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H50006 / H50158

User's Manual

Installation Guide

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Installation Guide for 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

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 PCI slot.
- CD-ROM drive.

Modem Installation

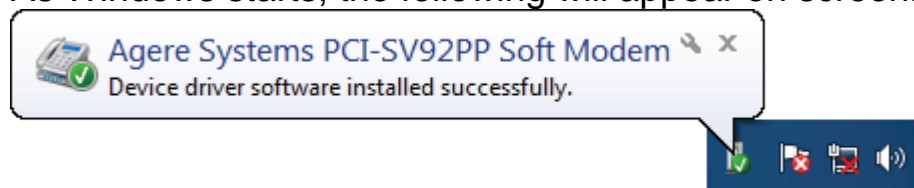
1. Please turn off your computer and disconnect the power cable.
2. Please remove the cover from your computer. Please check your computer's manual for instructions and cautions regarding the removal of covers or installation of add-in boards.
3. Please select an empty PCI slot and remove the appropriate expansion slot cover from the computer.
4. Please insert the Internal 56k Modem into the PCI slot and secure with a screw in the backplane.
5. Please replace the Computers cover.
6. Please insert one end of the telephone cord into the Modem's Line (top) Socket.
7. Please connect the other end of the phone cord to a telephone phone point, via the supplied adaptor (RJ11) if required.
8. 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** ".

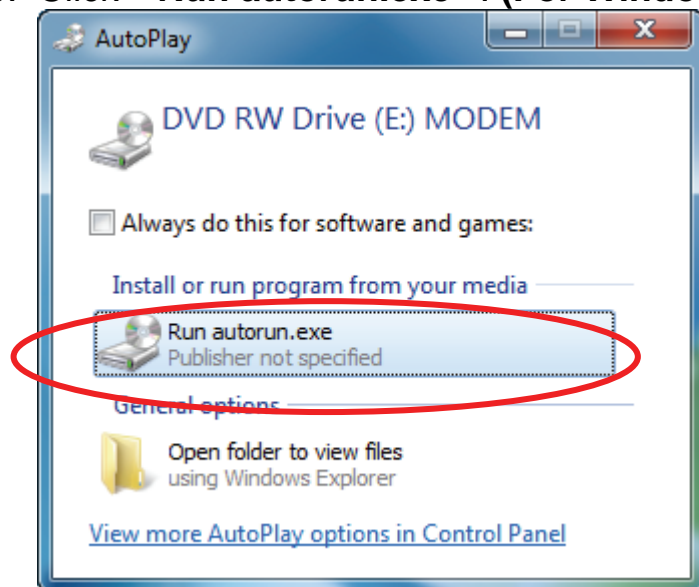
For Windows Vista/Win7/2008 User:

As Windows starts, the following will appear on screen.



9. Please insert the analog Modem communication CD into your CD-ROM drive.

10. Click " **Run autorun.exe** ". (For Windows Vista/2008/Win7 User only)



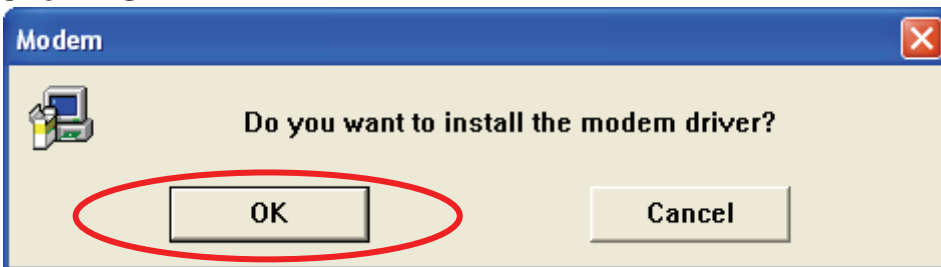
11. The CD should auto-start, displaying the following window. If it does not start, click on Start – Run and type in **CD:\autorun.exe** (where CD is the drive letter of your CD-ROM drive).

12. 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.

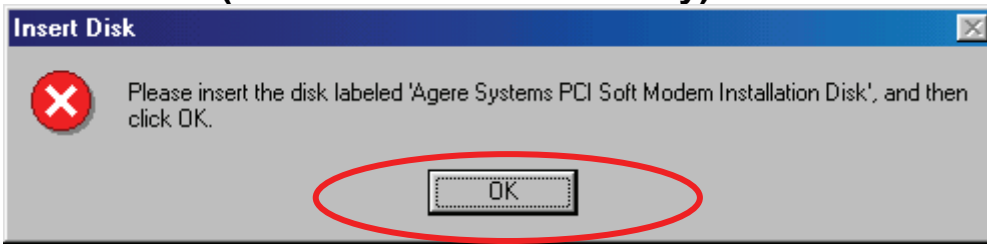
13. Please select " Install Driver ".



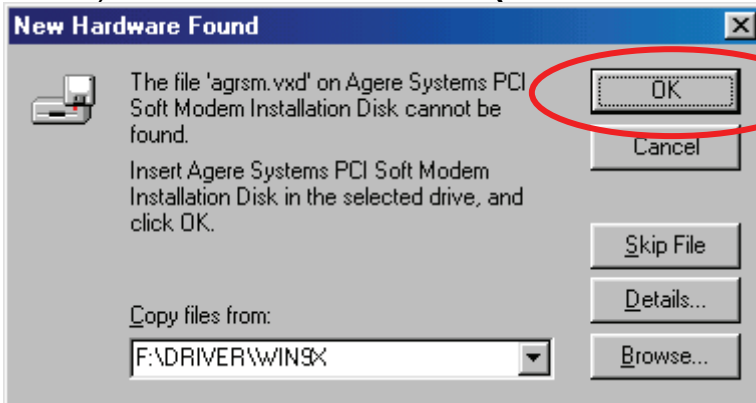
14. Click " OK ".



15. Click " OK ". (For Windows 98 User only)



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



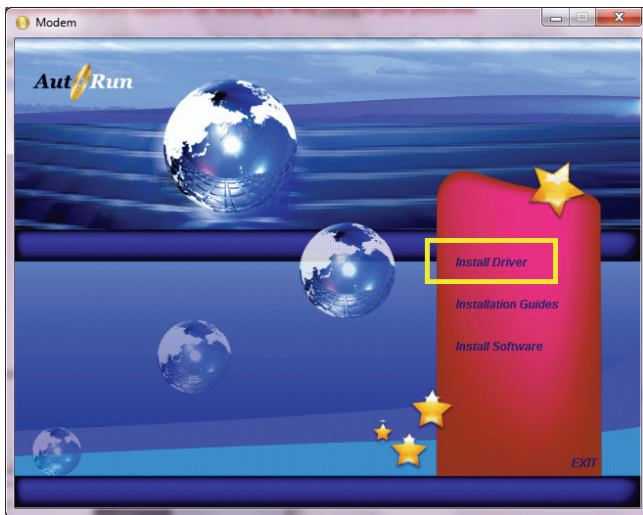
If you can not perform these procedures smoothly as above, please perform the file directly:

CD:\Autorun.exe

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.

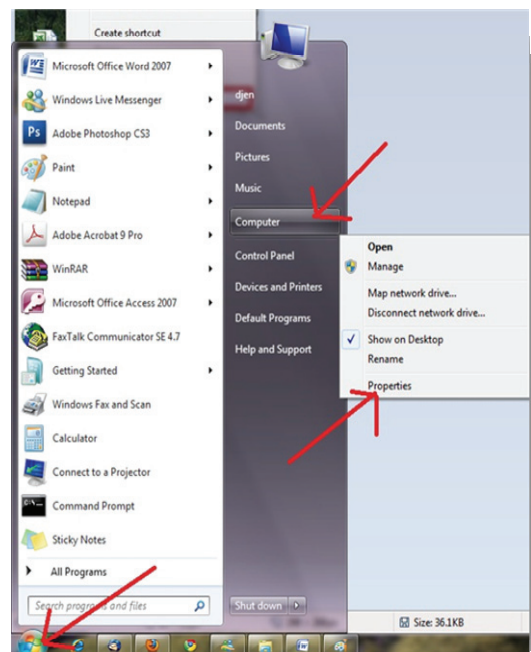
1. Windows Vista or 7 may already have the driver built-in and will install them automatically when you first install your modem. However, this particular driver may omit certain features including Modem-On-Hold; therefore it is necessary to install the complete driver from the CD, or download & install 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 on our web site.



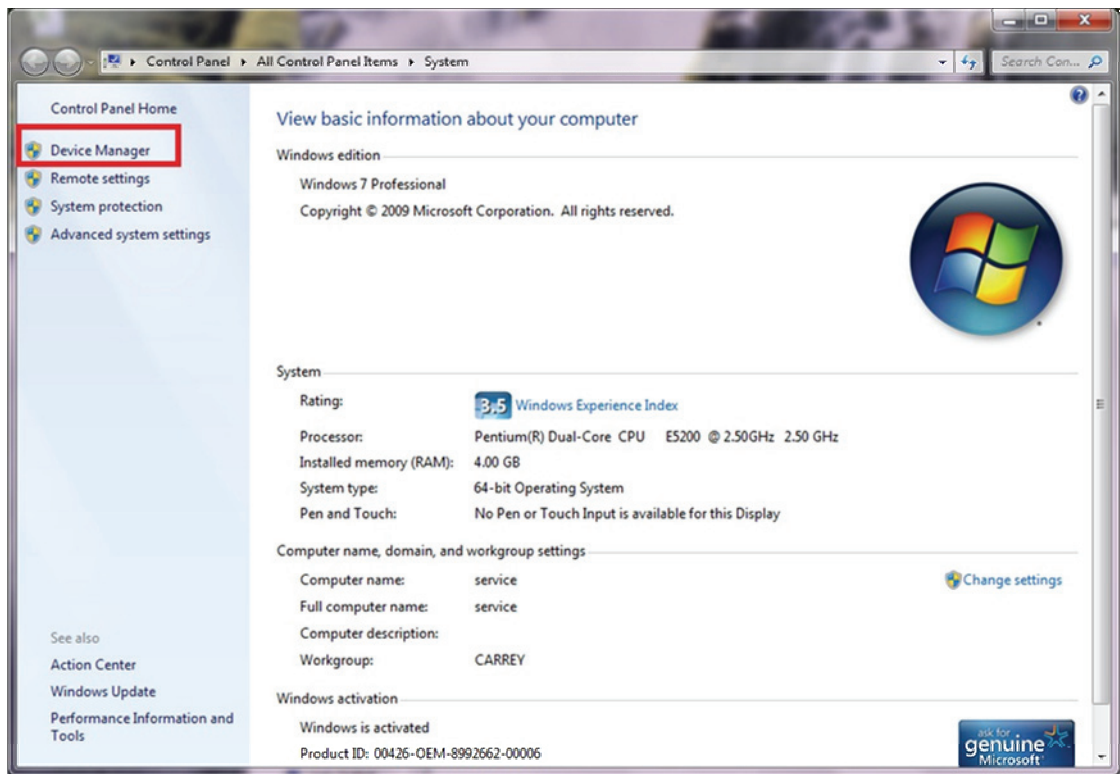
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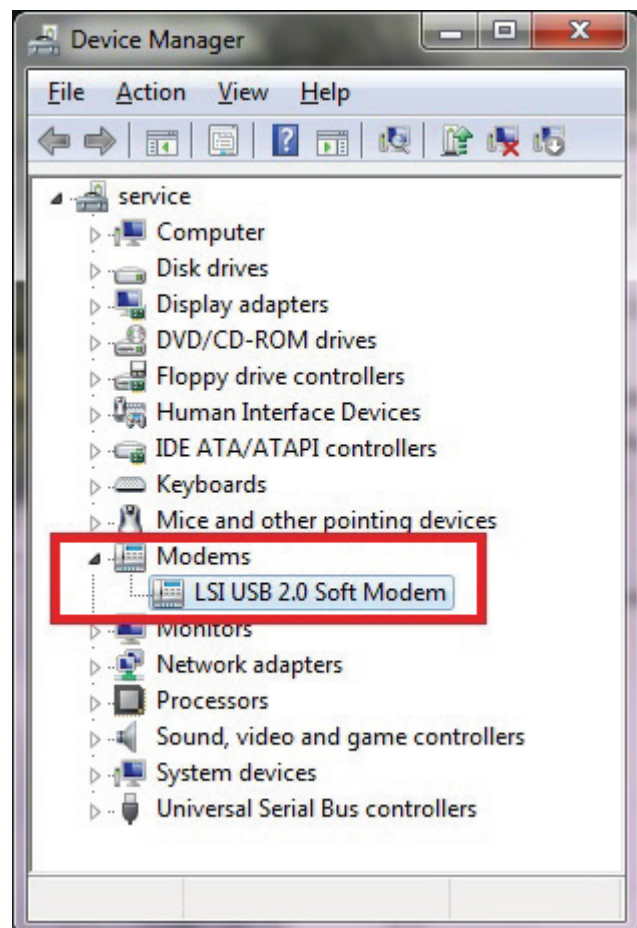
2. Install the driver accordingly, and then restart the computer. Please verify the driver version:
 - a. Look for the "My Computer" icon on your desktop or "Computer" from your starting menu. Right-click, then select "Properties"



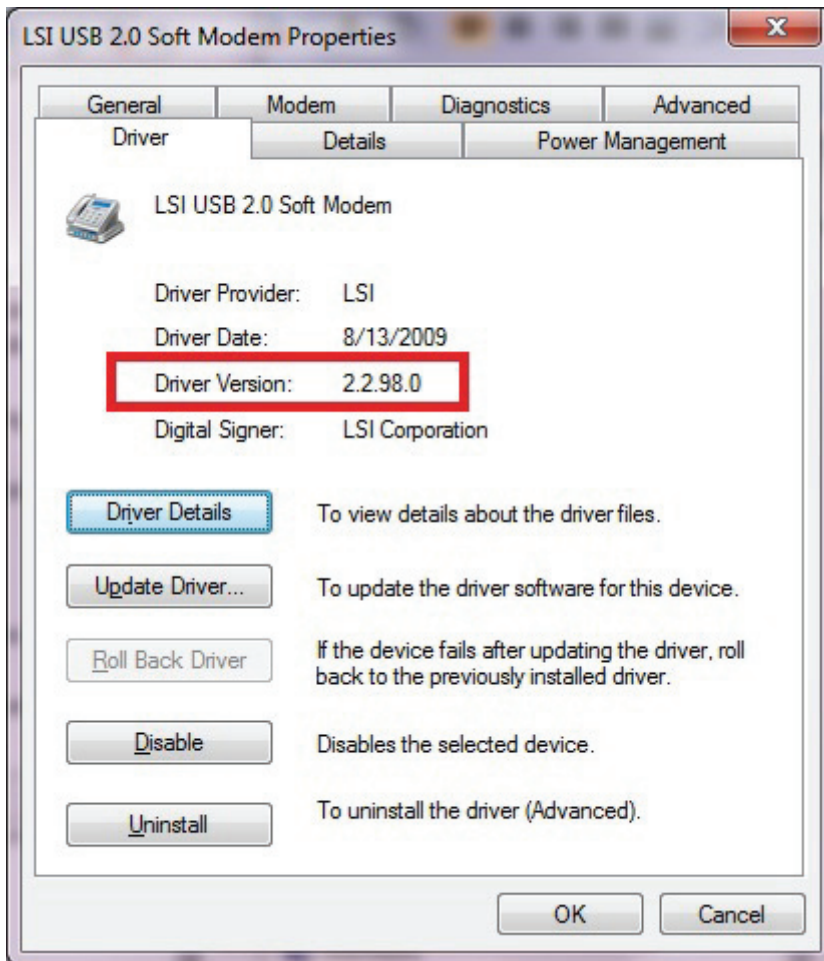
- b. On the new pop-up windows, please click on “**Device Manager**”



- 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.



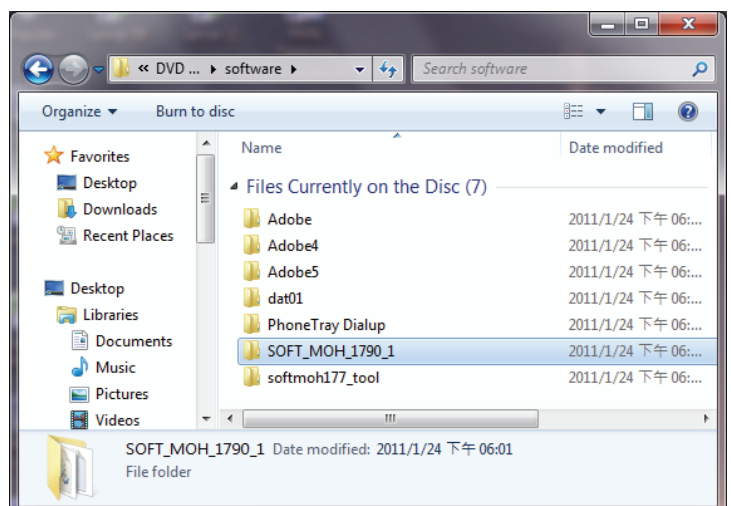
- d. On the Modem Properties, please click on the Driver tab and verify that the version. For H50006, H50113, & H50158, it is **2.2.98.0**. For H50159, it should be **2.7.1.0**.



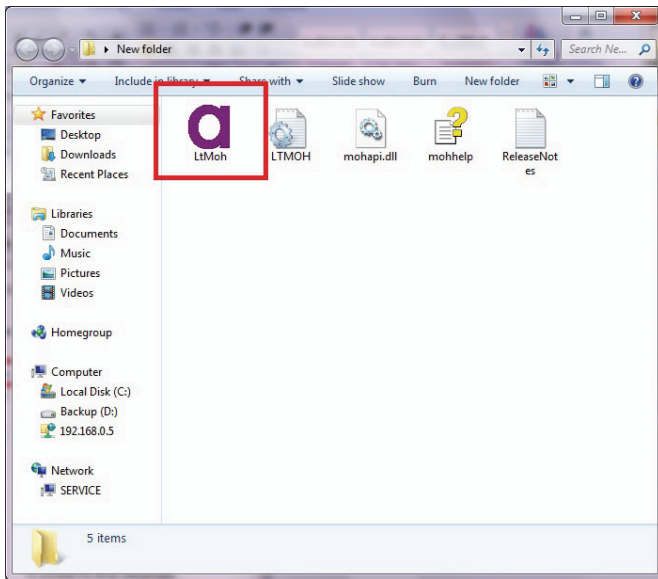
3. For SoftMOH procedure, please open the driver CD then "Software" folder, and copy the **SOFT_MOH_1790_1** folder onto your desktop. Or, please create a new folder on your desktop, download & unzip the **SOFT_MOH_1790_1** from <http://www.hiroinc.com/drivers>, and save all the files into this folder.

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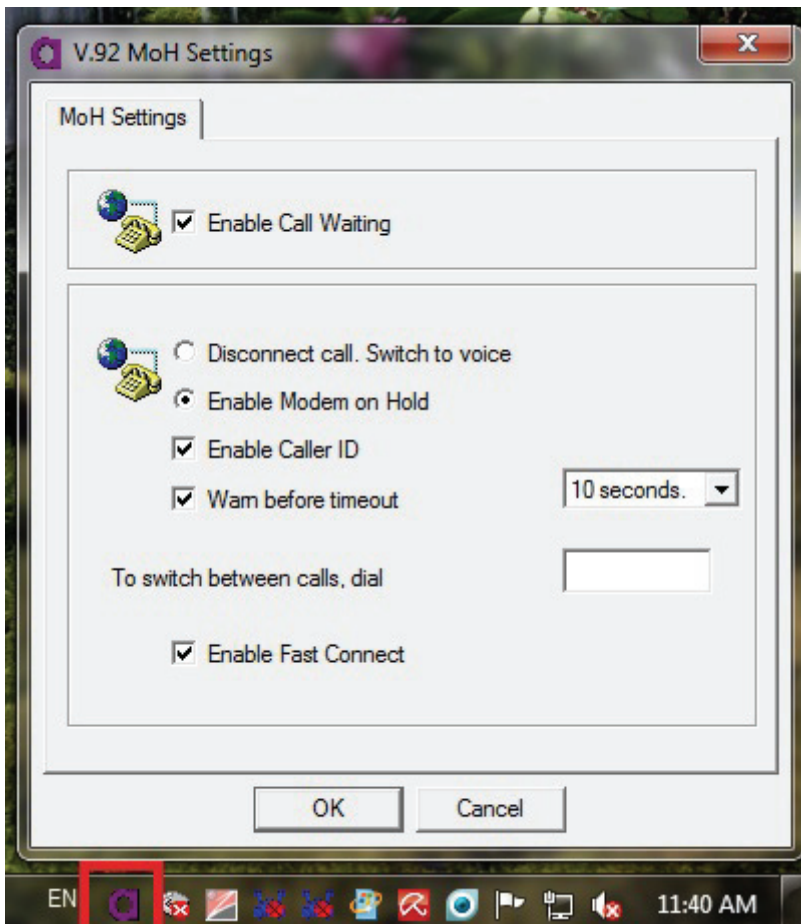
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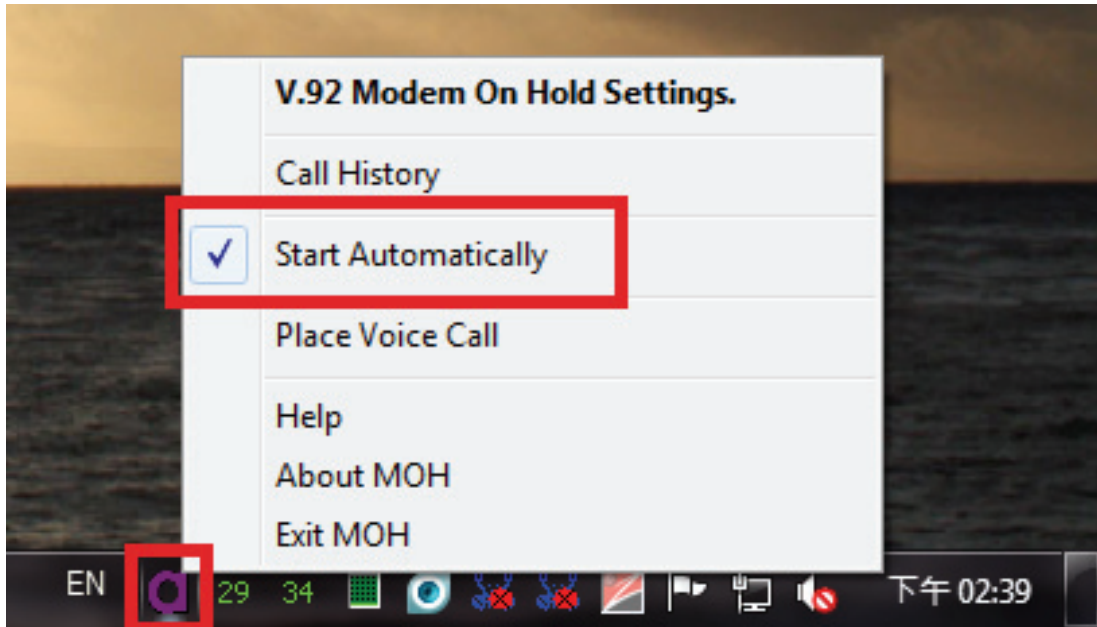
4. Double-click on the file "LtMOH.exe."



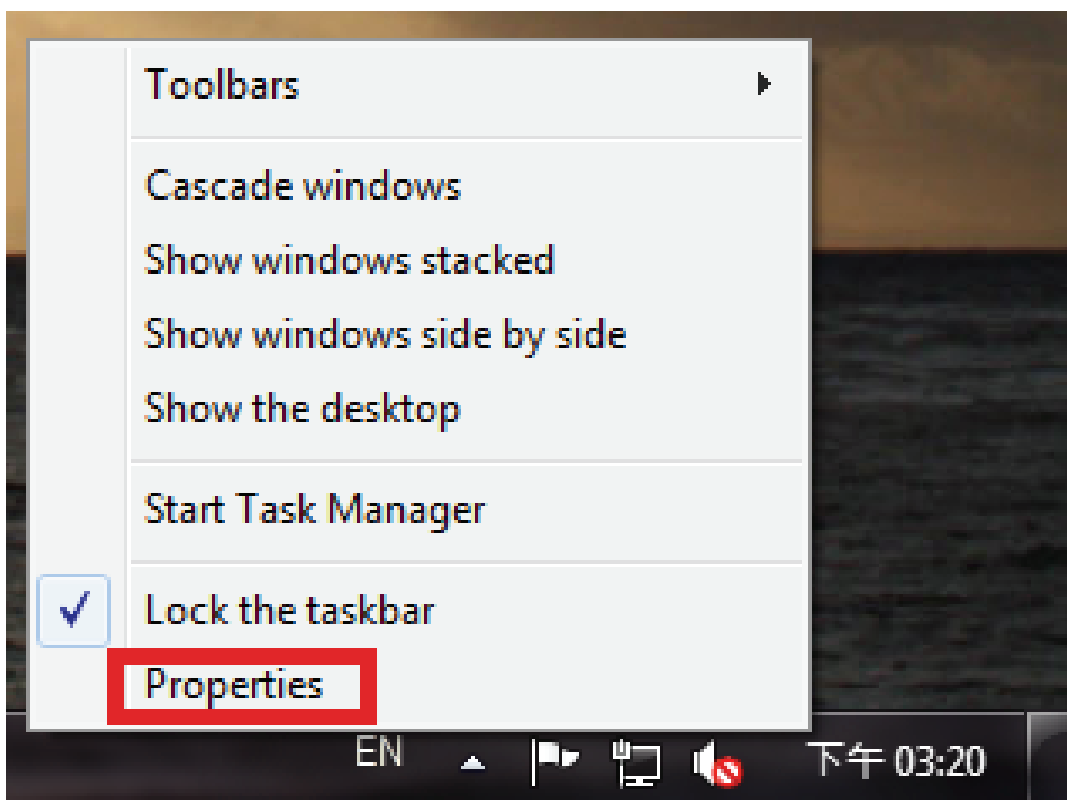
5. The purple 'a' should appear on the task bar. Left-double-click on the purple 'a' and you can bring up the Soft MOH menu. Please modify the setup as you prefer, and then click OK.



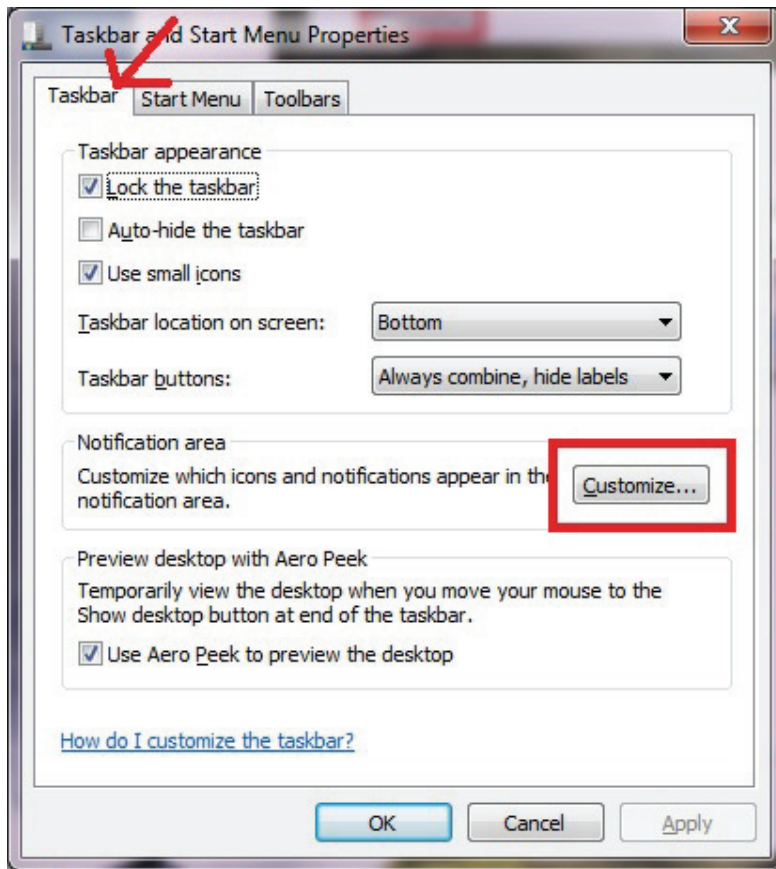
- Right-click on the purple 'a' on the taskbar, and this should bring up the alternative menu. Please check the option "Start Automatically" so it won't have to be manually activated every time an internet connection is established.



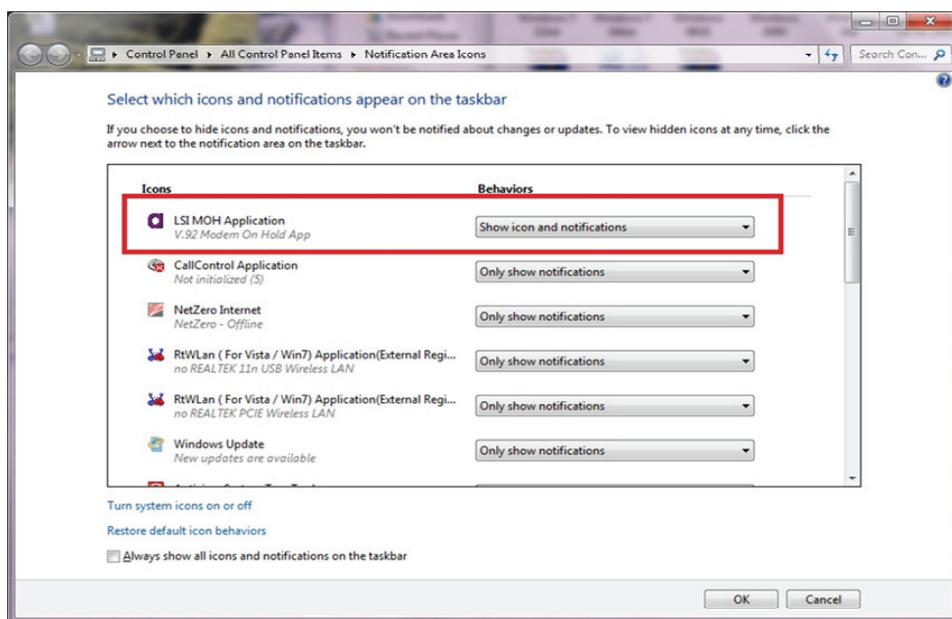
- If you do not see the purple 'a' on the task bar, please move the mouse cursor to the blank area of task bar, then right-click and choose 'Properties'.



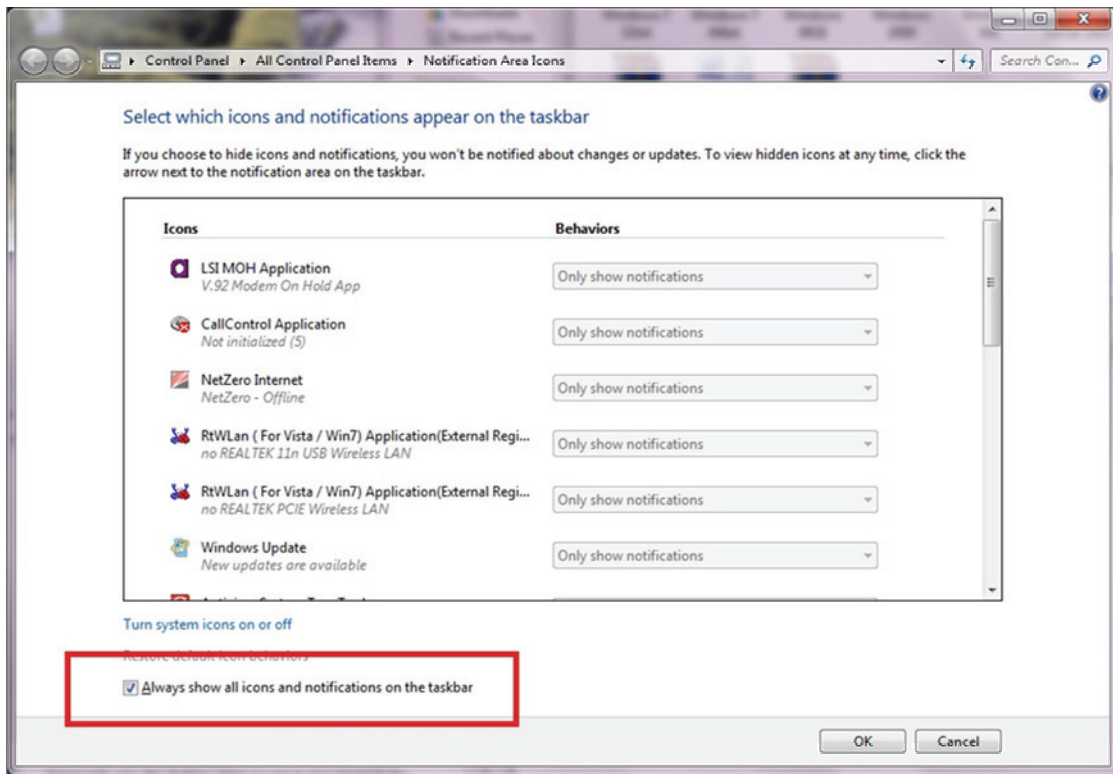
8. As the new windows of "Taskbar & Start Menu Properties" coming out, click on the tab "Taskbar", then click on the button "Customize".



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 check 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 PCI 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 ATSO=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