



ControlPoint 1000

Lab and Field Trials User Manual



Introduction



Thank you for evaluating the *ControlPoint*, THE break-through system that will make your home control and home monitoring easy and enjoyable!

Please make sure you read all instructions before proceeding with the product installation.

We recommend you perform the following simple, but key steps in your installation and evaluation:

- Power up your *ControlPoint* and auto-connect it to the local network.
- Register online to the Portal Server and activate your *ControlPoint*.
- Install control and monitoring devices, such as Echelon and Z-Wave home control adapters and IP cameras.
- Familiarize yourself with the *ControlPoint* User Interface.
- Verify your ability to access *ControlPoint* remotely via the 4HomeMedia *Portal Server*.

→ Throughout the Lab and Field Trial manual, suggestions for the tester will be listed to assist in the evaluation process.

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1 Introduction to the product

The *ControlPoint* v1.2 software first shipped in General Availability (GA) status in May 2007. There have been multiple point releases since then, so you should note down which version of the *ControlPoint* software you are using and testing. Check with your 4HomeMedia contact as to which software version you should be testing, and verify that it is the version loaded on your unit.

ControlPoint software can run on the *ControlPoint 1000* hardware reference design, or can be ported to connected, Linux-based embedded systems, such as residential gateways and set-top boxes. Your evaluation is on the *ControlPoint 1000ez* hardware reference design, most likely hardware version 2.5 (verify your model number and hardware revision with your 4HomeMedia contact prior to your evaluation process).

The *ControlPoint* v1.2 software is designed for a professional installation. In late 2007, a Set-up Wizard, code named "Tinman," will be released for DIY (Do-It-Yourself) installations. Please evaluate the current product platform with this in mind.

2 Package content

Your package will likely be part of starter kit. While there are many devices that could be supported with the 4HomeMedia software, we have worked with our eco-system partners to include the most common devices and make those available within various starter kits and include those for our partners to test in their lab and field trials. Your starter kit should include the following components (optional components noted as such):

- (1) *ControlPoint 1000* hardware reference design (most likely model 1000ez)
- (1) Power supply
- (1) Stand for putting *ControlPoint* in a vertical position
- (1) Ethernet cable
- (1) User Manual
- [optional] Panasonic IP Camera
- [optional] Axis IP Camera
- [optional] Echelon ISI Appliance modules
- [optional] Echelon ISI Lamp modules
- [optional] Z-Wave Appliance modules
- [optional] Z-Wave Lamp modules
- [optional] Z-Wave Thermostat
- [optional] Z-Wave motion sensor



Illustration 1: content of the package.
Note: optional devices not shown.

3 Connecting *ControlPoint 1000* to your network

The *ControlPoint 1000* should be connected to your home network and the Internet in order to provide all functionalities.

3.1 Inspecting ports on your *ControlPoint*

Please take time to inspect the ports on the back side of your *ControlPoint*:



The ports should be used for the following connections:

- 12VDC 1.4A – to connect your power supply;
- WAN port – to connect *ControlPoint 1000* to your network, for example to an Ethernet hub or directly to your gateway/router; use the included Ethernet cable for that;
- USB ports are used for certain USB device attachments [note: if testing the security video recording (SVR) feature which is currently in beta, the USB ports can be used for external, local USB storage]
- [optional] 1394 ports are reserved for your future connection to entertainment devices;
- Reset button can be used to restart your *ControlPoint 1000* when needed.
Warning: this will interrupt the normal functionality until the *ControlPoint 1000* is back again.

3.2 LEDs on *ControlPoint*



The *ControlPoint 1000* has 4 LEDs on the front panel to indicate its status. Now is a good time to familiarize yourself with the LEDs and what they indicate as the system is booting up:

3.2.1 Power

The "Power" LED indicates that your *ControlPoint* is connected to the power source. Normal state should be solid green.

3.2.2 Local Network

The "Local Network" LED indicates that your *ControlPoint* is connected to the local network. Normal state should be solid green. If this LED is off, it indicates that no network is detected.

3.2.3 Broadband

The "Broadband" LED indicates that your *ControlPoint* is connected via the Internet to the 4HomeMedia *Portal Server*, the back-end application server and management system that

enables a variety of options such as Remote Access to your *ControlPoint*. Normal state is a solid green LED.

Note: a few minutes after powering up, the “Power” and “Local Network” LEDs should be green, meaning that the system is working on the local network, and the “Broadband” LED orange, meaning that activation is still required. After activation, all three of the above LEDs should go to a solid green state, which means the unit is fully operational.

3.2.4 Messages

The “Messages LED” is reserved for the future to indicate that your *ControlPoint* is exchanging messages with the 4HomeMedia.net Portal (such as alerts). When such messages occur it blinks green. Otherwise it stays OFF.

3.2.5 Upgrade mode indication

When *ControlPoint* is upgrading its software the three lower LEDs turn to Orange and then to RED to indicate this status. **DO NOT unplug the power when all three LEDs are red – it might damage the *ControlPoint* unit and cause it to become unusable.**

A message will be displayed in the UI when upgrade is completed and the LEDs will turn to green again.

Software upgrades are performed as functions in the 4HomeMedia *Portal Server*.

3.3 Connecting to the local network

First, connect your *ControlPoint 1000* to the local network by using the included Ethernet cable. One side of the cable goes to the WAN port on the *ControlPoint* and the other side of the cable to an available port on the local Ethernet hub or directly to the broadband gateway / router.

Next, power up your *ControlPoint*.

Your *ControlPoint 1000* is pre-configured to configure its IP address automatically via DHCP, which is used in most home networks. If no DHCP server is present on the network the *ControlPoint 1000* will default to an IP address of 192.168.1.55.

Once the IP address is obtained the “Local Network” LED turns to solid green.

3.4 Connecting to the Internet

Once a local network connection is acquired, the *ControlPoint 1000* automatically connects to the Portal Server. The “Broadband” LED on the *ControlPoint 1000* turns to solid green indicating this connection is made and is active. A blinking green LED indicates that the *ControlPoint 1000* is still attempting to connect. This LED will be orange until activation is complete (see section 4) . If there is no connection to the Internet – that should be debugged in the existing home network environment as *ControlPoint 1000* is not a router and does not affect overall broadband configuration in any way. Give the unit a few minutes to boot-up, and continue reading.

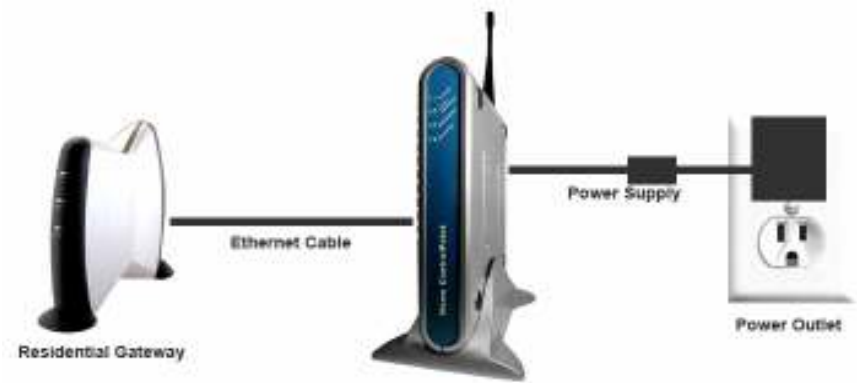


Illustration 2: Connecting your *ControlPoint* to existing Residential Gateway or home router.

4 Registration and Activation

Once your *ControlPoint* is up and running you register with the *Portal Server*.

4.1 User Registration

In order to register, use the following URL: <http://www.4homemedia.net> and choose: “**Registration (New User)**” menu option.

You’ll be presented with the Registration screen (sample below). Fill it in.

All fields with the “*” sign are mandatory and should be entered properly. Other fields, such as cell phone and home address are used for various services, and you should fill these out accurately as well.

4HOMEMEDIA

Log In

WELCOME TO 4HOMEMEDIA.NET CUSTOMER REGISTRATION PAGE

Already registered? Click here to login.

* Login name: johns

* Password: *****

* Confirm Password: *****

* First name: John

* Last name: Smith

* Email: johnsmith@4homemedia.net

Home phone: 408-111-2233

Cell phone: 650-111-2233

Cell phone model: UT Starcom ppc vc6700

Business phone: 408-777-8899

Address: 1234 Borregas ave.
Suite #101

City: Sunnyvale

State: CA

Zip: 94089

Country: United States of America

Submit

Fields with * are required fields

www.4homemedia.com

Upon successful registration you will see the following screen:



Click the "Activate ControlPoint" option in the menu on the left side.

4.2 Managing your account

Once registered you can:

- Modify your personal info
- Activate a *ControlPoint 1000*
- Change password

In order to do so go to the URL: <http://www.4homedmedia.net>, choose "Profile Access" and login with username and password created at step 4.1.

Here is the screen for changing the password:

When done with the changes – don't forget to log out using the "Logout" option in the menu.

4.3 ControlPoint Activation

Activation will allow your *ControlPoint 1000* to communicate with the *Portal Server* (management system). You can then take advantage of Remote Access to your *ControlPoint* and have the ability to receive new Services as they become available.

Once presented with the next screen – specify the following:

- Friendly name that you want to use to identify your *ControlPoint* (note: underscores and punctuation marks are not allowed).
For example: "John Smith's ControlPoint".
- Type in your MAC address. It can be found on the back label of your *ControlPoint*.
For example: 00:06:D3:A8:00:15.
- Your time zone.
For example: PST if you live within Pacific Time Zone.

These screens can be customized for partners, used as part of billing with back-end billing integration, or can be completed by using a valid credit card to pay for the Activation.

4.4 UI download from Portal

When the *ControlPoint 1000* ships from the factory, there is only a generic “factory” UI. Once the *ControlPoint 1000* is activated, the Portal Server identifies which Partner it belongs to and a software package with the correct customized UI is automatically downloaded into the *ControlPoint 1000*.

For troubleshooting and diagnostics purposes there is a special page that is available for viewing technical configuration of the *ControlPoint* that can be accessed via the following URL:
<http://controlpoint/config>

This page, in particular, allows you to identify the version of the software running in the ControlPoint and provide it to the Customer Care representative. A sample of such page is below:

4HomeMedia ControlPoint Configuration

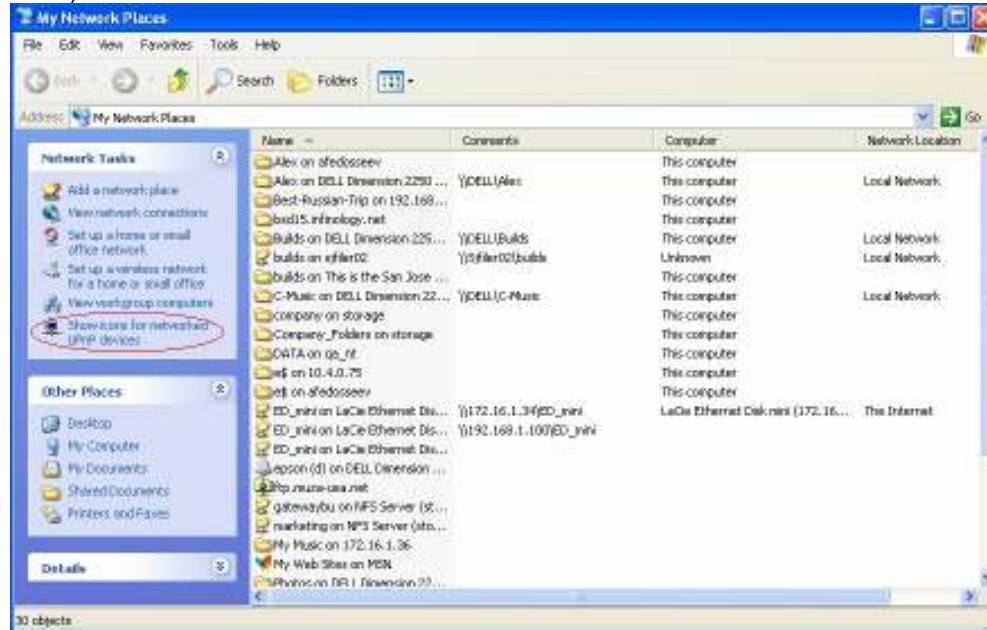
[About](#) [Network](#) [System](#) [Upgrade](#) [LonWorks](#) [Z-Wave](#)

About	
cp	
Package	Version
kernel	2.6.15-pmc
root	1.10
core	1.29
lon	1.7
zwave	1.10
argon	1.2.1.1

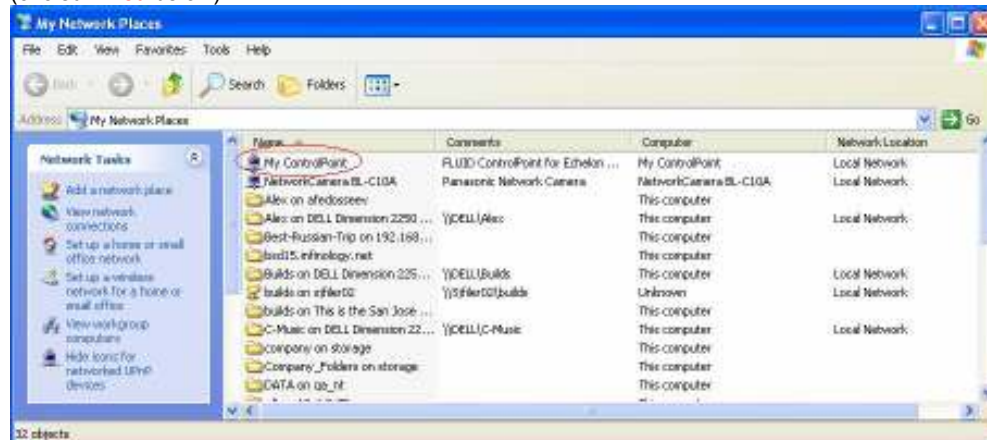
5 Access to the User Interface (UI)

5.1 UPnP configuration

Once ControlPoint is up and running on your network, it should be visible as a UPnP (Universal Plug-and-Play) device. In order to confirm that UPnP is enabled in your Windows PC choose “My Network Places” via opening the “Start” menu or using the associated icon on your desktop. If the text in the left panel says “Show icons for networked UPnP devices” (red circled on the picture below) – click on it to activate.



With UPnP enabled, you will see the *ControlPoint* showing up in the list as “My ControlPoint” (circled in red below):

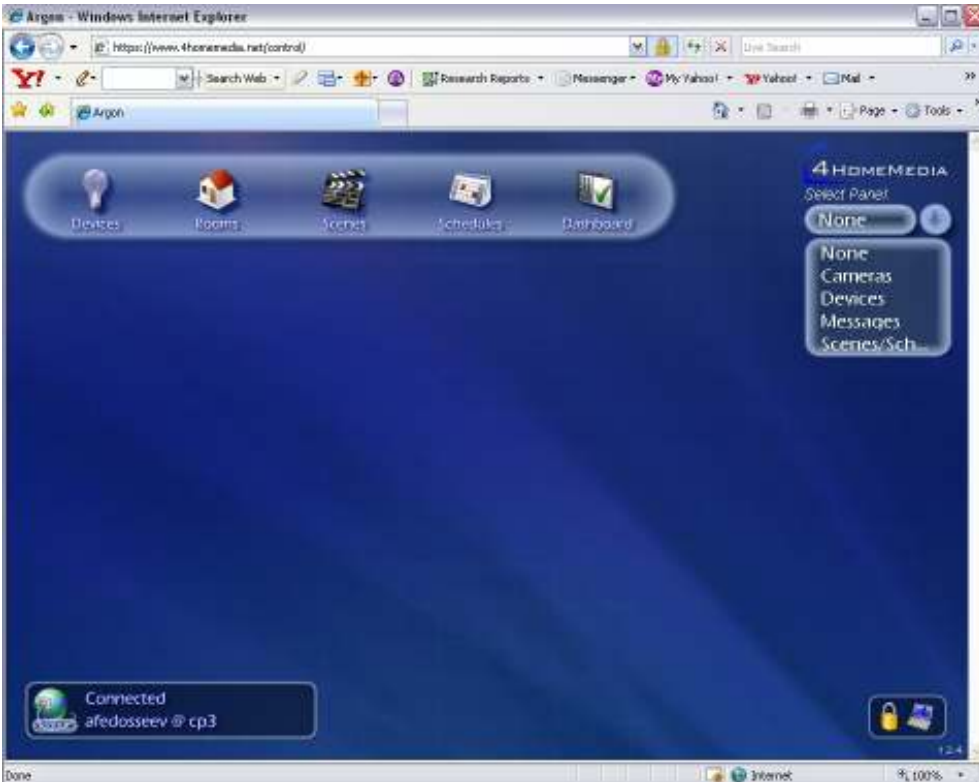


In order to get to the User Interface (UI) simply double-click on this line/icon.

Your default browser should launch automatically and display the *ControlPoint* UI. Bookmark this page in your browser, and use this new Favorite to launch the *ControlPoint* UI in the future.

5.2 Launching the *ControlPoint* UI

The *ControlPoint* UI might have different default pages depending on the customer configuration. A typical example of the initial screen called “Dashboard” is included below:



Using the pull-down menu on the right-hand side of the screen you can customize your views and choose what panels will be present in the Dashboard. The choices include the following panels:

- **Cameras:** you can select it multiple times and have a panel for each of your cameras
- **Devices:** this panel will display all compatible devices present on your home network
- **Messages:** this panel will display alerts and regular messages
- **Scenes and Schedules:** this panel will display all scenes and schedules configured in the system
- **Note:** additional panels will be added to the list in the future (via software updates)

Once the panels are selected you can arrange them on the screen in any convenient way by simply dragging and dropping. The panels are transparent; they can overlay and still allow you to see the content. Each panel is resizable with the mouse via the lower right corner control by clicking and dragging to the desired panel size. The whole screen is also resizable using standard browser functions.

You can close a panel by clicking on the “x” sign at the upper right corner.

If a particular panel type includes multiple entries they can be scrollable in the following ways:

- Devices, Scenes and Schedules – scrollable up and down via the scroll-bars on the right side
- Cameras: if multiple cameras are present the panel displays how many cameras are total and which of them is currently displayed, e.g. "1 of 3". You can use right arrow and left arrow controls to move from one camera to another. Alternatively, you can create/open multiple camera panels matching the number of cameras available to you on the home network. 4HomeMedia supports a variety of manufacturer models, all in the same general manner, while exposing whatever features that camera has and makes available (e.g. pan-tilt, zoom in/out, pre-sets, etc.).
- Messages: similar to Cameras, left arrow and right arrow controls can be used to navigate. The panel is divided into two sections: upper part for Alerts (critical messages) and lower part for regular messages.

An example of configured Dashboard is shown below:



6 Installation of Home Control devices

You can install a variety of home control devices in your house and manage them in unified way from the *ControlPoint*. This manual provides basic instructions for installation of three major classes of devices. For more information please refer to the User manuals provided by the respective device vendors.

6.1 Echelon LonWorks devices

Echelon LonWorks adapters allow you to control, monitor, and manage your home devices via your home's powerlines.

There are two types of Echelon LonWorks-compliant adapters:

- Plug-and-play, also referred as "ISI" (Interoperable Self-Install), and
- Non Plug-and-play, also referred as "Legacy"

Installation of ISI devices does not require any action on the *ControlPoint* side. Once such a device is installed it will be automatically discovered by *ControlPoint* and show up in the UI.

In order to install legacy (non ISI-compliant) Echelon devices, the user should press the button on the device WHILE the *ControlPoint* is up and running in order to initiate the "Learn" process. This process might take up to 30 seconds. After that, the Echelon legacy device should show up in the *ControlPoint* UI and be manageable from this point on.

Whether ISI or legacy Echelon adapters, a default name will be provided for you, and you are encouraged to change the name of the devices to something more familiar and friendly.

The Echelon supported devices in *ControlPoint 1.2x* software include:

- Lamp modules
- Lighting switches
- Appliance modules

Support is in development for the following Echelon devices:

- LonWorks-compliant keypads
- Fans
- Motion detectors
- Thermostats and temperature sensors
- Sunblinds/shades

6.2 Z-Wave devices

Z-Wave adapters and modules allow you to control, monitor, and manage your home devices wirelessly.

The Z-Wave supported devices in *ControlPoint 1.2x* software include:




- Lamp modules
- Lighting and dimmer switches
- Appliance modules
- Thermostats

Support is in development for the following Z-Wave devices:

- Fans
- Motion detectors
- Sunblinds / shades

In order to have Z-Wave devices managed and monitored they must be associated with the *ControlPoint*. This association process protects your wireless communication between such devices and the *ControlPoint* from being intercepted by third parties to ensure security.

Z-Wave setup steps

1. Point your browser to <http://controlpoint> or click on the “My ControlPoint” item in My Network Places.
2. Switch into Admin mode by clicking on the “lock” icon  at the lower right corner and providing the PIN. Administrator mode is also explained in section 6.7.
3. Open Settings page by clicking on the “PC” icon  in the lower right corner. Observe the Settings section on the screen
4. Click on the (Z) sign to start configuring Z-Wave devices. 
5. Unplug and bring all the Z-Wave devices to within three feet of the *ControlPoint*.
6. For each device, do the following:
 - a. Plug in the device next to the *ControlPoint*,
 - b. Click the “Add” button; you should see an “add ready” message,
 - c. Press the button on the Z-Wave device labeled “on/off” or “service” or something similar (labeling varies for each vendor of Z-Wave devices),
 - d. If you see the message “Add failed” repeat from step (b) until you see “add done,”
 - e. Unplug the Z-Wave device and plug-in other ones and repeat steps (a) through (d); continue this process for all the Z-Wave devices you have.
7. Take all the Z-Wave devices and plug them into their intended places throughout your home.
IMPORTANT: make sure all devices are installed in the right places before you proceed.
8. Within the same UI, click the “Rediscover” button and wait until you see “rediscover complete.”
9. You Z-Wave devices should be properly detected and displayed in the UI.

Note: If you experience any problems with Z-Wave devices because of limits of the wireless reach inside your house it is recommended to use the “Rediscover” function in the Z-Wave menu again.

6.3 TCP-IP devices

TCP/IP devices are home control devices that allow you to control, monitor, and manage them via a TCP/IP protocol running on top of traditional home networking media, such as Ethernet, HPNA or Wi-Fi. IP Cameras are the most popular home control devices in use today. The ControlPoint supports a variety of IP cameras, and installation is much easier with IP cameras supporting UPnP.

For detailed instructions on how to use and operate IP cameras, please see Section 7 in this manual and also refer to the respective vendor’s documentation.

6.4 Device management

In order to manage devices after the installation – use the “**Devices**” option in the *ControlPoint* UI. Particular controls are dependent upon the type of device and enable multi-UI and remote control of actions such as ON and OFF, dimming, temperature up/down, and the like. A sample screenshot is included:



6.5 Rooms, Scenes and Schedules

The *ControlPoint* User Interface allows to users to perform the following operations:

- Create, edit and delete “**Rooms**”, which are groups of devices that user assigns to a desired room, e.g. “Office”, “Living Room”, “Bedroom”.
→ Try creating a room with the devices you have installed.
- Create, edit and delete “**Scenes**”, which are groups of devices with specified desired settings.
→ Try creating some scenes. For starters, do these two:
 - “Away” – turning all devices off,
 - “Awake” turning on lamps and radio in the bedroom, etc.
 Scenes can be run from either “**Scenes**” view or in the “**Dashboard**” view.
- Create, edit, and delete “**Schedules**”, which are Scenes with specified time for execution. Schedules can be managed from the “**Schedules**” view and monitored in the Dashboard.
→ Pick one device and put it on a schedule.

Changes can be performed only in “**Administrator**” mode.
Please see section 6.7 of this manual on how to enable it.

6.6 Messages

“Dashboard” view in the *ControlPoint* User Interface allows the user to view and manage messages and alerts that might be sent by either the *ControlPoint* to the user or from the *Portal Server* to the user:

- **Alerts** will be displayed in the upper area of the “Messages” panel. They indicate events that require immediate attention.
- Regular **Messages** will be displayed in the lower area of the “Messages” panel. They indicate occurrence of the events that should be known by the user, but can be reviewed at a convenient time.
- Alerts and Messages can be viewed by clicking Left and Right controls and deleted by clicking the “x” button associated with the current message.

In addition to such messages coming to the UI panel, messages may also be configured to be sent to the user’s mobile phone via SMS or to an email account, if such options were configured during the Registration process.

6.7 Administrative mode

In order to change the settings of the ControlPoint and edit the information user must create PIN and use it to enable the Administrator mode in the UI.

In order to do so:

- Click on the iconic representation of a lock in the lower control pane;
- If entered for the first time, specify the PIN number and save it
Note: make sure you write this PIN number in some secure place or memorize it.
- Every time you want to switch to Administrator mode, enter the PIN, and then additional options will become available in the menus throughout the UI.



7 Installation and management of IP Cameras

ControlPoint allows the end-user to control, monitor, and manage certain types of IP Cameras.

7.1 UPnP-compatible Camera installation

UPnP Camera installation should be fully automatic. Upon discovery of such a camera it will be automatically added to the *ControlPoint* list of devices and show up in the “Cameras” view in the UI.

7.2 Supported Cameras

In release 1.2x the following UPnP Cameras have been fully tested and certified:

- D-Link DSC-5300
- D-Link DSC-5300W
- Panasonic BL-C10A
- AXIS 207
- AXIS 210
- AXIS 212
- Sony SNC-RZ30

The *ControlPoint* UI will support up to 16 camera panels on the Dashboard view.

7.3 Camera management and monitoring

UPnP Cameras may have some or all of the following controls via the *ControlPoint* UI, depending on the model/make of the camera and its capabilities and what it makes available through UPnP:

- Pan
- Tilt
- Zoom in / out
- Pre-set select

7.4 Panasonic BL-C10A camera setup notes

Currently for security reasons this camera ships with UPnP off so it cannot be detected in a fully automatic manner like cameras that ship with UPnP ON by default.

Instructions for set-up:

- Plug in the camera's power and Ethernet. If 20 minutes have passed since you turned on the camera, unplug it and plug it in again.
- With a pen or pencil, press the “Factory Default Reset” button on the bottom of the unit.
- Put the CD that came with the camera into a computer on the same network as the camera. The Setup.exe program on the CD should auto-launch.
- Press the “Camera Setup” button. Wait a moment. An “Easy Setup” dialog will popup with one entry in it.
- Select the entry in the “Easy Setup” dialog and press the “Execute” button.
- Press the “Automatic Setup” option. Internet Explorer (IE) will open to the “Security: Administrator” page.
- Choose an administrator username and password for the camera. Press Save. You may see a Windows dialog asking for the camera's username and password. Enter them, select “remember my password”, and press OK.
- Your browser will now open to the camera's UI. You should see the camera image.
- Click on the “Setup” tab at the top of the page. Now click on “DHCP.” At the bottom of the DHCP page, press Save.

- Exit from all of the setup software (including your browser) and restart the camera by unplugging its power cord.

7.5 AXIS 207W camera setup notes

AXIS 207/207W cameras typically ship with a default configuration where UPnP is OFF.

In order for the camera to be detected in the UI, follow the installation instructions supplied with the camera. In brief, the steps consist of the following:

- Install the camera and connect it to your home network.
- Run AXIS IP utility from the included Setup CD that automatically finds the cameras on your network.
- Double-click on the camera found; it will bring up the configuration window.
- Once prompted to set up the password - specify it and click to save.
- Select “Users” option under “basic Configuration” on the left hand side on your Setup screen.
- Enable “Anonymous” viewer login by checking the checkbox in the lower part of the screen (see illustration below).
- From this point on you should be able to view this camera in the ControlPoint UI. The camera will be also accessible from “My Network Place” on Windows PC as explained in section 7.7.

The screenshot displays the configuration interface for an AXIS 207W Network Camera. The page title is "AXIS 207W Network Camera" with navigation links for "Live View", "Setup", and "Help". A left sidebar contains a "Basic Configuration" menu with options: Users, Wireless, TCP/IP, Date & Time, Video & Image, and Audio. The main content area is titled "Users" and features a "User List" table with columns for "User Name" and "User Group". The table contains one entry: "root" with "Administrator" as the group. Below the table are "Add...", "Modify...", and "Remove" buttons. The "User Settings" section includes a checked checkbox for "Enable anonymous viewer login (no user name or password required)", a text input for "Maximum number of simultaneous viewers limited to:" set to "10" (range [0..10]), and the note "Subsequent viewers will see a blank image." at the bottom with "Save" and "Reset" buttons.

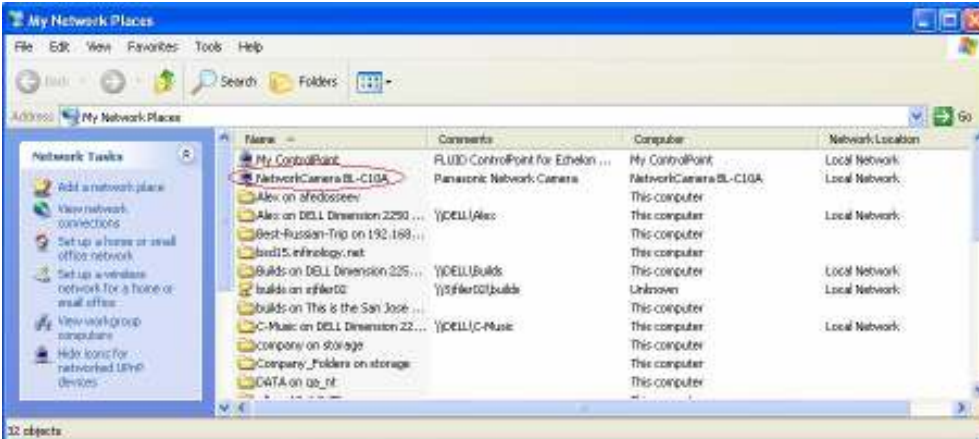
User Name	User Group
root	Administrator

7.6 Camera verification

To verify that your IP camera works, look for the camera in “My Network Places”:

- Launch “Start” Menu in your Windows PC
- Choose “My Computer”

- Click on “My Network Places”



Now you view and control your camera in the *ControlPoint* User Interface as described in section 5.2.

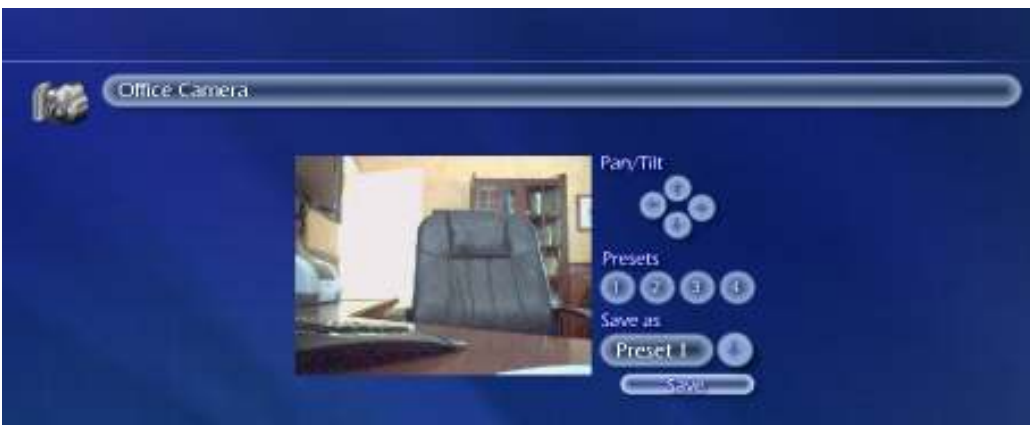
The “Launch” button in the Dashboard allows you to open camera view in a separate window while continuing using main UI for managing the *ControlPoint 1000*.



7.7 Advanced Camera features

Once an IP camera is detected by the *ControlPoint*, it can be monitored and controlled depending on the model-specific capabilities. They include the following:

- Launch "Full Camera View" in a separate window by pressing "Launch" button in the Dashboard [on Local network only, not supported when managed remotely]
- Pan / Tilt controls in the Dashboard view using left, right, up and down arrows
- Preset position jump in the Dashboard view using 1, 2, 3, 4 buttons
- Preset configuration save in the Devices view using "Save" button. In order to create a preset you need to move the camera into desirable condition using Pan and Tilt controls and then save configuration by choosing one of the profiles: "Preset1" to "Preset4"



In Beta as of Fall 2007 is a security video recording (SVR) feature that promises to become the marquee feature of any home monitoring solution. Please contact your 4HomeMedia representative to discuss testing this feature if you are interested.

8 Mobile User Interface (aka “Hydrogen”)

ControlPoint allows the end-user to control, monitor, and manage home network remotely via Smartphones.

8.1 Supported Smartphone models

Any Smartphone running Windows Mobile operating system and Adobe Flash Lite version 2.1 or higher is expected to support 4HomeMedia Mobile UI. At the time of the release the following models have been certified:

- UT Starcom (Verizon) Pocket PC vc6700
- Motorola Q
- Samsung SGH i607 (BlackJack)

8.2 Mobile UI delivery to the customer

During the *ControlPoint* registration process the user enters information about their phone model and their mobile phone number. Then UI sends an SMS message to this phone with a link for 4HomeMedia Mobile UI installation: “*Get Mobile UI*” (see the picture below). The process is semi-automatic: once the customer receives the SMS message on the phone and clicks on the link, it installs the Flash Lite application in the background (if not previously installed). There might be confirmation prompts during the install, depending on the particular model of the mobile phone.

The same process is used when a newer version of the Mobile UI is available via the 4HomeMedia *Portal Server*. In such a case there will be a prompt to confirm the customer’s willingness to install the newer version over the older one. All settings and preferences will be preserved upon any such an upgrade.

The screenshot shows the 4HomeMedia web interface. At the top, there is a navigation bar with '4HOMEMEDIA' and a 'Logout' link. Below this is a header for 'MY ACCOUNT HOME PAGE' with a 'Logout' link on the right. A left sidebar contains links for 'Home', 'Activate Control Point', 'Configure Alerts', and 'Logout'. The main content area shows 'Customers Name: Product Manager' and tabs for 'Personal Info', 'Payments', 'Services', and 'Products'. Under the 'Products' tab, there is a section titled 'My Account Home' containing a table of 'My CPs' (Control Points). The table has columns for Name, Brand, Mac Address, Shared, and Select. Below the table are buttons for 'Edit Info', 'Buy Services', 'Get Mobile UI', and 'Share Control'. The 'Get Mobile UI' button is circled in red. Below these buttons are two smaller buttons: 'Control Sharing' and 'Control Network'.

Name	Brand	Mac Address	Shared	Select
Living Room Demo CP	4HomeMedia	00:06:D3:A8:00:31	No	<input type="radio"/>
PM Alex_cube unit	4HomeMedia	00:06:D3:A8:00:3A	No	<input type="radio"/>
PM34	4HomeMedia	00:06:D3:A8:00:34	No	<input type="radio"/>
NETcommi	4HomeMedia	00:06:D3:A8:01:00	No	<input type="radio"/>
Test Unit 011E	4HomeMedia	00:06:D3:A8:01:1E	No	<input type="radio"/>

8.3 Mobile User Interface

Once the Mobile UI is installed on your Smartphone, it can be activated by launching a program called "Hydrogen". A shortcut to this program is typically placed on the main screen for easy access.

Upon launching the Mobile UI, it will request the customer to login. Type in the username and password that you created during the Registration process.

If you would like to have your credentials memorized so you can login automatically, check the "Auto Login" checkbox by using the select button on your Smartphone.



Illustration: *initial screen loading*



Illustration: *Login screen*

The functions and controls in the Mobile UI are very similar to the PC UI and include the following options:

- Devices – view and control your devices
- Rooms – view and control your rooms
- Scenes – view and run configured Scenes
- Schedules – view configured Schedules
- Messages – view received messages and alerts
- Settings – manage your preferences
- Switch to another CP – if you use or own more than one *ControlPoint*
- Logout – log out of the Mobile UI



Illustration: Main menu



Illustration: Devices menu

All devices are detected automatically and show up in exactly the same way as in the PC UI. They are grouped by the device class: "Cameras", "Switches", "Lights", etc.



Illustration: Camera control view



Illustration: Lamp module control view

The Cameras view allows you to monitor and control your cameras in real-time. In order to switch to "Control" mode you have to click the button at the bottom to change to "Controlling". This means that now you can use right, left, up and down controls on your Smartphone keyboard to move the camera to a desired position.



Illustration: Messages view



Illustration: Schedules view

The Messages view allows you to read the messages and see their timestamps. Message / Alerts of high importance will pop-up in Mobile UI automatically as they might need your immediate attention. Examples of such events might be:

- Your front door is open
- Important message from the management system

The Schedules view allows you to see schedules configured for your *ControlPoint*.

The Scenes view allows you to see and run the scenes created for your *ControlPoint*.

8.4 Settings and configuration options

The Mobile UI connection to the Portal is primarily done via the Smartphone's data connection.

It is also possible to establish a direct (LAN) connection to your *ControlPoint* if your Smartphone supports WiFi connectivity. In this case you need to do the following:

- Ensure your WiFi connection is up (per configuration options in your Smartphone)
- On the Hydrogen login screen chose "*Local Connect*" option.
A new field will open up, type in the IP address of your controlpoint.
- Click on the "*Login*" button to connect to the *ControlPoint*.

Other configuration options are available in the "Settings" menu.

In Release 1.2 they include:

- Language selection: English and Spanish.
It is important to understand that only 4HomeMedia menu options and messages will be presented in the selected language. All customer-created names will not be affected by this selection. (e.g., if you named your device "Floor lamp", it will be displayed as a "Floor lamp" regardless of the language selected in the UI.)
- Temperature display: allows you to choose between Fahrenheit and Celsius scales.

9 Remote Access

The product enables the end-user to access their home remotely via 4HomeMedia's *Portal Server* (4HomeMedia.net or other 4HomeMedia Portal domain).

9.1 Login

In order to use Portal, open a Web browser, such as Internet Explorer (IE) or Mozilla FireFox (FF) and type the following URL:

<http://4homemedia.net/> and then choose "My Home"



9.2 Accessing the User Interface remotely

Upon a successful login you will be connected to *ControlPoint* registered under your name. The remote UI will provide the same level of functionalities as you would have while accessing it from your home network with a few exceptions, specifically:

- IP Camera cannot be launched in separate windows using the "Launch" button.
- Access to "Config" page is restricted.

9.3 Multiple ControlPoints

If you have multiple *ControlPoints* registered under your name you will be presented with a list to choose from. Select the one you want to access remotely and click the "Select" button to continue.

10 Troubleshooting

Use the following basic scenarios to troubleshoot potential problems with your ControlPoint.

10.1 Unable to Register with Portal

Symptom: unable to Register with the Portal

Solution:

- Is your network connection OK? Do you see the three solid green LEDs?
- Ensure you have Internet connection, e.g. go to a known trusted website
- Verify that you are using correct URL: <http://www.4homemedia.net>
- Once logged in – make sure you provide information in all required fields

10.2 Unable to access ControlPoint UI

Symptom: cannot access *ControlPoint* UI

Solution:

- Confirm that UPnP is enabled in your PC for easy *ControlPoint* detection
- If have access to IP addresses on the local network – find out if *ControlPoint* received an IP address via the DHCP server
- If no DHCP server is present on the local network *ControlPoint* will auto-configure to default IP address 192.168.1.55. In order to connect from a PC to *ControlPoint* directly it is possible to configure such PC with a static IP address on the same network, e.g. 192.168.1.56, subnet mask 255.255.255.0.

Hint for alternative access: If your network is using DHCP server and ControlPoint is running in default configuration – it should be accessible via name “**controlpoint**”.

In order to open the UI simply type <http://controlpoint> in your browser address bar.

10.3 Unable to control device

Symptom: Device intended for control does not show up in the UI

Solution:

- For Echelon ISI devices - ensure the device is properly plugged into the wall outlet
- For Echelon non-ISI devices – press the “Service” button on the device to initiate the learning process again.
- For Z-Wave devices – ensure device is associated with the *ControlPoint*; Run the “Rediscover” procedure again.
- For Z-Wave devices – make sure that device is properly plugged into the wall outlet

10.4 LED Matrix

LED Matrix represents all possible states of four front panel indicators of the *ControlPoint 1000*:

LED State	Meaning	Comments
POWER LED		
OFF	Unit is not connected to the power source	Physical LED (no software involved)
GREEN	Unit is connected to the power source	Physical LED (no software involved)
LOCAL NETWORK LED		
OFF	No physical connection on the WAN interface OR unit is not trying to obtain an IP address	Normally it is expected a presence of a gateway operating as a DHCP server
BLINKING GREEN	Unit is trying to obtain an IP address from the gateway on the network	Normally it is expected a presence of a gateway operating as a DHCP server
GREEN	IP address is obtained OR statically pre-configured ¹ ; unit is on the local network	Normally it is expected a presence of a gateway operating as a DHCP server
BROADBAND LED		
OFF	There is no attempt to connect to 4HomeMedia Portal	
BLINKING GREEN	Unit is trying to establish connection to 4HM Portal	
GREEN	Connection to 4HM Portal has been established successfully	
MESSAGES LED		
OFF	There are no events	
GREEN	Application programmable	
BLINKING GREEN	Application programmable	
ORANGE	Application programmable	
BLINKING ORANGE	Application programmable	
BLINKING RED	Application programmable	
RED	Application programmable	
COMBINATION LED: LOCAL + BROADBAND + MESSAGES		
3 * ORANGE	Software download	Do Not interrupt the download.
3 * RED	Upgrade in progress	Do Not Power Cycle the Unit, it might damage it!!!
3 * GREEN	CP is fully functional	

FCC Notices

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Change or modification not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

RF exposure warning:

The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment. The equipment must not be co-located or operating in conjunction with any other antenna or transmitter.

Canada Notices

Industry Canada regulatory information

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

The user is cautioned that this device should be used only as specified within this manual to meet RF exposure requirements. Use of this device in a manner inconsistent with this manual could lead to excessive RF exposure conditions.