

Network Troubleshooting Guide Ver 1.0

Network H.264 DVR

Firmware Build 051104 or Higher

GEN IV
TECHNOLOGY

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About This Document

The purpose of this guide is to assist the user with using the Network Preview function of the DVR over a direct cable connection (PC – DVR) to test the DVR for proper network function.

In addition, this guide can be used to help the user determine any faulty network components of the DVR system. The following procedures eliminate all other network devices (routers, switches, firewalls, etc) from being the cause of a network connection failure. Upon completion of the following procedures, a user can conclude with a high degree of certainty whether the DVR system is at fault or whether the fault lies within another device on the network (router, switch, firewalls, cabling, etc.)

We will use a direct crossover cable connection from the DVR to a laptop/PC to test the DVR for network function and determine if the DVR is at fault or another network device. We will first set the DVR to factory default settings, as well as change the laptop/PC IP address to communicate with the DVR's factory setting.

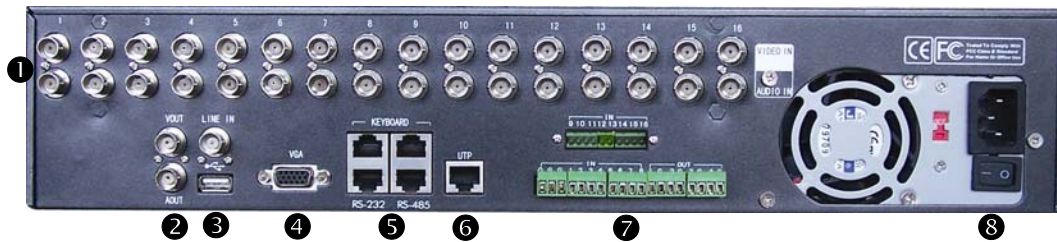
Notes Before Starting

- Please set your DVR units to its FACTORY DEFAULT settings.
- This product is only compatible with current versions of the Microsoft Windows OS.
- This product's web preview operates with Microsoft's Internet Explorer only.
- You must have ActiveX controls and File Downloads enabled on your browser, found in the Options Menu (Tools → Internet Options → Security Tab → Customer Level...)
- Some pop-up blockers may block legitimate configuration screens, please disable these blockers when configuring the DVR.
- 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 and troubleshooting of the DVR via a PC/laptop.
- Please temporarily disconnect any proxy servers associated with Internet Explorer while configuring the DVR system.
- The EDIT button on the DVR front panel is used for changing IP addresses in the DVR system. Reboot is required.

Product Description

□ Rear Panel

① 16 channel unit shown



Index	Physical Interface	Description
1	Video Input	Standard BNC.
	Audio Input	Standard BNC.
2	Video Output	Connect monitor, output video and menu.
	Audio Output	Local audio output.
3	Line In	Audio line input for voice.
	USB Interface	USB memory disk, USB HDD, USB CD-R/W
4	VGA Interface	VGA display.
5	Keyboard Interface	One is for DVR Pro keyboard, and one is for DVR cascade.
	RS-232	Connect RS-232 devices.
	RS-485	PTZ connection.
6	UTP Network Interface	Connect network devices. Use this port for network connectivity.
7	External Alarm Input	8/16 Alarm in.
	Relay Output	4 Alarm out
8	AC Input	Use switch to change AC voltage 220/110V.



□ Crossover Cable



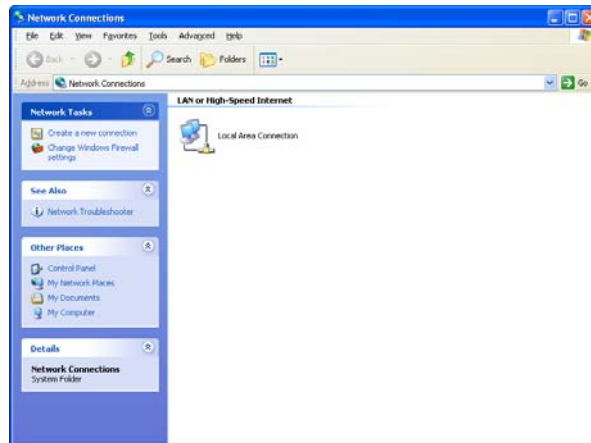
- The crossover cable is not wired as a typical straight-through network cable. This cable (or any crossover) should be used for initial setup of the DVR via a PC/laptop. After initial setup of DVR, use a straight-through cable for normal operation to a router or switch.



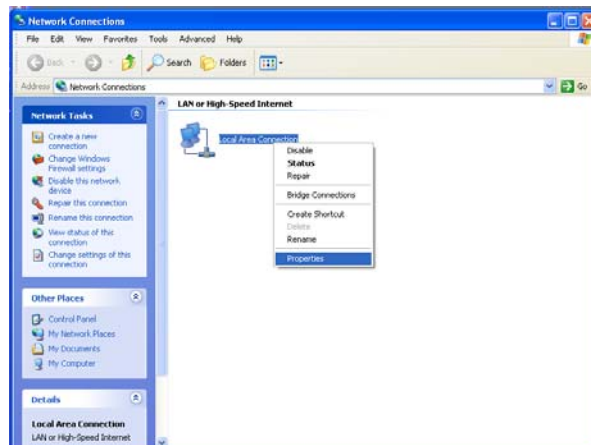
Setup

Please follow the steps below to complete the direct connection to the DVR.

- 1) You will need to access a PC/laptop and configure that PC in order to communicate with the DVR. Record the current TCP/IP properties of that PC (IP address, subnet mask, gateway, DNS, etc). Next, change the IP address to 192.168.1.123. Information on how is listed below or go to step 2.
 - i. Access your network connection settings of your PC:
 - A. Click Start -> Settings (or Control Panel) -> Control Panel -> Network Connections (or Internet and Network Connections) -> until you see Local Area Connections as depicted below.

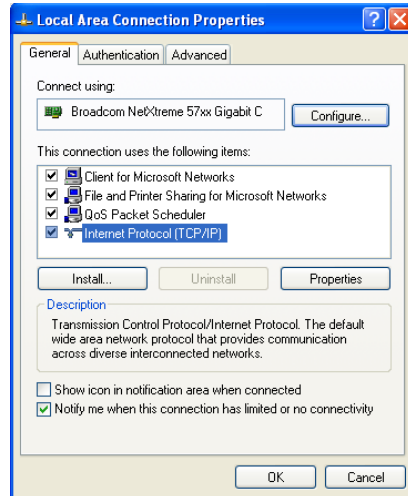


B. Right-click Local Area Connection and choose Properties

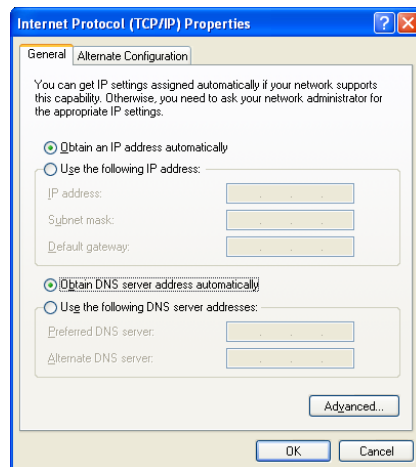




C. Select Internet Protocol (TCP/IP) and click the Properties button

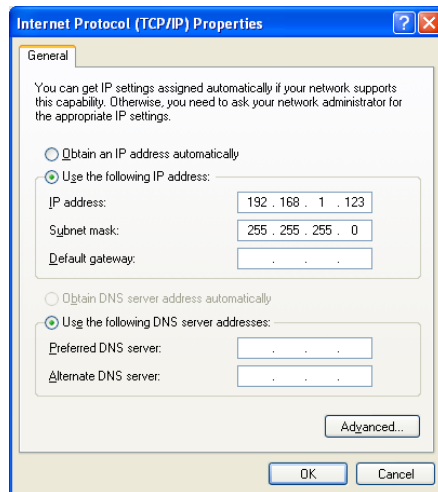


D. If Use the following IP address is selected, write down all IP addresses on this screen. If Obtain an IP address automatically is selected, no further action is required for this step.

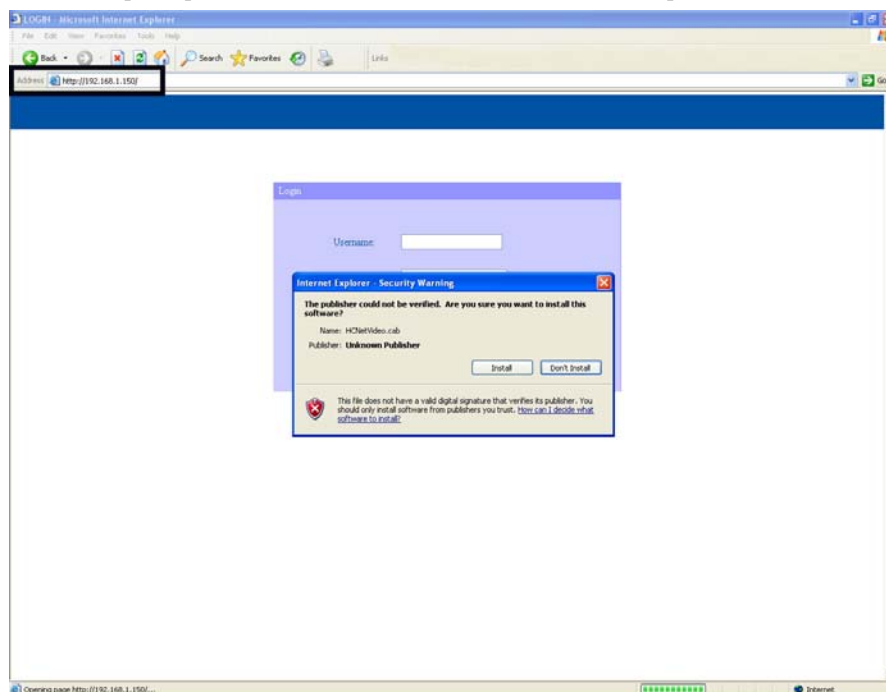




- E. Select Use the following IP address and enter the following information.
- i. IP address: 192.168.1.123
 - ii. Subnet Mask: 255.255.255.0
 - iii. All other values disregard...these do not matter for this test
 - iv. Click OK and Close out of all windows

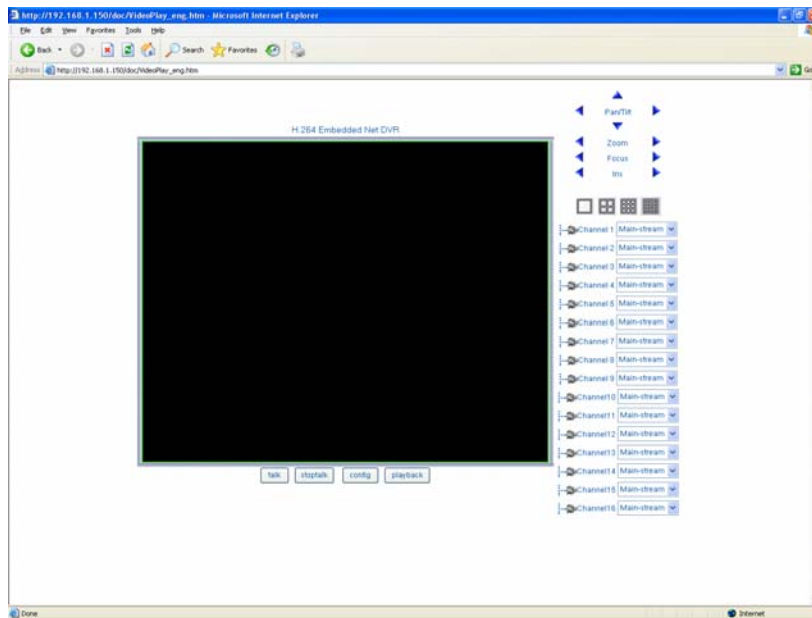


- 2) To test the DVR, we will use Internet Explorer. Open Internet Explorer. Ensure that ActiveX controls have been enabled, found in the Options Menu (Tools → Internet Options → Security Tab → Customer Level...)
- 3) You will NOT be able to access the Internet. In the address bar, clear out all characters and simply type 192.168.1.150 (default IP address of the DVR) and press enter.
- 4) You will be prompted to install the ActiveX control that is required.

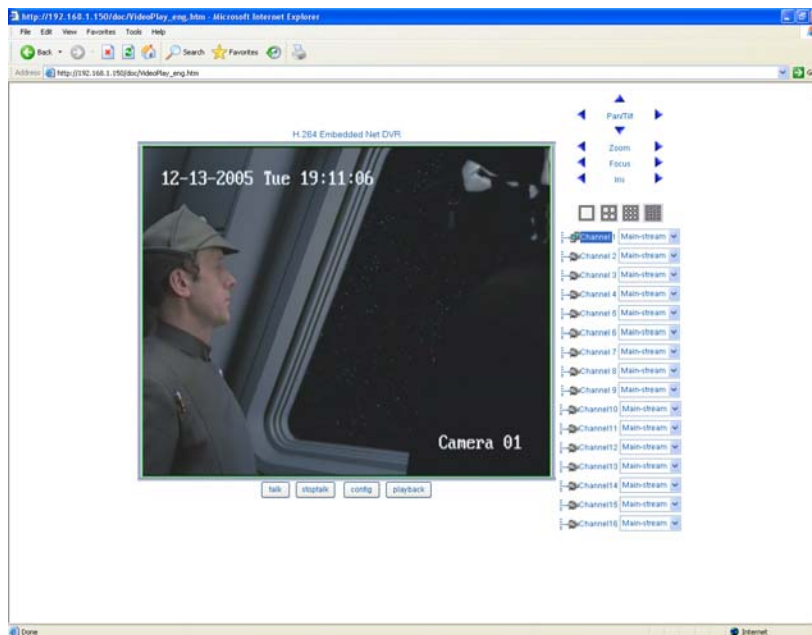




- 5) Type the Username: admin (factory default)
- 6) Type the Password: 12345 (factory default)
- 7) Ensure Port: 8000 (factory default)
- 8) Click Login and you will be presented with this screen



- 9) Double-click Channel 1 and you should see the video from your channel one camera or video source.





Results

After the above Setup and test is complete and the above procedure was followed you either were shown an image or not. If you were shown an image, the DVR is functioning properly. If no image was shown or couldn't connect, review the below list of suggestions and areas to suspect.

- **Problem: When typing the DVR's IP 192.168.1.150 into Internet Explorer, an error message such as Page Cannot be Displayed or Page Not Found.**
 - Check the DVRs System Information Screen and ensure firmware version 1.4 build 051129 or higher.
 - Check the network setup in the DVR and ensure the IP is set to 192.168.1.150
 - Verify that you can PING the IP address of the DVR. Start -> Run -> type cmd in the open box -> at the command prompt type ping 192.168.1.50. If you get a reply the DVR is communicating with your PC. If you get a Request timed out, then you have a hardware problem and the DVR cannot communicate with your PC. Check cables and ensure your PC was able to surf the Internet prior to this test.

```
C:\Documents and Settings>ping 192.168.1.150
Pinging 192.168.1.150 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 192.168.1.150:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

- **Problem: I can access the login screen in Internet Explorer, but I type the username/password and click login, but nothing happens.**
 - Ensure that you were prompted to install the ActiveX control. If not, you need to enable ActiveX controls in your browser or set the security settings to low.
 - Verify the Client Port in the DVR is set to 8000
 - Verify that you are typing the correct username and password set in the DVR.
 - Default: username: admin
password: 12345
- **Problem: I can login, but when I double-click camera 1, I get no image.**
 - **You are connected to the DVR. Please ensure there is a working camera or active video signal on the Video IN BNC connection of the DVR for channel 1**
 - **Click the square black box where you want the picture to show, next double-click camera 1**
- **Problem: I followed all steps and tests and still nothing.**
 - **Please contact your vendor for additional support**



Conclusion

After performing the procedures listed in the Setup section and determining if the DVR connected successfully, you will need to set your PC's IP address back to its original configuration. Please follow the steps listed in Step 1 of the Setup section to return your PC's IP address to its original configuration.

If the test connection was a success you can conclude there is no problem with the DVR and the problem lies in other devices and/or configurations.

If the test connection was not a success, please contact your vendor for additional support.