

DVR Network Setup

```
C:\Documents and Settings >ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    IP Address . . . . . : 192.168.1.38
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1
```

Connect the DVR to a router using a networking cable. The cable should snap in on both ends. Connect a monitor and mouse to the DVR. Power on the DVR.
On a computer connected to the same router as the DVR:
Go to the Start Menu and Search or Run "cmd".
If using Windows 8, press Windows + X and select "Command Prompt"

Type in "ipconfig" and press enter.
Write down the IP address, subnet mask, and default gateway.

If using Mac OS X, go to System Preferences > Network > Advanced and note the IPv4 address, subnet mask, and router (gateway) address.

Main Menu->System->Network

Net Card: Wire Netcar DHCP

IP Address: 192 . 168 . 1 . 112

Subnet Mask: 255 . 255 . 255 . 0

Gateway: 192 . 168 . 1 . 1

Primary DNS: 192 . 168 . 1 . 1

Secondary DNS: 0 . 0 . 0 . 0

Media Port: 7001

HTTP Port: 7000

HS Download:

Transfer Policy: Quality Pref

On the DVR, go to Menu->System->Network. The default login is "admin" with no password. Uncheck "DHCP enable"

Set the IP address to the same as the PC's except the last 3 digits. The last 3 digits must be unique on the network (not used by any other device including the default gateway). If you don't know which addresses are already in use, check your router's list of connected devices. The last 3 digits should be less than 254 and greater than 1. Some routers may have additional restrictions on the range of allowed addresses. Here we have selected "112" for the last 3 digits. Write down the new IP address.

Set the Subnet and Gateway numbers to be same as the PC's. The DNS number can be either your Gateway number, or the DNS address provided by your ISP.

Set Media Port to 7001 (if not being used by other devices on the same external IP) or other unused port. If 7001 is already used by another device on the local network, try using another available number. Take notes of port assignments.

Set HTTP Port to 7000 (if not being used by other devices on the same external IP). Click "OK"

Cloud vs Port Forwarding

If your remote access to the DVR will be using phone or tablet only, you may use **cloud mode** to access the DVR. Cloud mode is simple to set up. If using cloud mode, setting up port forwarding and dynamic DNS is not necessary. You may skip the next two steps if you choose to use the cloud for remote access.

If using a PC or Mac to access the DVR from a remote location, or if changing DVR settings remotely, setting up port forwarding is recommended.

DDNS

DDNS Type: NO-IP

Enable:

Domain Name: your.no-ip.com

User Name: admin

Password: ●●●●●

Dynamic DNS

The DVR's external IP address may change from time to time unless your internet account is set for static ip. Dynamic DNS allows you to access the DVR using a URL name (for example <http://test.no-ip.com>) instead of ip address. Even if your external ip address changes, the URL used to access the DVR will remain the same. This saves having to change the app settings when the IP changes. Note that if you have a static ip from your ISP, dynamic DNS is not necessary. Dynamic DNS provides convenience, but is not strictly necessary (you can use ARSP, described later, and manually update app settings when the ip changes.)

If you wish to set up dynamic DNS, go to System->NetService->DDNS

Select from the available servers. You may need to sign up for an account. The service shown in this example is from noip.com

Fill out the fields with the DDNS account information and check the "Enable" button. Click "OK"

Setup | Wireless | Security | Access Restrictions | Applications & Gaming

Port Range Forward | Port Triggering | DMZ | GeoS

Port Range					
Application	Start	End	Protocol	IP Address	Enable
	7000	to 7001	Both	192.168.1.112	<input checked="" type="checkbox"/>

PORT FORWARDING

On the router the DVR is connected to, you may set port forwarding for the DVR's local IP address and port 7000 (HTTP port) & 7001 (media port) of the DVR. Port forwarding will allow for direct outside internet access to the DVR.

For your specific router, please check the router manual or go to <http://www.portforward.com> (select router and refer to the default guide) for reference.

Port forward on the local IP address of the DVR, port 7000-7001, and both UDP and TCP protocols. Make individual entries per port if necessary. **Enable the entry and save settings.** An example from a Linksys router is shown.

If the current router is connected to another upstream router or modem/router, you may port forward on the upstream router to the current router on ports 7000 & 7001, the local IP address of the current router (log into this router to find its WAN address) and UDP/TCP protocols.

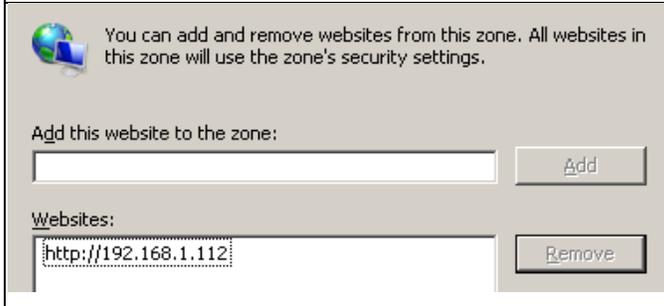
If you are not able to port forward, you can still use the cloud version of the apps to access the DVR remotely.



Local Internet Access

We can test the DVR's local internet access by typing in the local IP address and port number in a web browser on a computer connected to the same router. Make sure to include "http://" at the beginning. Here, we typed in <http://192.168.1.112:7000>

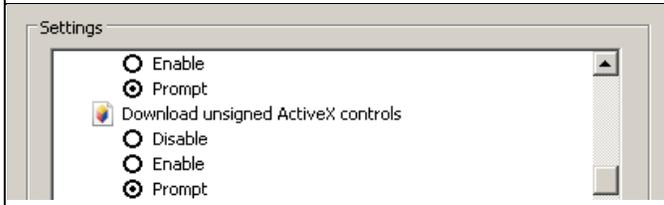
A login screen will appear. Do not log in yet.



Internet Explorer users

We need to change a couple of settings first.

Go to Internet options > Security > Local intranet > Sites > Advanced > Add
Click Close > OK > Apply > OK



Go to Internet options > Security > Local intranet > Custom level

Set "Download unsigned ActiveX controls" to "Prompt".



Log back into the DVR by typing its local ip into the url bar again.

You will be prompted to install web.cab (or to allow an activeX control). Proceed with this installation. It may take a couple of minutes. If you had a previous version of the driver installed, then you may be prompted thru a series of ActiveX controls (this could take several minutes.)

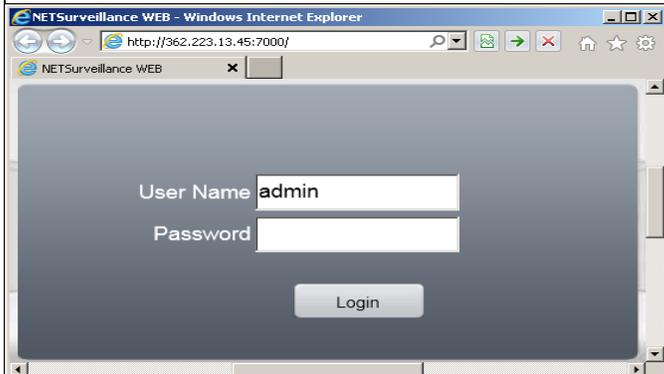
When you see the login button read "Login", you may log in (use "admin" and blank)
The main DVR screen should show. If there are any problems, restart the browser and log in again. For further troubleshooting, please see the FAQ at end.

All users

The login is "admin" and no password (or "admin" as password.)

This verifies that the DVR's network hardware is working, and that the local IP address and HTTP port are correct. If you can't access the login prompt, see the troubleshooting steps at the bottom.

Now we are ready to test outside internet access to the DVR.



Remote Access

We now need the external IP address. Using a computer on the same router as the DVR, check <http://ip-lookup.net> for the "WAN" IP address.

Using a web browser, type into the address bar "http://" and the external IP address of the DVR followed by ":7000" (see image on left). If you have a domain name for the DVR, you can append ":7000" to the domain name instead. Here, 362.223.13.45 is our external ip. See the example shown here. If we had a dynamic DNS name, we could use <http://pimfg.no-ip.com:7000> instead.

This screen should come up. You may log in with "admin" and no password. If ActiveX is blocked, go to Internet Options > Security > Internet > Custom level and set "Download unsigned ActiveX controls" to "Prompt". If Internet Explorer does not show any video, see the troubleshooting steps at the end.

If you do not get a login, there may be a problem with port forwarding. See the troubleshooting steps at the bottom. Alternatively, you can still use the cloud version of the mobile apps for remote access.

Back Edit

Device Detail

DeviceName Security

Connection Address

Address 362.223.13.45

TCP Port 7001

User Name admin

Password

Max Channel

1 4 8 16 32

Mobile Access

After setting up internet access using a computer, you can install the mobile app.

For Android, use **vMEyeSuper** (non-cloud) or **XMEye** (cloud mode) from the play store. For iPhone, use **vMEyeSuper** (non-cloud) or **XMEye** (cloud mode) from the app store. For iPad, use **vMEyeSuper** (non-cloud) or **XMEye** (cloud mode). For Macbook, use **vMEyeSuper** (non-cloud).

We will first describe the non-cloud version of the apps, followed by the cloud versions. Use the cloud version if you cannot port forward to the DVR.

Non-cloud setup via vMEyeSuper

For cloud-based mobile apps, skip down to the cloud section. We will cover the non-cloud, port-forward based mobile access first.

Our example here is using vMEyeSuper for Android. The iPhone/iPad/Macbook version will be similar.

Go to "Device List"

Click the "+" button to add a new connection.

Enter the IP (**external IP**, if used remotely) address or hostname of the DVR.

For "Port" or "TCP Port" enter port 7001 (or whatever is assigned the **media port**.) Do not use the mobile port.

Type in the login information (admin and blank password are the default).

Select the number of channels on the DVR.

Click "OK"

Back List

Security 362.223.13.45

Channel 1

Channel 2

Channel 3

Channel 4

Non-cloud mobile setup

Expand the DVR dropdown.

Click on a channel. Here, we click on channel 1.

My DVR

Playing

1 3 5 7

2 4 6 8

Non-cloud mobile setup

It should say "Connecting" and show the video. It may take a few seconds. If it says "Successful Connection" without showing video, make sure the port number, ip, and login settings are correct, and restart the DVR or the camera.

You can click on another quadrant and make another channel selection.

After successful connection, you can verify that "Auto play" is selected under "Option". This will automate the display of channels in the Live Preview mode.

On Android, you may **use the back button** to exit the app and save settings. **The only way to save settings is to use the app to exit.**

If you were not able to connect, make sure your mobile device is currently on wi-fi or data. Make sure you typed in the correct port. If you are at a remote location make sure the ip address is **current external ip** address of the DVR.

If the video lags on an IP camera during high motion, you can decrease the framerate for the "Extra" stream in the System > Encode settings of the **camera**. The app can also be used to connect directly to IP cameras if desired.

Cloud

Enable

MTU 1280 Byte

OK Cancel

Cloud mobile setup

If using port forwarding is not practical, you can use the cloud mode along with the cloud version of the mobile apps.

Go to System > NetService > Cloud

Check "Enable" and click "OK", "OK", and the close button.

You can check the status of the cloud connection in System > NetService. If it doesn't get to "Connected" status, try reconnecting the network cable.

When configuring mobile cloud apps, you will need to enter the DVR serial number. The serial number can be found in Info > Version > SerialNo

Username

Password

Remember me Auto-login

Cloud Login

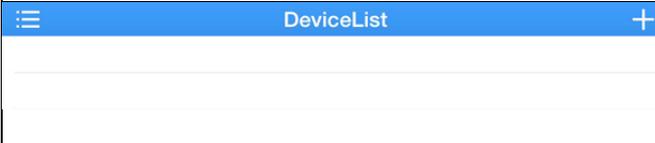
Register Modify

Local Login

XMEye for mobile access
For cloud based access, you can use XMEye.

Registration is optional; it is used for saving multiple DVR logins across devices.

Go to "Local Login"



In the device list, click "+"

Manually Add Quick Configure

If you selected Cloud Login and have not added any devices, you will need to enter the details below.

Manually add device. In the Serial Number field, enter serial number of the device. Make sure the port number used is the media port. When done, hit the OK button.

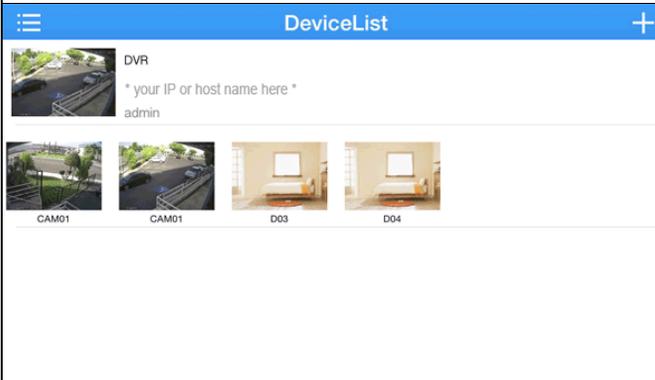
Device Name: Device Name

SerialNum: Serial Num

Username: admin

Password: Password

You may name the device.
Type in the serial number of the DVR.
Login default is "admin" and blank password.
Click "OK" when done.



A list of devices will show. If camera channels are not listed, you can click on the device to show the listing.
Select a camera to view.

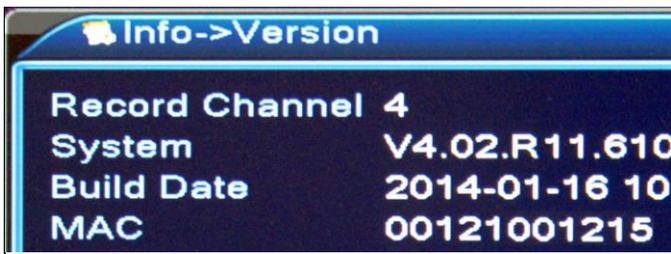
To view the DVR the next time the app is started, you can go to "Local Login" and select a device to connect to.



(OPTIONAL) ARSP Setup (some models)

On occasion the DVR's external IP may change because of the internet service provider. The ARSP option allows for remote browser login to the DVR to check for the DVR's current external address even if it changes. This would allow you to remotely look up the DVR's current IP, and manually update it in the app settings. This can be useful if you choose not to use dynamic DNS.

Go to System > Netservice > ARSP
Check "Enable"
Server IP is xmsecu.com
Port, username, and password are default values and do not need to be modified.
Click "OK", "OK", and close



(OPTIONAL) ARSP Setup (2)

Go to Info > Version
Write down the MAC number.



(OPTIONAL) ARSP Setup (3)

Using a web browser, go to <http://xmsecu.com:8080> and login using the MAC number. If it fails to login, verify the MAC number, and try logging in again. Current information about the DVR will be shown. "True IP" is the current external IP address of the DVR.

Troubleshooting Tips

1. Can't log into the DVR from the internet.

Cloud users

If using the cloud, check to see if the DVR serial number typed in is correct. Check to see if the mobile device is connected to data. Try using wi-fi.

On the DVR itself go to System > Netservice and check the cloud status. It should say "Connected". If not, check the network cable.

Make sure the DVR can be accessed locally via computer. If you can only access the DVR locally, the cloud may be busy and you can try again. If local access fails, see step 2.

Close the mobile app and open it again. Test with another mobile device.

Non-cloud users (port forwarded)

Check the address bar to verify you are using the correct IP address and port number. Check every single digit because typos can be common. The address should start with "http://", followed by the external IP address, followed by the colon symbol and the port (":7000"). Try another web browser to see if you can get a login. Make sure that any software firewall or hardware firewall is not blocking ports 7000-7001. Check for any port restrictions imposed by the router on both the DVR side and the remote computer side. Check all relevant settings including port filtering and application exception lists. Double check that the port and local IP addresses of the DVR are assigned for forwarding on the router. If you were previously able to access the DVR from the outside, make sure that the external IP address specified in the address bar is still valid (the router's external IP address may change from time to time.) If using Dynamic DNS, make sure your account has not expired or test with the DVR's current external ip address instead of the host name. Double check the settings on the DVR. Make sure the DVR can be accessed locally (see below). If you can access DVR locally but not remotely, there is a problem with port forwarding. Review your router port forwarding settings. Review the router manual. If the router is attached to another router upstream, you will need to do port forwarding from the upstream router to the current router (using the current router's local ip address on the upstream router, and ports 7000-7001). If you have changed routers, make sure the local static IP on the DVR is still valid for the router is it connected to.

2. No local network access to the DVR.

Make sure the computer is on the same router as the DVR. You can use the "ping" command from the command line (ie "ping 192.168.1.112") to see if the DVR is accessible at all. Ping the local IP address that was assigned to the DVR. You should see response times from the DVR (no timeouts). If you get response times, you can log in locally using a web browser. If you get a timeout, reconnect the DVR's network cable on both ends, or test with another cable. Most network cables will snap in. You may also power cycle the DVR. Check network lights on the router and on the DVR network port. Try connecting to another physical port on the router. Make sure the DVR is using a unique local IP address. Check the validity of the IP address assigned on the DVR. Some routers have a numeric restriction on the range of local addresses (you may need to reassign a static address to the DVR.) Make sure you log in with the correct local IP address and port. Check every single digit because typos can be common. Go in the DVR menu and verify the assigned address numbers. Recheck your assigned web port and media port. Check firewall settings. Try adding the DVR local IP to the local zone (Internet Options > Security > Local intranet > Sites > Advanced > Add > Close > Apply > OK). Use another web browser. Access the DVR from another computer on the same router. Test the DVR with another router. If you have changed routers, make sure the local static IP on the DVR is still valid for the router is it connected to. See the first 2 steps of this guide. Reboot the DVR.

3. Internet Explorer can log in but no video

Check Internet Explorer's security settings for ActiveX (set "Prompt" for "Download unsigned ActiveX controls") Click refresh or restart the browser. Make sure you port forwarded the media port. Double check for typos.

Test IE access on the local network. Add the DVR to the local zone under Internet Options > Security > Local intranet > Sites > Advanced. If the browser seems to take a long time or freeze, please allow a few minutes for the control to load.

If using a laptop that was not used for setup, first set it up on the local network using the steps in this tutorial.

If IE still doesn't work, you may use the CMS software that is on the CD (see below for setup.)

CMS usage

Here are the steps for using the CMS:

- 1) Install the CMS software from the CD.
- 2) Start up the software, and login with the default login ("Super" and blank.) You may check auto-login.
- 3) In the CMS, go to "System" -> "Device Manager". If you see preexisting devices and zones that you don't recognize, you may remove them.
- 4) Go to "Add Area" and add a zone.
- 5) Highlight the zone, then click "Add Device"
 - a) Click "IP Search"
 - b) Highlight the device corresponding to the DVR.
 - c) Enter the username and password. Click "OK" and "OK"
- 6) Highlight a quadrant.
- 7) On the left, double-click on the new zone, wait for connection, and then double-click an active channel to display.

4. IE ActiveX control crashes with NOD32 installed

In order to allow the ActiveX software to work, you will need to go to the Advanced Setup for NOD32. Expand "Web and E-mail" and click on "Protocol Filtering". In "Protocol Filtering", click on "Excluded Applications" and then make sure a check is on Internet Explorer and the DVR software.

5. Android app loses settings.

Remember to exit the app using the hardware "back" button.

If autoplay does not play all channels, go to tools and select "Auto play" again.

6. Mobile access from the outside doesn't work anymore

Make sure the external IP address of the DVR has not changed (if not using the cloud). Test local internet access locally (and see troubleshooting case 2.)

If local IP access works, test at a remote location (and see troubleshooting case 1.)

You may need to restart the mobile device. Test with WiFi instead of data. Test with another mobile device.

7. Camera drops out / poor picture

Make sure you have the correct password and login for each IP camera. See if you can log directly into the IP camera. Restart the DVR.

Make sure you are using a power adapter with the correct voltage and adequate amperage rating for the camera. Test with another power adapter if possible.

Make sure you are using quality cables between the DVR and the camera. Make sure the hub or switch the DVR is connected to can handle the bandwidth of multiple network cameras. A gigabit switch or router will have higher bandwidth and is better suited for multi-channel HD video streaming. Test with another camera.

IP cameras should have unique local ip addresses. Check to see if every camera has a unique local ip.

8. Internet Explorer crashes

Test this locally:

You can add the DVR to the local zone under Internet Options > Security > Local Intranet > Sites > Advanced

If it still crashes, you can try using the CMS software on the CD (see previous step for instructions.)

9. Motion detection does not record

Make sure that the recording schedule includes "Detect" and is set to "Schedule". If you don't want full time recording for a camera, then uncheck "Regular" in the schedule for that camera. Make sure that a record channel is selected in Alarm > Motion Detect, and that the channel is enabled. If using an IP camera, motion detection should also be set up in the camera itself. Try searching for and setting the camera as a NETIP camera instead of an ONVIF camera, and test again.

10. IP Camera does not show up

Make sure you are able to log directly into the camera using a computer on the same router as the DVR. Try power cycling the camera. Make sure the networking cable is snapped in. Each IP camera should have its own local IP address. Verify that all devices connected to the router have unique local ip addresses. You may want to assign a unique static local IP for the camera.