Left-double-click on the purple ‘a’ and you can bring up the Soft MOH menu. Please modify the setup as you prefer, and then click OK.



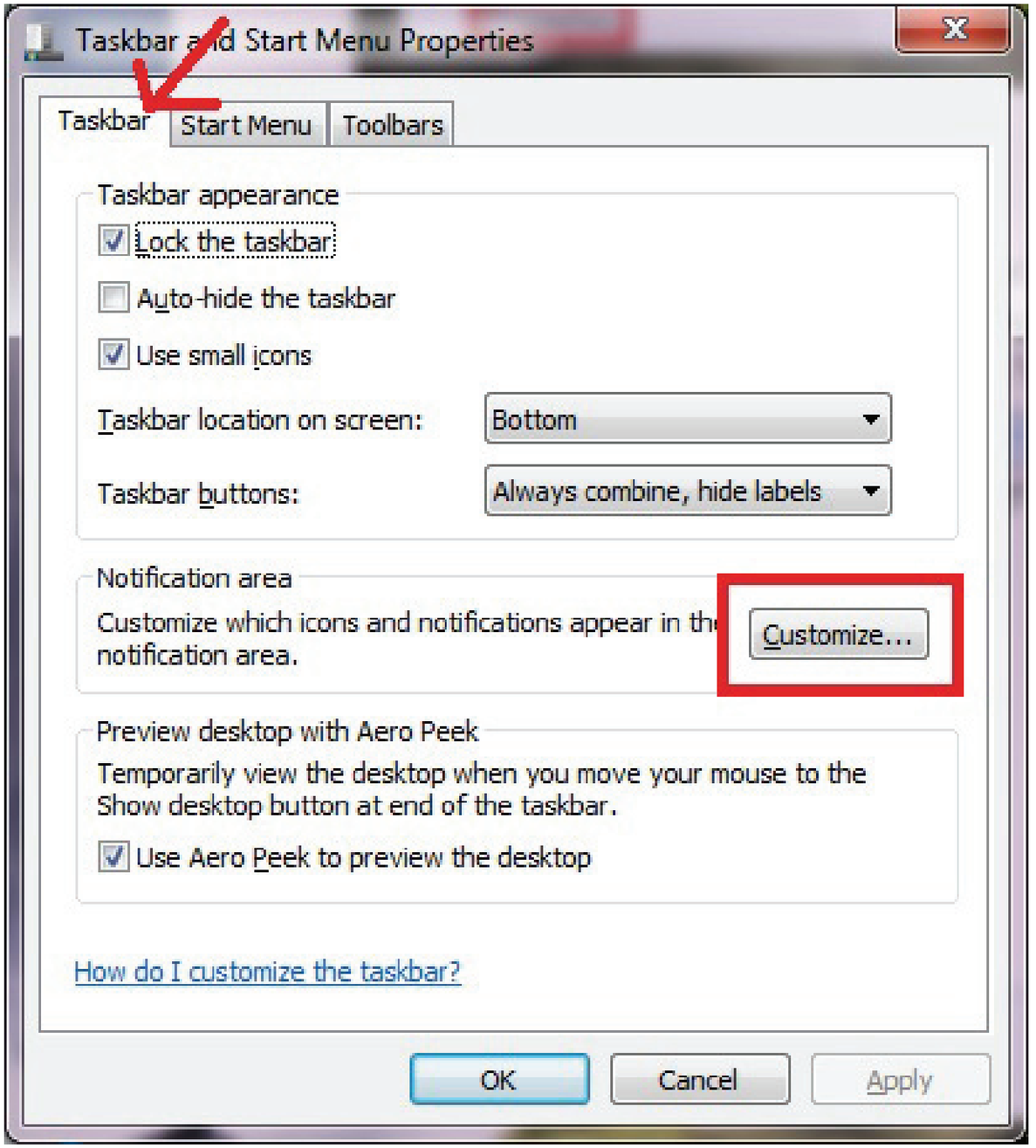
6.Right-click on the purple ‘a’ on the taskbar, and this should bring up the alternative menu. Please check the option “Start Automatically” so it won’t have to be manually activated every time an internet connection is established.



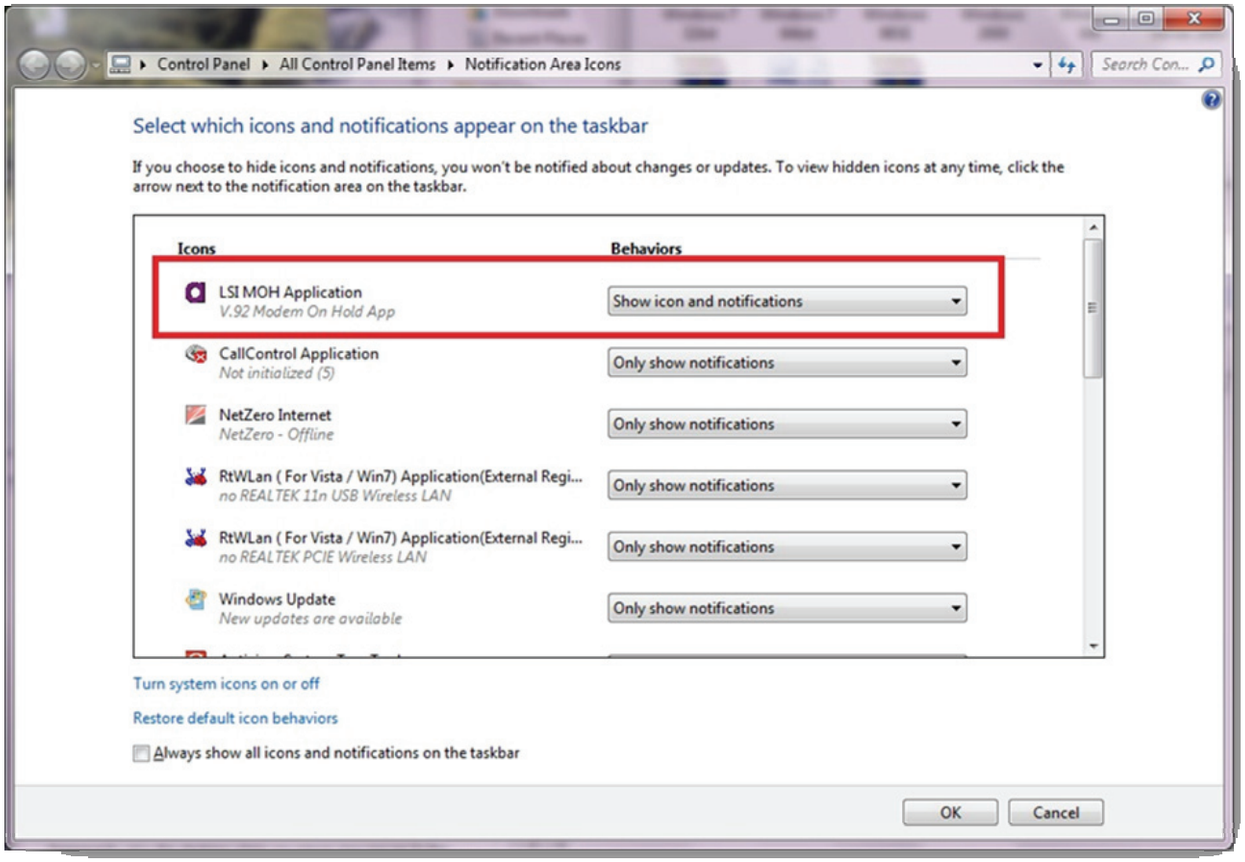
7.If you do not see the purple ‘a’ on the task bar, please move the mouse cursor to the blank area of task bar, then right-click and choose 'Properties'.



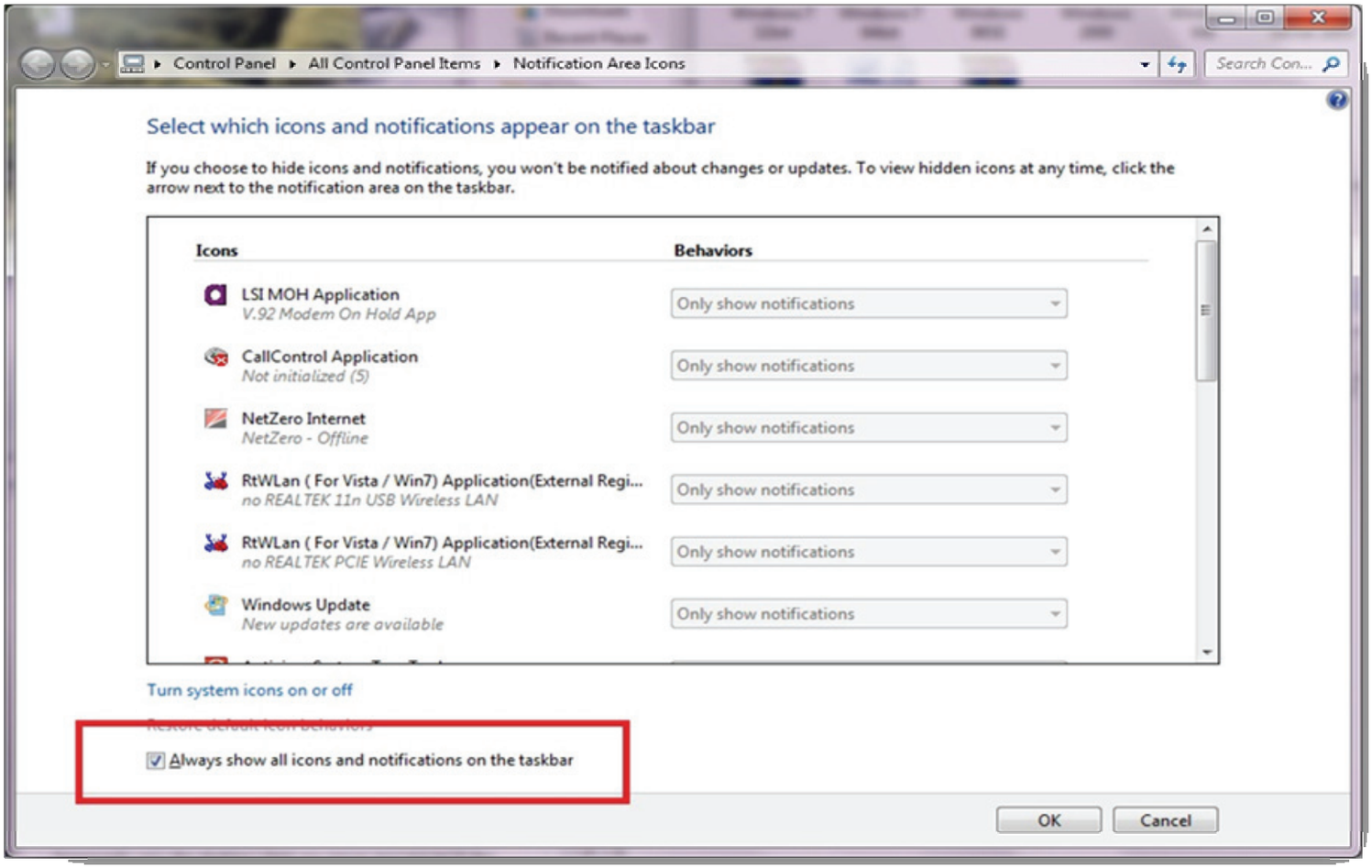
8.As the new windows of "**Taskbar & Start Menu Properties**" coming out, click on the tab "**Taskbar**", then click on the button "**Customize**".



9.A 2nd window will pop out and allow user to change whether the icon should appear and notify or not. Please scroll up/down to locate the purple 'a' (**LSI MOH Application**) and change the 'behavior" to "**show icon and notifications**".



10.Or user can simply checks the option on the bottom of window, "**Always show all icons and notifications on the taskbar**", which will show everything, including the MOH application.



11.Click “OK” and close all the windows when everything is done. Now please go back to Step #4 and modify the setup if necessary.

Commands

Most people use the communication software programs to tell modems what to do. Therefore, you may not use the commands in this chapter. However, if you prefer to communicate with your modem directly, you can type the commands described below.

Here describes how to work in the terminal mode.

Typing Commands

- Use the BACKSPACE key to delete typing errors.
- Every command (except A/ and +++) must begin with the AT or at prefix and be entered by pressing the <Enter> key.
- When you see an n, replace the n with one of the letter or numeric options listed for that command. For example, for the En command, you might type ATE1.

Basic AT Command Guide

+++Escape Sequence

An escape sequence allows the modem to exit data mode and enter on-line command mode. While in on-line command mode, AT commands are sent directly to the modem. Use the return to on-line data mode command to return to data mode.

Place a pause before and after the escape sequence to prevent the modem from interpreting the escape sequence as data. The length of the pause is set by register S12, the escape guard time. Register S2 identifies the escape
sequence character.

A/—Repeat Last Command

Use this command to repeat the last AT command. The modem repeats the command currently in the command
buffer. Do not use the AT prefix with this command. Do not conclude the command with a terminating character
such as enter.

A—Answer

This command instructs the soft modem to go off-hook and answer an incoming call.

E<value>—Command Echo

Use this command to instruct the modem to echo characters sent to it. When the echo feature is selected,
characters sent to the modem are sent back to the host and displayed on the monitor.

Result codes:

_ OK if <value> = 0—1.

_ ERROR if <value> ≠0—1.

Command	Function
E0	Disables echo command.
E1	Enables echo command (default).

B<value>—Communication Standard Setting

Use this command to select the communication standard used by the soft modem.

Result codes:

_ OK if <value> = 0—3, 15, 16.

_ ERROR if <value> ≠0—3, 15, 16.

Command	Function
B0	Selects CCITT V.22 mode when the modem is at 1200 bits/s.
B1	Selects Bell 212A when the modem is at 1200 bits/s (default).
B2	Deselects V.23 reverse channel (same as **B3**).
B3	Deselects V.23 reverse channel (same as **B2**).
B15	Selects V.21 when the modem is at 300 bits/s.
B16	Selects Bell 103J when the modem is at 300 bits/s (default).

C<value>—Carrier Control

This command is supported to ensure compatibility with communications software that issues the **C1** command. However, this modem does not support the **C0** command. The **C0** command instructs some modems not to send carrier (i.e., it puts them in receive-only mode).

Result codes:

- OK if <value> = 1.
- ERROR if <value> ≠1.

Command	Function
C1	Normal transmit carrier switching (default).

D<dial string>—Dial

This command instructs the soft modem to go off-hook and begin the dialing sequence. The dial string (<dial string>, including modifiers and the telephone number) is entered after the **D** command.

A dial string can be up to sixty characters long. Any digit or symbol may be dialed as touchtone digits. Characters such as spaces, hyphens, and parentheses are ignored by the modem and may be included in the dial string to enhance readability.

I<value>—Request ID Information

Use this command to display product information about the modem. In each case the information is transmitted to the host system followed by a final result code.

Result codes:

_ As described in Table 8 if <value> = 0—9, 11.

_ ERROR if <value> ≠0—9, 11.

I<value>—Request ID Information

Use this command to display product information about the modem. In each case the information is transmitted to the host system followed by a final result code.

Result codes:

_ As described in Table 8 if <value> = 0—9, 11.

_ ERROR if <value> ≠0—9, 11.

Command	Function
L0	Low volume.
L1	Low volume.
L2	Medium volume (default).
L3	High volume.

H<value>—Hook Control

Instructs the modem to go on-hook to disconnect a call or go off-hook to make the telephone line busy.

Result codes:

_ OK if <value> = 0—1.

_ ERROR if <value> ≠0—1.

Command	Function
H0	The modem goes on-hook (default).
H1	The modem goes off-hook.

M<value>—Speaker Control

Use this command to turn the speaker on and off.

Result codes:

_ OK if <value> = 0—3.

_ ERROR if <value> ≠0—3.

Command	Function
M0	Speaker is off.
M1	Speaker is on until the modem detects the carrier signal (default).
M2	Speaker is always on when the modem is off-hook.
M3	Speaker is on until the carrier is detected, except when dialing.

N<value>—Modulation Handshake

Use this command to set the modem protocol for handling handshake negotiation at connection time if the communication speed of the remote modem is different from the speed of the local modem.

Result codes:

_ OK if <value> = 0—1.

_ ERROR if <value> ≠0—1.

O<value>—Return to On-Line Data Mode

Use this command to exit on-line command mode and reenter on-line data mode. If the modem is not in on-line command mode when this command is received the modem generates an ERROR result code.

Result codes:

_ CONNECT if <value> = 0, 1, 3 and the result code and call progress monitor is set to 0 (**X0**).

_ CONNECT <rate> if <value> = 0, 1, 3 and the result code and call progress monitor is not set to 0 (**X<value>** where n = 1—7).

_ NO CARRIER if the connection is not successfully resumed.

_ ERROR if <value> ≠0—1, 3.

Command	Function
O0	Instructs the modem to exit on-line command mode and return to data mode
O1	Issues a retrain before returning to on-line data mode.
O3	Issues a rate renegotiation before returning to on-line data mode.

P—Select Pulse Dialing
Use this command to configure the modem for pulse dialing. All subsequent

D<dial_string> commands use pulse dialing until either the **T** command or a tone dial modifier is received by the modem. Tone dialing is the default setting. This command does not use parameters and generates an ERROR result code when parameters are attached to the command.

Q<value>—Result Code Control

Result codes are informational messages sent from the modem and displayed on the monitor. Basic result codes include OK, CONNECT, RING, NO CARRIER, and ERROR. Use the

Q<value> command to enable or disable result code generation by the modem. If result codes are disabled and an invalid parameter value is entered, the modem does not generate an ERROR result code because result codes are turn off.

Result codes:

_ OK if <value> = 0—1.

_ ERROR if <value> ≠0—1.

T—Select Tone Dialing

Use this command to configure the modem for DTMF tone dialing. All subsequent **D<dial string>** commands use tone dialing until either the **P** command or a pulse dial modifier is received by the modem. Tone dialing is the default setting. This command does not use parameters and generates an ERROR result code when parameters are attached to the command.

W<value>—Result Code Option

Use this command to select the modems CONNECT message options.

Result codes:

_ OK if <value> = 0—2.

_ ERROR if <value> ≠0—2.

Command	Function
W0	CONNECT result code reports DTE receive speed. Disables protocol result codes.
W1	CONNECT result code reports DTE receive speed. Enables protocol result codes.
W2	CONNECT result code reports DCE receive speed. Enables protocol result codes (default).

Z<value>—Reset and Recall Stored Profile

Use this command to make the modem go on-hook and restore the profile saved by the last **&W** command.

Note: Both **Z0** or **Z1** restore the same profile

OK if <value> = 0—1.

_ ERROR if <value> ≠0—1.

Command	Function
Z0	Reset and restore stored profile.
Z1	Reset and restore stored profile.

Troubleshooting

This appendix contains information that will help you to solve some of the common problems you might encounter, while using this 56Kbps USB modem. For further assistance, contact your dealer.

Modem does not respond to AT commands

- There may be a COM port/IRQ conflict. Reconfigure the modem COM port address and IRQ line.
- Make sure that you have set the correct COM port and IRQ in the communications software.
- Make sure the system is in Terminal mode of your communications software.

Modem cannot dial and “NO DIALTONE” message appears on the monitor

- Check the phone cord connection. Make sure that the jack on the modem labeled Line is connected to an analog phone wall jack.
- The modem cannot recognize the dial tone. This is typical in some corporate PBXs. Use the ATX1 command in your setup string to enable Blind Dial.
-

The modem does not answer an incoming call

- Auto-answer function is disabled. Enable the function through software program or by sending the ATS0=1 command to your modem in terminal mode.
-

The modem disconnects while online

- This may be caused by line interference. Retry the connection by dialing the numbers several times.
- An incoming call may have broken the connection if the Call-waiting feature is enabled. Disable Call-waiting and try again.

Garbage characters display on the monitor

- Set your modem to the same word length, parity, and stop bits as the remote modem.
- Make sure that your software and modem are set to the same flow control setting.

- The software may not be set for correct terminal emulation. Configure the software to correct type. ANSI terminal emulation is the most commonly used.
- Type the AT&F command to load the factory default settings