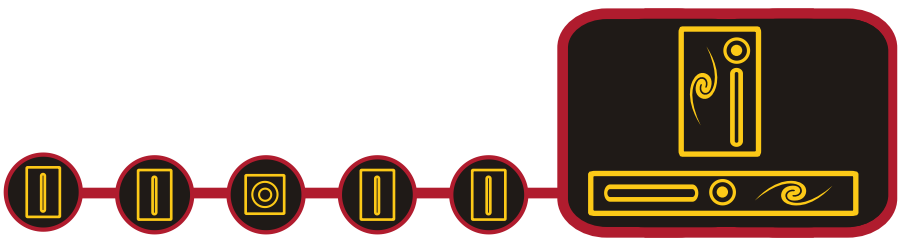
NetBotz® 420

an APC company

About Your Appliance



Preface

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Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to take whatever measures may be necessary to correct the interference at their own expense.

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Certifications

CE

CE

The NetBotz 420 wall and rack models, described in this publication, are CE certified.

FCC

- Power - 5V @ 3Amps max; 3.3V @ 3Amps max
- Jack - 4 Pin Power Din
- Leakage Current - Less than 3.5 mA

VCCI

この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。 VCCI－ A

Cleaning

Use only a dry cloth to clean the NetBotz appliance. To clean your NetBotz appliance, gently wipe the surface of the NetBotz appliance with a dry cloth.

Misuse

Use your NetBotz appliance ONLY in the manner specified. If the equipment is used in a manner not specified by NetBotz, the protection provided by the equipment may be impaired. NetBotz is not responsible for misuse.

Improper Use of Video Recording Capabilities

Attention: THE EQUIPMENT CONTAINS, AND THE SOFTWARE ENABLES, VISUAL RECORDING CAPABILITIES, THE IMPROPER USE OF WHICH MAY SUBJECT YOU TO CIVIL AND CRIMINAL PENALTIES. APPLICABLE LAWS REGARDING THE USE OF SUCH CAPABILITIES VARY BETWEEN JURISDICTIONS AND MAY REQUIRE AMONG OTHER THINGS EXPRESS WRITTEN CONSENT FROM RECORDED SUBJECTS. YOU ARE SOLELY RESPONSIBLE FOR INSURING STRICT COMPLIANCE WITH SUCH LAWS AND FOR STRICT ADHERENCE TO ANY/ALL RIGHTS OF PRIVACY AND PERSONALTY. USE OF THIS SOFTWARE FOR ILLEGAL SURVEILLANCE OR MONITORING SHALL BE DEEMED UNAUTHORIZED USE IN VIOLATION OF THE END USER SOFTWARE AGREEMENT AND RESULT IN THE IMMEDIATE TERMINATION OF YOUR LICENSE RIGHTS THEREUNDER.

Availability of Open Source Technologies

The NetBotz 420 product includes technologies that are governed by the GNU Public License. The GPL source code contained in our products is available for free download from:

http://support.netbotz.com/gpl

Contents

Preface ... i
About Your NetBotz 420 ... 1
Upgrading Your NetBotz 420 ... 1
Hardware Upgrades ... 1
Software Upgrades ... 2
Before You Begin ... 3
Package Contents ... 3
Choosing an Installation Location ... 3
Gathering Network Settings Information ... 4
Administrator Account User ID & Password ... 4
Root Account User ID & Password ... 4
The NetBotz 420: A Closer Look ... 5
NetBotz 420 LEDs ... 7
About the Appliance Camera ... 9
Image Size and Imager Field of View Specifications ... 9
Sensors Included With Your Appliance ... 10
Integrated Sensor Types ... 10
External Sensor Ports ... 11
Device Crawlers Sensor Types ... 12
About the NetBotz Installer CD ... 13
Installing on a Windows System ... 13
Installing on a Linux System ... 14
Installing on a Solaris System ... 15
Configuring Network Settings ... 17
Obtaining Network Settings Using DHCP ... 17
DHCP Vendor Class Support ... 17
Using the Serial Configuration Utility ... 18
Installing Your Appliance ... 23
Installing Hardware Options ... 27
Adding Pods to Your NetBotz 420 ... 27
Installing and Configuring a CCTV Adapter Pod 120 ... 28
Connecting an Output Relay Pod 120 ... 29
Connecting a Power Control Pod ... 29
Installing a Power Control Pod 115 or 235 ... 30
Installing a Power Control Pod 110 or 230 ... 31

Installing a Wireless Network Adapter 33
Installing a CompactFlash Modem 34
Connecting a USB Modem 35
Reassigning Serial Ports 36
Connecting External Sensors 37
Changing Camera Lenses 37
Operational Specifications 39
Integrated Sensors 40
Warranty and Service 41
Life-Support Policy 43

About Your NetBotz 420

Your NetBotz 420 has been designed to provide extraordinary asset protection against physical and environmental threats. Its design enables you to attach additional pods, providing the monitoring power and scalability to meet most any need. Camera Pod 120s and Sensor Pod 120s expand your monitoring capabilities. CCTV Adapter Pods enable you to integrate your analog video cameras into your digital threat-prevention network. And when used in conjunction with Output Relay Pod 120s and Power Control Pods your NetBotz 420 can automatically or interactively turn lights on or off, open door locks, cycle power, and so forth.

Your NetBotz 420 includes an integrated camera as well as integrated temperature, humidity, dew point, air flow, audio, and door switch sensors. It includes 4 ports for adding external sensors (such as external temperature and humidity sensors, Amp Detectors, or dry contact sensors), and also features 1 USB port and 1 CompactFlash slot for use in expanding your appliances monitoring capabilities.

- One additional camera pod (either a Camera Pod 120 or a CCTV Adapter Pod 120) can be connected directly to the USB port using a standard USB extender cable, or connected to a powered USB hub that is connected to the USB port.
- Up to 4 additional pods other than camera pods can be connected to a NetBotz 420. These 4 pods can be any combination of Sensor Pod 120s, Output Relay Pod 120s, or Power Control Pods.

Upgrading Your NetBotz 420

Your NetBotz 420 supports a variety of hardware and software upgrades. These upgrades, including add-on software applications, external sensors, and the ability to connect additional pods to a single NetBotz 420 are designed to enable you to customize your NetBotz 420 appliance to meet your particular environmental monitoring needs.

Hardware Upgrades

You can upgrade your appliance hardware by adding pods (Camera Pod 120s, CCTV Adapter Pod 120s, Sensor Pod 120s, or Output Relay Pod 120s), a broad variety of supported external sensors (external sensors must be connected to the integrated external sensor ports, or to a Sensor Pod 120), and Power Control Pods.

Available external sensors include TS100 External Temperature Sensors, HS100 External Humidity Sensors, FD100 Fluid Detectors, PS100 Particle Sensors, and Amp Detectors, as well as many third-party dry contact sensors (connected to the integrated external sensor ports or a Sensor Pod 120 using a Dry Contact Cable).

You can also enhance the network communication capabilities of your appliance by installing a supported wireless network or modem CompactFlash card or by connecting a supported USB modem.

See also

For more information on upgrading your NetBotz 420 hardware, see “Installing Hardware Options” on page 27.

Software Upgrades

The BotzWare on your NetBotz 420 can be upgraded as newer versions become available using the Upgrade task. Your appliance also supports add-on software applications, such as Advanced Device Crawlers, which provide powerful advanced environmental threat monitoring functionality. Add-on software is available for purchase separately from NetBotz and NetBotz certified resellers.

Before You Begin

Before you begin configuring and installing your appliance, you should first confirm that your appliance package contents are complete. You should also choose an appropriate installation location and gather some information about the network settings that will be used for the appliance.

Package Contents

Your NetBotz 420 appliance package contains the following:

- NetBotz 420 wall or rack model appliance
- Power supply
- Magnetic door switch Sensor and cable
- Wall mounting bracket (high-quality, heavy-duty, 360° positionable wall-mounting bracket, included with wall models only)
- Null modem cable

Choosing an Installation Location

Before configuring and installing your appliance, you should identify the location where you will mount the appliance. When selecting a location, be sure to take the following into account:

- Location of the nearest Ethernet port in relation to placement of the appliance.
- Location where you will place the door sensor in relation to location of the appliance.
- Location where you will place external sensors, if any, in relation to the appliance.
- Objects that might obstruct the appliance camera.

Gathering Network Settings Information

You should also collect the following information. You will need this information to configure the network settings on your appliance.

- DHCP and IP Address Information:
  - Does your network use a DHCP server?
  - If you do not use DHCP, what IP address is assigned for use by your appliance?
- Subnet Mask Information:
  - Will you use a subnet mask for the appliance LAN interface?
  - If you are using a subnet mask, what is the mask?
- Gateway Information:
  - Will you use a default gateway for packet routing?
  - If you use a default gateway, what is the IP address of the gateway?

Administrator Account User ID & Password

Your NetBotz 420 comes with a pre-configured Administrator account. The User ID and Password for this pre-configured account are:

- **User ID:** netbotz
- **Password:** netbotz

To ensure security, be sure to use the Advanced View *Users* task to change the default Administrator account User ID and Password.

Root Account User ID & Password

Your NetBotz 420 comes with a pre-configured root account. The root account is used only for appliance communications that are performed using the serial port, such as when you use the Serial Configuration Utility to specify network settings (see “Using the Serial Configuration Utility” on page 18). The User ID and Password for this pre-configured account are:

- **User ID:** root
- **Password:** netbotz

You cannot change the root account User ID. However, to ensure security, be sure to use the Advanced View *Change Root Password* Tool menu selection to change the default root account password.

The NetBotz 420: A Closer Look

Your NetBotz 420 is a single, integrated unit, with a variety of ports and connections as well as a camera and several environmental sensors housed within a sturdy case.

Each port or connection is identified with a symbol on the label. The symbols, and the ports which they identify, are:

Power. The power supply connects to this port. The port and power supply plug lock together to discourage accidental unplugging of the appliance.

Serial. Connect the included null modem cable to this port for network settings configuration.

10/100 Ethernet Connection. Use a standard RJ-45 cable to connect the appliance to your Ethernet network.

Door Switch Sensor. Used to connect the Door Switch Sensor to the appliance.

External Sensor Ports. Used to add external sensors (such as external temperature and humidity sensors, Amp Detectors, or dry contact sensors) to the appliance. The external sensor ports are numbered 1 through 4.

USB Port. Use this port to connect additional pods to your appliance. You can connect:

One additional camera pod (either a Camera Pod 120 or a CCTV Adapter Pod 120) can be connected directly to the USB port using a standard USB extender cable, or connected to a powered USB hub that is connected to the USB port.

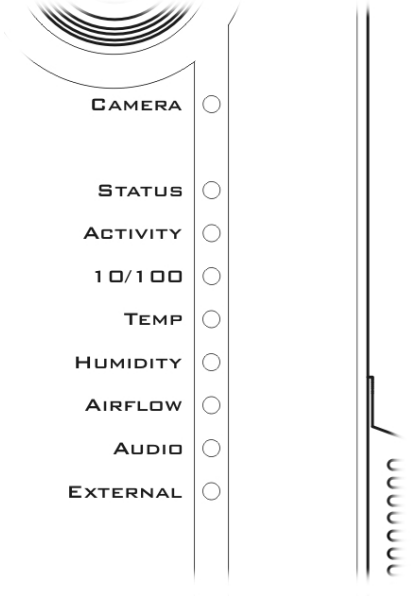
Up to 4 additional pods other than camera pods can be connected to a NetBotz 420. These 4 pods can be any combination of Sensor Pod 120s, Output Relay Pod 120s, or Power Control Pods.

CompactFlash Card Slot. For adding CompactFlash-based hardware upgrades, such as a supported wireless LAN adapter, to your NetBotz 420 appliance.

Attention! Use only CompactFlash cards that are specifically supported by NetBotz. For information about supported CompactFlash cards, see the NetBotz web site.

NetBotz 420 LEDs

Your NetBotz 420 features a series of 9 LED indicators, shown below. These LEDs are used to indicate the current power, alert, and network communication status of the appliance. The following illustration shows the LEDs as they appear on the NetBotz 420 wall model.



LED	Description
Camera	When the appliance is powered on this LED blinks slowly and steadily (one second on, one second off), indicating that the appliance is currently active, and capturing video images.
Status	Indicates the current operational and alert status of the appliance. On initial power-up, blinks to indicate that the appliance is in the process of starting up. Once the startup process is complete, illuminates steadily. If startup process fails the LED is not illuminated. If any alerts conditions currently exist the LED blinks. The LED will blink slowly for less severe alerts, quickly for more severe alerts. If multiple alert conditions currently exist the LED blink rate is determined by the most severe alert condition.
Activity	Blinks to indicate network activity.

LED	Description
10/100	Illuminates if the appliance is currently using a 100MB Ethernet connection. If not illuminated, the appliance is currently using a 10MB Ethernet connection.
Temp	Blinks if the internal temperature sensor is currently reporting an alert condition. If the dew point sensor is reporting an alert condition, both the Temp LED and the Humidity LED will blink together. If a connected External Temperature Sensor is reporting an alert, both the Temp LED and the External LED will blink together.
Humidity	Blinks if the internal humidity or dew point sensors are currently reporting an alert condition. If the dew point sensor is reporting an alert condition, both the Temp LED and the Humidity LED will blink together. If a connected External Humidity Sensor is reporting an alert, both the Humidity LED and the External LED will blink together.
Airflow	Blinks if the internal airflow sensor is currently reporting an alert condition.
Audio	Blinks if the internal audio sensor is currently reporting an alert condition.
External	Blinks to indicate that an external sensor is currently reporting an alert condition. If an attached External Temperature Sensor or External Humidity Sensor is reporting an alert condition the External LED and the Temp LED or Humidity LED, respectively, will blink.

About the Appliance Camera

Your NetBotz 420 includes an integrated camera.

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The integrated camera includes the following features:

- User adjustable and switchable industry-standard CS-mount lens. CS-mount permits access to hundreds of different general purpose and special purpose lenses.
- Image processor that generates images up to 640x480 resolution, 24-bit color, and up to 20 frames per second.

The maximum frame rate describes the maximum number of images that the camera imager is capable of producing each second. The actual frame rate that will be visible in the Basic View or Advanced View is largely dependent on the amount of available bandwidth.

Image Size and Imager Field of View Specifications

- **Image Size:** 7.7mm x 6.1mm (9.82mm Diagonal = 0.387”).
- **Field of View:** 64º (H) x 53º (V) for all resolutions.

Sensors Included With Your Appliance

Your appliance features a variety of integrated sensors. In addition, your appliance can also support up to 4 additional external sensors. Finally, Device Crawlers support the monitoring of up to 48 additional SNMP target devices. Details on the sensors that are included with your appliance, sensors available from devices monitored by Device Crawlers, and whether the sensor is analog or state follow.

Integrated Sensor Types

Your appliance includes the following sensors:

- **Temperature:** Analog sensor that reports temperature readings as degrees Fahrenheit or Celsius. Readings include values down to tenths of a degree.
- **Humidity:** Analog sensor that reports relative humidity readings as whole number percentage values.
- **Airflow:** Analog sensor that reports airflow readings as whole number feet or meters per minute values.
- **Dew Point:** Analog sensor that reports dew point readings as degrees Fahrenheit or Celsius. Readings include values down to tenths of a degree.
- **Audio:** Analog sensor that reports audio level as a whole number between 0 (silent) to 100 (very loud).
- **Door Switch:** State sensor that reports whether a door is “open” or “closed.”
- **Camera Motion Sensor:** State sensor that reports the presence of motion in the camera field of view.

External Sensor Ports

Your appliance also features 4 external sensor ports to which the following additional sensors can be connected.

- **TS100 External Temperature Sensor:** Analog sensor that reports temperature readings as degrees Fahrenheit or Celsius. Readings include values down to tenths of a degree.
- **HS100 External Humidity Sensor:** Analog sensor that reports relative humidity readings as whole number percentage values.
- **FD100 Fluid Detector:** State sensor that reports the presence or absence of fluid.
- **PS100 Particle Sensor:** Analog sensor that reports the presence of dust and other particulates larger than 1 micro meter.
- **Amp Detector:** Analog sensors that report the amperage values of the monitored power source.
- External Door Switch: State sensor that reports whether a door is “open” or “closed.”
- **Dry contact sensors using a Dry Contact Cable:** State sensors that reports a general “open” or “closed” state. Condition monitored or detected is dependent on the type of dry contact sensor in use.

Device Crawlers Sensor Types

The following sensors are available on all SNMP targets that are monitored using Device Crawlers:

- **Online:** State sensor that reports whether the target is Online or Offline.
- **Ping RTT:** Analog sensor that reports amount of time it takes SNMP queries or ICMP Ping requests to complete a send and reply from the appliance.
- **SNMP System Uptime:** Analog sensor that reports that reports the uptime value of the target.
- In addition, Device Crawlers also provides the following sensors for each of the SNMP target's network interfaces:
- **Admin Status:** State sensor that reports the admin status of the interface.
- **IF Type:** State sensor that reports the interface type value.
- **Incoming Discards:** Analog sensor that reports the number of incoming packets discarded by the interface.
- **Incoming Errors:** Analog sensor that reports the number of incoming packets containing errors received by the interface.
- **Incoming Non-Unicast Packets:** Analog sensor that reports the number of incoming non-unicast packets received by the interface.
- **Last Change:** Analog sensor that reports the last change value for the interface.
- **OP Status:** Analog sensor that reports the OP status of the interface.
- **Outgoing Errors:** Analog sensor that reports the number of outgoing packets containing errors sent by the interface.
- **Outgoing Non-Unicast Packets:** Analog sensor that reports the number of non-unicast packets sent by the interface.
- **Outgoing Octets:** Analog sensor that reports the number of outgoing octets sent by the interface.
- **Outgoing Unicast Packets:** Analog sensor that reports the number of outgoing unicast packets sent by the interface.

About the NetBotz Installer CD

You can use the *NetBotz Installer* CD to install the following applications on any supported system:

- Advanced View: A Java-based user interface for monitoring and managing your NetBotz 420.
- Serial Configuration Utility: A Java-based application that you can use to configure the network settings on your NetBotz 420.
- Java Runtime Environment (JRE)

By default, the NetBotz Installer will copy the NetBotz 420 documentation to your system. You can also access these PDF files from the DOCS subdirectory of the CD.

Installing on a Windows System

To install the applications and the JRE on a supported Windows system

1. Place the *NetBotz Installer* CD-ROM in the CD-ROM drive of the system that you will use to configure and manage your appliance. The NetBotz Installer will start automatically. If you have disabled Autostart on your system, click **Start** > **Run**, type `x:\install.exe` in the **Open** field (where *x* is the drive letter assigned to your CD-ROM drive) and then click **OK**.
2. The Welcome screen appears. Read the window contents and then click **Next** to continue.
3. The License Agreement window appears. Read the window contents, click **I Accept the terms of the License Agreement** to agree to the terms and conditions of the license agreement and then click **Next**. If you do not agree to the terms and conditions of the license agreement, click **Cancel** to close the installation program.
4. The Choose Install Set window appears. You can choose to install the Typical product features, Minimal product features, or Custom product features.
   - If you choose **Typical** the Serial Configuration Utility, product documentation, and Advanced View application will be installed on your system.
   - If you choose **Minimal** only the Advanced View application will be installed on your system.
   - If you choose **Custom** you can select which components you want installed on your system.

Select a product feature option and then click **Next** to continue.

5. The Choose Install Folder window appears. Specify a directory to which the program files will be installed or accept the default installation directory. Click **Next** to continue.
6. The Pre-Installation Summary window appears and displays information about the installation options you have chosen. Click **Install** to begin installing program files.
7. The Installing NetBotz Advanced View progress window appears, and after all files have been installed the Install Complete window appears. Click **Done** to finish your installation and close the NetBotz Installer.

Installing on a Linux System

To install the applications and the JRE on a supported Linux system:

1. Place the *NetBotz Installer* CD-ROM in the CD-ROM drive of the system that you will use to configure and manage your appliance. Be sure to mount the drive if necessary.
2. Run install.bin from the Linux subdirectory on the CD. For example, if you mounted the CD-ROM drive as /mnt/cdrom, execute the following command:
3. sh /mnt/cdrom/linux/install.bin
4. The NetBotz Installer starts and the Welcome screen appears. Read the window contents and then click **Next** to continue.
5. The License Agreement window appears. Read the window contents, click **I Accept the terms of the License Agreement** to agree to the terms and conditions of the license agreement and then click **Next**. If you do not agree to the terms and conditions of the license agreement, click **Exit** to close the installation program.
6. The Choose Install Set window appears. You can choose to install the Typical product features, Minimal product features, or Custom product features.
   - If you choose **Typical** the Serial Configuration Utility, product documentation, and Advanced View application will be installed on your system.
   - If you choose **Minimal** only the Advanced View application will be installed on your system.
   - If you choose **Custom** you can select which components you want installed on your system.

   Select a product feature option and then click **Next** to continue.
7. The Choose Install Folder window appears. Specify a directory to which the program files will be installed or accept the default installation

directory. Click **Next** to continue.

8. The Pre-Installation Summary window appears and displays information about the installation options you have chosen. Click **Install** to begin installing program files.
9. The Installing NetBotz Advanced View progress window appears, and after all files have been installed the Install Complete window appears. Click **Done** to finish your installation and close the NetBotz Installer.

Installing on a Solaris System

To install the applications and the JRE on a supported Sparc system running Solaris 9 (with all patch bundles recommended by Sun installed):

1. Place the *NetBotz Installer* CD-ROM in the CD-ROM drive of the system that you will use to configure and manage your appliance. Be sure to mount the drive if necessary.
2. Run install.bin from the Solaris subdirectory on the CD. For example, if you mounted the CD-ROM drive as /mnt/cdrom, execute the following command:

   sh /mnt/cdrom/solaris/install.bin
3. The NetBotz Installer starts and the Welcome screen appears. Read the window contents and then click **Next** to continue.
4. The License Agreement window appears. Read the window contents, click **I Accept the terms of the License Agreement** to agree to the terms and conditions of the license agreement and then click **Next**. If you do not agree to the terms and conditions of the license agreement, click **Exit** to close the installation program.
5. The Choose Install Set window appears. You can choose to install the Typical product features, Minimal product features, or Custom product features.
   - If you choose **Typical** the Serial Configuration Utility, product documentation, and Advanced View application will be installed on your system.
   - If you choose **Minimal** only the Advanced View application will be installed on your system.
   - If you choose **Custom** you can select which components you want installed on your system.

   Select a product feature option and then click **Next** to continue.
6. The Choose Install Folder window appears. Specify a directory to which the program files will be installed or accept the default installation directory. Click **Next** to continue.
7. The Pre-Installation Summary window appears and displays

information about the installation options you have chosen. Click **Install** to begin installing program files.

8. The Installing NetBotz Advanced View progress window appears, and after all files have been installed the Install Complete window appears. Click **Done** to finish your installation and close the NetBotz Installer.

Configuring Network Settings

Before installing your NetBotz 420 appliance, you must configure your appliance's network settings. By default, your appliance is configured to obtain its network settings using DHCP. Alternately, you can use the Serial Configuration Utility to specify network settings (including IP address, gateway address, subnet mask, hostname, NAT proxy, and speed and duplex settings) to be used by the appliance. You can also use the Serial Configuration utility to configure a wireless network adapter if you have installed one in the PC Card slot.

Obtaining Network Settings Using DHCP

By default, your appliance is configured to attempt to obtain its network settings using DHCP. When you connect the appliance to your network and power it on, it automatically attempts to contact a DHCP server. The appliance will wait 30 seconds for a response. If the DHCP server is configured to provide a hostname the appliance will request either its configured hostname or 'netbotz*xxxxxx*' (where *xxxxxx* is the last 6 digits of the appliance serial number) as a hostname to be associated with the IP address granted by the DHCP server, enabling you to use a web browser to connect to the appliance at the http://netbotz*xxxxxx* without any additional configuration necessary. The appliance will also request DNS server addresses, DNS domain, SMTP server addresses, and NTP server addresses from the DHCP server.

After your DHCP server has assigned network settings for the appliance, you can use your system, a null modem cable, and the Serial Configuration Utility to view the network settings. For more information see "Using the Serial Configuration Utility" on page 18.

DHCP Vendor Class Support

The DHCP client on your NetBotz 420 features vendor class support. When requesting network configuration from your DHCP server, your NetBotz 420 provides the following vendor class string:

```
NetBotz420
```

Vendor classes enable you to define a set of DHCP settings for a specific equipment vendor and apply those settings to any node falling into that class. Vendor classes offer enhanced flexibility in assigning custom settings to individual network clients without affecting others on the same network.

Using this vendor class, your NetBotz 420 can request a custom set of DHCP settings that is appropriate for its configuration. For example, you might assign longer lease durations for NetBotz 420 appliances, as they typically remain on the network in use without interruption. To do this, you would configure a vendor class on your DHCP server named NetBotz420 (no spaces) and assign to it a longer lease period. Then, when any NetBotz 420 requests network settings from the DHCP server, the appliance will automatically receive a longer lease based on that vendor class.

Using the Serial Configuration Utility

You can use the Serial Configuration Utility (installed using the *NetBotz Installer* CD-ROM. For more information, see “About the NetBotz Installer CD” on page 13) to assign your appliance network settings.

To configure your appliance using the Serial Configuration Utility:

1. Click **Start > Programs > NetBotz > Serial Configuration > Serial Configuration Utility** to start the Serial Configuration Utility. If the Serial Configuration Utility has not yet been installed on your system, see “About the NetBotz Installer CD” on page 13 for instructions on how to do so.
2. Connect one end of the null modem cable to a serial connector on your system and the other end of the cable to the serial port on the appliance.
3. If you will be obtaining network settings using DHCP, plug an Ethernet cable into the Ethernet socket, and then connect the Ethernet cable to an Ethernet wall jack or hub.
4. Plug the appliance power supply into a wall outlet, and then connect it to the power cord connection. The Status LED will illuminate for 2-3 seconds immediately after you connect power to the appliance, and then go dark. When the appliance is finished starting up (the process can take as long as 2 minutes, depending on appliance configuration), the Status LED will illuminate again. Once the Status LED is illuminated again click **Next** to continue.
5. The Serial Configuration Utility automatically scans your systems COM ports to determine if an appliance is connected to the system. If an appliance is discovered the utility will note the presence of the appliance in the Device column of the window. Select the radio button that corresponds to the appliance you wish to configure and then click **Next**

to continue configuring your appliance.

If the COM port associated with the port to which your serial cable is connected is currently in use by another application, the message beside the COM port in the **Owner** column will indicate that the port is not currently available. To correct this, close the application that is using the COM port and then click **Scan Serial Ports**.

6. The Root Password window appears. Type in the **Password** field the administrator account password for this appliance (by default this password is set to "netbotz." For more information see "Administrator Account User ID & Password" on page 4) and then click **OK**.
7. The utility scans the appliance and displays the network settings (IP Address, Netmask, and Gateway) that are currently stored on the appliance.

- If you **have not** installed an additional network interface (for example, a wireless network adapter. See "Installing a Wireless Network Adapter" on page 33), specify the Ethernet Card settings and then skip to "Specify the DNS Settings." on page 22. Be sure to check the Enable Interface check box when you've finished.
  - To configure your appliance to use network settings assigned by a DHCP server select the **Configure automatically via DHCP** radio button. If desired, specify a **NAT proxy** name or IP address that will be used by a NAT Proxy server in your network to enable users to connect to the appliance from outside the firewall. You can also specify **speed and duplex** settings for use by this interface, or leave them set to Auto Negotiate (the default value).
  - To specify network settings for use by this appliance, select the **Configure using these settings** radio button and then provide an IP address, subnet mask, and gateway address for the appliance. If desired, specify a **NAT proxy** name or IP address that will be used by a NAT Proxy server in your network to enable users to connect to the appliance from outside the firewall. You can also specify **speed and duplex** settings for use by this interface, or leave them set to Auto Negotiate (the default value).
  - If you **have** installed an additional network interface, (for example, a wireless network adapter. See "Installing a Wireless Network Adapter" on page 33), an **Interface** selection list containing entries for the Ethernet Card and the Wireless Card appears at the top of the window. The currently assigned Hostname and IP address (if any) for each network interface is listed beside its selection list entry.

To configure the **Ethernet Interface**:

a. Select Ethernet Card from the **Interfaces** selection list and then click **Edit**.

b. Specify the Network settings.
   - To configure this interface to use network settings assigned by a DHCP server select the **Configure automatically via DHCP** radio button. If desired, specify a **NAT proxy** name or IP address that will be used by a NAT Proxy server in your network to enable users to connect to the appliance from outside the firewall. You can also specify **speed and duplex** settings for use by this interface, or leave them set to Auto Negotiate (the default value).
   - To specify network settings for use by this appliance, select the **Configure using these settings** radio button and then provide an IP address, subnet mask, and gatew3ay address for the appliance. If desired, specify a NAT proxy name or IP address that will be used by a NAT Proxy server in your network to enable users to connect to the appliance from outside the firewall. You can also specify speed and duplex settings for use by this interface, or leave them set to Auto Negotiate (the default value).

c. Check the **Enable Interface** check box, and then click **OK** to save these settings and continue.

To configure the **Wireless Card**:

d. Select Wireless Card from the **Interfaces** selection list and then click **Edit**.

e. Select the Network tab to specify the Network settings.
   - To configure this interface to use network settings assigned by a DHCP server select the **Configure automatically via DHCP** radio button. If desired, specify a **NAT proxy** name or IP address that will be used by a NAT Proxy server in your network to enable users to connect to the appliance from outside the firewall.
   - To specify network settings for use by this interface, select the **Configure using these settings** radio button and then provide an IP address, subnet mask, and gateway address for the appliance. If desired, specify a **Hostname** and a **NAT proxy** name or IP address that will be used by a NAT Proxy server in your network to enable users to connect to the appliance from outside the firewall.

f. Select the Wireless tab to specify the Wireless settings. You'll need to specify the following values:

- **ESS ID**: The Extended Service Set value shared by this appliance and other members of the wireless network.
- **Mode**: Determines the wireless communication method to use within your wireless network. If your wireless network uses Wireless Access Points (WAPs), select **Managed**. If your wireless network does not use WAPs, select **Ad-Hoc**. If you are unsure of whether wireless access points are in use in your network, select **Automatic** and the adapter will attempt to determine if WAPs are present and self-determine its mode.
- **Channel**: The wireless channel on which the adapter will communicate. Wireless networking clients and WAPs within an ESS must be configured with the same ESS ID and the same channel.
- **Band**: For wireless adapters that support multiple WiFi communication bands, specifies the wireless band that the card will attempt to use for communications. You can select:

  •**Automatic:** Searches first for 11a, then 11b, then 11g, and finally for 11a Turbo. The appliance will use the first band connection/ ESSID match it discovers.

  •**11a:** Looks for only 802.11a band connections

  •**11b:** Looks for only 802.11b band connections

  •**11g:** Looks for only 802.11g band connections

  •**11a Turbo:** Looks for only proprietary 802.11a band connection
- **Encryption**: Specify the type of encryption that will be used on the wireless transmissions. You can select **WEP**, **LEAP**, or **None**.

  •If you select WEP, you must also specify whether an **ASCII** or **Hex** WEP Key will be used, as well as the WEP **Key** value.

  •If you select LEAP, you must also specify the LEAP **Username** and **Password** that will be used.

Note

LEAP communications are supported only when used with Cisco 1200 Series AP 12.01T1 wireless access points.

g. Check the **Enable Interface** check box, and then click **OK** to save these settings and continue.

8. Specify the DNS Settings.
   - To use DNS Settings that are provided by your DHCP server, check the **Use DHCP DNS Settings** check box.
   - To specify DNS Settings for this appliance manually uncheck the **Use DHCP DNS Settings** check box and then provide the desired domain and DNS server information.
9. Click **Next** to save your configuration settings. When the save process is complete you can click **Finish** to close the Serial Configuration Utility.

To test the appliance IP connection, start your web browser and type the IP address that was assigned to the appliance into the address field. Then, press **Enter**. If the appliance is online and properly configured the Basic View will be displayed in the browser window.

Installing Your Appliance

Once you have configured your appliance's network settings, you are ready to install the appliance. Before installing your appliance, please be sure to review the information regarding the various appliance ports and connections in "The NetBotz 420: A Closer Look" on page 5.

You need the following parts (included with the appliance) to complete the following procedures:

- The NetBotz 420 appliance
- The power supply
- The Door Switch Sensor and its cable
- Black universal swivel wall mount (optional, included with wall models only)

To install the NetBotz 420:

1. Mount the Door Switch Sensor that is included with the appliance. Complete these steps to mount the switch:
   a. Measure the distance between the location where you intend to mount the switch and the location where you will install the NetBotz 420. Ensure that the Door Switch Sensor cable is long enough before continuing.
   b. Using one of the included adhesive strips, attach the wired portion of the door switch to the door frame. When mounting this portion of the switch, ensure that the flat side of the switch is flush with the door frame.
   c. Using another adhesive strip, mount the non-wired portion of the switch to the door. Be sure to mount the second piece of the switch so that when the door is closed the two portions of the switch are as close to each other as possible.

Note

Once both pieces of the door switch are mounted, there must be no more than 1/4" of space between the two pieces when the door is closed.

2. Install the NetBotz 420 rack model in your server rack, or mount the NetBotz 420 wall model to your wall.
   – If you will be installing a rack model appliance, using a screwdriver or a drill, mount the NetBotz 420 rack model to the rack. The screws

needed to mount the NetBotz 420 rack model depend on your rack. Please refer to the documentation that came with your server rack for more information.

– If you will be mounting a wall model appliance using the included black universal swivel wall mount:

a. Select a location for the wall mount, and then use the included NetBotz swivel wall mount template to mark the locations in which the anchors need to be installed.

b. Install the screw anchors. Then, use the screws included with the wall mount to secure the wall mount to your wall. Be sure to use the included wall anchors and to tighten the screws enough to ensure that the appliance will be securely fastened to the wall. **Do not overtighten the screws.**

c. Using the bracket mount on the rear of the appliance, connect the appliance to the wall mount by screwing the appliance onto the wall mount until it is snug.

d. Use the swivel points on the wall mount to orient the NetBotz so that it is pointed in the desired direction. When facing the bracket, you can rotate the appliance clockwise and counter-clockwise by turning the entire appliance; the post will rotate with the appliance. To swivel the appliance vertically, turn the knob on the bracket just below the point at which the appliance connects to the bracket, adjust the position of the appliance as desired, and then tighten the knob again.

– If you will be mounting a wall model appliance flush against your wall:

a. Select a location and then use the included flush wall mount template to mark the locations in which the anchors need to be installed.

b. Install the screw anchors.

c. Screw one screw into each anchor until approximately 1/4” of each screw is exposed. Then, hang the NetBotz on the screws.

3. Plug the power cord into the power socket. Note that the power cord is a locking power cord, and you will need to pull the plug sleeve back to unplug the cord.
4. Plug the Ethernet cable into the Ethernet socket.
5. Connect the Door Switch Sensor to the Door Switch Sensor connection.
6. Connect the Ethernet cable to an Ethernet wall jack or hub. Plug the power cord into a wall socket. When you plug in the power cord, the NetBotz will perform a power-on test and will then begin to collect data. The LEDs on the NetBotz light up, the *Status* LED illuminates, and if the Ethernet connection is live the *Activity* LED will flicker with

network traffic and the *10/100* LED will illuminate if you are connected to a 100MB Ethernet network.

Be sure to connect the Ethernet socket on your appliance to an Ethernet network, using a standard RJ-45 Ethernet cable. Connecting the Ethernet socket to a powered telephone jack or using an incorrect cable type can cause permanent damage to your appliance.

When you have completed the installation procedure, use a supported web browser to verify that the NetBotz is online.

1. Start a supported web browser on any system in your network.
2. Enter the NetBotz 320 IP address in the Address or Website field and then press **Enter**.

If the NetBotz 420 is online, the Basic View appears.

Installing Hardware Options

You can upgrade your NetBotz 420 hardware in the following ways:

- Adding Camera Pod 120s, Sensor Pod 120s, CCTV Adapter Pod 120s, Output Relay Pod 120s, or Power Control Pods to your NetBotz 420
- Installing a supported wireless network adapter in the NetBotz 420 CompactFlash slot
- Connecting a supported USB modem to a USB port on your NetBotz 420
- Connecting supported external sensors to the integrated external sensor ports
- Changing the lens on the camera

Adding Pods to Your NetBotz 420

Your NetBotz 420 supports the simultaneous use of 1 additional camera pod (Camera Pod 120 or CCTV Adapter Pod 120) and up to 4 additional pods other than camera pods (these 4 pods can be any combination of Sensor Pod 120s, Output Relay Pod 120s, or Power Control Pods). Pods can be connected directly to the NetBotz 420 USB port (except the Power Control Pods, which are RS232-based and which are connected to the USB ports using a USB-to-serial port adapter), or you can connect USB hubs to your NetBotz 420 and then connect pods to the hub. Hubs can also be “daisy chained” (i.e. connecting a hub to another hub), and pods can then be connected to the daisy-chained hubs, so long as the pod is no more than the fifth device in the chain.

As pods are connected to your NetBotz 420, they will automatically appear in the Navigation pane in both the Basic and Advanced View interfaces. Newly added pods will be labeled by their pod type (for example, Sensor Pod 120, CCTV Adapter Pod 120, Camera Pod 120, or Output Relay Pod 120) and their serial number.

Once a pod has been added, you can change its label using either the Basic View or the Advanced View.

- Power Control Pods will not appear in the Navigation pane until you have used the Serial Devices task to specify what type of device has been added to the serial port.
- Once connected, CCTV Adapter Pod 120s will require additional configuration before they can be used. For more information, see “Installing and Configuring a CCTV Adapter Pod 120” on page 28

Installing and Configuring a CCTV Adapter Pod 120

To install a CCTV Adapter Pod 120, simply connect your video source to the appropriate DIN, BNC, or RCA video input jack on the pod. Then, use the USB cable to connect your pod to your NetBotz 420, or to a USB hub that is connected to the NetBotz 420. To reduce radio frequency noise and emissions from the USB cable, clamp one clamp-on ferrite onto the USB cable within 2-3 inches of the end that connects to the pod, and the second clamp-on ferrite onto the USB cable within 2-3 inches of the end that connects to your NetBotz 420 or to the USB hub.

Once you have connected your CCTV Adapter Pod 120 and video source to your NetBotz 420, you will need to use the Advanced View to configure the pod.

To configure your pod:

1. Start the Advanced View and then select from the Appliance drop-box the IP address of the NetBotz 420 to which you have connected the CCTV Adapter Pod 120. Be sure to log into the appliance using a user account that has administrator privileges. Once you have logged in, confirm that the newly connected CCTV Adapter Pod 120 appears in the Navigation Pane. The default label for CCTV Adapter Pod 120s is CCTV Video Pod *serial*, where *serial* is the serial number of the pod.
2. Select the Configuration button and then double-click on the Camera Pods icon (located in the Pod/Sensor Settings portion of the Configuration pane).
3. Select from the Camera Pod Configuration pane the entry that corresponds to the CCTV Adapter Pod 120 and then click Capture.
4. The Camera Capture Settings window opens. In addition to the fields that are typically available when using this window to configure Camera Pod 120s, one additional control is available when configuring a CCTV

Adapter Pod 120:

- **Video Format:** Used to specify the format in which video is transmitted by the video source. Available selections include: NTSC-M, NTSC-Japan, PAL-B, PAL-D, PAL-G, PAL-H, PAL-I, PAL-M, PAL-N Combination, and SECAM.

5. Use the controls in the Camera Capture Settings window to configure the camera and image capture settings for use with the pod. To see an example of an image capture using the currently selected **Video Format**, **Brightness**, **Contrast**, and **Image Quality** settings click **Apply** and the sample image in the Capture window will be updated using the new values. When you are finished, click **OK** and any changes you have made will be saved to the appliance.

Your video source should now appear in your Advanced View Cameras pane. Once configured, you can use the video source in the same ways in which you use Camera Pod 120s.

Connecting an Output Relay Pod 120

Output Control, when used in conjunction with an Output Relay Pod 120 enables you to use your NetBotz 420 to turn a variety of devices on or off. Relay output actions can be executed manually through the Advanced View and Basic View interfaces, or can be configured as automatic alert actions in response to a threshold event.

To use an Output Relay Pod 120 with your NetBotz 420, connect the pod to your NetBotz 420, or to a powered USB hub that is connected to the NetBotz 420. Once the pod is recognized by the NetBotz 420, use the Basic View *Setup* view or the Advanced View *Output Control* task to complete your installation.

Connecting a Power Control Pod

Output Control enables you to use your NetBotz 420 with a Power Control Pod to control power supplied to devices. Power control actions can be executed manually through the Advanced View and Basic View interfaces, or can be configured as automatic alert actions in response to a threshold event. The following Power Control Pods are available:

- Power Control Pod 115 (controls 5 outlets @ 115VAC)
- Power Control Pod 235 (controls 5 outlets @ 230VAC)
- Power Control Pod 110 (controls 1 outlet @ 115VAC, 15A)
- Power Control Pod 230 (controls 1 outlet @ 230VAC, 5A)

To use a Power Control Pod with your NetBotz 420, you will first need to use a USB-to-serial port adapter (included with your Power Control Pod) to add serial ports to your appliance.

Installing a Power Control Pod 115 or 235

To configure and install your Power Control Pod 115 or 235:

1. Connect your USB-to-serial port adapter to your NetBotz 420, or to a USB hub that is connected to the NetBotz 420.

- The serial port connector on the USB-to-serial port converter cable is a male connector. You will need to use a female-to-female connector null modem cable (included with your Power Control Pod) to connect the device to the USB-to-serial port adapter.
- You cannot connect a Power Control Pod to the NetBotz 420 integrated serial port. This port is designated for appliance configuration and diagnostic use only.

2. Connect the devices for which power will be controlled to the outlets located on the back of the pod.
3. Check the positions of the RATE jumper switches on the back of the pod. All of these switches should be set to the "Down" position.
4. Connect the Power Control Pod to an outlet and then switch the power switch, located on the back of the pod, to the "On" position.
5. Once you have connected the USB-to-serial port adapter to your appliance (or to a USB hub that is connected to the NetBotz 420), use a female-to-female null modem cable (included with your Power Control Pod) to connect the RS232 port located on the back of the pod to a serial port on the USB-to-serial port adapter. Then, use the Basic View *Setup* view or the Advanced View *Serial Devices* task to specify which serial port-based device you have connected to the appliance.

After you have installed the Power Control Pod, use the Basic View or the Advanced View *Output Control* task to complete your installation.

If, after you have installed and configured a Power Control Pod, you later choose to uninstall the pod, replace it with a different serial device, or move the pod to a different serial port, you must perform a simple uninstall procedure using the Advanced View Serial devices task before connecting a new serial device to the previously used serial port. Failure to follow this procedure will result in your appliance becoming unstable. For more information, see "Reassigning Serial Ports" on page 36.

Installing a Power Control Pod 110 or 230

To configure and install your Power Control Pod 110 or 230:

1. Connect your USB-to-serial port adapter to your NetBotz 420, or to a USB hub that is connected to the NetBotz 420.

- The serial port connector on the USB-to-serial port converter cable is a male connector. You will need to use a female-to-female connector null modem cable (included with your Power Control Pod) to connect the device to the USB-to-serial port adapter.
- You cannot connect a Power Control Pod to the NetBotz 420 integrated serial port. This port is designated for appliance configuration and diagnostic use only.

2. Ensure that the Power Control Pod is set to address 0. To set the pod address, turn the rotary switch labeled **ADRS**, located on the back of the pod, until the small arrow is pointing at the number 0.
3. Set the setup switches to the desired values. There are 4 jumper switches, labeled **SETUP**, located on the back of the pod. The settings

that correspond to each jumper switch are:

Switch	Function	Up	Down
1	**Data Rate:** Sets the communication speed (baud rate) between the pod and the NetBotz 420.	2400 bps (see important note, below)	9600 bps
2	Spare	-	-
3	**Power Up Default:** In the event that power supply to the pod is interrupted, determines the power supply state that will be used when power is restored.	On (power is "On" when the power is restored, regardless of state when power was interrupted)	Last (power is set to the state that it was in prior to the power interruption)
4	Spare	-	-

When installing Power Control Pod 110s or 230s, you **must** configure the pod to run in 2400 bps mode. To do this, change the setting of SETUP switch #1 on each pod to the "up" position and then power cycle the module.

1. Connect the device for which power will be controlled to the outlet located on the back of the Power Control Pod.
2. Connect the Power Control Pod to an outlet and then switch the power switch, located on the back of the pod, to the "On" position.
3. Once you have connected the USB-to-serial port adapter to your appliance (or to a USB hub that is connected to the NetBotz 420), use a female-to-female null modem cable (included with your Power Control Pod) to connect the RS232 port located on the back of the pod to a serial port on the USB-to-serial port adapter. Then, use the Basic View *Setup* view or the Advanced View *Serial Devices* task to specify which serial port-based device you have connected to the appliance.

After you have installed the Power Control Pod, use the Basic View *Setup* view or the Advanced View *Output Control* task to complete your installation.

If, after you have installed and configured a Power Control Pod, you later choose to uninstall the pod, replace it with a different serial device, or move the pod to a different serial port, you must perform a simple uninstall procedure using the Advanced View Serial devices task before connecting a new serial device to the previously used serial port. Failure to follow this procedure will result in your appliance becoming unstable. For more information, see “Reassigning Serial Ports” on page 36.

Installing a Wireless Network Adapter

You can enhance the network communication capabilities of your NetBotz 420 by installing a supported wireless network CompactFlash adapter in the CompactFlash slot. At present only the following wireless network adapters are supported for use with the NetBotz 420:

- D-Link DCF-660W
- Linksys WCF12

To install a wireless network adapter in the CompactFlash slot:

1. Power off the NetBotz 420 appliance. Disconnect the power connection from the appliance.

Be sure to disconnect power from your appliance before installing a hardware upgrade in the CompactFlash slot.

2. Slide the adapter into the CompactFlash slot on your appliance. To ensure that the adapter is properly inserted, gently but firmly press the adapter into place.

The CompactFlash adapter must be inserted into the slot with the front of the CompactFlash adapter (typically featuring the name of the card as well as the manufacturer’s logo) facing “down” or toward the back of the NetBotz 420. The back of the CompactFlash adapter (typically featuring technical data about the CompactFlash adapter, serial number, etc.) must face “up” or toward the front of the NetBotz 420.

3. Reconnect the power cord to your appliance.

Once you have finished installing your hardware upgrade, you will need to either a DHCP server to assign network settings to your appliance, or use either the Serial Configuration Utility 2.0 (see “Using the Serial Configuration Utility” on page 18) or the Advanced View *Network Interfaces* task to configure the adapter’s network interface.

Installing a CompactFlash Modem

You can enhance the network communication capabilities of your NetBotz 500 by installing a supported CompactFlash (CF) modem in the CompactFlash adapter slot. At present only the following CaompactFlash modems is supported for use with the NetBotz 420:

- ANYCOM GS-320 GPRS CF Card

To install a modem in the CF slot:

1. Power off the NetBotz 420 appliance. Disconnect the power connection from the appliance.

Note

Be sure to disconnect power from your appliance before installing a hardware upgrade in the CompactFlash slot.

2. Slide the modem into the CF slot on your appliance. To ensure that the adapter is properly inserted, gently but firmly press the adapter into place.
3. Reconnect the power cord to your appliance.

Once you have finished installing your modem it will be recognized as a serial port by the NetBotz 420. You will need to use the Basic View *Setup* view or the Advanced View *Serial Devices* task to specify the modem that is associated with the serial port. Once you have specified the modem model, you will also need to use the Advanced View *PPP/Modem* task to configure your NetBotz 420 for PPP communications. If the installed modem supports SMS communications, you will also need to use the Advanced View *SMS* task to configure your NetBotz 420 to communicate with your SMS network.

If, after you have installed and configured your CF modem, you later choose to uninstall the modem or replace it with a different modem, you must perform a simple uninstall procedure using the Advanced View Serial devices task before connecting any new serial device to the serial port previously used by the modem. Failure to follow this procedure will result in your appliance becoming unstable. For more information, see “Reassigning Serial Ports” on page 36.

Connecting a USB Modem

You can enhance the network communication capabilities of your NetBotz 420 by connecting a supported USB modem to your appliance. At present only the following USB modem is supported for use with the NetBotz 420:

- MultiTech MultiModemUSB
- NERA Satellite Modem

To connect a USB modem to your NetBotz 420, first power off the appliance. Then, connect the USB modem to your NetBotz 420, or to a USB hub that is connected to the NetBotz 420 and then power the appliance back on. Once the appliance has finshed booting up power on the modem. Once the modem is recognized as a serial port by the NetBotz 420, you will need to use the Basic View *Setup* view or the Advanced View *Serial Devices* task to specify the modem that is associated with the serial port. Once you have specified the modem model, you will also need to use the Advanced View *PPP/Modem* task to configure your NetBotz 420 for PPP communications.

Reassigning Serial Ports

Once you have connected a serial device (such as a modem or Power Control Pod) to a serial port, and have configured your NetBotz 420 to use that device, your appliance will expect that only the specified device type will be connected to that serial port. If you decide to remove a serial device from a serial port, move a serial device from one serial port to a different serial port, or disconnect a device and replace it with a different serial device, you must perform a simple uninstall procedure using the Advanced View *Serial Devices* task before connecting the new serial device to the serial port. Failure to follow this procedure will result in your appliance becoming unstable.

To switch serial devices on a serial port:

1. Power off your appliance.
2. Disconnect the serial device from the serial port, and then restore power to your appliance.
3. Open the Advanced View *Serial Devices* task, set the **Device Type** for the serial port from which you disconnected the serial device to "None," and click **OK**.
4. Connect the new serial device to the serial port. If you're connecting a CompactFlash adapter, be sure to power off the appliance again before inserting the CompactFlash adapter, and then power the appliance on again.
5. Open the Advanced View Serial Devices task and specify the new **Device Type** for the serial port. when you are finished, click **OK** to save your settings.

Once you have specified the new serial device type, additional interface features that are associated with the device type (such as additional sensor types or Configuration tasks) will appear in the Advanced View within 30 seconds.

Connecting External Sensors

To install an external sensor, plug the sensor into an available External Port on your appliance.

- Be sure to note the number of the External Port when you connect the cable; you will need this information when you use the Advanced View or Basic View to configure your NetBotz 320. The External Port number is printed above the port on the pod.
- If the external sensor cable is not long enough, use a Extension Cable for External Sensors (available in 50’ and 100’ lengths from your NetBotz reseller) to lengthen the cable.

When you have finished installing, use the Sensor Pods task to configure the NetBotz 420 to use the external sensor. Once you have configured your appliance, an additional generic sensor will appear in the Sensor Data pane when the pod to which it is connected is selected from the Navigation pane. You will be able to use the Advanced View *Sensor Pods* task to specify thresholds for this external sensor.

Changing Camera Lenses

Your appliance lens uses a CS-standard lens mount, enabling you to replace your lens with any standard CS- or C-mount lens (C-mount lenses require a C-to-CS adapter ring) that supports a .5” or larger imager. Changing lenses is a simple procedure.

Once the lens is removed, the digital imager assembly is exposed. Do not touch the imager. Take care to ensure that dust and dirt do not fall on the imager. If dust or dirt fall on the imager, use a can of compressed air to clean the imager by blowing the dust or dirt clear.

To change the lens, simply rotate the lens counter-clockwise until it is fully extended. Then, using a small amount of force, continue rotating the lens counter-clockwise until the lens unscrews from the housing. Then, install your new CS-mount lens (or C-mount lens with CS-mount adapter) by screwing it into the housing in a clockwise direction. When the lens is fully screwed in, apply a small amount of additional force in a clockwise direction to ensure that it is securely installed.

Operational Specifications

- **Housing:** Wall Model: 12.45cmW x 19.55cmH x 2.27cmD, 20 gauge metal. Rack Model: 19" rack mount, 1U, 20 gauge metal.
- **Indicators:** Appliance operational/alert status, network speed, network activity, temperature out-of-limit, camera activity, humidity out-of-limit, airflow out-of-limit, sound detected, external sensor violation detected LEDs.
- **Pods:** Supports up to 1 additional camera pod (Camera Pod 120 or CCTV Adapter Pod 120) and up to 4 additional pods *other than* camera pods (any combination of Sensor Pod 120s, Output Relay Pod 120s, or Power Control Pod).
- **Connectors:** Ethernet: RJ-45 to Cat 5 network wiring; Serial: DB-9 receptacle; Power: 5 vdc power brick. 1 Door switch sensor connector (Magnetic door sensor supplied). 4 External Sensor connectors.
- **External Device Connectors:** 1 USB-A port. 1 CompactFlash slot.
- **Data Speed:** Ethernet 10/100 Mbps (10/100 BaseT).
- **Protocols:** TCP/IP, HTTP, SMTP, SNMP, DHCP, DNS, Socks V4 or V5 Proxy server.
- **Management Interface:** Supports Netscape Navigator 4.79, 6.0 or later; Internet Explorer 5.5 or later, and Mozilla 1.3 or later on these operating systems: Microsoft Windows (2000 or XP SP1), Red Hat EL 3, Fedora Core 3, or Debian GNU 3 **or** a Sparc workstation running Solaris 9 with all patch bundles recommended by Sun. Use of the Advanced View interface requires a one-time download of the Java Runtime Environment Plug-in from Sun Microsystems. Display Resolution 1024 x 768 minimum.
- **Imager:** Image processor that generates images up to 640x480 resolution, 24-bit color, and up to 20 frames per second.
- **Lens:** 48ºW by 37ºH CS-mount lens. Can be replaced by any standard CS- or C-mount (with CS-mount adapter) lens.
- **Operational Environment:** Temperature: 2º to 50º C (35º F to 120º F). Relative Humidity: 10% to 90% (non-condensing). For indoor use only. Not designed for use in corrosive or caustic environments.

Integrated Sensors

- **Temperature:** Range: 2º to 50º C (35º to 120º F), Accuracy: +/- 1º C (+/-1.8º F) typical.
- **Relative Humidity:** Range: 10% to 90% (non-condensing), Accuracy: +/-5% RH.
- **Air Flow Rate:** 0-1,000 Meters Per Minute (0-3,248 Feet Per Minute).
- **Audio:** Built-in acoustic sensor detects audio above specified level.
- **External Sensor Ports:** 4, integrated with appliance.
- **Camera Motion Sensing:** Built in, region maskable.

Warranty and Service

Limited warranty

APC warrants the NetBotz 420 to be free from defects in materials and workmanship for a period of 1 year (hardware) or 90 days (software) from the date of purchase. Its obligation under this warranty is limited to repairing or replacing, at its own sole option, any such defective products. This warranty does not apply to equipment that has been damaged by accident, negligence, or misapplication or has been altered or modified in any way. This warranty applies only to the original purchaser.

Warranty limitations

Except as provided herein, APC makes no warranties, expressed or implied, including warranties of merchantability and fitness for a particular purpose. Some jurisdictions do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

Except as provided above, in no event will APC be liable for direct, indirect, special, incidental, or consequential damages arising out of the use of this product, even if advised of the possibility of such damage.

Specifically, APC is not liable for any costs, such as lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, costs of substitutes, claims by third parties, or otherwise. This warranty gives you specific legal rights and you may also have other rights, which vary according to jurisdiction.

Obtaining service

To obtain support for problems with your NetBotz 420:

1. Note the serial number. The serial number is located on the rear of the unit.
2. Contact NetBotz Customer Support in the following ways:
   - Phone: 1-512-439-5916, or toll-free at 1-877-908-2688
   - Web: http://register.netbotz.com/how_to_contact.html
3. If you must return the product, the technician will give you a return material authorization (RMA) number. If the warranty expired, you will

be charged for repair or replacement.

4. Pack the unit carefully. The warranty does not cover damage sustained in transit. Enclose a letter with your name, address, RMA number and daytime phone number; a copy of the sales receipt; and a check as payment, if applicable.
5. Mark the RMA number clearly on the outside of the shipping carton.
6. Ship by insured, prepaid carrier to the address provided by the Customer Support technician.

Life-Support Policy

General policy

American Power Conversion (APC) does not recommend the use of any of its products in the following situations:

- In life-support applications where failure or malfunction of the APC product can be reasonably expected to cause failure of the life-support device or to affect significantly its safety or effectiveness.
- In direct patient care.

APC will not knowingly sell its products for use in such applications unless it receives in writing assurances satisfactory to APC that (a) the risks of injury or damage have been minimized, (b) the customer assumes all such risks, and (c) the liability of American Power Conversion is adequately protected under the circumstances.

Examples of life-support devices

The term *life-support device* includes but is not limited to neonatal oxygen analyzers, nerve stimulators (whether used for anesthesia, pain relief, or other purposes), autotransfusion devices, blood pumps, defibrillators, arrhythmia detectors and alarms, pacemakers, hemodialysis systems, peritoneal dialysis systems, neonatal ventilator incubators, ventilators (for adults and infants), anesthesia ventilators, infusion pumps, and any other devices designated as "critical" by the U.S. FDA.

Hospital-grade wiring devices and leakage current protection may be ordered as options on many APC UPS systems. APC does not claim that units with these modifications are certified or listed as hospital-grade by APC or any other organization. Therefore these units do not meet the requirements for use in direct patient care.

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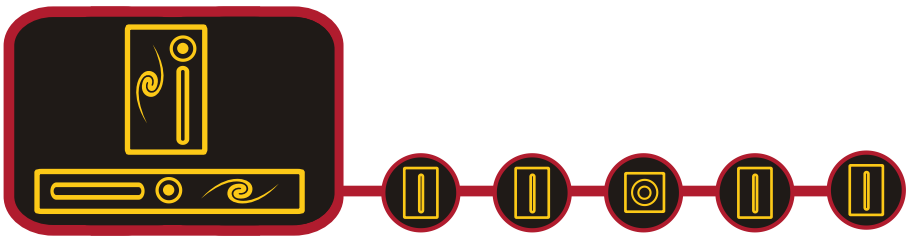

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