INSTRUCTION MANUAL Ver 1.4

IP VIDEO DECODER / MPEG4 Series

Firmware Ver. 1.0.5

CONTENTS

About This Document

This document is for IP Video Decoder firmware version 1.0.5 or higher and there might be some different contents from IP Video Decoder firmware version 1.0.5 or lower.

If an administrator has previous knowledge of networking, please follow the Quick Start Guide.

If an administrator is new to networking and has no previous knowledge of the subject, please follow the step-by-step procedures for configuring, installing, and accessing your IP Video Decoder.

Please follow the entire walk-through without skipping any steps. The walk-through was designed to teach the typical inexperienced home user how to configure their IP Video Decoder using the simplest techniques and terminology. Some of these techniques may actually be considered inaccurate, but should suit the needs of most home users. Consult the FAQ and Appendices for further information when required.

If after following the walk-through and exhausting all literature, please contact our Support Center for technical support.

Notes Before Starting

- This product is only compatible with current versions of the Microsoft Windows OS.
- This product operates with Microsoft's Internet Explorer only.
- Some hardware manufacturers include a cable/DSL modem, router/firewall, and Ethernet switch in one device.
- If you have no available ports on your router (with integrated switch) you can purchase a 10/100 Ethernet switch to "expand" your Local Area Network
- The crossover cable is not wired as a typical straight-through network cable. This cable (or any crossover) should be used for initial setup of the IP Video Decoder via a PC/laptop.
- Please temporarily disconnect any proxy servers associated with Internet Explorer while configuring the IP Video Decoder.

Modification and Development

We strongly recommend that inexperienced users DO NOT modify the firmware of IP Video Decoder.

The manufacturer or its seller will not be held accountable in a user's attempt to modify the IP Video Decoder that renders the unit inoperable or otherwise.

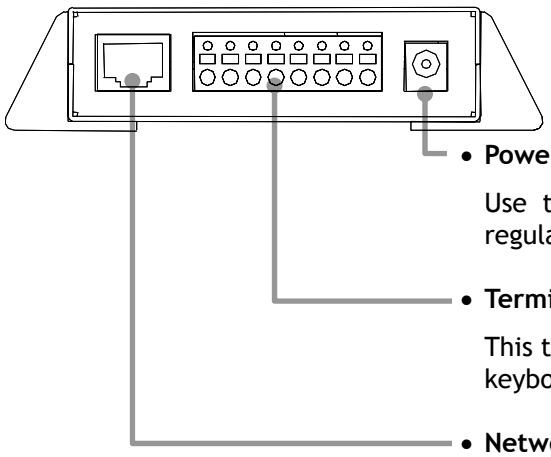
Installation

This may be installed as a standalone unit or as a supplement to an existing surveillance system.

Physical connection is utilizing 10/100 base-T Ethernet compatible UTP network cable with RJ-45 connector. Install directly using NTSC or PAL video cameras using BNC connectors.

Product Description

❑ Front Panel



- **Power Supply Connector**

  Use the power jack to connect your regulated 12Volts DC power adapter.

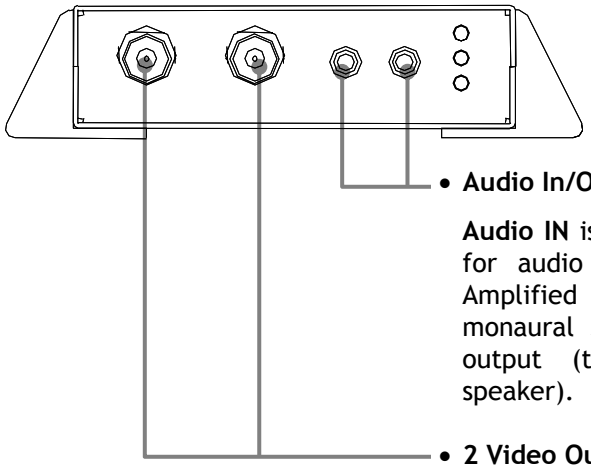
- **Terminal Block**

  This terminal block is used for keyboard and sensor input/output.

- **Network Connector**

  This RJ-45 connector is for network connection and designed to operate on 10 or 100 Mbps Ethernet network.

❑ Rear Panel



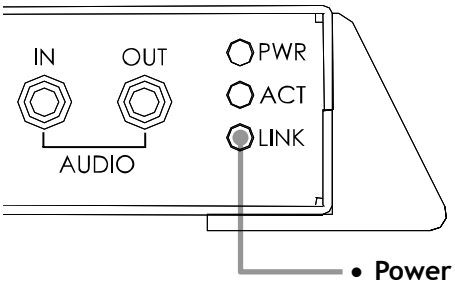
- **Audio In/Out Connect**

  Audio IN is monaural 3.5mm mini socket for audio input (to be connected to Amplified Microphone). **Audio OUT** is monaural 3.5mm mini socket for audio output (to be connected amplified speaker).

- **2 Video Out Connect**

  Each video output is connected using a BNC connector. Physical connections are made using RG-59 coaxial video cable; maximum cable length must be shorter than 800 feet. These provide the connections for virtually any TV systems type; PAL, SECAM or NTSC and devices such as Monitors, VCR, DVR, etc.

❑ Top View



- **Power LED**

  This red light becomes illuminated when 12V DC power is supplied to the unit. This indicator should always be lit when in use. If it is not lit or flashes when power is supplied, the Video Server is not operating properly.

- **Active LED**

  When in use, this Yellow indicator should always be flashing or flickering. During reboots or power cycling, it may take several seconds for the unit to initialize and illuminate the indicator.

- **Link LED**

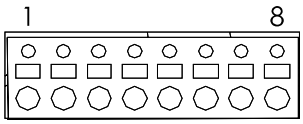
  This green indicator should be flashing or glowing during normal operation. During a reboot or power cycling, it may take up to 30 seconds to initialize, negotiate your network speed, and begin operation at 10 or 100Mbps. If this light is not lit after 30 seconds of operation, check the network cable to ensure a proper connection. When a proper connection is met, the green indicator should immediately glow.

❑ Bottom View

- **Reset Switch**

Return all settings to their factory defaults. Care must be taken since you will lose all data made previously.

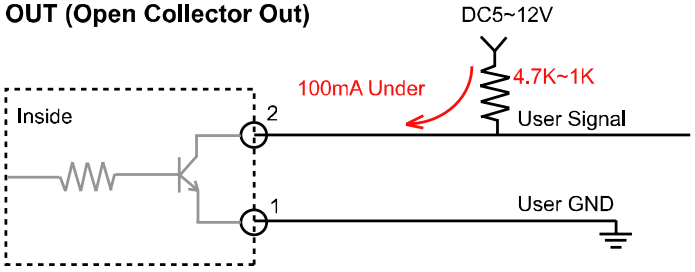
❑ Terminal Blocks



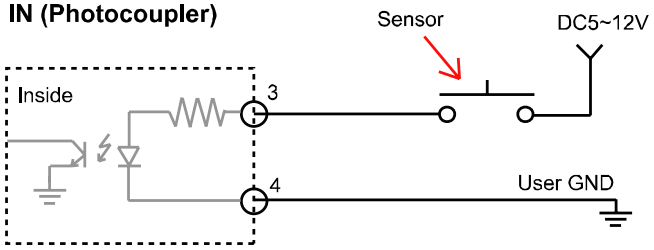
Terminal block is used to connect the keyboard and sensor input/output via RS-485.

Pin	Signal	Remarks
1	GND	
2	COM	Sensor Common
3	SEN1	Sensor GND
4	OUT1	Open Collector
5	D+	AUX (External I/O)
6	D-	AUX (External I/O)
7	D+	Keyboard
8	D-	Keyboard

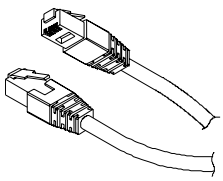
OUT (Open Collector Out)



IN (Photocoupler)



❑ Crossover Cable



- The crossover cable is not wired as a typical straight-through network cable. This cable (or any crossover) should be used for initial setup of the IP Video Decoder via a PC/laptop. After initial setup of IP Video Decoder, use straight-through cable in normal operation.

DDNS Registration

If you have DYNAMIC IP service from your Internet Service Provider (ISP), you can't tell what current IP address of video decoder is. To solve this problem, you have to register to DDNS service.

At first, we recommend, you have to check if you are using dynamic addressing. If so, please, register your IP Video Decoder on our DDNS website before you configure, setup, or install the IP Video Decoder.

Even though your IP is not dynamic, if you register to DDNS, you will get a benefit. You may just remember "alex.net4c.net/gate1" instead of complicated meaningless numbers like http://201.23.4.76:8078.

Currently, IP Video Decoder supports two DDNS server: i.e. www.net4c.net and www.dtdns.com. For more details information see **DDNS Tool** in page 26.

Quick Start

Please follow the steps below to complete the initial setup of the IP Video Decoder.

ⓘ Please do not power on the IP Video Decoder until instructed.

ⓘ If connecting the IP Video Decoder directly to a modem, power down and reset the modem. Leave the modem powered down until configurations are finalized with the IP Video Decoder and the IP Video Decoder has been correctly connected to the modem.

① You will need to access a PC/laptop and should configure that PC in order to communicate with the IP Video Decoder. Record the current TCP/IP properties of that PC (IP address, subnet mask, gateway, DNS, etc)

ⓘ If your PC obtains its IP address automatically, then there is no need to record any information.

② Change the IP address of that host PC to 192.168.1.11 and subnet mask to 255.255.255.0 (leave all other entries blank)

③ Connect the IP Video Decoder to your PC's Ethernet port via the supplied crossover cable (it does not matter what end is used for the PC)

④ Power on the IP Video Decoder using the supplied power adapter.

⑤ After 30 seconds of power, verify a solid POWER indicator, a flashing ACTIVE indicator, and a flashing or solid LINK indicator. After the corresponding indicator lights are properly displayed, open Internet Explorer.

⑥ Type - http://192.168.1.81 (the default IP of the IP Video Decoder) into your address bar.

⑦ Default ID/Password to access IP Video Decoder. (admin : admin)

⑧ Under "TCP/IP Setup" select STATIC. You will only select Dynamic if you are connecting the IP Video Decoder directly to your cable/DSL/Broadband modem and your Internet Service Provider is supplying you a dynamic address.

ⓘ If you have a network with other devices (such as PC/laptop, etc.) or a router, you will NEVER select Dynamic.

⑨ Configure the IP Video Decoder's TCP/IP settings as you would any other PC on your network, providing a proper IP address, subnet mask, default gateway, and DNS server.

ⓘ If this is standalone unit with a direct connection to a cable/DSL/Broadband modem then input the addresses you have received from your ISP. If you received no IP address from your ISP, please select Dynamic and choose the proper settings.

⑩ The IP Video Decoder utilizes one TCP port - a Web Port for utilizing Internet Explorer. If this IP Video Decoder will be directly attached to a cable/DSL/Broadband modem or has been assigned a static IP from your ISP, then leave the default port setting. If you are installing the IP Video Decoder on a network, you must define a Web Port other than 80.

⑪ If the IP Video Decoder is connected to a network which utilizes a router, you must have Port Forwarding configured on your personal router to forward the Web Port to the IP address you have assigned the IP Video Decoder.

⑫ After configuring Port Forwarding on your router (if necessary), you may then access your IP Video Decoder on your local network by opening Internet Explorer and specifying the IP address and Web Port that you have assigned to the IP Video Decoder.

ⓘ Examples: http://192.168.0.200:8888 or http://24.106.88.123

ⓘ If you left your Web Port set to 80, then you don't need to specify the port in the Address Bar when accessing your IP Video Decoder.

⑬ Access your IP Video Decoder via the Internet :

- ❑ If you used a static IP address assigned by your ISP
  - i) Open Internet Explorer.
  - ii) Type the IP of the IP Video Decoder.
  - iii) If you use a router, type the routers' static IP and the web port number of the IP Video Decoder.
- ❑ If you have a dynamic address provided by your ISP
  - i) Open Internet Explorer and visit the DDNS website.
  - ii) Register the IP Video Decoder.
  - iii) Reboot the IP Video Decoder.
  - iv) Give the DDNS server 2 minutes to locate your IP Video Decoder's IP information.
  - v) Click the refresh button in the Internet Explore.
  - vi) After your decoder is connected, select your device.

IP Video Decoder Initial Setup via a Crossover Cable

This section provides a guide on how to connect the IP Video Decoder to your PC/laptop for initial setup.

Please follow the instructions in the order they appear, without skipping steps. Do not supply power to the IP Video Decoder, until instructed.

In order to access the IP Video Decoder's firmware you will need to connect the Video Decoder directly to a PC or laptop computer via the supplied crossover cable.

① Before you begin, you must determine the current network/INTERNET (TCP/IP) settings on the PC or laptop you plan to setup the IP Video Decoder. Jot down your entries below for quick reference.

ⓘ For information on how to determine your currents settings, see Appendix A

Current TCP/IP Settings	
IP Address	
Subnet Mask	
Default Gateway	
Primary DNS Server	
Secondary DNS Server (Option)	

② In order for the IP Video Decoder to communicate with your PC, you have to change your PC's IP address and subnet mask

ⓘ We recommend that you change your IP address to 192.168.1.11 and change the subnet mask to 255.255.255.0
Leave all other entries (Default Gateway, DNS Servers, etc.) blank.

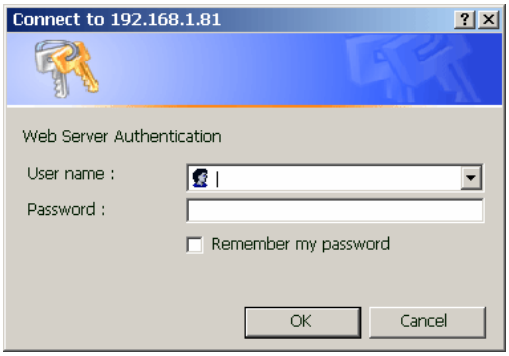
ⓘ For information on how to change your IP address and subnet mask, see Appendix B

③ After you have made the changes to your IP address and subnet mask, you may then attach the IP Video Decoder to your PC via the supplied crossover cable. Plug-in either end of the crossover cable into the PC's network card and the other end into your IP Video Decoder.

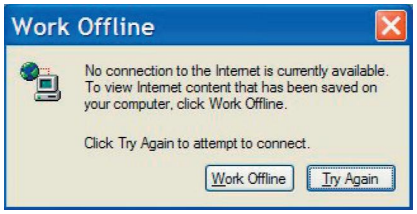
④ After connecting the PC and IP Video Decoder using the crossover cable, power on the IP Video Decoder by plugging in the power supply shipped with the IP Video Decoder.

⑤ No longer than 1 minute after powering on the IP Video Decoder, verify that the POWER indicator light is solid, the ACTIVE indicator light is flashing, and the 10M indicator light is flickering or solid. If they are not, please read the FAQ.

⑥ You will be able to see the authentication dialog for the IP Video Decoder. The default ID and Password are both the word “admin” (without the “”)



ⓘ If a message appears after pressing “Enter” similar to the image depicted below, choose “Try Again”. This message will vary depending on the operating system.



Guide to Network Setup

Please configure the IP Video Decoder at the location of its installation. You must determine your network scenario in order to configure the IP Video Decoder with the proper TCP/IP settings. This tutorial will guide you through the process. Before actually configuring the IP Video Decoder, determine what settings you will apply. Record those settings that you will use to configure your IP Video Decoder for reference.

When configuring your IP Video Decoder, treat the IP Video Decoder as another PC on your network. You will assign it several addresses and other TCP/IP properties to match your current network.

This step-by-step tutorial will teach what IP addresses and network configurations you should assign your IP Video Decoder based upon your network scenario.

① Before you begin, you will need to locate any information and settings that you have received from your Internet Service Provider (ISP). You may need to refer to these IP addresses at a later time during the configuration.

ⓘ If you were not given any IP addresses or the ISP was responsible for the setup and installation of your Internet connection on your PC or network, then please go to step ②

ⓘ If you are not using a router on your network, your "Current TCP/IP Settings" (from the previous section) and "Assigned IP Addresses from My ISP" will be exactly the same

Assigned IP Address	
IP Address	
Subnet Mask	
Default Gateway	
Primary DNS Server	
Secondary DNS Server (Option)	

Static ☐
Dynamic ☐
PPPoE ☐

② You must determine whether the IP address that you were assigned from the ISP is STATIC or DYNAMIC. At this moment, you are only concerned about the ISP. Did they provide you with a STATIC or DYNAMIC address? If you are unsure, please contact your ISP.

③ Configure your Decoder's TCP/IP settings for network connectivity by selecting Administration Tools from the main interface and selecting TCP/IP located on the left of the Administration Tools screen.

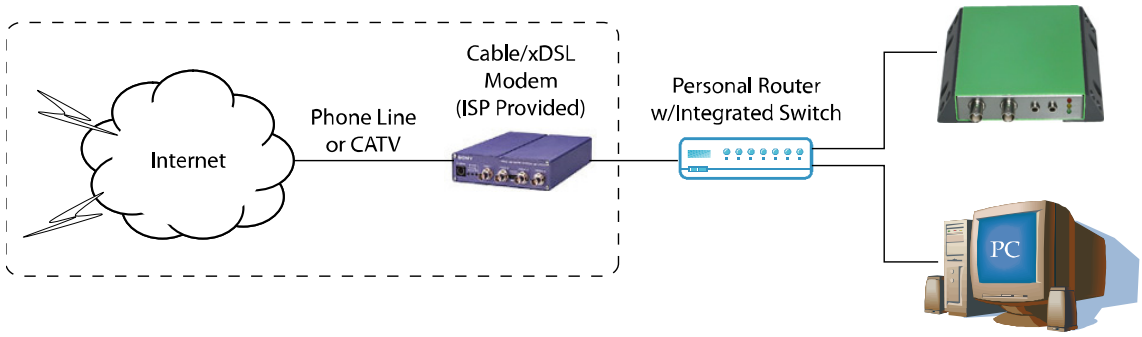
④ If prompted for an ID and Password, use "admin" for both entries.

The default web port number is 80. If your ISP blocks port 80 you must use a value between 1025-30000. Please consult your ISP and determine if they block TCP port 80.

⑤ Depicted below are several basic network scenarios. Determine which scenario describes your network. If your network does not match one of the scenarios below and are unsure how to setup your IP Video Decoder, please contact your network administrator, then call our Support Center.

ⓘ Dash line box signifies areas of tour network that you can't control. Only the ISP has access to these devices.

Case A : Dynamic IP or PPPoE + Personal Router [Most SOHO]



Configure your Decoder's TCP/IP properties as follows:

❑ Network Type
- STATIC (even though you have Dynamic IP from your ISP, use STATIC on the Decoder)

❑ Internet Address
- A private IP address such as 192.168.0.200 [Example]

ⓘ You need to assign the Decoder an IP address, just as you would assign a PC.

ⓘ The IP address you assign must be unique to your network as well as match your network. For information how to choose a unique IP and match your network please read the FAQ.

ⓘ The IP address you assign the Decoder must be a private IP. For information on how to chose a private IP please read the FAQ

❑ Subnet Mask
- 255.255.255.0 [Example]

ⓘ You must use the same subnet mask as the one you noted under “Current TCP/IP Settings”

❑ Default Gateway

- 192.168.0.1 [Example]

ⓘ This IP address must be the IP address of your router (private or LAN side)

ⓘ Use the same Default Gateway you noted under “Current TCP/IP Settings”

❑ Primary DNS Server

- Use the 1st DNS Server from “Assigned IP Address from My ISP”

ⓘ If you did not receive any IP addresses from your ISP, please contact them and acquire the IP address of their DNS server.

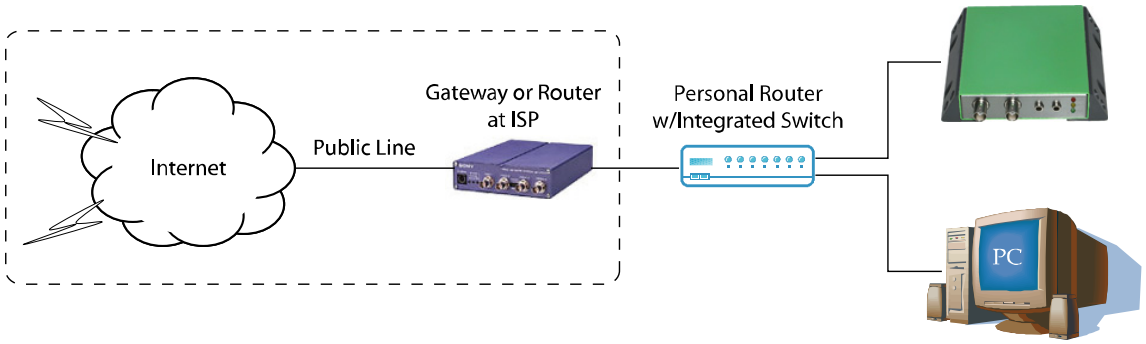
❑ Web Port

- 8888

ⓘ Do NOT use the default port 80, you must change this number.

ⓘ You may select any number between 1025 ~ 30000.

Case B : Static(Fixed) IP + Personal Router [Efficient]



Configure your Decoder's TCP/IP properties as follows :

❑ Network Type
- STATIC

❑ Internet Address
- A private IP address such as 192.168.0.200 [Example]

ⓘ You need to assign the IVS an IP address, just as you would assign a PC.

ⓘ The IP address you assign must be unique to your network as well as match your network. For information how to choose a unique IP and match your network please read the FAQ.

ⓘ The IP address you assign the IVS must be a private IP. For information on how to chose a private IP please read the FAQ

❑ Subnet Mask
- 255.255.255.0 [Example]

ⓘ You must use the same subnet mask as the one you noted under “Current TCP/IP Settings”

❑ Default Gateway
- 192.168.0.1 [Example]

ⓘ This IP address must be the IP address of your router (private or LAN side)

ⓘ Use the same Default Gateway you noted under “Current TCP/IP Settings”

❑ Primary DNS Server
- Use the 1st DNS Server from “Assigned IP Address from My ISP”

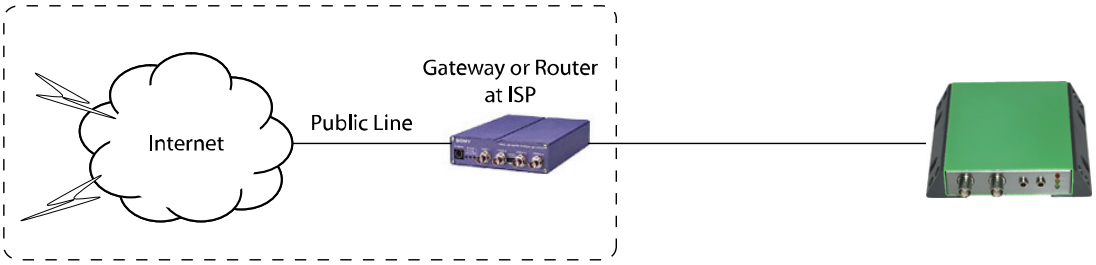
ⓘ If you did not receive any IP addresses from your ISP, please contact them and acquire the IP address of their DNS server.

❑ Web Port
- 8888

ⓘ Do NOT use the default port 80, you must change this number.

ⓘ You may select any number between 1025 ~ 30000.

Case C : Static(Fixed) IP [Dedicated line directly to the IP Video Decoder



Configure your Decoder's TCP/IP properties as follows :

❑ Network Type
- STATIC

❑ Internet Address
- A static IP address received from your ISP, such as 24.107.88.125 [Example]

ⓘ You need to assign the IP Video Decoder an IP address, just as you would assign a PC.

❑ Subnet Mask
- Subnet mask assigned from your ISP, such as 255.255.255.240 [Example]

❑ Default Gateway
- 24.107.88.113 [Example]

ⓘ Use the assigned default gateway from your ISP

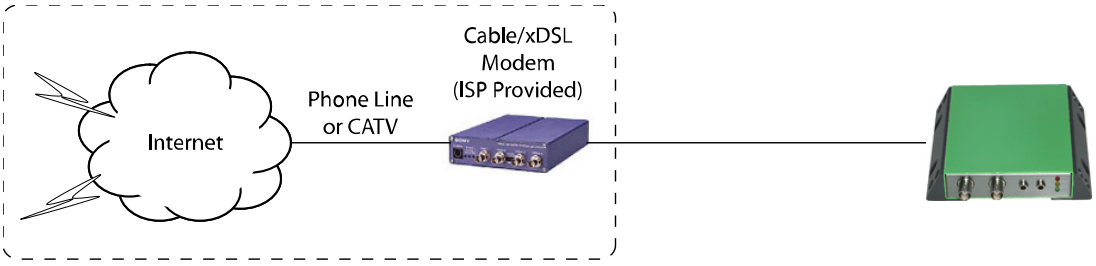
❑ Primary DNS Server
- Use the 1st DNS Server from “Assigned IP Addresses from My ISP”

ⓘ If you did not receive any IP addresses from your ISP, please contact them and acquire the IP address of their DNS server.

❑ Web Port
- 80 [default]

ⓘ You may select any number between 1025 ~ 30000.

Case D : Dynamic IP + DSL/Cable Modem [Connected directly to the IP Video Decoder]



Configure your Decoder's TCP/IP properties as follows :

- ❑ Network Type • DYNAMIC
- ❑ Web Port • 80 [default]

ⓘ You may select any number between 1025 ~ 30000.

ⓘ When connecting the IP Video Decoder directly to a modem, power down and reset the modem. Leave the modem powered down until configurations are finalized with the Decoder and the Decoder has been correctly connected to the modem. Then power on the modem, followed by the IP Video Decoder.

Port Forwarding

After entering the correct TCP/IP settings you will be ready for "Port Forwarding" (Cases A, B). However, if you are not willing to connect to Administration Tool of decoder box though internet i.e. outside of your own LAN, you do not have to set up port forwarding.

- ❑ Please record the TCP/IP settings of your IP Video Decoder for future reference. You may need this information to access your Decoder and to configure "Port Forwarding".

IP Video Decoder TCP/IP Settings	
IP Address	
Subnet Mask	
Default Gateway	
Primary DNS Server	
DDNS Server	
Web Port	

- ❑ **After clicking "Apply" the system will prompt for a reboot. Please allow the system 30 seconds to reboot and accept the changes. After 30 seconds, close the configuration screen. If the ACTIVE light on the IP Video Decoder has gone off and is now back on again flashing, then the IP Video Decoder has rebooted. After the system reboots completely, remove the power supply from the unit and close Internet Explorer.**
- ❑ Return your PC/Laptop TCP/IP properties to their original settings.
- ❑ Before installing the IP Video Decoder, you must use "Port Forwarding" on your personal router (Cases A, B).
  You will need to forward a web port:
  - Web Port you assigned to the IP Video Decoder.

  This port will be forwarded to the IP address your assigned to the IP Video Decoder.
  In the example above, you would forward:
  - 8888 → 192.168.0.200

ⓘ For information on how to use "Port Forwarding" please read Appendix C

Starting IP Video Decoder

After correctly forwarding the Web Port through your router (if applicable), you may then install the IP Video Decoder in a proper location.

① Locate the serial number located on the label attached to the bottom of the IP Video Decoder, you will need this for DDNS registration.

② Connect a device to the IP Video Decoder (Monitor, DVR, Keyboard, etc.) and supply power to the device.

③ Connect the IP Video Decoder to your router or cable/DSL modem (per your network scenario) via a Cat5/5e UTP Ethernet network cable.

④ Supply power to the IP Video Decoder.

⑤ After 30 seconds, verify the IP Video Decoder indicators:

- POWER Solid
- ACTIVE Flashing
- LINK Flickering/Solid

⑥ After configuring Port Forwarding on your router (if necessary), you may then access your IP Video Decoder on your local network by opening Internet Explorer and specifying the IP address and Web Port that you have assigned to the IP Video Decoder.

ⓘ Examples: http://192.168.0.200:8888 or http://24.106.88.123

ⓘ if you left your Web Port set to 80, then you don't need to specify the port in the Address Bar when accessing the Decoder.

⑦ Access your IP Video Decoder via the Internet:

❑ If you use Case B or C

i) Open Internet Explorer.

ii) Type the IP of the IP Video Decoder.

❑ If you use Case A, D

i) Open Internet Explorer.

ii) Visit the DDNS website.

iii) Register the IP Video Decoder.

iv) Give the DDNS server 10 minutes (MAX) to locate your Decoder's IP information. You may reboot the server to send an immediate request to our DDNS server.

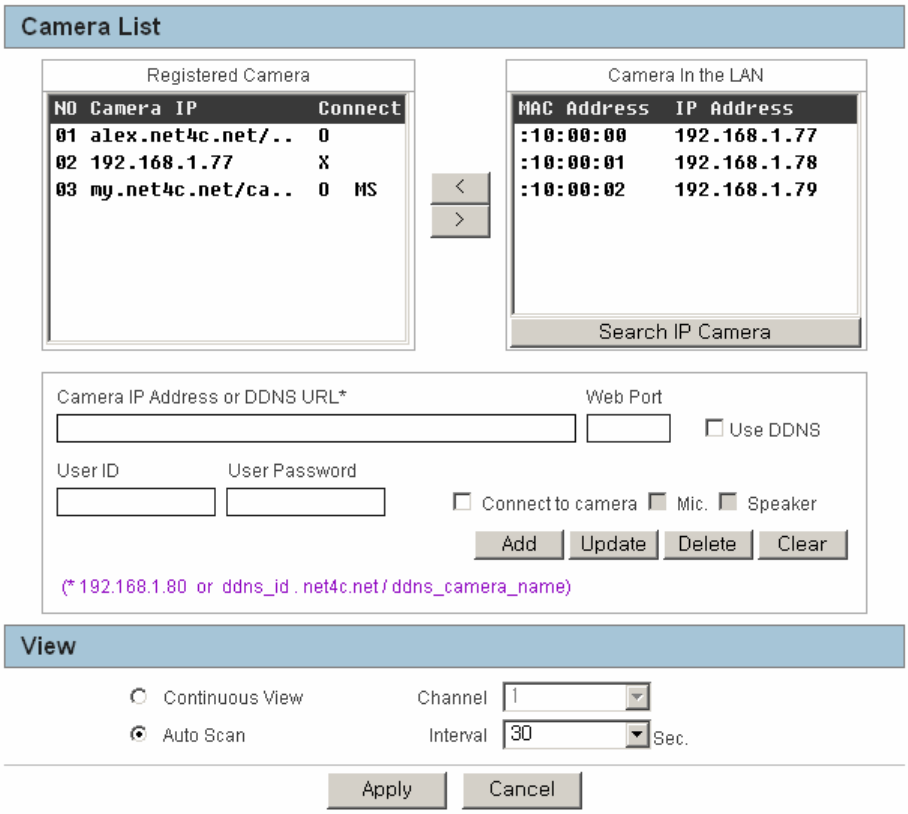
v) After your camera is connected, select your camera.

This section is provided to familiarize the user with the administration tools. Intuitive options are not explained in detail.

All the changes on Administration Tools take effect immediately.

All settings are always saved in the decoder even when you turn off the Power of the decoder. If you lost your password, you must press the reset button to return all setting to its factory defaults.

Camera Connection Information

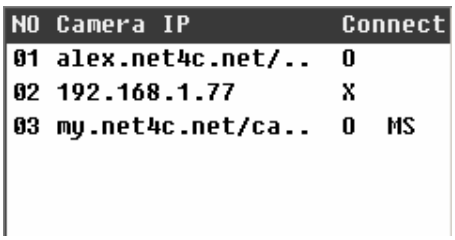


In this page in the **Admin Tool**, you can manage and set up the connection between IP camera and IP Decoder.

Decoder has the capability to search all cameras available in the same local network and the list can be display them in the **<Cameras in the LAN>** box at right hand side. Using this search function, you can easily register the cameras into the roll of decoder. You may select cameras in the list to watch the video though decoder. If you select one in the list and press the button **[<]**, the camera information will be displayed on the **<Registered Cameras>** box. Using **[>]** button, you also can remove one from the registered list. Max. 10 cameras can be selected and will be connected at the same time if you press the **[Apply]** button in the bottom. It is noted that we can view only one channel video though decoder even though it can maintain the connection up 10 cameras.

❑ Registered Cameras

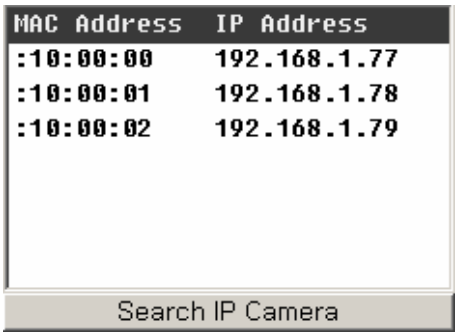
This box shows the cameras registered in Decoder. There are two ways to register a camera; (1) By selecting one from <**Cameras in the LAN**> and (2) By typing IP address and port directly or by **DDNS** support. Once camera is registered in this box, you may connect or disconnect by checking **[Connect to Camera]** option bellow.



Connected cameras will be marked **O** in the field of **Connect** on **<Registered Cameras>** list in left hand side while disconnected cameras are marked **X**.
M and **S** mark in connect field means MIC and Speaker respectively. For more information, see the explanation of **MIC** and **Speaker** bellow.

❑ Cameras in the LAN

If you press the **[Search IP Camera]** button, this box will list up all cameras in the same sub-network. Using this search function, you can easily register the cameras into the roll of decoder.



If you select one in the list and press the button **[<]**, the camera information will be listed on the <Registered Camera> box.

❑ Camera IP Address or DDNS URL

There are two ways to make decoder know the IP address;
(1) direct typing IP address
Ex) 192.168.1.77
(2) Using **DDNS** support: make decoder get the info from **DDNS** server.
Format: "DDNS_ID.net4c.net/DDNS_CAMERA"
Ex) alex.net4c.net/cam8

❑ Web Port

Type **Web Port** number of IP Camera. This port number and that in the camera must be identical. If you are using **DDNS** support, ignore this since DDNS server will send all information required.

❑ User ID, Password

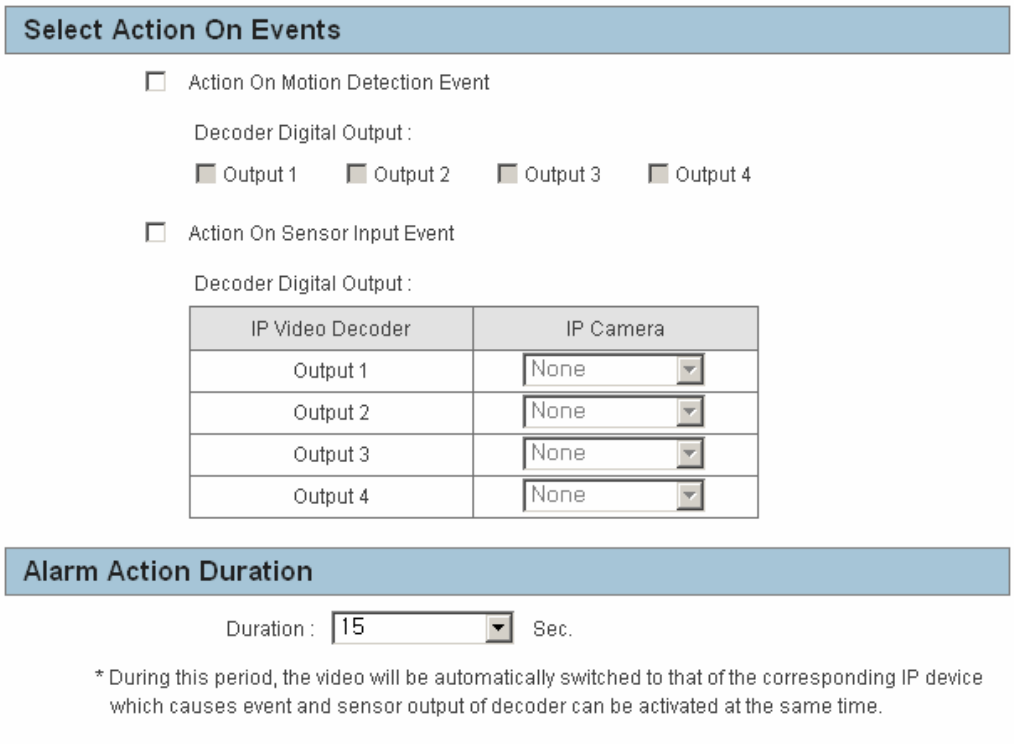
Type the **ID** and **Password** of camera.

❑ Connect to camera

Decide whether decoder is connected to this camera or not.
Connected cameras will be marked **O** in the field of **Connect** on <Registered Cameras> box.

❑ Mic.	To transmit the audio data from microphone plugged in IP Decoder to corresponding IP camera, this check box must be checked. If it is enabled, you will see the **M** character in **<Registered Camera>** box.
❑ Speaker	To receive the audio data from this camera and output to Speaker of Decoder, this check box must be checked. If it is enabled, you will see the **S** character in **<Registered Camera>** box.
❑ Add, Update, Delete, Clear	To register a new information to the <Registered Camera>, Click [Add] button. After modifying a registered camera information, to update it to the <Registered Camera>, Click [Update] button. To delete an item from <Registered Camera>, Click [Delete] button. To start new entry, if you click [Clear] button, all text boxes become blank.
❑ Continuous View / Auto Scan	You can select View mode by checking this option. If you have more than one device, you may use **Auto Scan** mode to watch all available cameras sequentially.
❑ Continuous View Channel	If you have more than one camera connected, you want to watch one camera continuously. Select one from **Continuous View Channel** to watch the video from corresponding camera. It is noted that this selection will be ignored during **Auto Scan** function is running.
❑ Auto Scan Interval	For **Auto Scan** view mode, you can setup the time interval between each channel switching. The interval can be selected from 5 to 60 seconds.

Alarm Sensor Action Tool



❑ Action On Motion Detection Events — We can define the actions when decoder gets the motion detection event of from any cameras connected. Default action is switching video to corresponding camera automatically. By checking this option, the action can turn on sensor output of decoder defined bellow. To work with this option, “Motion Detection” option must be turned in Camera.

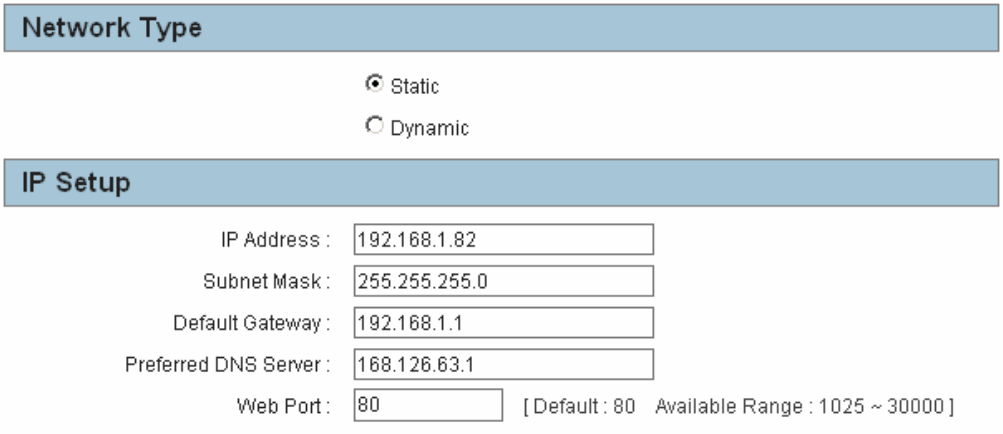
❑ Decoder Digital Output — We can assign a relay output of decoder to turn it on when motion is detected. Since the decoder has single internal sensor output, you should check Output1. For more output, external alarm I/O unit is required.

❑ Action On Sensor Input Events — We can define the action when event from sensor input of camera occurs. By checking this option, the action can turn on sensor output of decoder defined bellow.

❑ Decoder Digital Output — We can assign a relay output of decoder to turn it on when sensor input of camera is triggered. Since the decoder has single internal sensor output, you should check Output1. For more output, external alarm I/O unit is required.

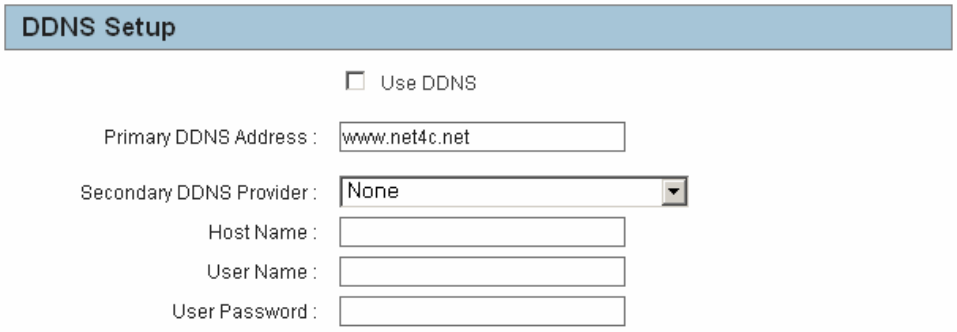
❑ Alarm Action Duration — If an event from sensor or motion detection is triggered, decoder will automatically switch the video to corresponding channel and designated Alarm output will be turned on. The duration of this action is defined here from 5 to 30 seconds. It is noted that if an event occurs in **Auto Scan** mode, the mode will be recovered after this alarm action duration.

TCP/IP Tool



- ❑ Network Type — Select a Static or Dynamic address scheme that is used by the Internet Service Provider (not the addressing scheme used by a personal router).
- ❑ IP Address — Input a value to assign an IP address to the IP Video Decoder.
- ❑ Subnet Mask — Input a value to assign a subnet mask to the IP Video Decoder.
- ❑ Default Gateway — Input the IP address of the default gateway.
- ❑ Primary DNS Server — Input the IP address of an ISP's DNS server.
- ❑ Web Port — Assign a TCP port number to assign a Web Interface port number to the IP Video Decoder.

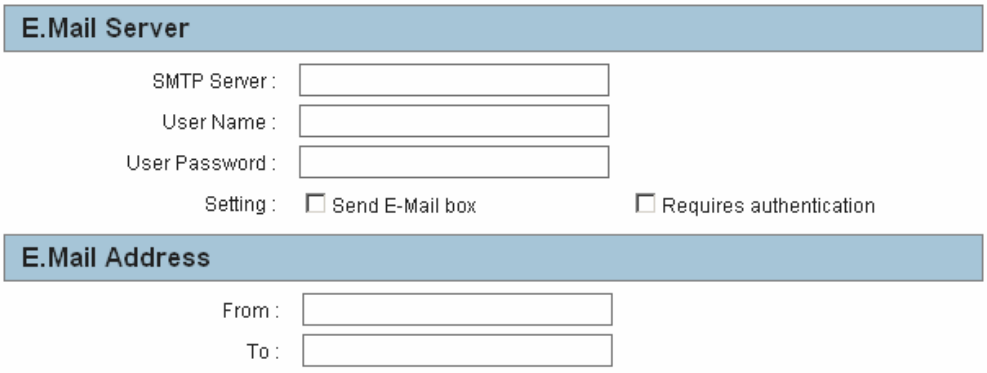
DDNS Tool



- ❑ Use DDNS — By checking this box, we can use **DDNS** Service.
- ❑ Primary DDNS Address — Assign primary **DDNS** URL address.
- ❑ Secondary DDNS Provider — Select a Public **DDNS** Service. Currently, only **DtDNS** is supported. To use, **DtDNS** select “dtdns.com”.
- ❑ Host Name — Write **Host Name** registered in DtDns site.
- ❑ User Name — Write **User Name** registered in DtDns site.
- ❑ User Password — Write **User Password** registered in DtDns site.

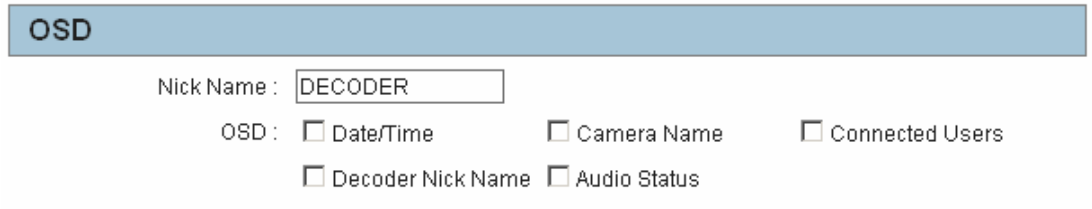
SMTP Tool

This function is used to email the specified email recipient and notify that individual of the IP address / web port number used to access the IP Video Decoder. This email function is only activates on power-on reset time of Decoder.



- ❑ SMTP Server — Enter an SMTP server to send email.
- ❑ User Name — Input user name used for SMTP authentification to access the mail server.
- ❑ User Password — Input the password used for SMTP authentification to access the mail server.
- ❑ Send E-Mail box — If this check box is set to on, email function is enabled.
- ❑ SMTP requires auth. — Check this box if the mail server requires SMTP authentification.
- ❑ From — Input the email address of sender. The email address should be admitted to the SMPT sever.
- ❑ To — Input the email address of receiver.

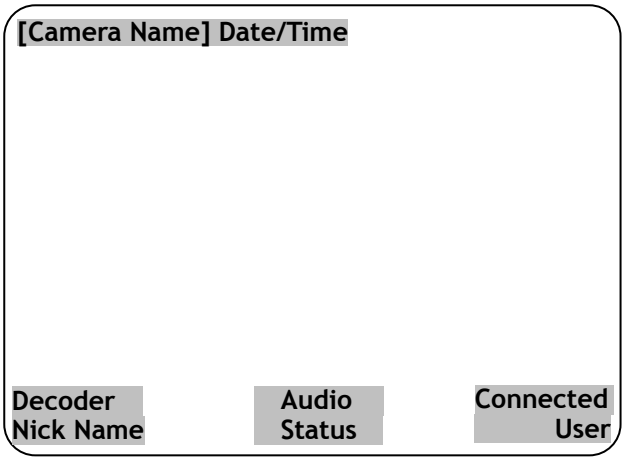
Display Tool



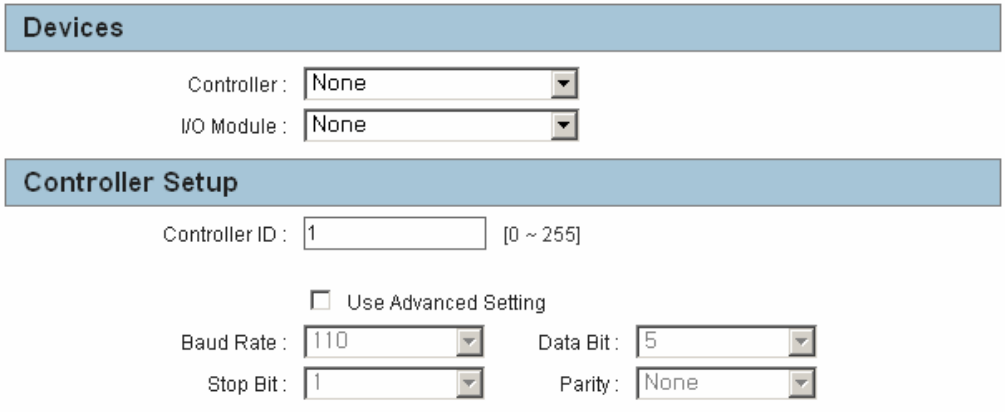
❑ Nick Name — Nick name of IP Video Decoder to distinguish from others.

❑ OSD — Select the items to be displayed on the monitor (**OSD**: On Screen Display).

Camera Name: it is the name of Camera and will be displayed top left corner
Date/Time: it is date and time information. It will be displayed top left corner
Decoder Nick Name: it is the nick name of decoder defined above. It will be displayed bottom left corner
Audio Status: it shows status of audio connections. If it displays **M**, Audio stream to the camera is connected. If it shows **S**, Audio stream from the camera is connected.
Connected Users: it displays number of user connected to current camera and will be located bottom right side of screen.



Control Tool

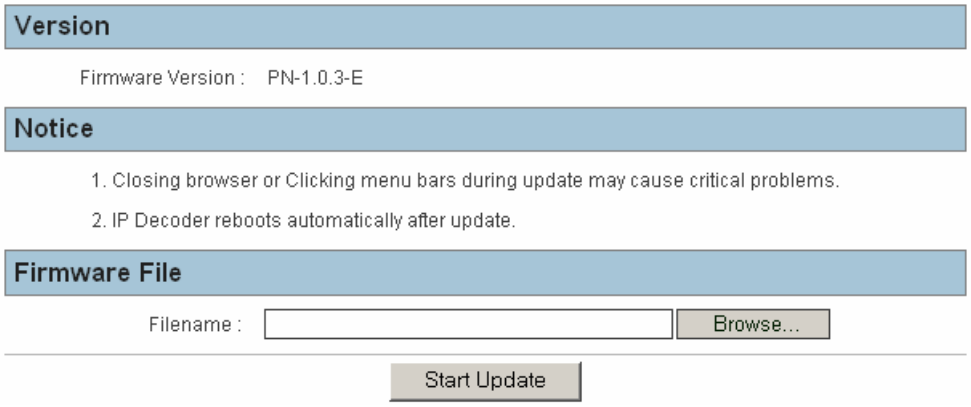


- ❑ Controller — Select a Keyboard control protocol communicating via **COM1** port of Decoder.
- ❑ I/O Module — Select the External I/O module to be connected to **COM2** of Decoder.
- ❑ Controller ID — Type Keyboard ID of **COM1** port of Decoder. By assigning this ID differently, you can control multiple decoders using one keyboard since it is RS-485 communication.
- ❑ Use Advanced Setting — When the communication spec of keyboard is non standard, use the following setting by checking this box.
- ❑ Baud Rate, Data Bit, Stop Bit, Parity — Nonstandard serial communication settings of Controller.

Account Tool

You can register the **ID** and **Password** of System manager who has authority to change the settings in **Admin Tool** of IP Video Decoder. It is noted that the default ID and Password are all **admin**.

Firmware Update Tool



❑ Version — Shows the current firmware version.

❑ How to upgrade — Click [Browse…] button and select the latest version of the firmware. Its file name should be ***.bin.

Click [Update Start] button. It will start upgrading its firmware. IVS will re-boot automatically as soon as it finish the upgrade process.

ⓘ **After upgrade, its system configuration should be set to factory default.**

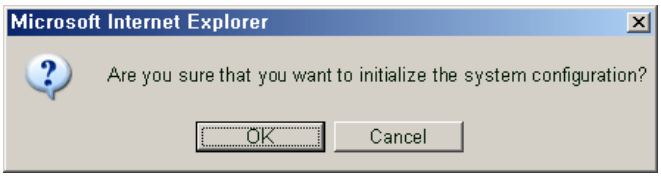
ⓘ **Connect IP Video Decoder to a computer directly with a crossover Ethernet cable.**
Do not use internet to upgrade. There may be unexpected disconnection on internet during upgrade and it may cause fatal system damage.

ⓘ **Do not close browser or click menu during update. It may cause fatal system damage.**

Default Set Tool

Reset its system configuration to the factory defaults.

Note) After initializing, all information should be deleted. Please re-consider before initializing.

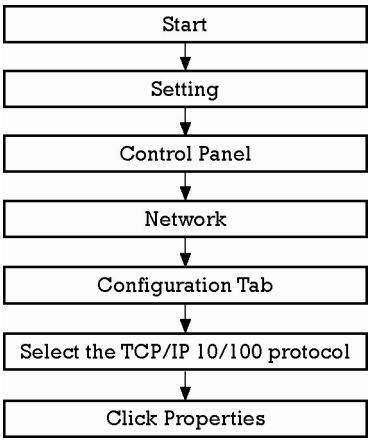


Rebooting Tool

Re-boots IP Video Decoder.

A : Current TCP/IP Settings

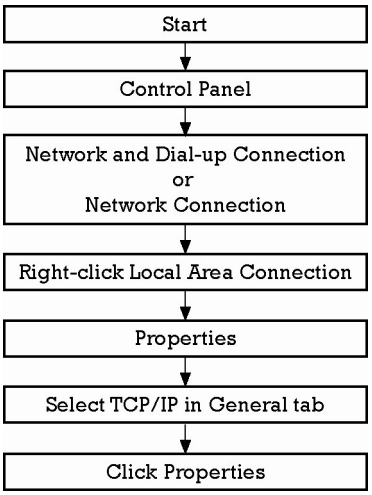
❑ For Windows 98 / ME Users



- Note the settings under the IP Address, DNS Configuration, and Gateway tabs

ⓘ If your IP settings are obtained automatically, you could use the MS-DOS prompt (or Command Prompt) to determine your IP address. For information on how to do this, please read the FAQ.

❑ For Windows 2000 or Windows XP

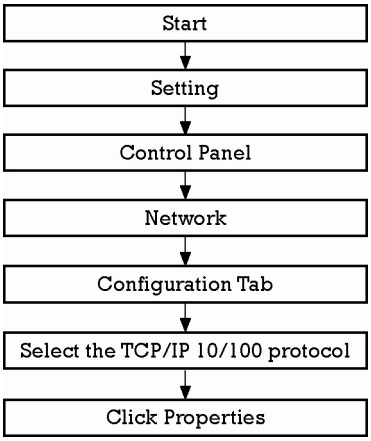


- Under the “General” tab of the TCP/IP Properties you will see your IP address information.

ⓘ If your IP settings are obtained automatically, you could use the MS-DOS prompt (or Command Prompt) to determine your IP address. For information on how to do this, please read the FAQ.

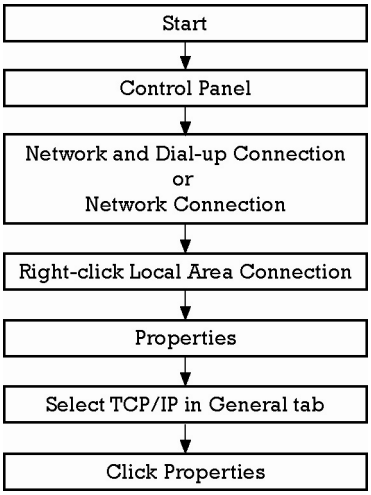
B : Changing your computer's IP address and subnet mask

❑ For Windows 98 / ME Users



- Select 'Use the following IP address' and change the IP address and Subnet Mask.

❑ For Windows 2000 or Windows XP



- Select 'Use the following IP address'

C : Port Forwarding

After assigning the IP Video Decoder a Web Port you must use Port Forwarding (for cases A, B)

Please consult your router's user guide on how to correctly configure Port Forwarding.

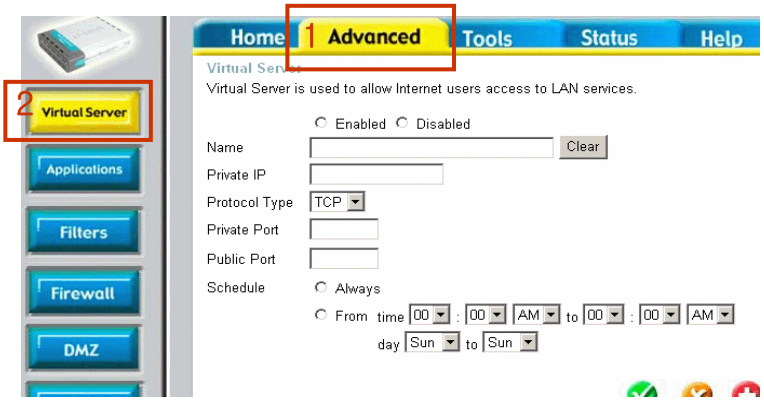
For your convenience, we have provided two example configurations.

❑ **For D-Link DI-604 broadband routers:**

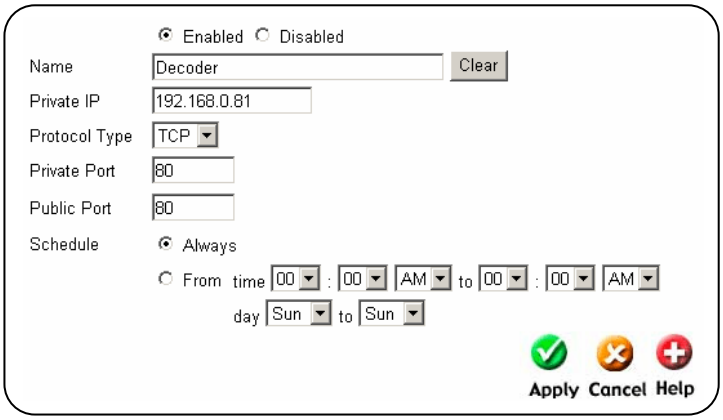
① Open a web browser and type http://192.168.0.1 into your Address bar. (the default IP address to access the router)

② You will have to supply your User Name and Password to log onto the router. Default from factory. (User Name: admin Password: [leave blank])

③ Select the advance tab and click "Virtual Server" menu.



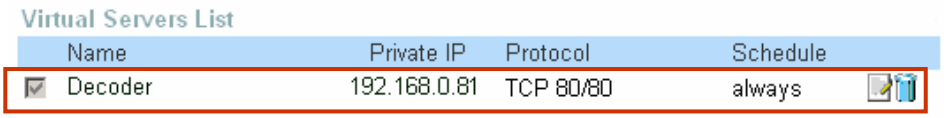
④ Click "Apply" button after inputting proper values. The example is as below



- Enabled / Disabled — Select “Enabled”.
- Name — Input IP Video Decoder name.
- Private IP — Input Decoder IP Address.
- Protocol Type — Select “TCP”.
- Private Port / Public Port — Input Decoder Web Port.
- Schedule — Select “Always”

⑤ If 'Setting Saved' shows, click [Continue] button.

⑥ The Web Port shows in "Virtual Servers List" as below.

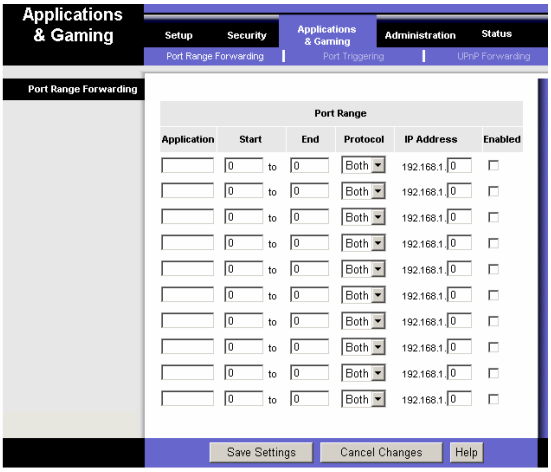


❑ **For Linksys BEFSR41 Cable/DSL routers:**

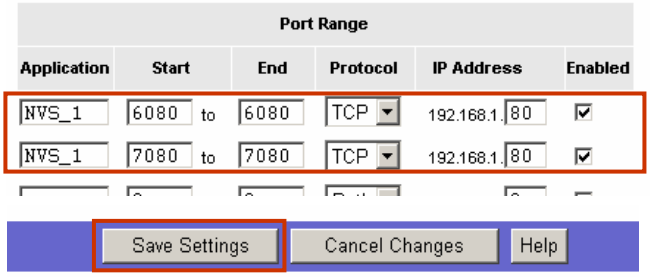
① Open a web browser and type http://192.168.1.1 into your Address bar (the default IP address to access the router)

② You will have to supply your User Name and Password to log onto the router. Default from factory (User Name:[leave blank] Password: admin)

③ Select Applications & Gaming from the menu bar.



④ Input port numbers in "Port Range" as below and click [Save Setting] button. Both of Web Port and Video Server Port should be added. The example is as below.



- Application — Input IVS name.
- Start / End — Input IVS Web Port and Video Server Port. Start should be same as End. Both of Web Port and Video Server Port should be added.
- Protocol — Select “TCP” in Protocol option.
- IP Address — Input IVS IP Address.
- Enabled — Check the square.

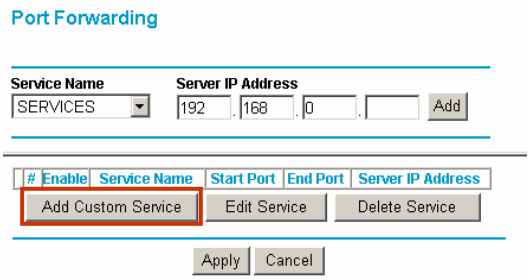
❑ **For Netgear RP614 routers**

① Input http://192.168.0.1 in address bar of web browser. http://192.168.0.1 is the default IP address.

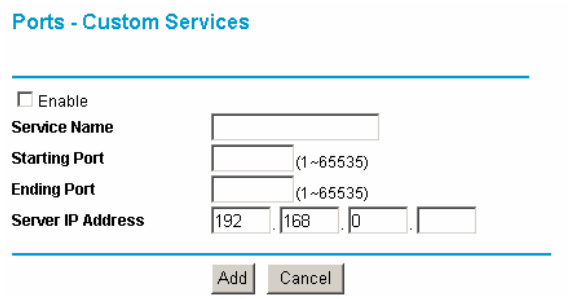
② If it asks ID and password, input admin as ID and password as password.

③ Click “Port Forwarding” in "Advanced".

④ Click "Add Custom Service" button in Port Forwarding page.



⑤ Input proper values in "Ports - Custom Services" page as below.



- Enable — Check it.
- Service Name — Input IVS name.
- Starting/Ending Port — Input IVS Web Port. Starting Port should be same as Ending Port.
- Server IP Address — Input IVS IP Address.

⑥ Click "Add" button.

⑦ With the same method as above, add Video Server Port.

⑧ Click "Apply" button to finish Port Forwarding.

❑ I can't connect!!

In the case of a connection failure.

Modem Reboot > Modem Reboot Finished > Router Reboot > Router Reboot Finished >IP Video Decoder Reboot > Decoder Reboot Finish > Verify DDNS and Decoder connection, if applicable.

❑ How do I choose a unique IP address that matches my network?

For your home or small office, ensure that all devices on your network are running. PING an IP address that you plan to assign to the IP Video Decoder. If you receive a "Request timed out", then you may use that IP address. To ensure the IP address that you will assign the IP Video Decoder matches your network, review your "Current TCP/IP Settings" that you had recorded earlier. See some examples below:

- If your "IP Address" entry in "Current TCP/IP Settings" was 192.168.0.y, and your "Subnet Mask" was 255.255.255.0 then use 192.168.0.x for your Decoder's IP Address ("x" meaning any number between 2-254 that you wish, as long as it passes the "PING" test).
- If your "IP Address" entry is not a 192.168.z.y address with a "Subnet Mask" of 255.255.255.0 then please contact our Support Center.
- If your "IP Address" entry is not a 192.168.z.y address, please contact our Support Center.

❑ How do I open an MS-DOS or Command Prompt?

- Windows 98 / ME Users : Start → Programs → Accessories → MS-DOS prompt
- Windows 2000 / XP Users : Start → (All) Programs → Accessories → Command Prompt

❑ How do I "PING" an IP address?

① Open an MS-DOS (or Command) prompt

② At the prompt type - "ping xxx.xxx.xxx.xxx" (without the quotes and replace the "x"s with an IP address)

③ Press Enter

❑ How do I find out my IP address information if my settings were automatically detected?

- Windows 98 / ME Users

  ① Open an MS-DOS Prompt

  ② At the prompt type: "winipcfg" (without the quotation marks)

  ③ Use the drop down list to select your 10/100 Ethernet Adapter (not a PPP adapter)

④ Now you will see your IP Address, Subnet Mask, and Default Gateway information

⑤ For DNS information contact your Internet Service Provider

- Windows 2000 / XP Users

① Open a Command Prompt

② At the prompt type - “ipconfig /all” (without the quotes)

③ Near the end of the information supplied, should be your current IP address, subnet mask, default gateway and DNS servers

❑ How do I choose a private IP address:

Assign your IVS a private IP address that matches your current network. Below lists the ranges for private addresses:

- Private Class A address space : 192.168.0.0 - 192.168.255.255
- Private Class B address space : 172.16.0.0 - 172.31.255.255
- Private Class C address space : 10.0.0.0 - 10.255.255.255

❑ My POWER light is not on?

Power is not being supplied to the unit. Please use the power supply shipped with the unit and verify that a power source is active from the attached power outlet used to connect the adapter. You can test this by plugging in any other electrical device and verify its operation. After using the power supply shipped with the product, checking the power source, and reinserting the power connector into the IVS, please call our Support Center. The power supply may be defective.

❑ My ACTIVE light is not flashing?

Verify the power supply to the unit. Power off the unit and back on again, wait 1 minute, if the ACTIVE light still does not begin to flash, you will have to set the unit to its factory default (THIS WILL DELETE ANY CONFIGURATION AND SET THE UNIT TO THE FACTORY DEFAULTS). Power on the unit and insert the end of a paper clip into the small recessed opening on the back of the unit. Use the clip to press the button located within that opening.

❑ My LINK light is not flashing or solid?

Verify the cable connection. 99% of the time the cable's connection to the unit is causing this problem. Try using a different network cable or crossover cable (for PC connection only). Try reinserting the cable, if this still doesn't solve the problem call our Support Center.

❑ I can access the decoder on my LAN, but not from the Internet.

Verify that your router (if applicable) has port forwarding properly configured. If accessing from our DDNS service, verify correct serial number. Firewall issues may prevent user access.

❑ How do I reset the unit to factory defaults?

On the underside of the unit you will find a recessed opening located near the top-left side of the label. Power ON the unit and use a paper clip to push the reset button within that opening. You should then see the ACTIVE light turn off and after a few seconds the ACTIVE light will begin to flash, signifying a successful reboot. If the ACTIVE light does not turn off after depressing the reset button, please try holding the button in for a few seconds and releasing. YOU WILL LOSE ALL DATA THAT HAD BEEN ENTERED PREVIOUSLY AND THE IP VIDEO DECODER WILL BE SET TO ITS FACTORY RESETS.

❑ Can I use the IP Video Decoder on my dial-up Internet connection?

No, we recommend a high-speed broadband connection of at least 128Kb/sec.

❑ I'm accessing my IP Camera remotely over the Internet and the video stream is choppy, is this normal?

Yes. The frames per second received remotely are determined by your bandwidth capabilities both at your site where the IP Camera is installed and your IP Decoder is installed. The lower of the two sites will determine how fast your video stream is received. It is recommended to have at least a 256Kb/sec upstream connection from the site where the IP Camera is installed. Lower speeds will operate properly, but provide poor remote performance. The Faster the Internet connection at both ends, the faster the video stream.

Specifications

Model		IP Video Decoder
Network	CPU	32 Bit RISC Processor
	OS	Embedded Linux
	Flash Memory	8 MB
	Network	10 / 100 Base-T Ethernet (RJ-45)
	Compression	Selectable MPEG-4 or MJPEG
	Video Frame Rate	30 @ 720 x 480 : 25 @ 720 x 576
	Audio	Bidirectional / ADPCM
	Number of IP Camera	Max. 10 devices Simultaneously Auto Scan
	Functions	Auto IP Search Auto scene change on events Alarm out on events. Sensor Input in the IP devices
	Events	Motion Detection Motion Tracking Start
	Keyboard	Pelco D compatible (RS-485)
	Analog Video	NTSC / PAL
Electrical	Video	2 BNC connector type
	Audio	Mini jack type (Line In / Out)
	Sensor In/Out	1 Input (5 ~ 12 V DC, 15 mA) 1 Open Collector Output
	Power	12V DC, 400 mA
Mechanical	Dimension	100 x 117.5 x 27 mm
	Weight	150 g
Environment	Operation Temp.	0 °C ~ 40 °C (32 °F ~ 104 °F)

* Specification & design are subject to change without notice