



**Home Automation, Inc.**

# **Lumina PC Access**

**Model 1111 Lumina PC Access Software**

**OWNER'S MANUAL**

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# 1. INTRODUCTION

This document describes installation and operation of the Model 1111 Lumina PC Access Software for Windows by Home Automation, Inc. This version of the HAI Lumina PC Access Software supports both Lumina and Lumina Pro lighting and home control systems.

This software package will run under the Windows 95, Windows 98, Windows NT, Windows ME, Windows 2000, and Windows XP operating systems.

This software allows a you to access your Lumina system over the telephone or over a direct serial connection (RS-232/RS-485 through a built-in or optional serial interface module) by using an IBM PC compatible computer system, or over a network connection (i.e., Ethernet, Internet) using a secure, encrypted link when connected to the Ethernet port.

Your system can be accessed both remotely and locally. You can completely setup and program your system by using the Lumina PC Access software.

The software allows the following functions to be performed:

- Create and maintain Lumina system account files
- Download an account file to a Lumina system
- Upload an account file from a Lumina system
- Print a Lumina account file
- Obtain live software updates from the Internet
- Create, view, and modify lighting and automation programs
- View and modify lighting, zone, button, code, and message names
- View and modify lighting, zone, button, code, and message voice descriptions
- View and modify configuration of a Lumina system
- View event log
- View status of lighting, zones, temperatures, and other system information
- Send lighting, modes, button, temperature, and message commands to a Lumina system

## 2. INSTALLATION

To install this software, run the Lumina PC Access setup program as follows:

1. Insert the Model 1111 Lumina PC Access CD into your CD-ROM drive.
2. Select the **Run** command from the **Start** menu.
3. Type `<drive>:setup`

For example, if the Setup disk is in drive D, type "d:setup".

4. Follow the instructions provided on the screen.

### 2.1. Updating from a Previous Version

If you are updating from a previous version of the Lumina PC Access software, simply run the Lumina PC Access setup program as described above.

### 3. STARTING THE PROGRAM

To start the Lumina PC Access software, click the **Start** button, point to **Programs**, point to **HAI**, point to **PC Access**, then click **Lumina PC Access**.

#### 3.1. Starting the Program for the First Time

When running the Lumina PC Access program for the first time, the "Install Lumina PC Access" dialog box is displayed which prompts you to enter a security stamp. The security stamp can be anything you choose. You will only have to enter a security stamp when installing the program on a computer for the first time. This security stamp is used to encrypt your account files so that only you can access them.

**IMPORTANT:** Write this security stamp down and store it in a safe place. It will be necessary to reenter the same security stamp if the software is reinstalled or if you want to access your account files on another computer running the Lumina PC Access software. If you do not enter the same security stamp when the software is reinstalled, the Lumina PC Access software will be unable to access your existing account files.

A welcome screen is displayed which gives information about the program and you are prompted to enter your login password. Enter the default password "**PASSWORD**". This password should be changed by using the *Configure | Password* command.

**IMPORTANT:** Remember your password. The Lumina PC Access software cannot be used without entering the proper password. If you forget your password, it will be necessary to reinstall the software to restore the default password.

The program is initially configured to use serial communications on the COM1: communications port.

The *Configure | Modem* command may be used to change the communications port, baud rate (when an account file is open), and to change the various modem command strings. The default modem command strings have been found to work well with most Hayes compatible modems.

The modem should be set up so that the Carrier Detect signal reports the true status of carrier detect, rather than always forced true. This allows the software to accurately report the on-line/off-line status of the modem. The modem should also be set so that the Lumina PC Access software can hang up the phone line by dropping the Data Terminal Ready signal. Although not required, this insures that the modem is not left on-line if the Lumina PC Access software is abnormally terminated.

When communicating with a controller through a Serial Interface, use the *Configure | Serial* command to change the communications port to the computer's serial port being used by the controller. To select a different baud rate, enter the new rate between 75 and 9600.

If you would like to reinstall the software at a later date, either because you forgot your password or for some other reason, delete the file "PCA01.CFG" and start the Lumina PC Access software (as described above).

The software looks for this PCA01.CFG file when it is first started, and if it doesn't find it, the "Install Lumina PC Access" dialog box is displayed and you are prompted to enter a security stamp. Follow the steps above.

**IMPORTANT:** If you do not enter the same security stamp when the software is reinstalled, the Lumina PC Access software will be unable to access your existing account files.

## 3.2. Check for New Version

The Internet Update Wizard is used to check and download updates for Lumina PC Access from the Internet. This function requires an Internet connection and will work with most high-speed, dial-up and wireless Internet connections.

In order to check for updates you must not be "ON-LINE" with your Lumina controller and you must close any open account files.

To check for, and download updates, click on the "File" menu on the main screen, and select the "Check for New Version..." option. This will start the Internet Updates Wizard that will walk you through the process. Just follow the on screen prompts and Lumina PC Access will do the rest. In most cases, with a high speed Internet connection, the entire process takes less than a minute.

If an update to the Lumina PC Access program is downloaded then the program must be restarted. The wizard will let you know if this is necessary and automatically restart the program for you. NOTE: This does not require a system reboot, just a restart of the Lumina PC Access program.

**TIP:** You should periodically use the Internet Update function to ensure you have the latest Lumina PC Access software.

## 4. PROGRAM OPERATION

The Lumina PC Access software uses a series of data files called "account files". Each account file stores information for a single system. These files are stored on the IBM PC compatible computer, but the information in them may be downloaded to your system. Similarly, information from your system may be uploaded for storage on the PC. The Lumina PC Access software is used to maintain these account files and to send commands to your system.

Certain configuration information is stored in the individual account files. This information includes baud rate and selected initialization commands under Configure | Modem and your controller's IP address, port number, and encryption key under Configure | Network.

Actions to be performed by the Lumina PC Access software are selected from a series of menus. These menus are described below.

### 4.1. File Menu

Commands in the *File* menu are used to access the account files. The *File* menu includes a most-recently-used (MRU) file list, so you can re-open a recently used controller file with a single click.

#### 4.1.1 Open

The *File | Open* command is used to prepare an existing account file for use. An account file must be opened before it can be used. Select the desired file from the dialog box to open it. Only one account file may be open at a time.

Once the file is opened, information is displayed about the account. This information may be edited in the account dialog box, and other commands are enabled to allow the configuration of your system to be inspected and/or modified.

### **4.1.2 Close**

The *File | Close* command is used to store an account file when it is no longer needed. The currently opened account file must be closed before another account file can be opened. When the account file is closed, the phone line is hung up.

### **4.1.3 Save**

The *File | Save* command is used to store changes made to an account file without actually closing the account file. This can be used to save the account file periodically during a lengthy editing session.

### **4.1.4 Save As**

The *File | Save as* command is used to save an account file under a different name. This can be used to make a copy of an existing account file to use as a starting point for a new account file.

Enter the name of the new account file in the dialog box to create a copy of the currently opened account file. The old account file is then closed without saving any changes made to it, and the new account file is opened.

### **4.1.5 New**

The *File | New* command is used to create a new account file. Enter the name for the new account file. The program prompts you to select the type of system you have (Lumina or Lumina Pro). The account file is set up with a default configuration for that system.

### **4.1.6 Import**

The *File | Import* command is used to open an account file that has been exported by using the *File | Export* command (see below). Select the desired file from the dialog box to import it. Once the file has been imported, it may be saved as a standard account file using the *File | Save as* command.

### **4.1.7 Export**

The *File | Export* command is used to save an account file in a format that can be read by any other computer using the Lumina PC Access software. This can be used to create "template" files that can be used by multiple Lumina PC Access users, or to transfer account files to other users.

Enter the desired file name for the exported file in the dialog box. The file will be saved with an ".exp" extension. The exported file may then be read by others by using the *File | Import* command.

### **4.1.8 Download from PC**

The *File | Download from PC* command is used to copy configuration information from the IBM PC compatible computer to your system. In the download dialog box, select the information to be copied.

During the download process, a series of message boxes is displayed indicating the progress of the download. Press the *Esc* key to cancel the download.

### **4.1.9 Upload to PC**

The *File | Upload to PC* command is used to copy configuration information from your system to the IBM PC compatible computer. In the upload dialog box, select the information to be copied from your system.

This command should be performed before making any changes to the configuration of your system. This insures that any changes you made since the last upload will be incorporated in the new configuration.

During the upload process, a series of message boxes is displayed indicating the progress of the upload. Press the *Esc* key to cancel the upload.

### **4.1.10 Print**

The *File | Print* command is used to print a copy of your account file onto a printer. In the print dialog box, select the information to be printed.

Press the *Esc* key to cancel printing.

### **4.1.11 About**

The *File | About* command is used to display information about the Lumina PC Access program.

### **4.1.12 Check for New Version**

The *File | Check for New Version* command is used to check and download updates for Lumina PC Access from the Internet. The Check for New Version command will start the Internet Update Wizard which will walk you through the process.

### **4.1.13 Exit**

The *File | Exit* command is used to exit the Lumina PC Access program. The Exit command will automatically close any open account file before exiting the program.

## 4.2. Setup Menu

Commands in the *Setup* menu are used to display information about the configuration of your system and to modify this information.

Once a command from this menu has been selected, the dialog box associated with the command must be closed before another command can be selected. Press *Esc* or click on the close box to close the dialog box.

Some setup commands display multiple pages of setup items. Select the page *tabs* to go back and forth between the pages. Selecting a different page *tab* or *Ok* saves any changes made to setup items on the page. Selecting *Cancel* or pressing the *Esc* key discards any changes made to setup items on the page.

### 4.2.1 Codes

The *Setup | Codes* command is used to modify codes and related items.

### 4.2.2 Programs

The *Setup | Programs* command is used to display and modify the programs in your system. The list of programs may be scrolled by using the *scroll bar* or the cursor control keys.

The *Copy* button allows you to copy programs from the list and saves it for later use by the *Paste* button.

The *Cut* button removes a program from the list but saves it for later use by the *Paste* button.

The *Paste* button restores a previously cut program to the program list. The program is inserted before the highlighted position in the program list. A program may be pasted multiple times.

The *Clear All* button is used to remove all programs from the list. Use this command with caution.

- The “Cut” and “Copy” operations allow you to select multiple program lines. The normal Windows selection methods (i.e., <Shift> and/or <Ctrl> with mouse click, mouse drag, etc.) are supported, so any combination of program lines can be selected.
- When multiple non-contiguous lines are selected, the “Paste” operation inserts all of the lines as a contiguous block at the insertion point.
- The “Paste” operation pushes all program lines downward (starting at, and including, the selected insertion point) to make room for the lines to be pasted. If this would result in the loss of active program lines, you will be notified and given a choice to proceed or cancel.
- Programs can be Cut or Copied from one controller account file and Pasted into another controller account file. This operation is currently restricted to controllers of identical type.

The *Search* button invokes a search dialog, which allows you to search for arbitrary text within the programs. From the search dialog, you can perform a “Find”, “Find Next” or “Find All” search. If the search is successful, the program line (or lines for a “Find All” search) containing the desired text is selected (highlighted).

The *Edit* button is used to edit an existing program or to create a new program. An Edit Program dialog box is created which displays the current program and allows you to edit the various parts of the program, such as the *When* (activation time/event), *Command* (outcome), and *&If* (condition).

*Enter* or *Spacebar* can also be pressed to edit the highlighted program. The *Close* button is used to close the program dialog.

### 4.2.2.1 Edit Program When

The *When* button in the Edit Program dialog box is used to specify the time that the program is activated or the macro button (event) that activates the program.

Select *Time* to specify the time that the program is activated.

- "At Specified Time" - Enter the time using AM/PM if that format is being used, otherwise the entered time should be 00:00-23:59.
- "At Sunrise" – Specifies the time of sunrise.
- "At Sunset" – Specifies the time of sunset.

You may also specify a time up to 120 minutes before or after sunrise or sunset.

- "Before Sunrise" - Enter the time in minutes (1-120) before sunrise.
- "Before Sunset" - Enter the time in minutes (1-120) before sunset.
- "After Sunrise" - Enter the time in minutes (1-120) after sunrise.
- "After Sunset" - Enter the time in minutes (1-120) after sunset.

Select *Button* to specify the button (event) that activates the program.

- "User Event Button" - Button is activated when a particular button (scene) is run.
- "Control Event Button" - Button is activated when a unit is turned On or Off.
- "Mode Event Button" - Button is activated when the Lumina mode changes.
- "Zone Event Button" - Button is activated when a zone changes state.
- "All On Event Button" - Button is activated when the "All On" command is executed.
- "All Off Event Button" - Button is activated when the "All Off" command is executed.
- "Alarm Event Button" - Button is activated upon the occurrence of an alarm.
- "X-10 Event Button" - Button is activated upon the receipt of an X-10 command from a source external to the controller.
- "ALC Event Button" - Button is activated when an ALC switch is pressed.
- "UPB Event Button" - Button is activated when a UPB switch is pressed or Link is received.
- "HLC Scene Button" – Button is activated when HLC Scene command is received.
- "RadioRA Button" - Button is activated when a Lutron RadioRA switch is pressed.
- "Message Event Button" - Button is activated when a Pro-Link message is received.
- "Miscellaneous Event Button" - Allows you to select a button from a list of other event buttons. There is also an option here to activate this event button when a camera button is pressed on an OmniTouch with Video touchscreen.
- "Centralite Scene Button" – This button is executed when a Centralite Scene command is received.

#### 4.2.2.2 Edit Program Command

The *Command* button in the Edit Program dialog box is used to edit the command portion of a program. A menu presents the different types of commands that can be specified for the program. The current command type is highlighted.

- “Control Commands” – Used to command units such as off, on, off for time, on for time, dim, brighten, dim for time, brighten for time, level, or ramp.
- “Mode Commands” - Used to change the Lumina mode.
- “Button Commands” - Used to activate a button (macro) command.
- “All On Commands” - Used to turn all configured lighting units on.
- “All Off Commands” - Used to turn all configured lighting units off.
- “Leviton Scene Commands” - Used to control Leviton Scenes (on, off, and set).
- “UPB Link Commands” - Used to control ULB Links (on, off, and set).
- “RadioRA Phantom Commands” - Used to command RadioRA Phantom Buttons (on and off).
- “Video Commands” - Used to display specified camera(s) on the designated OmniTouch with Video.
- “Temperature Commands” - Used to view temperatures, change heat and cool setpoints, and turn energy savers off and on.
- “Message Commands” - Used to show, log, clear, say, phone, and send text and voice messages (if applicable for that system).
- “Energy Commands” – Used to set the current Energy Cost (low, mid, high, or critical).
- “Centralite Scene Commands” – Used to command Centralite Scenes (on and off).

After selecting the type of command, enter the specific information for the selected command.

#### 4.2.2.3 Edit Program &If

The *&If* button in the Edit Program dialog box is used to specify a condition that must be true for the program to run when it is activated. A menu presents the various conditions that can be specified. The current condition is highlighted.

There are two buttons (*IF* and *&IF*) in the Edit Program dialog box that is used to specify conditions that must be true for the program to run when it is activated. The "*IF*" button specifies the first condition and the "*&IF*" specifies the second condition. The "*&IF*" button is grayed until the first condition is specified. For each, a menu presents the various conditions that can be specified.

#### 4.2.3 Dial

The *Setup | Dial* command is used to modify telephone related setup items.

#### 4.2.4 Area

The *Setup | Area* command is used to modify area options related to system operation.

## 4.2.5 Names/Voice

The *Setup | Names/Voice* command is used to display and modify the unit, zone, button, code, thermostats, and message names in your system and to configure the system to speak descriptive names for units, zones, buttons, codes, and thermostats over the telephone.

Select the appropriate name *tab* and scroll through the list to the desired name to be edited. Enter the new name in the edit name dialog box, and then select a voice description from the *drop-down lists* under edit voice. You may enter up to four descriptions (words or group of words) for each names item.

## 4.2.6 Misc

The *Setup | Misc* command is used to modify miscellaneous setup items.

## 4.2.7 Installer

The *Setup | Installer* command is used to display and modify installation setup information in your system. Selecting the command brings up a submenu that allows you to select the specific type of setup information to display and/or modify.

### 4.2.7.1 Control

The *Setup | Installer | Control* command is used to configure X-10, UPB, and output types.

When modifying output types, select the output and use the *scroll bar* to scroll through the list of output types for the output.

### 4.2.7.2 Zones

The *Setup | Installer | Zones* command is used to select zone expansion and modify zone types.

Select which (if any) zone expansion is being used, then select *OK*. When modifying zone types, select the zone and use the *scroll bar* to scroll through the list of zone types for the zone.

### 4.2.7.3 Communicator

The *Setup | Installer | Communicator* command is used to modify setup items associated with the digital communicator.

### 4.2.7.4 Temperature

The *Setup | Installer | Temperature* command is used to modify different temperature configurations and to specify thermostat types for each thermostat being used.

#### 4.2.7.5 Misc

The *Setup | Installer | Misc* command is used to modify miscellaneous installer setup items.

#### 4.2.7.6 Expansion

The *Setup | Installer | Expansion* command is used to configure module type, serial function, and serial rate for expansion modules and internal ports. It is also used to set the Serial Address when multiple controllers are connected to one computer. **Note:** If only one controller is connected to the computer running this software, the Serial Address must be set to "0".

### 4.3. Show Menu

Commands in the *Show* menu is used to display the system event log and the current state of lighting, zones, and other items in your system.

#### 4.3.1 Events

The *Show | Events* command is used to display the event log of your system. The event log may be scrolled by using the *scroll bar* or the cursor control keys.

The *Event Log* must be *Uploaded* to view the latest events.

#### 4.3.2 Status

The *Show | Status* command is used to display the current status of the zones, units, temperatures, and other items in your system. These displays continually update to show the real-time status of the system.

The *System* display shows the overall status of the system. The system time, date, software version, battery reading, time of sunrise/sunset, mode, and various trouble conditions are displayed.

The *Zone* display shows the status of the zones. The zone status indicates if any alarm or trouble conditions have occurred. The loop reading indicates the specific status of the loop at the current time.

The *Unit* display shows the status of the control units. The state of the output is displayed, as well as, the last commanded state of a device. You can double-click an item on the *Unit* list to invoke the command dialog allowing you to control that item, then return back to the *Status* dialog to see the updated status.

The *Temperature* display shows the current temperature and the status of all temperature zones and thermostats and the current humidity and humidity settings of your humidity sensors. You can double-click an item on the *Temperature* list to invoke the command dialog allowing you to control that item, then return back to the *Status* dialog to see the updated status.

Use the *System, Zone, Unit, and Temperature* page *tabs* to move between the status displays.

## **4.4. Command Menu**

Commands in the *Command* menu are used to send control and mode commands to your system.

Once a command from this menu has been selected, the dialog box associated with the command must be closed before another command can be selected. Press *Esc* or click on the close box to close the dialog box.

### **4.4.1 Control**

The *Command | Control* command is used to send control commands. Commands that may be sent include off, on, off for time, on for time, dim, brighten, dim for time, brighten for time, level, or ramp.

### **4.4.2 Mode**

The *Command | Mode* command is used to send mode commands. The system may be set to any mode.

### **4.4.3 Button**

The *Command | Button* command is used to activate a button (macro) command.

### **4.4.4 All Lights On**

The *Command | All lights on* command sends an all lights on command.

### **4.4.5 All Units Off**

The *Command | All units off* command send an all devices off command.

### **4.4.6 Temperature**

The *Command | Temperature* command is used to send temperature commands. Commands that can be sent to a PESM include off, on, off for time, on for time, heat setpoint, and cool setpoint. Commands that can be sent to an RC-Series Thermostat include change mode (off, heat, cool, and auto), heat setting, cool setting, fan, and hold.

### **4.4.7 Message**

The *Command | Message* command is used to show, log, clear, say, phone, and send text and voice messages (if applicable for that system).

### **4.4.8 Set Time**

The *Command | Set time* command is used to set the time in your system. The default time is the current time set in the PC. The daylight savings time selection always defaults to "No".

## **4.5. Connect Menu**

Commands in the *Connect* menu are used to connect using a modem, serial interface, or network connection.

Complete details on using these commands to access your system are covered later in this document.

### **4.5.1 Modem**

The modem menu is used to send commands to the modem. The actual modem commands sent for each menu item are defined by using the *Configure | Modem* command.

#### **4.5.1.1 Local Access**

The *Modem | Local access* command is used when accessing your system by connecting directly to the phone line. Typically, the modem command string for the local access command is set to dial all the digits and codes needed to access your system.

The default modem command string is setup for code 1111. This command string must be edited to specify the proper code to use for your system.

#### **4.5.1.2 On-line**

The *Modem | On-line* command is used to tell the modem to go on-line in the originate mode. Typically, it is used after your system has been placed in the PC Access mode.

#### **4.5.1.3 Answer Callback**

The *Modem | Answer callback* command causes the modem to answer a callback from your system.

#### **4.5.1.4 Hang Up**

The *Modem | Hang up* command causes the modem to hang up the phone line.

#### **4.5.1.5 Initialize**

The *Modem | Initialize* command is used to send the initialize modem command string to the modem. The Lumina PC Access software normally initializes the modem when the software is first started. This command can be used to reinitialize the modem if the modem doesn't appear to be operating properly and after any changes are made to the *Configure | Modem* commands.

### **4.5.2 Serial**

The serial item allows you to connect to the controller via serial port. To connect via the serial port, click *Connect | Serial*. When an account file is opened, the connection type will default to a "Serial" connection.

### **4.5.3 Network**

The network menu allows you to "Connect" and "Disconnect" to a Lumina or Lumina Pro controller via network (i.e., Ethernet, Internet) using a secure, encrypted link.

## 4.6. Configure Menu

The *Configure* menu is used to configure the Lumina PC Access software. When an account file is closed, changes you make to the configuration of the Lumina PC Access software are stored in a special configuration file that is automatically loaded when the program is started. Certain items are stored in the individual account files.

### 4.6.1 Modem

The *Configure | Modem* command is used to specify the modem command strings that are sent for each command in the *Modem* menu, to specify the communications port, and to select the baud rate.

Modem configuration allows you to define up to three modem initialization commands. You can specify which initialization commands should be used and specify modem baud rate independently for each account (information is stored in the individual account files). This feature allows control of modem functions such as error correction, Bell 103 protocol, baud rate, etc. as required for specific accounts. When creating a new account or opening an account file from a previous version, the modem baud rate is initially set to the maximum speed supported by the particular controller model and initialization command #1 is enabled by default.

The default settings for each of the modem command strings have been found to work well with most Hayes compatible modems. If your modem doesn't appear to operate properly with the Lumina PC Access software, it may be necessary to edit these command strings to send different commands for your modem. Please refer to your modem manual for these commands.

The default local access command string is set to dial all the digits needed to access your system and place it in PC Access mode. The default code is set to 1111. This must be changed to the appropriate code for your system.

The default setting for the baud rate selection is 9600 baud. This setting is fine for connecting to a system using its built-in modem. If the system is not capable of communicate at 9600, your modem will automatically send data at the lower rate. When connecting to a Lumina Pro using its built-in modem, you may set the baud rate up to 19200. When connecting to a serial interface module, you may change this setting between 75 and 9600 baud.

### 4.6.2 Serial

Serial configuration allows you to specify the serial port and baud rate for the connection. This information is global. To connect via the serial port, click *Connect | Serial*.

### 4.6.3 Network

Network configuration allows you to specify the Lumina or Lumina Pro controller IP address, port number, and encryption key independently for each Lumina and Lumina Pro account (this information is stored in the individual Lumina or Lumina Pro account files). The controller's local IP address and port number set the local network parameters for the Lumina or Lumina Pro controller. The encryption key is used to establish a private, secure connection with the connected device. These items can only be modified when a given Lumina or Lumina Pro account file is open.

### 4.6.4 Password

The *Configure | Password* command is used to change the login password for the Lumina PC Access software. It is necessary to enter this password when the Lumina PC Access software is started. This insures that only you and others that you entrust with your password can access your account files.

If you forget your password, it will be necessary to reinstall the Lumina PC Access software to use it again.

## 5. ACCESSING YOUR SYSTEM

The following sections of this document detail how to access your Home Automation system.

An account file for your system must be created before the system can be accessed. The account file must be opened, and your system must be set up to allow Lumina PC Access. Systems are normally shipped with Lumina PC Access enabled.

### 5.1. Modem Access

Different procedures are used to access your system depending upon the type of access desired. In general, the following steps are performed:

1. Access the voice menu in your system in the normal manner.
2. Enter "##1" to instruct the system to enter the PC Access mode.
3. Enter either the master code or the Lumina PC Access code when prompted. The system is now in PC Access mode.

#### 5.1.1 Remote Modem Access

The following steps should be followed to access your system remotely:

1. Dial your system using a telephone connected to the same phone line as the PC's modem. Wait for the system to beep signifying that it is waiting for a code. If you have an answering machine, the system won't answer until the answering machine has hung up. Alternately, you can bypass the answering machine by using the "call twice" method. Dial your number and let the phone ring twice. Hang up. Wait about 10 seconds. Dial the number again within one minute. The system will answer after one ring.
2. After the beep, enter the Lumina PC Access code. The system will go into PC Access mode.
3. A modem tone will now be heard. Select the *On-line* command from the *Connect | Modem* menu.
4. When you hear the tone from the PC's modem, hang up the telephone. The indicator in the lower right corner of the screen should change from "OFF-LINE" to "ON-LINE".

#### 5.1.2 Remote Modem Access with Callback

Your system can be set up to initiate a callback when PC Access mode is entered. This is a security feature to insure that only you can access the system remotely using the Lumina PC Access software. Follow the procedure below to access your system if it has been programmed to initiate a callback:

1. Follow steps 1-2 as specified above for a normal remote access.
2. After the code is entered, the system will hang up and initiate the callback.
3. Hang up your telephone.
4. When your telephone rings, select the *Answer callback* command from the *Connect | Modem* menu. The indicator in the lower right corner of the screen should change from "OFF-LINE" to "ON-LINE".

### 5.1.3 Local Modem Access

If you wish to access your system while locally over the phone line, perform the following steps:

1. Connect the modem on your PC to your phone line.
2. Using a telephone on the same line as the modem, access the system by pressing the '#' key (or '#' then the master code if the system is in high security mode).
3. Enter "##1". This instructs the system to enter PC Access mode.
4. Enter either the master code or Lumina PC Access code when prompted.
5. A modem tone will now be heard. Select the *On-line* command from the *Connect | Modem* menu.
6. When you hear the tone from the PC's modem, hang up the telephone. The indicator in the lower right corner of the screen should change from "OFF-LINE" to "ON-LINE".

Alternatively, the *Local access* command in the *Connect | Modem* menu can be used to perform the above steps automatically. The local access modem command string must be configured to dial the appropriate digits.

For example, if your code is 9876, the local access modem command string should be changed from "ATS11=150DT###11111" to "ATS11=150DT###19876".

As you can see, the modem is being instructed to dial the exact same digits that you would normally press on the telephone. The S11=150 at the beginning of the command simply slows down the dialing rate of the modem.

## 5.2. Serial Connections

When communicating with a controller through a Serial Interface Module, the Lumina PC Access software must log in with the controller. To do this it uses the 4 digit code that is stored under *Setup | Codes*. Ensure that Code 1 is set to the valid Master or Lumina PC Access Code before accessing the controller.

To select a different baud rate, enter the new rate between 75 and 9600 baud under *Configure | Modem*.

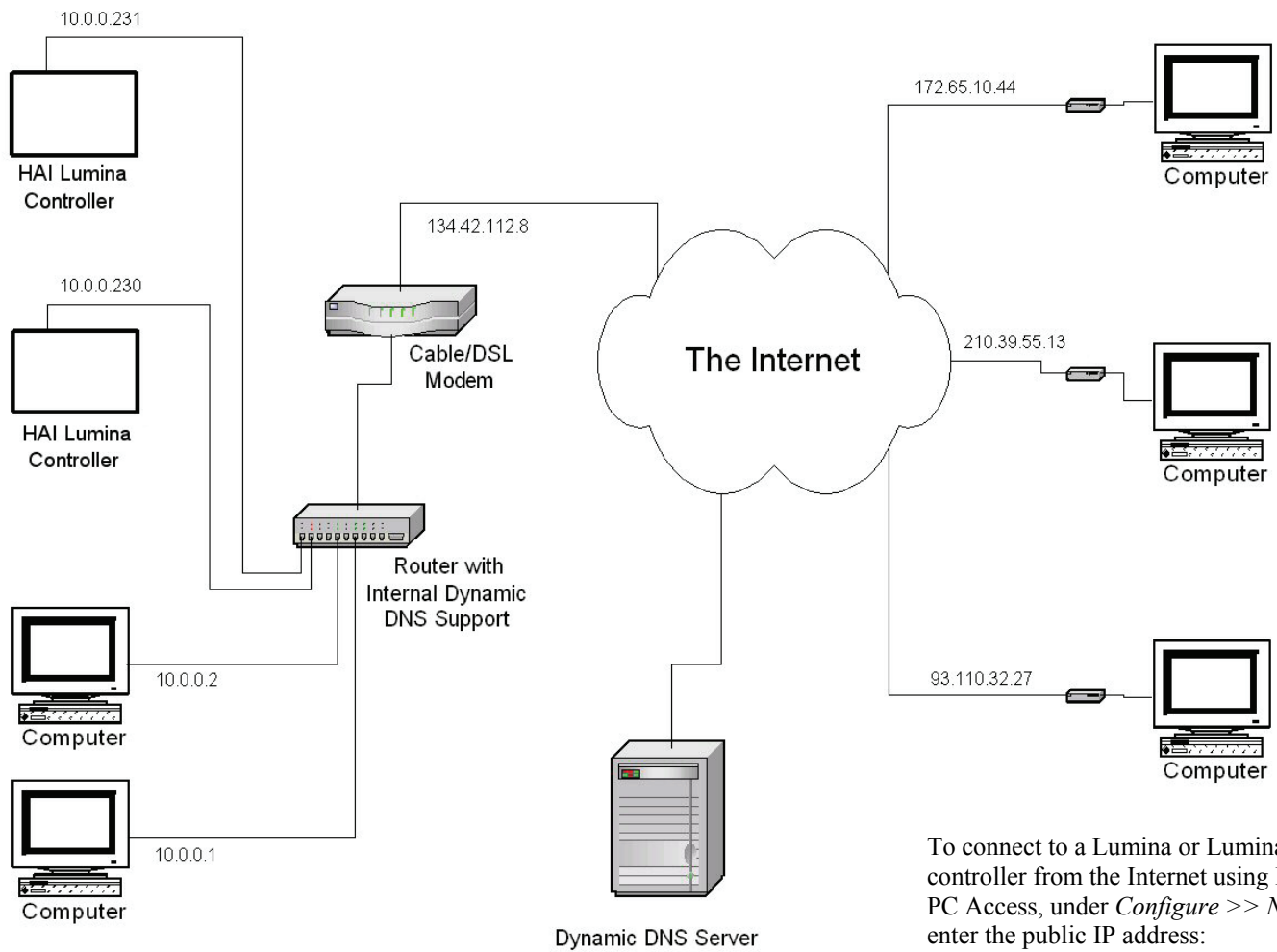
## 5.3. Network Connections

To connect via network (i.e., Ethernet, Internet):

1. Open Lumina or Lumina Pro account file.
2. Click *Configure >> Network*.
  - If you are connecting from the local network, enter the controller's IP address under "Network IP Address or Domain Name".
  - If you are connecting from the Internet, enter either the public IP address (the way to reach your local network via the Internet) or domain name (e.g. www.homeauto.com).

3. Enter the port number that is configured for the controller.
4. Select the *Encryption* tab. Enter the two part encryption key as it is displayed on the console.
5. Select *OK*.
6. Click *Connect >> Network >> Connect*. Lumina PC Access will display “*On-Line*” in the lower right corner.

If you fail to make a connection, an error message will be displayed. When connecting from the local network, make sure that the controller’s IP address, port number, and encryption key is entered as it is displayed on the console. Verify that the first two numbers of the controller’s IP address (e.g. 192.168) match the first two numbers of your local network.



To connect to a Lumina or Lumina Pro controller from the Internet using Lumina PC Access, under *Configure >> Network* enter the public IP address:

(i.e. 134.42.112.8)

To connect to a Lumina or Lumina Pro controller on a local network using Lumina PC Access, under *Configure >> Network* enter the controller’s IP address:

(i.e. 10.0.0.230)

## APPENDIX A - MODEM TROUBLESHOOTING

Most of the problems that people experience with the Lumina PC Access software are caused by improper modem setup. If you are experiencing problems communicating using the Lumina PC Access software, please follow these steps to insure that your modem is properly configured for use with the Lumina PC Access software.

1. First, insure that your modem is compatible with the Lumina PC Access software. Generally, most modems that purport to be "Hayes-compatible" will work with the software.
2. Next, insure that your modem is properly installed in your computer. External modems generally connect to your system's built-in COM1 or COM2 port. Internal modems should usually be set to COM3 or COM4. They should not be set to COM1 or COM2 unless the system's built-in COM1 or COM2 port has been disabled.

To check which Communications Port that that your modem is assigned to, click the "Start" button, point to "Settings", then click "Control Panel". Double click "System", then select the "Device Manager" tab. Double click "Modem", then double click on the displayed modem type that you are using with Lumina PC Access. Select the "Modem" tab to view the Communications Port setting for your modem.

Always remember to set the correct communications port and baud rate under the Configure | Modem menu when setting up your Lumina PC Access software.

Lumina PC Access for Windows will automatically select the proper IRQ for the communications port used by the modem.

3. Finally, make sure the modem initialization string is set properly in Configure | Modem. The default string will work for most modems:

```
AT&FX0S0=0S10=20&C1&D2
```

The commands in this string do the following:

AT	Modem attention, starts all modem commands
&F	Restore factory settings
X0	Use basic result codes / Enable dialing without dial tone
S0=0	Disable auto answer
S10=20	Set carrier loss wait time to 2 seconds
&C1	Report true sense of carrier detect
&D2	Hang up modem when DTR dropped

If the modem fails to work with the software, it may be necessary to modify the initialization string. The commands for your modem will be listed in the owner's manual that came with your modem. Find the AT commands and add it to the end of the existing Initialization Command.

Usually, the factory default settings for the modem will work well.

These defaults are usually invoked by the &F command, but it can differ from modem to modem. This insures that the modem is in a known state before Lumina PC Access issues the few commands (mainly the &C1) that really matter to the software.

Next, make sure that the modem is not set to do software handshaking (sometimes called software flow control). Hardware (RTS/CTS) handshaking or no handshaking is fine.

Finally, try disabling all error correction and compression.



