

4/8/16/32-Ch Network Video Recorder

NVR Series

Quick Installation Guide

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Chapter 1. Introduction

Thank you for purchasing PLANET 4/8/16/32-Ch Network Video Recorder. The Network Video Recorder is designed for use within a surveillance system, and performs recordings and playbacks pictures from network cameras in the system. It is a recording device using a hard disk drive to record camera pictures instead of using video tapes so that pictures recorded by repeated overwriting will not experience deterioration of the recorded picture quality. Up to 4 (for NVR-420), 8 (for NVR-810 and NVR-820), 16 (for NVR-1610 and NVR-1620) and 32 (for NVR-3210 and NVR-3250) cameras can be connected via a network and it is possible to record their camera pictures. It is possible to perform the settings or operate the NVR using a web browser installed on a PC connected to a network, or remote controller. Recorded video can be played back from remote site by a PC. Up to 4 PCs (web browsers) can access this unit concurrently and it is possible to perform the settings and operate this unit. The NVR is compatible with most major brand cameras and its ability to automatically search and find the available cameras on the network can greatly reduce the user effort when expanding the system.

1.1 Before Installation

Before installation, please be sure to read this quick installation guide and user's manual (CD) carefully to complete machine installation. This guide shows how to quickly set up the NVR.

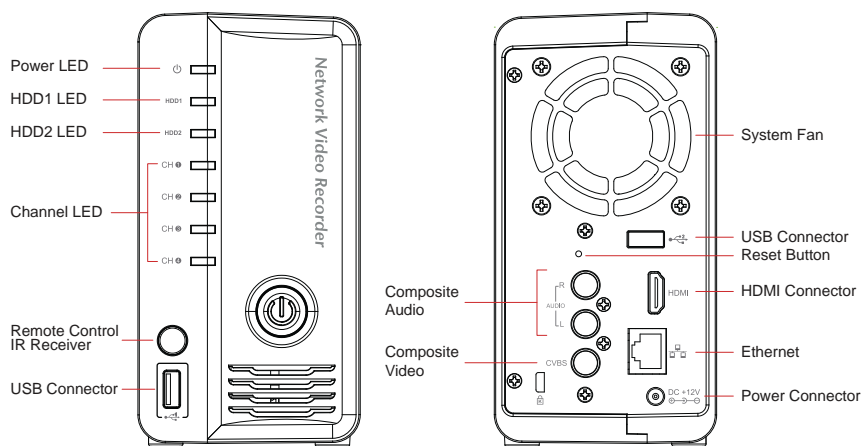
Chapter 2. Physical Description and Installation

2.1 4-Ch Network Video Recorder

2.1.1 NVR-420 Package Contents

1 x NVR	1 x Power Cord	1 x Power Adapter
1 x RJ-45 Cable	1 x CD-ROM	8 x HDD Screw
1 x Remote Controller		1 x Quick Installation Guide

2.1.2 NVR-420 Physical Details



LEDs	Color	Description
Power	Green	When NVR-420 is fully started
	Red	When NVR-420 is off, but power cord remains plugged in
	Amber	Blinking during system initialization, reboot, and firmware upgrade
	Off	When NVR-420 is off and the power cord is not plugged in

HDD1/2	Green	Disk is online
	Red	Disk error
	Amber	Solid amber when NVR-420 is recording Blinking amber when the disk is recycling
	Off	No disk or disk is offline
Channel 1~4	Green	Solid green when NVR-420 is online Blinking during event triggered
	Off	Disconnect or no camera is configured

Connector	Description
USB	Connect your USB flash disk for firmware upgrade and backup
Reset	Press and hold reset button for 30 seconds to factory default
HDMI	HDMI output
Ethernet	10/100Mbps network

2.1.3 NVR-420 HDD Installation

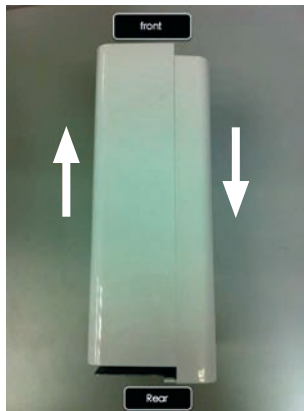
1. Locate the screws highlighted below on the back of the NVR.



2. Use a Philips screw driver to release the screws.



3. Slide open the case as shown below.



4. One side of the housing can be detached as shown below.



5. Install the HDD by sliding its bottom first into the tray diagonally to avoid the tray separator.



6. Once the HDD is placed into the tray, you should see a gap between the HDD and the SATA connector.



7. Attach the HDD to the SATA connector by sliding it towards the connector.



8. Make sure the screw holes on the HDD are aligned with the ones on the tray.



9. Secure the HDD with the screws provided in the accessory box with a Philips screw driver. There are four for each HDD; two for each side of the tray.



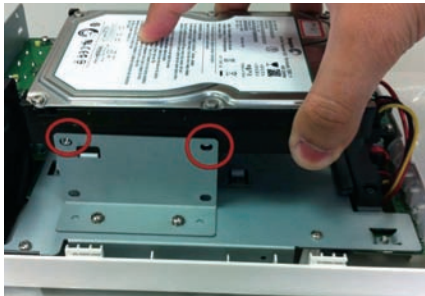
10. Install the top HDD by attaching it to the corresponding SATA cable first.



11. Make sure the HDD is securely attached.



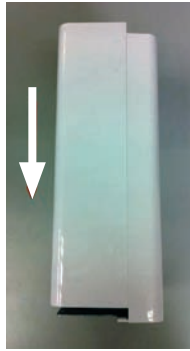
12. Place the HDD to the tray and make sure the screw holes on the HDD are aligned with the ones on the tray.



13. Secure the HDD with the screws provided in the accessory box with a Philips screw driver. There are four for each HDD; two for each side of the tray.



14. Slide the side housing back to the unit.



15. Secure the housing with the screws highlighted below.



2.2 8/16-Ch Network Video Recorder

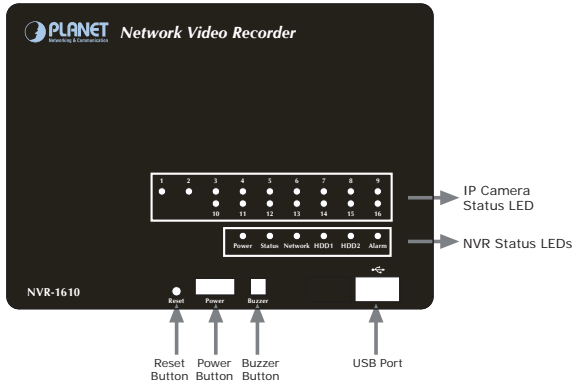
2.2.1 NVR-810 / NVR-1610 Package Contents

1 x NVR	1 x Power Cord	1 x RJ-45 Cable
1 x CD-ROM	2 x HDD Screw	1 x Quick Installation Guide

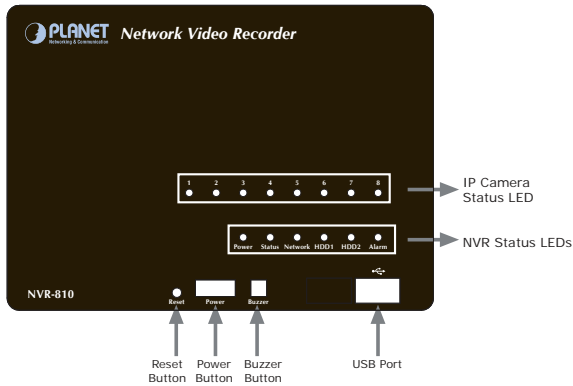
2.2.2 NVR-810 / NVR-1610 Physical Details

Front Panel

NVR-1610



NVR-810



LEDs	Color	Description
Power	Green	Normal operation
	Red	System off (power adapter remains plugged in)
	Amber	Blinking amber indicates device is initializing
HDD1/2	Green	Solid green when the hard disk is mounted and being accessed
	Red	Solid red for disk fail
	Amber	Solid amber when disk is recording Blinking when recycling

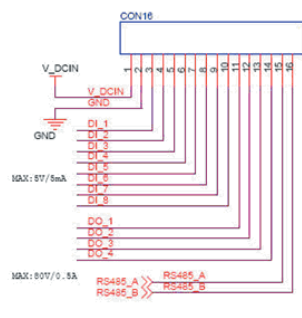
Network	Amber	Solid amber for activity on a 1Gbps network
	Green	Solid green for activity on a 10/100Mbps network
Status	Amber	Blinking during firmware upgrade
	Green	Shows solid green for normal operation Blinking green when firmware upgrade is done
	Red	Flashes red for failed firmware upgrade
Alarm	Red	Blinking when an alarm occurs
	None	When alarm is reset
Camera	Green	Solid green, live connected with no event or recording activity
	Amber	Blinking amber, manual or event recording is being performed
	Amber	Solid amber, schedule or continuous recording is being performed
	Red	Recording is set but no video from camera

Button	Description
Reset	Press once to reset this device. Press over 10 seconds to reset to default settings.
Power	Press to start or shut down.
Buzzer	Press to on/off buzzer.

Connector	Description
USB	Connect your USB flash disk for firmware upgrade and backup.

Rear panel



Connector	Description																																		
AC	Connect the power cord to AC 100~240V power source.																																		
Ethernet	Supports 10/100/1000Base-T interface.																																		
RS-232	Connect to UPS.																																		
I/O	 <table border="1" data-bbox="593 319 952 702"> <thead> <tr> <th>Pin</th> <th>Signal</th> </tr> </thead> <tbody> <tr><td>1</td><td>DC IN</td></tr> <tr><td>2</td><td>GND</td></tr> <tr><td>3</td><td>Alarm Input 1</td></tr> <tr><td>4</td><td>Alarm Input 2</td></tr> <tr><td>5</td><td>Alarm Input 3</td></tr> <tr><td>6</td><td>Alarm Input 4</td></tr> <tr><td>7</td><td>Alarm Input 5</td></tr> <tr><td>8</td><td>Alarm Input 6</td></tr> <tr><td>9</td><td>Alarm Input 7</td></tr> <tr><td>10</td><td>Alarm Input 8</td></tr> <tr><td>11</td><td>Alarm Out 1</td></tr> <tr><td>12</td><td>Alarm Out 2</td></tr> <tr><td>13</td><td>Alarm Out 3</td></tr> <tr><td>14</td><td>Alarm Out 4</td></tr> <tr><td>15</td><td>RS-485+</td></tr> <tr><td>16</td><td>RS-485-</td></tr> </tbody> </table>	Pin	Signal	1	DC IN	2	GND	3	Alarm Input 1	4	Alarm Input 2	5	Alarm Input 3	6	Alarm Input 4	7	Alarm Input 5	8	Alarm Input 6	9	Alarm Input 7	10	Alarm Input 8	11	Alarm Out 1	12	Alarm Out 2	13	Alarm Out 3	14	Alarm Out 4	15	RS-485+	16	RS-485-
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15	RS-485+																																		
16	RS-485-																																		

2.2.3 NVR-810 / NVR-1610 HDD Installation

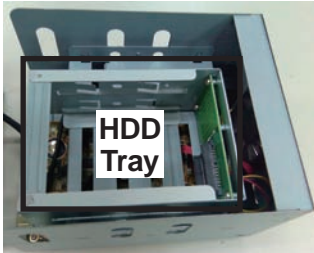
1. Remove the screws on the side.



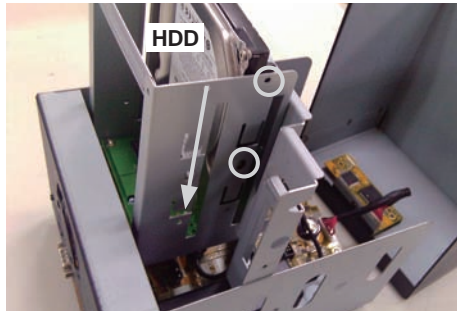
2. Push the top housing forward and then lift it up.



3. Remove the screws on the left and right side of the HDD tray.



4. Insert the HDD in the HDD tray. Please push the HDD until the SATA connection is connected properly, and lock the HDD screw on the left and right side.



5. If there is a second HDD, please repeat step 4 to install it.



Note

1. The NVR supports SATA I or SATA II hard disks
2. The NVR supports max. 3TB per hard disk and it supports total of 2 hard disks (6TB)

6. Place the top housing back and secure it with the bottom housing.



7. Connect the bundled power adapter to the power connector on rear panel.
8. Press power button to power on your NVR.

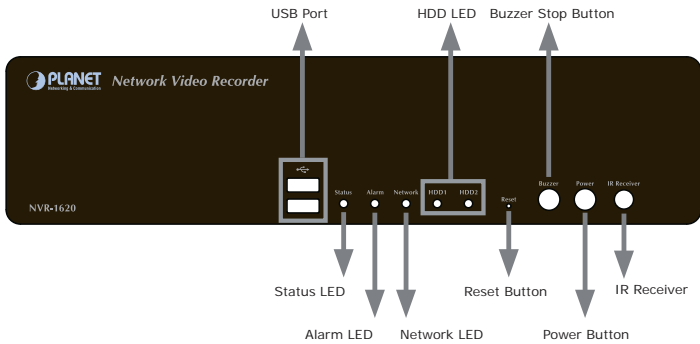
2.2.4 NVR-820 / NVR-1620 Package Contents

1 x NVR	1 x Power Cord	1 x RJ-45 Cable
1 x CD-ROM	6 x HDD Screw	1 x Quick Installation Guide
1 x Mouse		

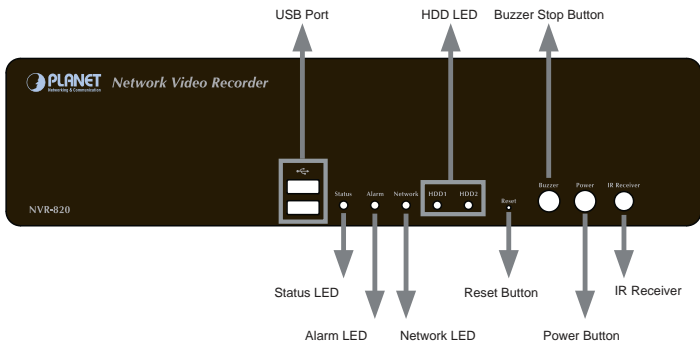
2.2.5 NVR-820 / NVR-1620 Physical Details

Front Panel

NVR-1620



NVR-820



Rear Panel



LEDs	Status	Definitions
HDD x 2	Green	Solid green when the HDD is mounted
	Red	Solid red for disk fail
	Amber	Solid amber when recording is in process Blinking when recycling
Network	Green	Solid green for activity on a 10/100Mbps network
	Amber	Solid amber for activity on a 1Gbps network
Status	Green	Solid green for normal operation Blinking green when firmware upgrade is done
	Red	Blinking red for failed firmware upgrade through USB disk
	Amber	Blinking amber during firmware upgrade
Power	Green	Solid green - Normal operation Blinking in green after pressing and holding the reset button for 5 seconds indicating the device will enter the restore default process. Other LEDs remain unchanged during this state.
	Red	System off (power cord remains plugged in)
	Amber	Fast blinking - During system initializing/starting. Continuous blinking - When system is unable to start properly (All other LEDs should be off when this LED is blinking in amber) Slow blinking - The system is shutting down. Other LEDs go off according to the stages of the process.
Alarm	Red	Blinking in red when a system/camera event occurs. Blinking should last 10 seconds for each event
	None	Goes off if reaches the 10-second duration, or when buzzer stop button is pressed (if buzzer is triggered)

Buttons	Status	Definitions
Power	ON	Press and hold for 2 seconds
	OFF	Press and hold for 2 seconds
Reset	Restore default	Press and hold for 5 seconds
	Restart	Press and hold for 2 seconds
Buzzer Stop	STOP	Press and release to stop buzzer right away
Buzzer	Status	Definitions
Beep	Complete start	Beep once (indicating the system is fully started)
	Initiating restart	Beep once (Indicating the restart process has begun)
	Initiating shutdown	Beep once (Indicating users to release the Power button as the shutdown process has begun)

2.2.6 NVR-820 / NVR-1620 HDD Installation

1. Remove the screws on both sides (1 on each side) and remove the top case by pulling it toward you.



2. Place the HDD in the tray on the left. Slide it in until it is securely connected with the SATA connector.



3. Secure the HDD with the tool-less screw on the right side and the other screw on the left side, which can be found in the accessory box.





4. Place the top case and secure it with the screws on both sides.

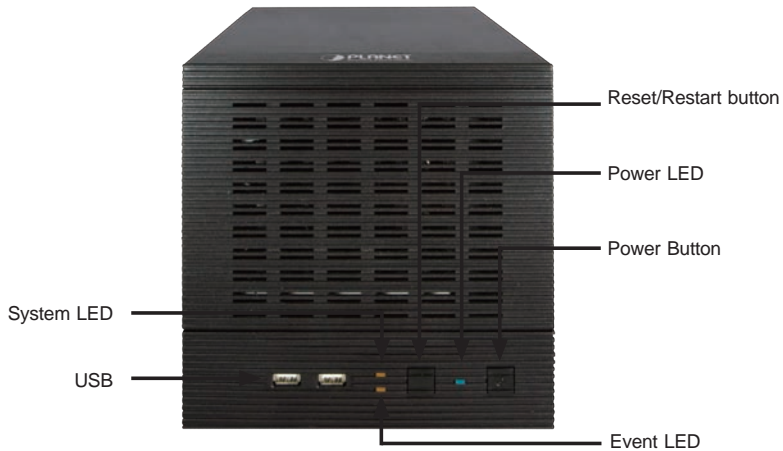
2.3 32-Ch Network Video Recorder

2.3.1 NVR-3210 Package Contents

1 x NVR	1 x Power Cord	1 x RJ-45 Cable
1 x CD-ROM	12 x HDD Screw	1 x Quick Installation Guide
4 x HDD Tray Key		

2.3.2 NVR-3210 Physical Details

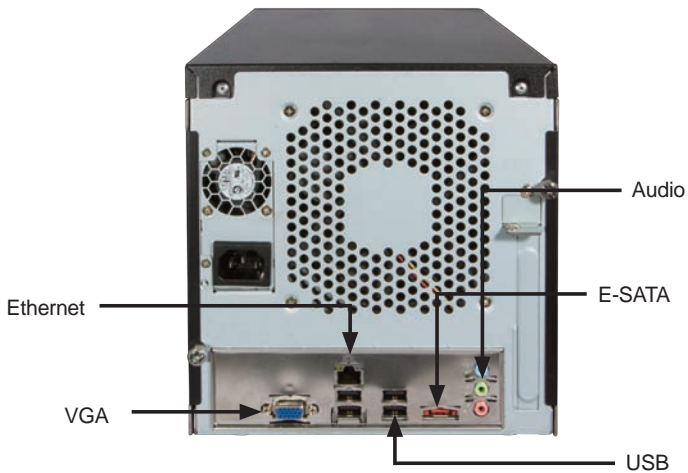
Front Panel



LEDs	Color	Description
System	Amber	Firmware upgrade: blinking System failure (AP fail): off System normal: solid
Event	Amber	Event recording: solid No event: off
Power	Blue	Power on/Restart/Reset to default/OS fail: stays solid

Button	Description
Reset/Restart	Press and release for restart. Press over 3 seconds to reset to default settings. Don't release the button until the system LED blinks.
Power	Press to start or shut down.

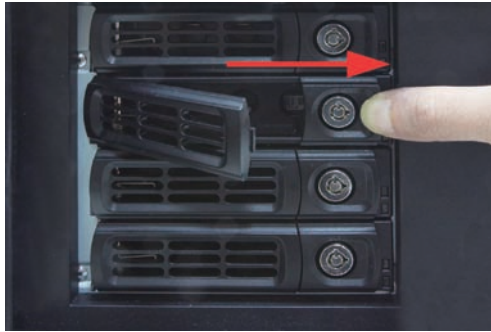
Rear Panel



Connector	Description
USB	Connect your USB flash disk for firmware upgrade and backup.
VGA	VGA output
E-SATA	External E-SATA HDD
Ethernet	10/100/1000Mbps network.
Audio	Line in/Line out/Mic

2.3.3 NVR-3210 HDD Installation

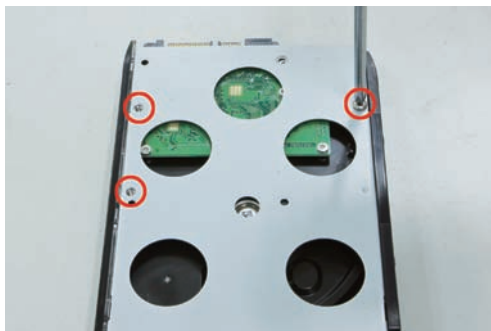
1. Release the HDD tray by pulling the lock to the right.



2. Pull the HDD tray out of the case.



3. Place the HDD in the tray and the bottom of the tray.



4. Put the HDD tray back to the case.



5. Push the tray door back to the case to secure it.

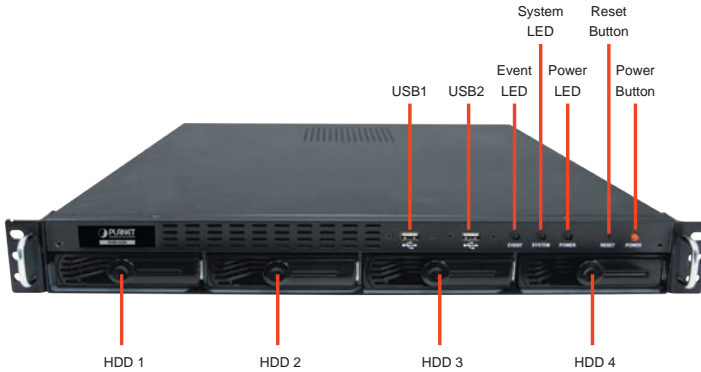


2.3.4 NVR-3250 Package Contents

1 x NVR	1 x Power Cord	1 x RJ-45 Cable
1 x CD-ROM	16 x HDD Screw	2 x Angle bar
4 x Angle Screw	4 x Handle Screw	2 x Handle kit
1 x Quick Installation Guide		

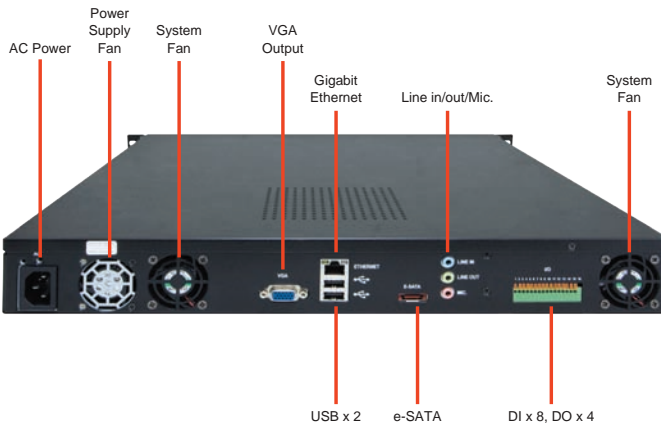
2.3.5 NVR-3250 Physical Details

Front Panel



LEDs	Color	Description
Power	Blue	During power on / restart / reset to default / OS fail: Stays solid
System	Amber	During firmware upgrade: Blinking System failure (AP failure): Off System Normal: Solid
Event	Amber	During event recording: Solid No event: Off

Rear Panel



Connector	Description
VGA	VGA output
Ethernet	10/100/1000Mbps network
USB	Connect your USB flash disk for firmware upgrade and backup
E-SATA	External E-SATA HDD
Audio	Line in/Line out/Mic
I/O	DI x 8 / DO x 4

2.3.6 NVR-3250 HDD Installation

1. Start by removing the front plate.



2. To remove the front plate, turn the tool-less screws on both sides counter-clockwise to loose it from the unit. Please note the screws will still be attached to the front plate even after the screws are completely loosened from the unit.



3. Simply pull to remove the front plate once the screws are loosened from the unit.



4. Remove the HDD tray by pulling the latch.



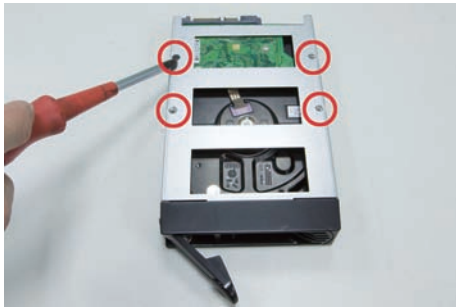
5. Push the tray door back to the case to secure it.



6. Once the tray is removed from the unit, notice there are four holes, which are used to secure the HDD.



7. Once the HDD is placed in the tray, flip it over and secure the HDD with the screws.



8. Push the tray back into the unit and push it all the way in.



9. Secure the tray by pushing in the latch, which locks the tray with the unit.



2.4 Web Management

Install "Device Search" utility from the CD

1. Please go to Start → Programs → NVR → Search NVR to run the search tool. Then you will see the utility start search the network.

Network Communication

2. The NVR should be located and its IP address should be displayed: Double-click on it and the program should automatically access the NVR's web administration page from your default browser.

IP Address	Http Port	Brand	Model	MAC Address
192.168.1.235	80	Planet	Cam Viewer 3 Pro	ef-ef-ef-ef-ef-ef
192.168.1.250	80	PLANET	NVR-3250	00-30-4f-a1-ac-b7
192.168.1.100	80	Planet	NVR-1610	00-30-4f-a1-cc-db
192.168.1.101	80	Planet	NVR-1610	00-30-4f-da-12-95
192.168.1.81	80	Planet	NVR-810	00-30-4f-a2-f8-cb
192.168.0.20	80	PLANET	NVR-3210	00-30-4f-94-4e-ee
192.168.0.222	80	Planet	Cam Viewer 3 Pro	ef-ef-ef-ef-ef-ef

3. Login the Homepage

The Web management allows you to access and manage the Network Video Recorder easily. Launch the Web browser and then enter the IP address. The default IP address is **192.168.0.20**. And, fill up the User Name and Password to login the Web management. The default User Name / Password is **admin / admin**.



Further configurations and information can be found in the user's manual CD.