



Home Automation, Inc.

PC Access

**Model 1105W PC Access for Windows
Dealer Software**

Version 2.9c

OWNER'S MANUAL

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1. INTRODUCTION

This document describes installation and operation of the Model 1105W PC Access Software for Windows by Home Automation, Inc. This version of the HAI PC Access Software supports OmniLT, Omni, Omni II, OmniPro, and OmniPro II 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 dealer to access a customer's automation 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 OmniPro II Ethernet port.

The customer's system can be accessed both remotely and locally. The dealer can completely setup and program a customer's system by using the PC Access software.

The software allows the following functions to be performed:

- Create and maintain customer account files
- Download an account file to a customer's system
- Upload an account file from a customer's system
- Print an account file
- Download PC Access updates from the Internet
- Create/view/modify programs
- View/modify unit, zone, button, code, area, and message names
- View/modify unit, zone, button, code, area, and message voice descriptions
- View/modify setup information
- View event log
- View status of system, zones, units, and temperatures
- Send control, security, button, temperature, and message commands to a customer's system

2. INSTALLATION

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

1. Insert the 1105W Dealer 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 PC Access software, simply run the PC Access setup program as described above.

IMPORTANT NOTE REGARDING FILE COMPATIBILITY: Beginning with Version 2.4, several new items of information are stored in the account files and the configuration file. Here are some of the effects of these changes:

- a) This version of PC Access can open old (existing) account files; when the account file is saved, it is saved in the new format.
- b) Older versions of PC Access can open account files saved with version 2.4. However, if the account file is saved with this older version of PC Access, all of the new (version 2.4) account information will be lost.
- c) The configuration file holds system-level information that is not specific to any account. The format of this file has changed. To preserve upward compatibility, the filename has also changed. For previous versions, the filename was "PCA.CFG"; beginning with this version, the filename is "PCA01.CFG". If PC Access version 2.4 (or higher) cannot find the "PCA01.CFG" file, it attempts to open the older "PCA.CFG" file and import the configuration information. PC Access Version 2.4 (and higher) will never write to the older file; all configuration information is written to the new "PCA01.CFG" file, which is automatically created if necessary.

3. STARTING THE PROGRAM

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

3.1. Starting the Program for the First Time

When running the PC Access program for the first time, the "Install 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 PC Access software. If you do not enter the same security stamp when the software is reinstalled, the 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 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 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 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 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 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 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 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 an HAI 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 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 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 PC Access program.

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

4. PROGRAM OPERATION

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

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

Actions to be performed by the 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 the customer's 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 the customer has (OmniLT, Omni, Omni II, OmniPro, or OmniPro II). 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 PC Access software. This can be used to create "template" files that can be used by multiple 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 the customer's 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 the customer's system to the IBM PC compatible computer. In the upload dialog box, select the information to be copied from the customer's system.

This command should be performed before making any changes to the configuration of a customer's system. This insures that all changes made by the customer at his system 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 a customer's 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 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 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 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 a customer's 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.

Refer to the control unit installation instructions for programming restrictions on UL Listed Systems.

4.2.1 Codes

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

4.2.2 Programs

The *Setup | Programs* command is used to display and modify the programs in a customer's 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.
- "Security Event Button" - Button is activated when the security 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.
- "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.

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.

A unit command is a control command such as off, on, off for time, on for time, dim, brighten, dim for time, brighten for time, level, or ramp. A security command is used to arm the security system and to bypass or restore zones. A button command is used to activate a button (macro) command. All on and all off turn all lights on and all devices off, respectively. Temperature commands are used to view temperatures, change heat and cool setpoints, and turn energy savers off and on. Message commands are used to show, log, clear, say, phone, and send text and voice messages (if applicable for that system).

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.

For Omni II and OmniPro II accounts, 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 *"&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 Arming

The *Setup | Arming* command is used to modify arming options related to security operation.

4.2.5 Names/Voice

The *Setup | Names/Voice* command is used to display and modify the unit, zone, button, code, thermostats, area, and message names in the customer's system and to configure the system to speak descriptive names for units, zones, buttons, codes, thermostats, and areas 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 installer setup information in the customer's 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 and auxiliary 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 Area

The *Setup | Installer | Areas* command is used to configure the system for multiple areas. It is also used to assign units, zones, buttons, consoles, and thermostats to a specific area.

Select the number of areas to be assigned, then select *OK*. Select the area assignments for units, zones, buttons, messages, thermostats, and consoles by checking the appropriate boxes.

4.2.7.5 Temperature

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

4.2.7.6 Misc

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

4.2.7.7 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 security-related events and the current status of a customer's system.

4.3.1 Events

The *Show | Events* command is used to display the event log of the customer's 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 the customer's 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, security mode, the status of emergency zones, and various trouble conditions are displayed.

The *Area* display shows the status of emergency zones and the security mode for each area.

The *Zone* display shows the status of the security 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*, *Area*, *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 security commands to the customer's 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 Security

The *Command | Security* command is used to send security commands. The system may be armed into any security mode and zones can be bypassed or restored.

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 the customer's 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 a customer's 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 a customer's system by connecting directly to his phone line at his house. Typically, the modem command string for the local access command is set to dial all the digits and codes needed to access the customer's system.

The default modem command string is setup for security code 1111. This command string must be edited to specify the proper code to use for the customer's 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 the customer's 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 the customer's 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 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 an OmniPro II controller via network (i.e., Ethernet, Internet) using a secure, encrypted link.

4.6. Configure Menu

The *Configure* menu is used to configure the PC Access software. When an account file is closed, changes you make to the configuration of the 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 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 the customer's system and place it in PC Access mode. The default security code is set to 1111. This must be changed to the appropriate security code for the customer's 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 an OmniPro II 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 OmniPro II controller IP address, port number, and encryption key independently for each OmniPro II account (this information is stored in the individual OmniPro II account files). The controller's local IP address and port number set the local network parameters for the OmniPro II 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 OmniPro II account file is open.

4.6.4 Password

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

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

5. ACCESSING THE CUSTOMER'S SYSTEM

The following sections of this document detail how to access the customer's Home Automation system.

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

5.1. Modem Access

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

1. Access the voice menu in the customer's 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 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 the customer's system remotely:

1. Dial the customer's 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 the customer has 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 the customer's 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 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

The customer's system can be set up to initiate a callback when PC Access mode is entered. This is a security feature to insure that only the dealer can access the system remotely using the PC Access software. Follow the procedure below to access the customer's 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 a customer's system while at his house, perform the following steps:

1. Connect the modem on your PC to the customer's 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 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 the customer's security 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 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 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*.

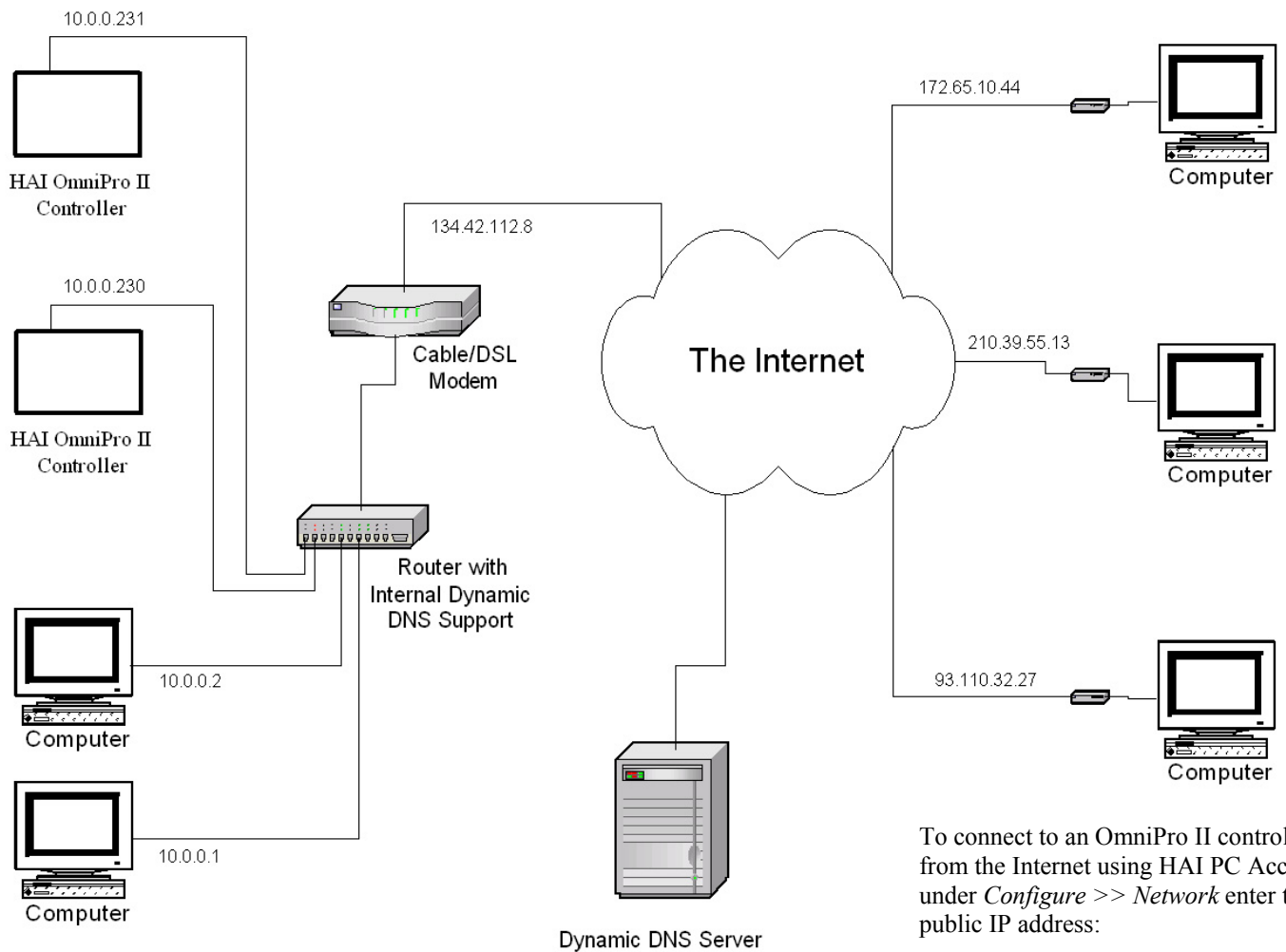
5.3. Network Connections

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

1. Open an OmniPro II 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*. 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 an OmniPro II controller on a local network using HAI PC Access, under *Configure >> Network* enter the controller’s IP address:

(i.e. 10.0.0.230)

To connect to an OmniPro II controller from the Internet using HAI PC Access, under *Configure >> Network* enter the public IP address:

(i.e. 134.42.112.8)

APPENDIX A - MODEM TROUBLESHOOTING

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

1. First, insure that your modem is compatible with the PC Access software. Generally, most modems that purport to be "Hayes-compatible" will work with the software. To communicate with OmniLT, Omni, and OmniPro the modem must be capable of operating at 300 bps using Bell 103 protocol.
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 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 PC Access software.

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 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.

