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DVR Quick Setup Guide

First we would like to thank you for your DVR purchase. Most likely, as soon as you get your DVR in, you will want to get the core functionalities of the DVR up and running as quickly as possible. This handbook will help you do just that. Also, please note that there are also many other guides and tutorials that are not on this printed handbook. All of these guides for this DVR can be found on the CD included with your DVR.

If you have any questions, please feel free to contact us:

Installers Handbook Contents:

1. Initial Setup of the DVR - 2
2. Internet Guide - 20
3. Motion Detection Recording - 31
4. Playback - 36
5. Backup - 47
6. Hard Drive Install - 51
7. Cell Phone Setup - 56

Initial Setup of the DVR

Preface:

Whenever you receive your DVR and turn it on for the first time, you may wonder "What do I do next?". This initial setup guide will help you perform the most basic setup procedures to get you up and running quickly.

Default Username: 888888

Default Password: 888888

Table of Contents:

1. Deciding on a Monitor
2. Adjusting the Resolution for Best Picture
3. Changing Color Settings
4. Setting the Date/Time
5. Naming Your Camera Channels
6. Recording Resolution
7. Turning Recording On and Off

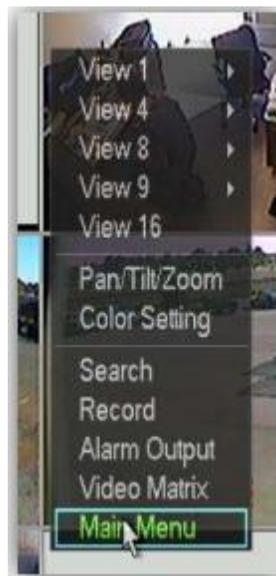
Deciding on a Monitor

There are many monitor options available but which one is best for you? If you have one of the DVRs with an HDMI connection you will be able to use its HDMI connection to get the best picture available as long as your monitor has an HDMI connection. HDMI provides HD picture quality and is the currently leading connection for high quality video. If you have a monitor or DVR that doesn't have an HDMI connection, don't fear, VGA is here to rescue you. VGA is a very good and common connection for monitors and HDTV's, it provides a decent picture and video quality. Generally a VGA connection is blue in color and is a 15-pin connection, this would be the best choice to use if an HDMI port isn't available on your monitor. The next connection you will find is called a BNC connection. This connection should only be used if no other connections are present as its video quality isn't as good when compared to HDMI or VGA.

Adjusting the Resolution for Best Picture

Adjusting the resolution is necessary in almost all cases because it provides you with the best picture resolution your monitor is able to support. This next tutorial explains step by step how to change your resolution on your DVR.

Step 1: After powering on your DVR you will be presented with the main screen, go ahead and right click to bring up the on screen menu. After bringing up the on screen menu left click the "Main Menu" option at the bottom. After inserting your username and password click "OK" to open up the main menu window.



Step 2: In the main menu window click the "Setting" option to bring up the settings window.



Step 3: After entering the settings window, left click on the "Display" option to bring up the display window.



Step 4: Once you are in the display window you will see a number of options you can change, for now we only want to adjust the resolution to correspond with your monitor, therefore the "Resolution" option is the only one we will change at this time. To get the best picture quality, you will need to set your resolution to its highest available value that works with your monitor. Select this by left clicking the down arrow to the right of Resolution.



Step 5: After selecting the dropdown arrow you will see a list of resolutions. This resolution should be the same as what your monitor supports. For example, if you have a 1080p monitor you would select the top option 1920x1080, this would give you the highest available picture quality to view your cameras. If you have a 720p monitor the 3rd option down (1280x720) would be the highest resolution your monitor will most likely support. After you select a resolution by left clicking on it, go ahead and click the "Save" button at the bottom of the screen, this will save your current selected resolution and reboot your DVR.



Note: If after turning on or rebooting the DVR, there is no picture on your monitor, you may have selected a resolution your monitor doesn't support. In this instance you will need to disconnect your current connection (HDMI, VGA) temporarily and use the BNC connection to connect the DVR to the monitor. This should allow you to view the main screen and allow you to access the display page again to change your resolution to something lower that your monitor will support. Once the resolution is lowered you should be able to reconnect your existing connection and go from there.

Congratulations! You just set your DVR to the best resolution your monitor will support. Enjoy your new clarity of picture!

Changing Color Settings

The default color setting after powering on your DVR sometimes isn't preferable to some people, though, it is optional to change this setting. We will guide you through what we recommend the color settings be set to for the most vibrant picture.

Step1: First bring up the channel that you want to edit by making it full screen. You can do this by double clicking on that camera view. Next, right click to bring up the on screen menu, the "Color Setting" option should be located near the middle, go ahead and left click on "Color Setting" to bring up the color setting window.



Step 2: After opening up the Color Setting window you will be presented with many color setting options to change, for now we will only set a few to make our picture more vibrant. First we need to take the brightness down a couple levels. We do this by left clicking and holding the button down on the slider bar located to the right of "Brightness", you can then move the mouse left or right to adjust the bar accordingly. We prefer the brightness to be set at or around 47.

Step 3: Next we need to adjust the Saturation of the video. To do this select the slider bar to the right of "Saturation" and move it all the way to the right, setting the value to 100. Then click the "OK" button to save your selected color settings.

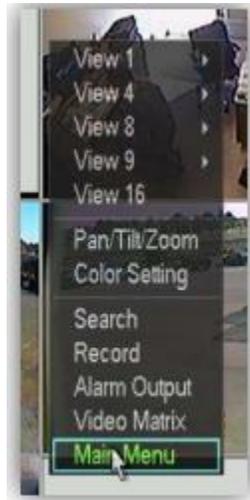
Note: If you change your color settings and aren't happy with the changes you can always click the "Default" button on the color settings window to revert your changes to their default values or feel free to adjust your color settings as necessary



Setting the Date/Time

This will be the first step and quite an important step at that. You will want to make sure you have the most precise time inputted into your DVR because this can be a critical value in case you need to turn your recordings into law enforcement.

Step 1: After powering on your DVR you will start at the main screen. With your mouse, right click to open the on screen menu then select "Main Menu" by left clicking it. As you can see in our screenshot below its located directly at the bottom of the on screen menu



Step 2: Select "Setting" in the upper right corner of the main menu screen.



Step 3: After selecting the settings option you will be in the "Settings" window. To set the date and time select the "General" Icon in the upper left corner of the Settings window.



Step 4: Clicking general will bring you into the window allowing you to set multiple options on your DVR. For now we are going to change the date and time only. At the top of the window, the "System Time" field should be set to your current date and time. Do this by clicking the 2 digit month, day, and year and setting them accordingly. After setting the date and time select "Save" located to the right of the MM/DD/Year.



Note: The most common Date Format is MM/DD/YYYY along with the Time Format is 12-Hour and is recommended but feel free to choose whichever you wish.

Step 5: After clicking "Save" next to the Date and time you just set, select "Save" at the bottom right of the window, this will bring you back to the "General" menu. To exit this menu right click with your mouse twice and it will take you back to the initial screen after first turning on your DVR.

Congratulations, you have now set the time and date on your new DVR!

Naming Your Camera Channels

Naming each channel (camera) is important because they are easier to identify and also allows you to correspond the name of the channel with the location of the actual camera if needed (Bedroom 1, Office 2, etc). This can be very helpful especially if you have multiple channels to view.

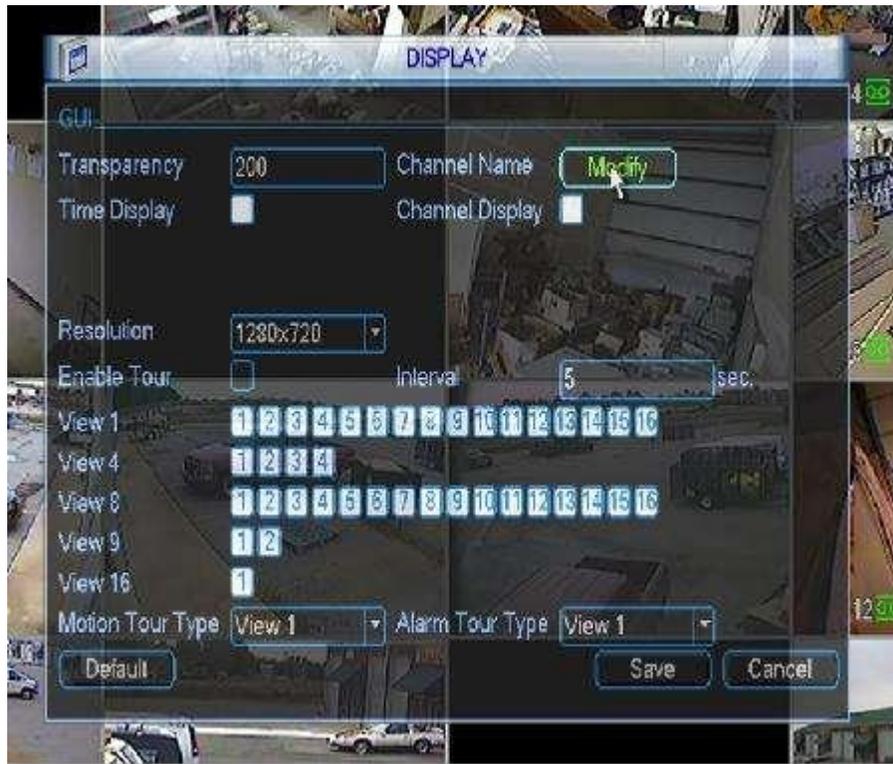
Step 1: While on the main screen of the DVR, right click to bring up the on screen menu, select "Main Menu" at the bottom as you just did on the "Setting the Date/Time" tutorial. After selecting Main Menu you will be presented with the Main Menu window. Once again select the "Setting" icon in the upper right corner.



Step 2: After selecting the Setting option, you will see the "Settings" screen. To access the window to change the name of each camera channel left click on the "Display" icon.



Step 3: After selecting the display icon the "Display" window will appear. In this window it allows you to change many of the GUI and visual options for the DVR. For now we need to change the name of each camera channel to identify it, to do this left click on "Modify" next to Channel Name.



Step 4: After clicking modify, a smaller window will pop up called "Channel Name". On this window you will see CAM 1, CAM 2, CAM 3, etc. These are listed in 2 columns with a corresponding area to the right of each that allows you to type in a custom name for each camera channel. To change the name, left click in the area to the right of a "CAM" channel. You will then see a dropdown box allowing you to type in a custom name by selecting each individual letter, number, or symbol. (In our screenshot below we have selected CAM 3 to rename.)



(As you can see below we have renamed our CAM 3 channel to Office 1.)

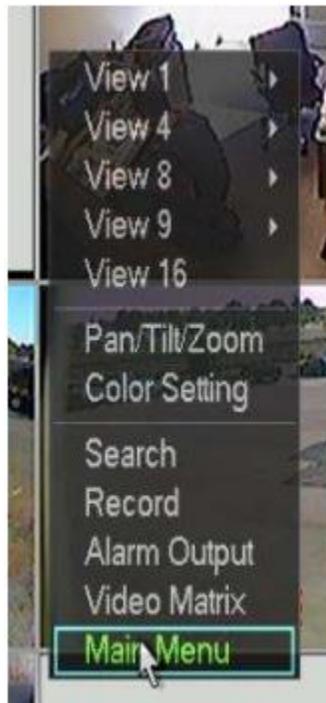


Step 5: After renaming your CAM channels to your specific needs simply click the "Save" button in the lower right corner. You will then be taken back to the Display window, once again select the "Save" button in the lower right, the display window will then close. After saving you may right click twice to exit the on screen menu. Congratulations! You have just created custom names for each specific camera channel on your new DVR!

Recording Resolution

This next tutorial will explain how to change your DVR's recording resolution. This is important to know because the quality of the video can be an important factor in many surveillance situations.

Step 1: Once your DVR is powered on and at the initial screen, like in previous tutorials, right click to open the on screen menu. Then with the mouse left click on "Main Menu" located at the bottom of the on screen menu.



Step 2: After clicking the Main Menu, you will be presented with the Username and Password screen. Please insert these accordingly then click "OK". After clicking OK you should see the Main Menu options. Proceed into the settings screen by left clicking on the "Settings" option.



Step 3: After entering the "settings" screen you will be presented with ten options. For now we need to only change the recording resolution. To proceed with this, left click on the "ENCODE" icon to enter the Encode page.



Step 4: Now that we are in the Encode window we are shown a number of options we can change. Our first step on this window is to set the DVR to change all of the recording resolutions for every channel. To do this select the down arrow next to the "Channel" option and left click on "ALL" located at the bottom of the dropdown window. (This field's default value is 1)



Step 5: Next we need to change the resolution of the actual video. *Keep in mind we recommend always recording in D1 (704x480) resolution, we recommend this because the quality of the video is quite better vs. CIF resolution (352x240)* To proceed with changing the recording resolution select the down arrow next to the "Resolution" option. You will see a couple different options to select from, for now we need to select D1 by left clicking on it. This will automatically change the frame rate to whatever the maximum allowable FPS (Frames Per Second) is for your DVR. (Econo - 7FPS, PROLINE 4 & 8 Channel - 15fps, PROLINE 16 - 7fps, FULLD1 & FULLD1-PRO - 30fps) All DVR's will allow up to 30 FPS per channel at CIF resolution, but as said before, we recommend recording all channels at D1 resolution even if it means a lower frame rate.



Step 6: You're almost done! Next we need to set the bit rate to its highest value to ensure a smooth and high quality video with low compression. To do this left click the arrow next to the "Bit Rate(Kb/S)" option, this will present you with another dropdown box. The next to last option on this dropdown window should be "1024" please select this now by left clicking on it. If you have the FULLD1-Pro, you will select "2048".



Step 7: After setting the Channels, Resolution, and Bit Rate select "Save" in the lower right corner to save your changes. Congratulations! You now know how to change the recording resolution of your new DVR!

Turning Recording On and Off

There may be a time where you do not want to record video on all channels or you may always want to have your DVR recording, whichever preference you decide on its always good to know how to turn the recording on and off on your DVR. If, for example, you have an 8 channel DVR but only have four cameras hooked up to it, it would be to your advantage to stop recording the unused channels to save on hard drive space.

Step 1: First we need to access the on screen menu like we did in previous tutorials, to do this right click to open the on screen menu window. Next we need to select the "Record" option on the on screen menu, do this by left clicking it.



Step 2: After selecting the Record option, the Record window will be displayed presenting you with multiple filled and unfilled circles. To set a channel to record we need to select the corresponding circle to the right of "Manual". If you want all of your camera channels to record you can simply select the circle under "All" and to the right of "Manual".



Step 3: If you prefer to have certain camera channels recording and others not, then this step is necessary, if you followed step 2 and prefer all your channels to record please skip this step as it isn't needed. Moving on, while in your Record window you can individually select a camera channel to NOT record, to do this left click in the blank circle to the right of "Stop" and directly under your corresponding channel number. As you can see in our example below we have set camera channels 1 & 6 to NOT record.



Step 4: After selecting your channels to record or not to record the only thing left to do is click the "OK" button on the record window. This saves your options you have selected. Congratulations! You can now set all your channels to record or stop recording and also individually select camera channels to record or not record.

Getting the DVR Setup for Internet Viewing

Preface:

Getting your DVR setup for the internet is one of the best features that these DVR's have. This guide should help most users get their DVR setup for the internet but please note that there are several different types of ISP's (Internet Service Providers) and Network Configurations. While this guide will help most, there may be some users that may have to contact their ISP to figure out how to do certain tasks within this guide. We will let you know during this tutorial on when you may need to contact your ISP to get certain information.

What you will need:

DVR, A Router, Network Cable AKA CAT5 Cable AKA Ethernet Cable (most of the DVR's come with this but you may find the need to get a longer one and that is okay), High Speed Internet (Dial Up is not ideal and may not work depending on the speed). Internet Explorer is the browser were using for this tutorial. Terms you will learn if you don't know them already (don't worry, we will teach them as we go):

IP Address: An IP address is a unique number that a computer has or other type device (such as your DVR) that helps identify itself within a network. There are 2 types of IP Addresses: LAN IP's and WAN IP's

WAN IP: Wide Area Network IP. Otherwise known as your public IP. This is the IP that most people are familiar with. This IP address identifies your local network to the internet. Think of it like a street address for your home which helps identify your location to the world. Since you are using a router to connect all your devices to the internet, your router will have one WAN IP address that identifies your entire network to the internet.

LAN IP: Local Area Network IP. LAN IP's are individual IP's assigned to each device within your Local Network. Each device that is connected to your router, whether it be your computer or DVR will have its own individual LAN IP. Remember when we said a WAN IP is like a street address for your home? Well, LAN IP's are like the individual people living in the home.

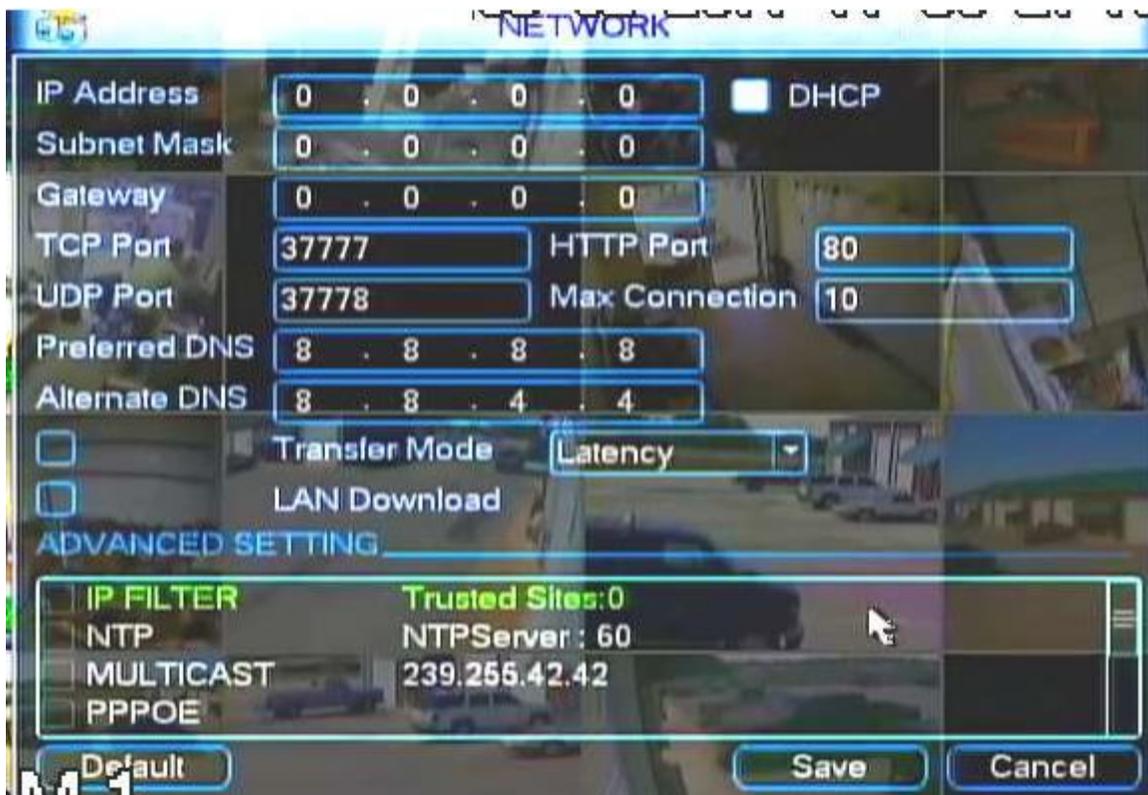
Static or Dynamic IP: Your WAN IP will be either one of these 2 types. A static IP is one that permanently stays the same. A dynamic IP is constantly changing. Port Forwarding: This is a configuration that is done within your router to allow your DVR to be seen from remote locations over the internet.

Preparation:

Please ensure that you have your router setup properly and that you can access the internet with it from a regular computer. Most internet users typically do use a router so more than likely you are probably already setup but if you do not have a router then you will need to get one. You will also need to make sure that you have access to your routers administration page. Chances are, you may have not accessed this in a while but you will need to access this now to do some slight configurations. Also, go ahead and run the Network cable from the network port on the back of the DVR to an open port on your router.

Step 1: Have your router assign your DVR a LAN IP.

You can do this by simply going into the DVR's Main Menu>Setting>Network. Once you get there, you will need to highlight the box that is labeled "DHCP". Once you highlight the box you will notice that the IP address, Subnet Mask and Gateway fields will become blank, after that happens, be sure to click Save. Once you click save, it should automatically exit the network menu, If not, go ahead and manually exit the menu.



Next you will need to go back into the network menu. Once you get back into the menu, you will notice that the IP address, Subnet Mask, and Gateway fields are automatically filled in with numbers now. These are the numbers that the DVR obtained from your router. If you do not see any numbers filled in the fields, then please restart your DVR and go back into the network menu and you should then see the fields filled in with numbers. The IP address that you see in the Network menu is your DVR's LAN IP, be sure to write this down as you will need this info later. In the following example,

our LAN IP is 10.0.0.10, please note that yours will more than likely be different but for our example, our router assigned our DVR the LAN IP of 10.0.0.10.

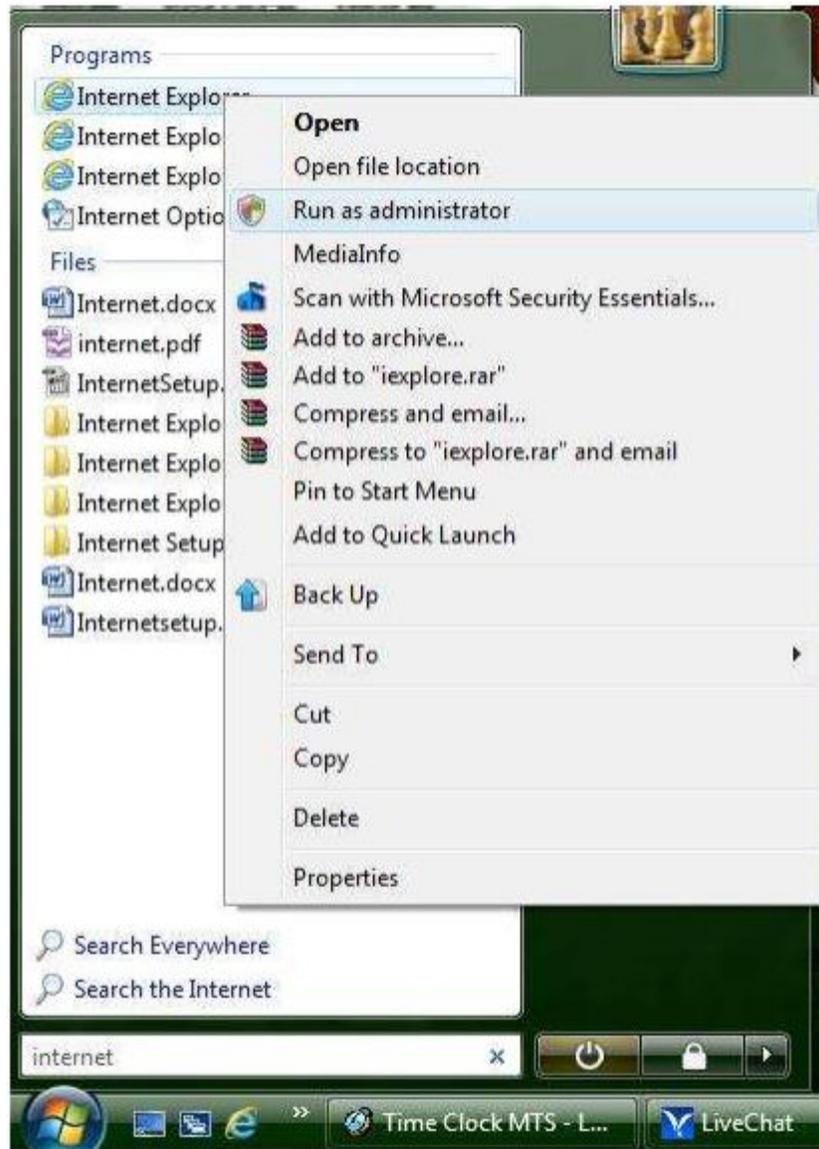
IMPORTANT: Once you see that all of the information is filled in be sure to uncheck the DHCP box and click save. Doing this will make the DVR keep the same IP address permanently. If you leave the box checked, the DVR will get a new IP address every time the DVR restarts or shuts down and you do not want that to happen.



*****Attention 64-bit users only*****

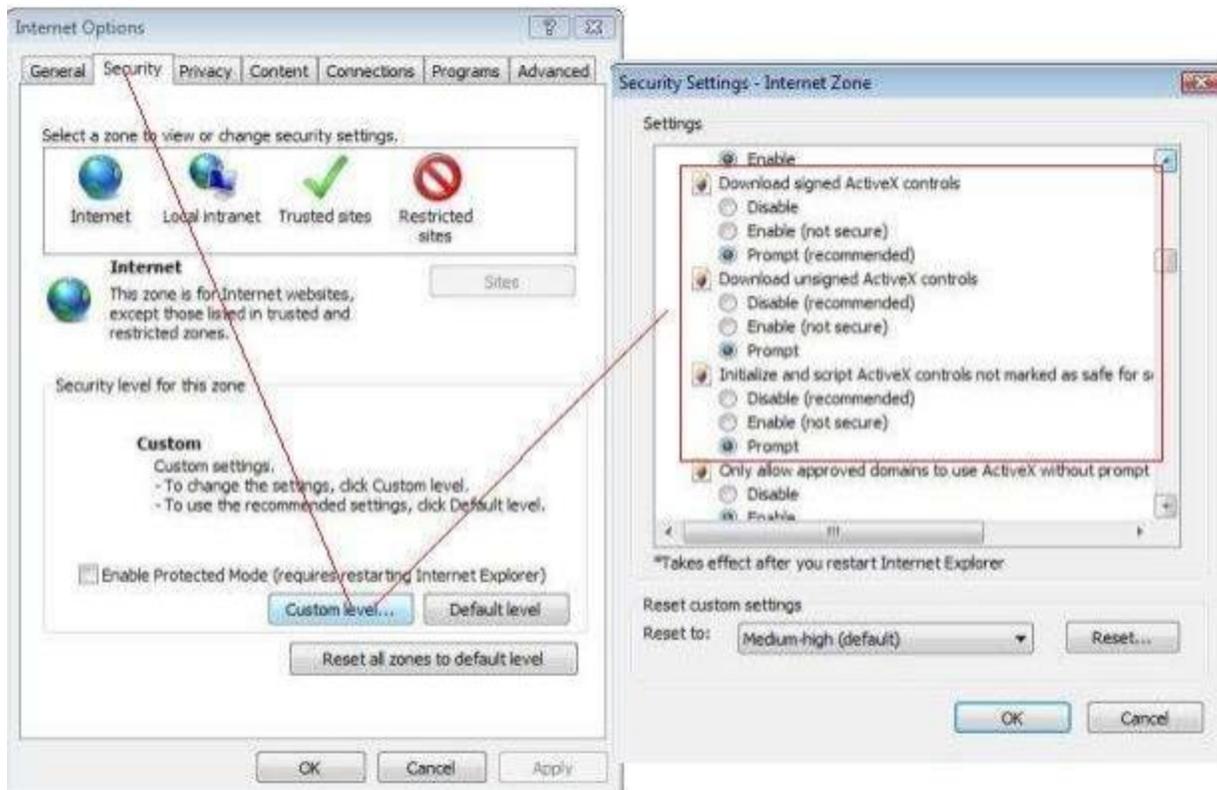
If you are using a 64-bit (x64) Operating System you will need to run Internet Explorer as an administrator.

To do so, find the icon to Internet Explorer (usually located on the desktop) or click on the Start Menu and in the Search field type "Internet Explorer". Once the search is finished you will probably see multiple options (Internet Explorer, Internet Explorer (64-bit), Internet Explorer (No Add-ons). You will need to right click on the normal "Internet Explorer" icon (Not the 64-bit or 'NO add-ons' option) and select "Run as administrator". Now you can continue with the steps below.

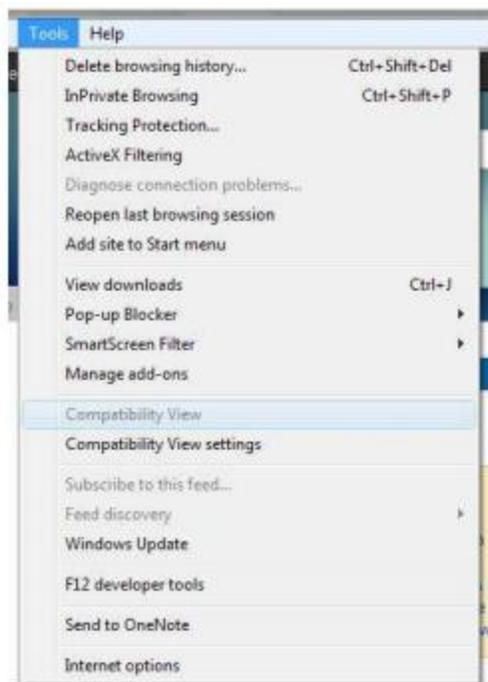


Step 2: Verify that you can log in to the DVR from a computer within your local network.

In order to do this, you will need to use a computer that is connected to the same router as your DVR is. Use Internet Explorer if that is your primary browser. First we must configure Internet Explorers Active X settings in order to operate the remote software. To do this open Internet Explorer>Tools>Internet Options>Security. Then Click on the Custom Level Button. Now you will need to scroll down to where the active X controls are. You will need to find the 3 following Active X configurations: 1) Download Signed Active X controls 2) Download unsigned ActiveX controls 3) Initialize and script ActiveX controls not marked as safe for scripting. You will need to select the "Prompt" box for all 3 of these configurations:



Next we need to set the Internet Explorer browser to compatibility mode, to do this simple click the "Tools" option on the menu bar at the top then about halfway down the window you will see "Compatibility View". Click that to allow Internet Explorer to view your DVR page.



Now that we have internet explorer configured correctly, it is time to login to the DVR. Do this by simply typing in your DVR's Local IP address. This is the address that we told you to write down earlier. In our example, our Local IP is 10.0.0.10. Please note that if you get any prompts to install active x or any add-ons, please click yes to all of the messages. It may take a while to popup but this is what your login screen will look like



Important: Please note that whenever you login you will need to use a username that is able to access the DVR remotely. **The default username and password 888888 will not be able to login to the DVR remotely.** Even if you have changed the username and password for this account to something else, you still will not be able to use that account to login over the network. That user account is made primarily to be used directly at the DVR, not over the network. However, you can use the other user accounts, for example, if you have not changed any of the default usernames and passwords, you can use admin as your username and password to login to the DVR. Whichever user account you choose to control over the network, you will want to go into your DVR and allow full access as an administrator so that you can access all of the remote software's configurations. In order to gain access to all of your user accounts, please go to your DVR and access the main menu. From there you go to Advanced>Account. From there you can edit the various user accounts permissions and/or add other user accounts.

After you successfully login, this is what the remote software will look like (please note that it may take a while to load) (Also, whenever the screen comes up, be sure to click the open all button at the bottom left to see your cameras):



Step 3: Get your DVR and Router Configured so you can see your DVR from a remote location outside of your local network.

You are halfway finished. Now you will have to configure your router to allow you to login to your DVR from a remote location outside of your network. Simply typing in your DVR's LAN IP from a remote location will not work. This is where your Networks WAN IP will come into play and you will also need to know if your WAN IP is a Dynamic IP or a Static IP.

Figure out your WAN IP:

You can do this by going to the website www.ipchicken.com. Once you get to IP chicken it will show you your WAN IP. Write this number down. In our case our networks WAN IP is 70.234.179.105



Figure out if your WAN IP is Static or Dynamic:

The difference between a static IP and a Dynamic IP is a static IP stays the same permanently. A Dynamic IP changes constantly. For example, our network has a Dynamic IP, so our WAN IP of 70.234.179.105 will be totally different here in an hour or so. If you do not know what kind of WAN IP that you have, you will need to contact your ISP (Internet Service Provider) and ask them. A static IP requires less configuration to get this process setup than a Dynamic IP. You can still have a Dynamic IP, but you will need to take an extra step to configure your router to make it work. We will get to that later though.

Configure your Router for Port Forwarding:

This process allows your router to be seen over the internet so you can see your DVR remotely outside of your network. All routers are different but in our example, we used a Netgear router. If you do not know how to access your routers Port Forwarding section, please consult your routers manual or customer support to guide you to the port forwarding section. This is the part where you will need to access your routers admin page.

There are 2 ports that you will need to forward in order for this DVR to work correctly. You do this by adding a custom service to the Port Forwarding Section. You will need to forward ports 80 and 37777 to your DVR's Local IP. Let's take port 80 for example. The service name is not important but let's just go ahead and name it DVR1. For the service type you will need to select TCP/UDP. For the starting port, input 80. And for the ending port, input 80. In the Server IP address field, you will type in your DVR's LAN IP. Click "Apply":



The screenshot shows a web interface titled "Ports - Custom Services". It contains a form with the following fields and values:

Service Name	DVR1
Service Type	TCP/UDP
Starting Port	80 (1-65534)
Ending Port	80 (1-65534)
Server IP Address	10 . 0 . 0 . 10

At the bottom of the form are two buttons: "Apply" and "Cancel".

You will also need to do the same thing for Port 37777



The screenshot shows a web interface titled "Ports - Custom Services". It contains a form with the following fields and values:

Service Name	DVR2
Service Type	TCP/UDP
Starting Port	37777 (1-65534)
Ending Port	37777 (1-65534)
Server IP Address	10 . 0 . 0 . 10

At the bottom of the form are two buttons: "Apply" and "Cancel".

So once you get all of your custom port forwarding services completed. You will have a total of 2 services listed:

	#	Service Name	Start Port	End Port	Server IP Address
<input type="radio"/>	1	DVR1	80	80	10.0.0.10
<input type="radio"/>	2	DVR2	37777	37777	10.0.0.10

Ensure that ports 37777 and 80 are open:

We will now need to make sure that ports 37777 and 80 are open and accessible and that they are not being blocked by your ISP. In order to do this, you will need to make sure that you are on a computer within the same local network as your DVR. Next you will need to visit the website www.canyouseeme.org. Once you get there, you will notice that your WAN IP is listed and there is a box where you can input the port number that you want to check. First you will want to check port 80. Enter port 80 in the box and click check. If your port is open, you will see a green "success" notification at the bottom. Do the same thing for port 37777:

The screenshot shows the CanYouSeeMe.org website interface. At the top, it says "CanYouSeeMe.org - Open Port Check". Below this, there is a description: "This page will serve as a free utility for remotely verifying a port is open or closed. It will see if a server is running or a firewall or ISP is blocking certain ports." The user's IP is listed as 70.234.179.105. There is a "What Port?" input field and a "Check" button. A list of common ports is provided: FTP, SSH, Telnet, SMTP, Web, Pop 3, IMAP, Other Applicz, Remote Dhad, and PC Anywhere. A "Common Ports" table is also visible on the right side of the page, listing various ports and their corresponding services. Two promotional banners for "The Definitive Guide To" eBooks are shown, one for "Monitoring the Data Center, Virtual Environments and the Cloud" and another for "Monitoring the Data Center, Virtual Environments and the Cloud".

Success: I can see your service on 70.234.179.105 on port (80).
Your ISP is not blocking port 80

Success: I can see your service on 70.234.179.105 on port (37777).
Your ISP is not blocking port 37777

Background

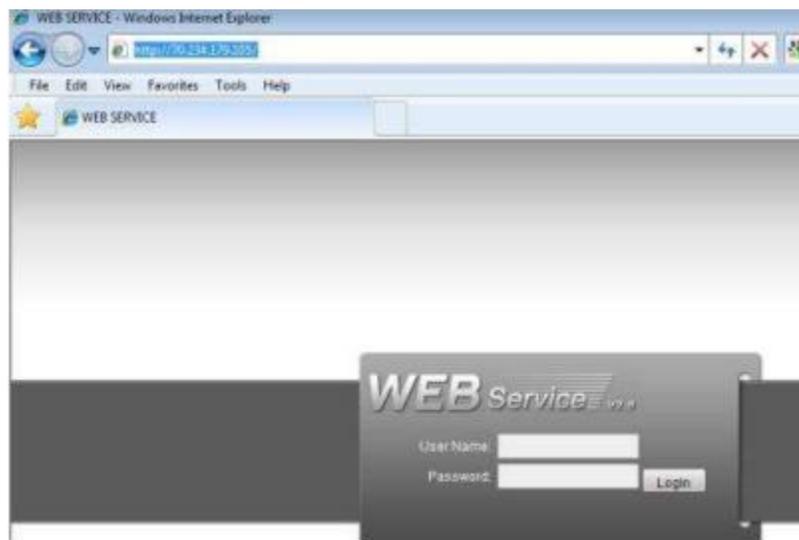
If you received an error that your port was not open or that your service could not be seen, then it is likely that your ISP is blocking those ports. In this case you will need to contact your ISP to ask them to unblock those specified ports so that you can use this DVR over the internet. Or you can ask them which ports are open that you can use, if they tell you that you need different port numbers, then please note that you will need to re-configure your router and DVR with those according numbers. The best option though would be to have them unblock those ports because this would require less configuration and hassle.

Verify that you can login to the DVR from a remote computer that is outside of your network.

Now you have everything configured correctly. It is time to see if you can login to the DVR from a remote computer. Remember how we initially logged in to the DVR from the local network by typing in the DVR's LAN IP into the browser bar? Well this time you will instead type your WAN IP into the browser bar. Please note that in order to properly do this, you will need to login from a remote computer outside of your local network. This means that you may have to leave your house or call a friend to attempt it for you. Whichever remote computer you decide to use to login to your DVR with, **DO NOT FORGET TO USE INTERNET EXPLORER AND DO NOT FORGET TO CONFIGURE YOUR ACTIVEX SETTINGS FOR THAT COMPUTER AS DESCRIBED IN STEP 2 OF THIS TUTORIAL.** Also, if you try to visit your WAN IP from within your local network, do not be surprised if that does not work. Some ISP's do not allow what is called a "loop through". Please ensure that you try this from outside of your local network.

Also, if you have a dynamic IP, you may want to verify with IPchicken.com that your WAN IP has not changed. If it has, then you will need to use your new WAN IP and type that into the browser bar from the remote location.

Now for our example, all we do is type in our WAN IP of 70.234.179.105 (yours will be different) from a remote location and it brings us to our login screen:



Please note that if you have other devices that you are using that require port forwarding, then you will need to type in your WAN IP followed by a Colon and then 80. For example, ours would be 70.234.179.105:80

Simply type in your username and password and you are done! Congratulations!!

For Dynamic IP users:

Since your WAN IP will be changing all the time, there is obviously no way of knowing what your ever changing WAN IP is when you are away from the DVR's location. To combat this problem, there is a website called www.dyndns.com that allows you to have a permanent WAN IP "in essence". This service is completely free. You will need to configure your router to the dyndns service. Please visit the dyndns website to obtain the service. Since all routers are different, there is no way we can give a general tutorial on how to connect your router to dyndns, so please contact dyndns customer support or your routers customer support if you do not know how to do this. Dyndns also has many great tutorials on how to achieve this process.

TroubleShooting:

I followed all the steps to a "T" but I still cannot connect to the DVR from a remote location.

More than likely, the problem lies within your ISP's network configuration. Some networks do not allow you to access devices such as DVR's from outside the network. For example, some Hughes Net users will not be able to access their DVR remotely unless they upgrade to their special Static IP service. Some other ISP's have similar settings. If you feel you have followed all of the instructions in this tutorial and you still cannot access the DVR, the best thing to do would be to contact your ISP and let them know what you are trying to do. They will more than likely let you know the reason why you are not able to connect to the DVR and they should give you some options on how to configure your network in able to access the DVR remotely. Please note depending on which ISP provider you have, you may want to request to speak to a tier 2 representative so that you have a knowledgeable person on the phone. Some ISP's are more helpful than others.

Another reason you may not be able to connect is due to a slow internet connection. Please note that you must have high speed internet connection not only at your DVR's site but also at your viewing site. Very slow connections may cause problems or may prohibit it from working at all.

The web interface seems very slow from a remote location

The most likely culprit to this problem is a slow internet connection, either at the DVR's site or at the viewing site. Please ensure you have high speed internet at both locations.

To help combat this, you can also enable the substream for each camera. The substream is a video feed in which the resolution will be lesser than the main stream but it will take up less bandwidth. To enable the substream, from within the web viewer, move your mouse cursor over one of the channel

selectors, from there you will see a down arrow. Click on it and click on extra stream. Do this for as many cameras as you need to. You can also adjust the extra stream settings from within the "encode" section of the main menu.



The PTZ controls and color settings are showing up below the camera views and are being cut off.

In Internet Explorer, go to Tools>Select Compatibility View. This will log you out and bring you back to the menu screen. Simply log back in and the problem is solved.

Motion Detection Recording

Preface:

Setting up your DVR to record only on motion can save quite a bit of hard-drive space. It also eliminates the hassle of having to view a whole entire days' worth of recording to see if an incident happened. These DVR's have very reliable motion detection in which you can increase or decrease the sensitivity to meet your needs. Also, you can block out certain areas of the picture that have a high-volume of daily traffic in which you do not want the DVR to be triggered to record because of motion in that area. We do want to pre-caution you that motion detection recording may not be for every camera and/or system. For example, for some outdoor scenarios, you may want to avoid recording on motion because you will have several false alarms. Also, there is the slim chance that the DVR may not pick up on a particular motion event due to very slow motion. The chance of this happening is very, very slim but the possibility does exist and we want to make you aware of this so you can determine which route to take depending on how high risk your situation is. If these aspects worry you at all, then we completely recommend recording 24/7 as opposed to recording on motion. If you are aware of these aspects and would like to continue to record on motion only, please keep reading.

What can cause false triggers:

- Leaves and other small objects going across the screen
- Rain
- Wind blowing you camera around
- (the biggest reason of all) A noisy picture due to low light.

Step 1:

For this entire tutorial we will be configuring channel 1 as an example, but please note that you can configure whichever channel that you desire. To visit the motion detection configuration screen, you will need to go to the Main Menu>Setting>Detect.

Step 2:

Now that you are at the main motion detection configuration screen. We will need to properly configure the motion detection to your liking.



Please configure the following fields to your particular scenario:

Event Type: Leave this at Motion Detect

Channel: Select the channel that you are needing to configure. (one of the most common mistakes is people mistakenly forget to change which channel they are needing to configure for motion detection) For this tutorial we are configuring channel 1.

Enable: Be sure that this box is highlighted like the picture shows above.

Sensitivity: This adjusts the level of sensitivity. There are 6 levels to choose from. We recommend using 4 as a starting block and then you can adjust it if you feel necessary at a later time.

Region: This allows you to block out certain areas of the picture in case you do not want that part of the picture to be triggered for motion detection (we will get to this later in the tutorial)

Anti-Dither: This tells the DVR to continue to record for a certain time after motion has ended. We recommend leaving this at 5 because the "Delay" setting is very similar.

Delay: Pretty much like the "Anti-Dither" setting, this tells the DVR to continue recording for a certain amount of time after motion has ended. The minimum value is set at 10 seconds but can be adjusted higher if you desire.

Record Channel: This tells the DVR to record once motion detection has been triggered. Please ensure the box to the left of record channel is highlighted as shown in the picture above. Also, please ensure that your particular channels box is also highlighted as well. In our example, channel 1 is highlighted.

Region (explained further):

This configuration allows you to block out certain areas of the picture from being triggered for motion detection. To enter into the Region configuration screen, click on the "select" box that is located to the right of "Region". The picture below shows what the screen will look like which is a bunch of pink highlighted boxes. All the boxes in pink are "active" boxes which means that particular area is subject to motion detection triggers.



Now say for example that I wanted the door in this picture to not be subject to motion detection triggers. To do this, I would simply click on the boxes around the area of the door. Or I can simply click and drag my mouse cursor to the area selection that I want to be blocked for motion detection. The following picture shows what this will look like. So if anyone walks into the area that has the clear "non-highlighted" boxes, the DVR will not be triggered for motion detection recording:



After you have everything fully configured, click "save" at the bottom of the screen and that will bring you back to the main menu screen

Step 3:

Now we need to ensure that your DVR is set to record for motion only. To do this we need to enter into the "schedule" Screen. To get there from the main menu, click on "Schedule". The following picture shows what the screen will look like. Please note that we have squared off areas of interest for this tutorial:



Channel: This is for the channel selection in which you are configuring. For this tutorial we are choosing channel 1. Do not forget to change this to your particular channel of interest.

Pre-Record: This handy feature makes the DVR record a certain amount of time before the motion detection event occurs. For example, if you set it to 3 seconds and the DVR senses motion at 4:30:36, you will actually get recorded video 3 seconds before that time so your recorded video will start at 4:30:33. This is especially handy on case you have fast moving objects. We recommend at least keeping this at 3 but you can toggle the number to your desire.

Weekday & Period: This basically tells the DVR at what times you want the motion detection recording to occur. In our example, we chose to have motion detection every day of the week 24/7

MD: This works in conjunction with Weekday & Period. Be sure you have this box checked for your selected day and period.

Click save to save changes.

Step 4: The last step to finish Motion Detection recording is setting it to schedule. To do so, right click to bring up the on screen menu. Then select the option labeled Record. This will bring up the record window, from here make sure the circle next to Schedule under the "1" column is filled in, if it's not click it to fill it in. Click OK once you are finished to save your changes and complete your Motion Detection setup!



DVR Search and Playback

Introduction: The search option on the DVR allows you to easily search and playback all recorded video. Also, it has many other features such as slow motion, frame by frame viewing, easy video cut and save options, and lots more. In this tutorial we will explain how to use each feature of the Search option on your DVR.

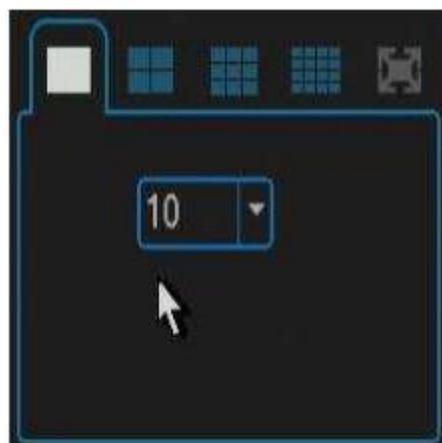
Finding a Recording

Step 1. To locate a specific recording you will need to right click to bring up your main menu, then find the button that is labeled "Search", click that to bring up the Search and Playback screen. Once your Search/Playback screen is open you will need to select the Month and Year the recording took place. To do so, you can scroll through each month by clicking the left or right arrow next to the Month and Year box's on the right hand side of the screen.



Step 2. Now we will need to select the date the recording is on. Right below the Month and Year are the days your DVR has recorded for that month highlighted in blue. Select the date you want to view by left clicking on it. In our example we have selected December 21st, 2011 to view.

Step 3. Next, we will need to select the channel we want to view that our recording is on. You will notice the box directly below the Month/Day/Year, this area allows you to select the total number of channels displayed along with which channels are display. For now, we only need to select **one** channel to view our recording, therefore, click the 'Filled Square' Tab. Next, we need to select the specific channel our recording is on. Do this by selecting the dropdown arrow and clicking the channel number. In our example we have selected channel 10 to view.



Step 4. Now that we have the Month/Day/Year and channel selected, we will need to select a start time to begin playback of our recording. There are two ways to go about this: **1.** You can manually click on different areas of the green timeline at the bottom of the screen to find the recording or incident. **2.** You can select from a list of available start times, generally every hour, by clicking the



button.

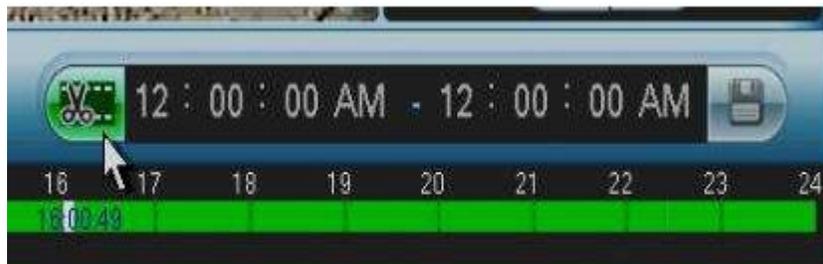
Step 5. Once you have selected the time you want your recording to begin it should start playing, whether you selected it in the timeline or the hourly list. In our example below we have selected the "Hourly List" button and picked 4:00pm as our start time. Also, keep in mind when you select the hourly list and pick a start time, you can then click on the green timeline bar to fine tune into the minutes and seconds that your incident began.



Congratulations, you now know how to find a specific event time that you have recorded using the search feature!

Saving a Recording

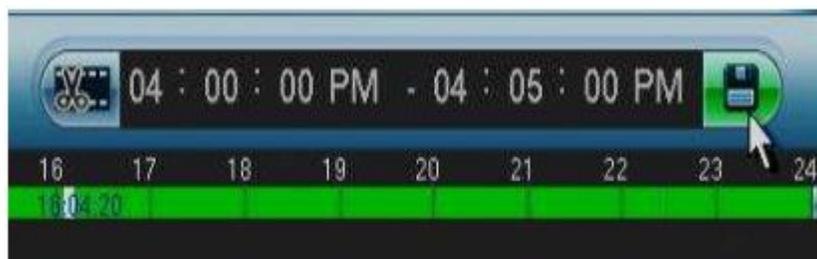
Step 1. In this step we will explain how to copy and save a specific event in time using the search/playback screen. First, select the **Month, Year, and then Day** the event happened. Then select the **channel** your recording was on. Once this is complete, you will need to find the general start time that the event happened (See "Finding a recording" tutorial above). You can also do this by clicking through the timeline at the bottom to find the exact start time. Once you have found your start time you will need to click the "**Cut**" button right above the timeline in the lower right. When you click this button it allows you to enter in the start and end time for your recording to be cut and saved.



Step 2. Now that we have found the start time and activated the "Cut and Save" option, we will need to insert the start time into the area next to the Cut button. **Note: Your timeline will be in military time but when you insert the start and end time you will need to insert it in regular 12 hour (AM, PM) time. In our example on our timeline it shows 16:00:00, which is the same as 4:00:00 PM.** Now insert the start time by individually clicking the Hour, Minute, and Second fields, then select whether your recording took place in AM or PM.

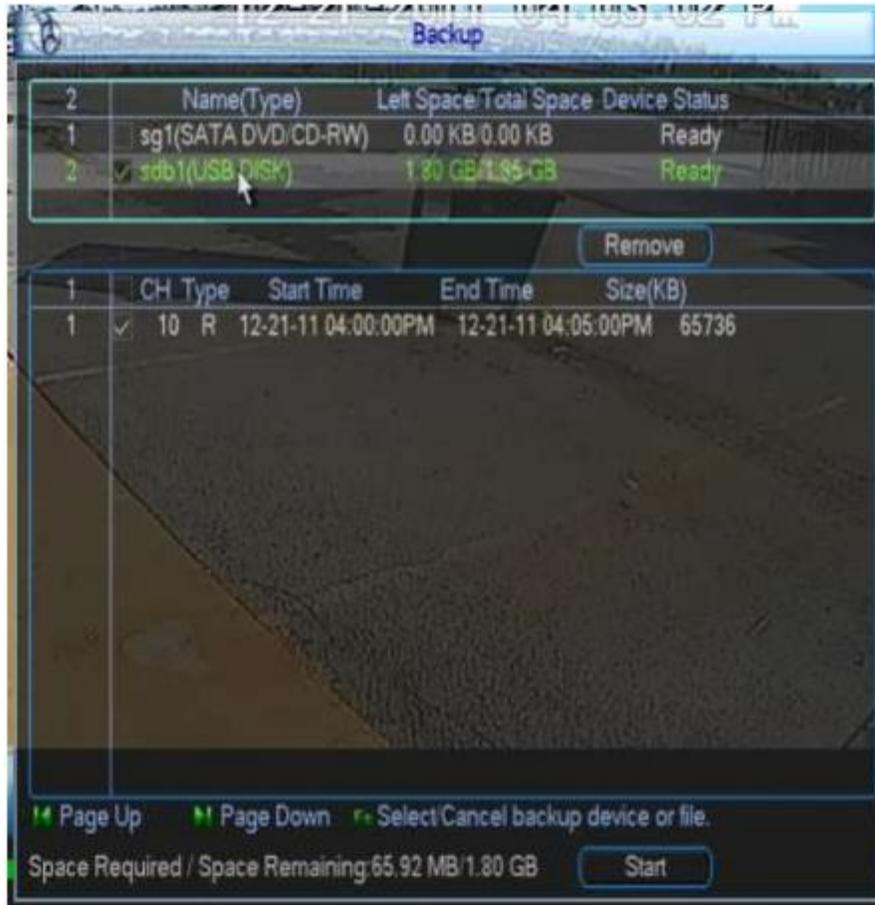


Step 3. Now that we have the start time inserted into our cut and save area we will need to insert the end time. Do this the same way we did on the start time, manually select the Hour, Minute, and Second that your event ended, then select if it was AM or PM.



Step 4. To save your event you will need a flash drive (aka thumb drive, memory stick) inserted into your DVR (or a CD/DVD if you have the FULLD1-PRO/HYBRID). Once you have your flash drive plugged into your DVR you can then click the "Save" button to the right of the end time.

This will bring up a screen confirming your event you want to save and showing you which device the recording will be copied to. In our example below we have unchecked the option to burn our recording to a disk and have selected our flash drive (USB Disk) as our backup device.



Step 5: Once you have selected the backup device and are ready to back up your event click the "Start" button in the lower right to begin backing up your video segment to your flash drive. Once this is complete you will be prompted with a window confirming your backup has completed successfully!

Step 6: Take your Flash drive out of the DVR port and insert it into your USB port on your Computer. Once it is inserted, a menu may pop up called Auto Play asking you if you would Open Folder to view Files, left click on that option. If it doesn't auto play, go to the "my computer" section on your computer and select the flash drive. From there it will show all the files from your flash drive.



From there you need to click on the **Play** file. And your video will appear and begin playing. The File player that is used to play your backup videos should automatically download to your flash drive from the DVR once you backup a video onto it. Once you see the files like in the picture above you will notice you had to click the Play file to open the video, **though this is not the actual video file**, it is just the video player. The file itself is the file that has the name with many letters, numbers, and generally a time in it along with a **.DAV extension**. Therefore if you need to transfer the file to your computer or another flash drive, **copy the .dav file**, not the "Play.exe" file. Keep in mind that the .dav videos are only playable using this media player. If you want to convert them to a more common format such as .avi there will be an option inside the media player that allows you to do this.

Viewing Multiple Channels

Introduction: With a system setup that has one or more channels, during playback/recording, you will be able to view all the channels simultaneously or even a select few if preferred. This is a great feature if you need to see what happened on more than one camera or need to find out which channel caught the event in action. Whichever it is, being able to view multiple camera channels is a great feature and this tutorial will explain how to do it.

Step 1: First, you will need to open up the **Search** screen. Once you're viewing the search screen you will notice a list of box's in the lower right, directly under the Days of the month. These selectable boxes allow you to view one, four, nine, or sixteen camera channels simultaneously. Now before you start playback you will need to select the amount of channels you want to view on the screen by clicking the corresponding box. In our example we have selected to view four channels.



Step 2: Once you have selected your amount of channels to view you can then select which four specific channels you want to view. Directly below the Channel Amount tab are four areas with selectable numbers, to change them you will need to select the dropdown arrow next to each one and select the channel numbers you would like to view.

As you can see in our example we have selected channels two, three, ten, and twelve.



Step 3: Now that we have our channel numbers selected we can begin playback by pressing the play button. Voila! You can now playback all or a select few of your channels at once. Keep in mind the **four channel view** is the only one that allows you to select each individual camera channel. If you select the nine channel view, your options to view are: 1-8, or 9-16. If you select the 16 channel view it displays all 16 channels at once.

Playback and Timeline Features

Introduction: The playback and timeline options on your search screen can be very useful when trying to pinpoint that exact spot on a recording, or when skipping frame by frame to get a detailed look on an event that took place, or to watch different recorded times on up to four different channels at the same time! This guide will explain how to do all of these things, plus many more.

Playback Controls



Play/Pause: Clicking this once will begin playback of your recorded video, the button will then change to a pause button. Click the pause button at anytime to pause playback.



Stop:The stop button stops all video playback when pressed.



Play Backwards:Click this button to play your current video feed backwards, during backwards playback the button changes to a pause button, click again to pause the video.



Previous Frame:Previous frame will "rewind" or skip back the video two seconds in time each time you click it. This button activates only after you have pressed pause during regular playback.



Next Frame:The next frame button allows you to accurately skip forward, frame by frame, through the video. This button only activates only after you have pressed pause during regular playback.



Slow Motion: The slow motion button allows you to watch playback of your recorded video with up to four different speeds of slow motion. Pressing this once during regular playback will begin slow motion 1. You can press this button up to four times, slow motion 4 being the slowest speed.

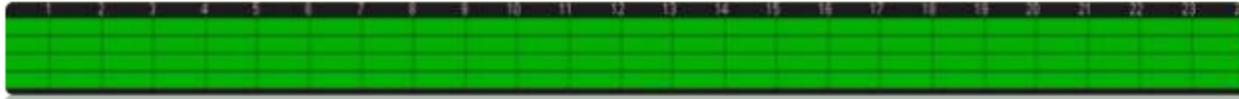


Fast Forward:The fast forward button allows you to watch playback of video that is sped up, with up to 4 different speeds to choose from. Pressing this once during regular playback will begin to fast forward your video, pressing again will increase the speed, fast forward 4 being the fastest.



Volume/Mute: Click and drag the slider bar down to decrease volume or up to increase volume. Also, you can click the speaker icon to the left to mute audio, click again to restore audio.

Timeline Features



Timeline View:

24hr - Regular 24 Hour Timeline view.

2hr - Zooms in on the timeline for a 2 hour interval.

1hr - Zooms in on the timeline for a 1 hour interval.

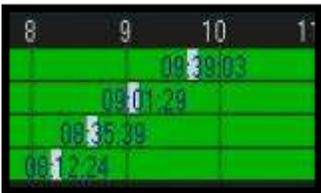
30min - Zooms in on the timeline for a 30 minute interval.



Play Display: This icon in the lower left of the search screen will give you a general idea of what mode you are in currently, for example when you press the slow motion button it will read "Slow 1", Pause will read "Pause", etc.



Synch: When Synch is checked it will synch all video playback to the same time. When unchecked you can click anywhere on a specific channels timeline bar and start the playback, then you can click on a different channels timeline bar and it will begin playback of that channel on that specific time. This allows you to watch up to four channels, each at different times. The synch button can only be checked or unchecked during stop mode and can only be activated during 4 channel view.



All Record

All Record: When checked it shows all video recordings and labels them on the timeline, such as Motion Detection and Alarm. When unchecked the timeline won't show things such as Motion or Alarm lines.

Normal

Normal: When this is checked it shows all normal recordings on the timeline. When unchecked you will only be allowed to view when motion detection was activated or when Alarm was activated on the timeline.

Alarm

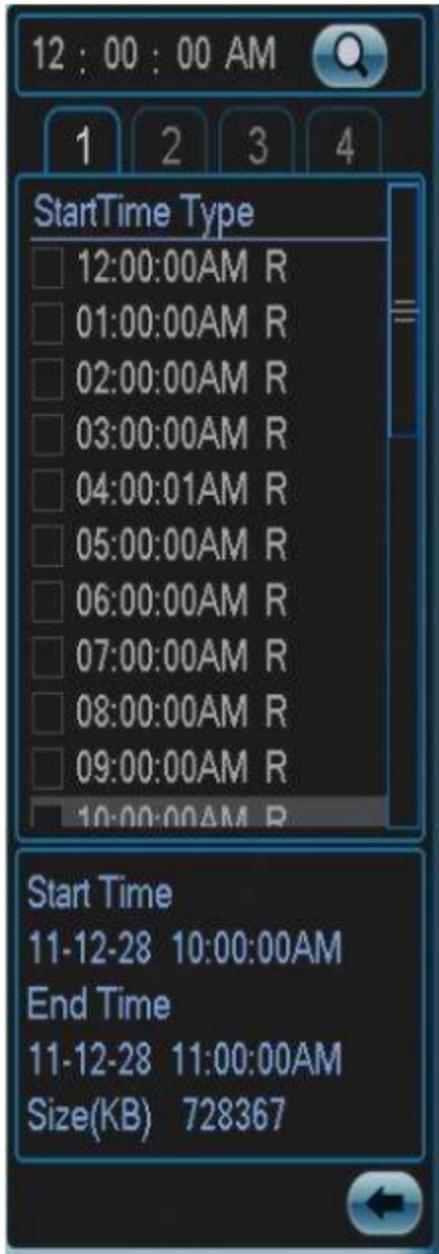
Alarm: When checked this will show markings on the timeline for when the Alarm setting was activated. Unchecked will not show the Alarm markers.

Motion

Motion: When checked this will show markings on the timeline for when motion detection was activated. Unchecked will not show the Motion Detection markers.

Start Time Search List

Introduction: The Start Time Search List is an additional way to narrow down your searches. It comes in very handy if you have a general idea of when the event happened but don't know the exact time. Also, it is very useful when skipping through your recordings because it takes you to the exact start of the hour or a start time you manually choose. It will also display "R" for regular recording intervals such as the beginning of each hour and also will create a start time for when motion was detected, displaying an "M" beside the time. This guide will explain each detail about this search feature and explain exactly how to use it.



Time Search: Manually type in a start time then click the magnifying glass to filter your start times to begin at the time you entered.

Individual Channel Search: Only available under four channel view.

Start Time Display List: The start time search list makes it easy to find specific videos or segments without having to fast forward and rewind through all your recorded video. The Start Time type shows what type of recording took place at that start time, this is indicated by a letter to the right of the start time. "**R**" stands for regular recording, this will usually be set to hour intervals to choose from. "**A**" represents the Alarm function. These start times are created when the alarm feature is activated. "**M**" represents the Motion Detection feature. When motion detection is turned on, the DVR will write a start time at the exact time motion was detected.

Start Time Information Detail: This area will correspond to the start time you have selected above in the start time list. It will display these:

- The date and time the recording began.
- The date and time the recording ended.
- The file size of the video segment.

Backing Up Video Files – USB Flash Drive Method

Preface:

Getting Evidence off your DVR is as easy as 1, 2, 3 and 4. With this tutorial you will learn in the simplest way possible how to get evidence off your DVR to view from any computer.

What you will need:

Flash drive: a small, portable USB flash memory card that plugs into a computer. You can get these at any electronics or computer store & they can also be found in places such as Target or Wal-Mart. Normally, you will only need one as small as 2 GB, but the larger sizes will work as well.



Step 1: Inserting the Flash drive into your DVR:

Insert the flash drive into the USB port on the front side of your DVR.



Step 2: Accessing Main Menu

With your mouse right click, then scroll down to main menu and left click.

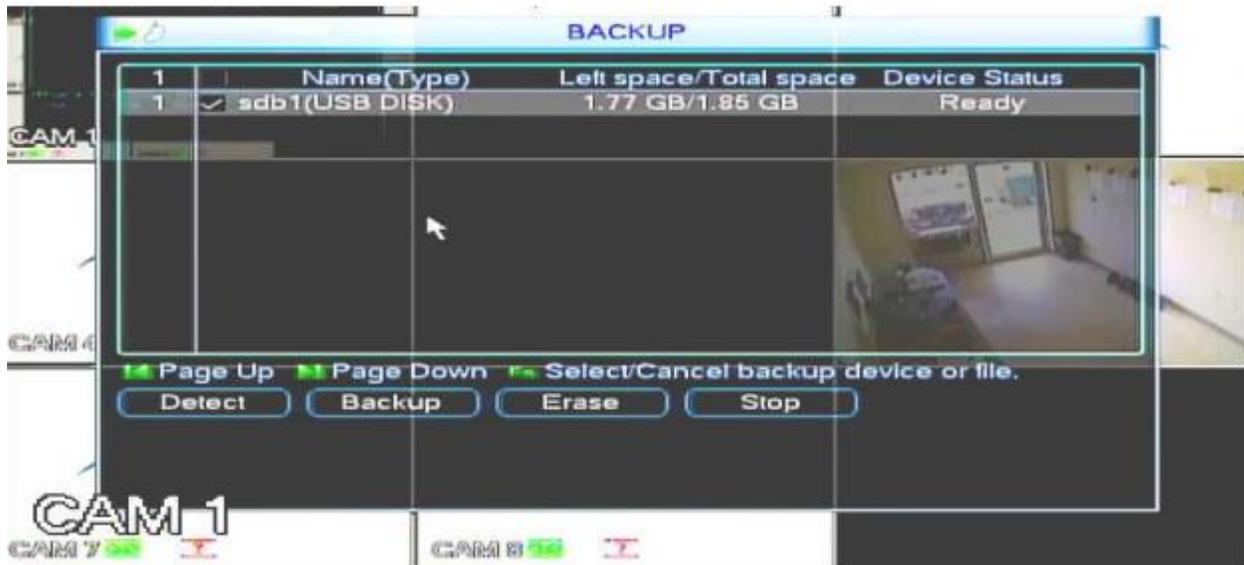


Then the main menu screen will appear.

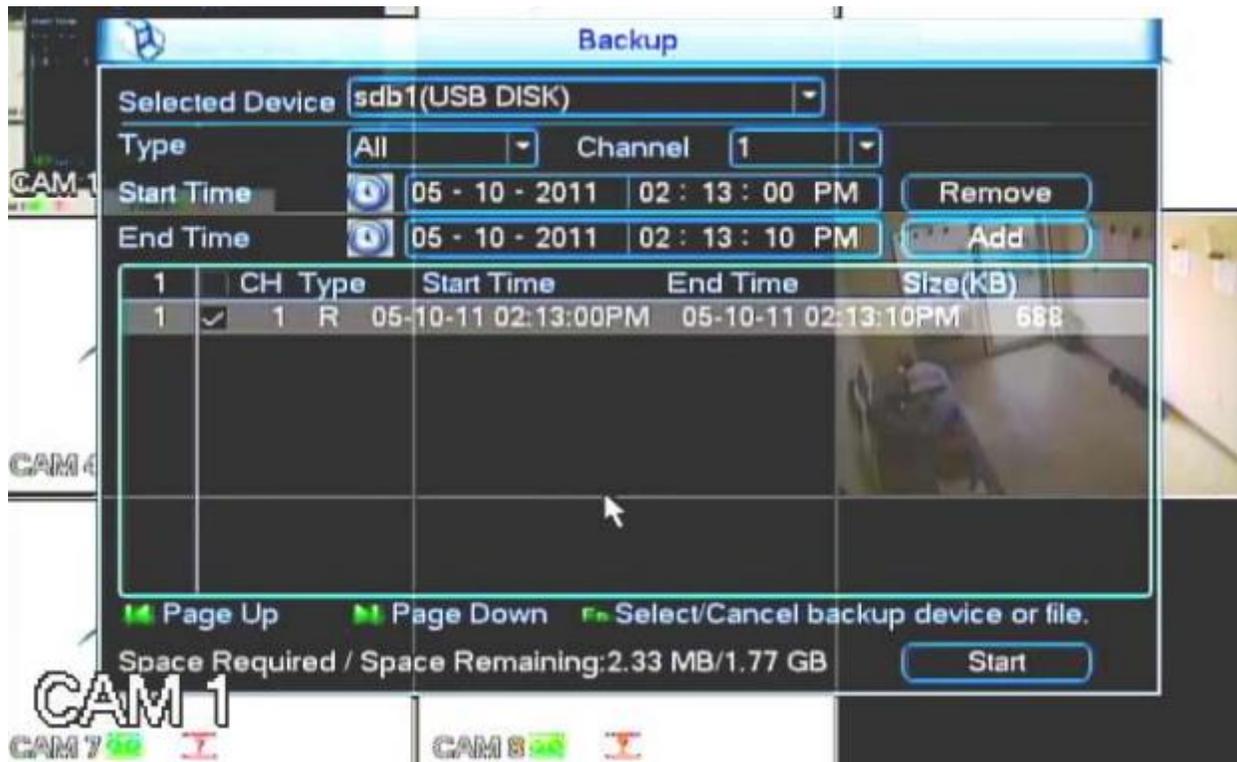


Step 3: Backing up the Evidence

Once you are at the main menu screen, you will see six different options to choose from. Today we will select the Backup option with a left click. Once you have selected the backup option, this screen should appear.



Then select the flash drive device, which in my case would be **(sdb1(USB DISK))**, it should now be highlighted. With that done, select the Backup option at the bottom of the screen. Once selected, another screen should appear.



Ok, we are almost done. Now go to the box that is second from the top that says **Channel** and select the camera you want to view. Then in the box third down from the top with the title **Start time**, enter the time and the date the incident started to begin. Next, click on the **End Time** box right below the Start Time box and type in the time and the date the incidence ended. Here is my example: (**above**) I typed in **Start Time:** (05-10-2011 2:13:00 PM) **End Time** (05-10-2011 2:13:10 PM) Then select the **Add** option at the right side of the screen, the **Start time** and **End time** should have been selected and highlighted . At the bottom of the screen there is a **Start** option, click on

Step 4: The process of opening the Files in your PC

Take your Flash drive out of the DVR port and insert it into your USB port on your Computer. Once it is inserted, a menu may pop up called Auto Play asking you if you would Open Folder to view Files, left click on that option. If it doesn't auto play, go to the "my computer" section on your computer and select the flash drive. From there it will show all the files from your flash drive.



From there you need to click on the **Play** file. And your video will appear and begin playing. The File player that is used to play your backup videos should automatically download to your flash drive from the DVR once you backup a video onto it. Once you see the files like in the picture above you will notice you had to click the Play file to open the video, **though this is not the actual video file**, it is just the video player. The file itself is the file that has the name with many letters, numbers, and generally a time in it along with a **.DAV extension**. Therefore if you need to transfer the file to your computer or another flash drive, **copy the .dav file**, not the "Play.exe" file. Keep in mind that the .dav videos are only playable using this media player. If you want to convert them to a more common format such as .avi there will be an option inside the media player that allows you to do this.

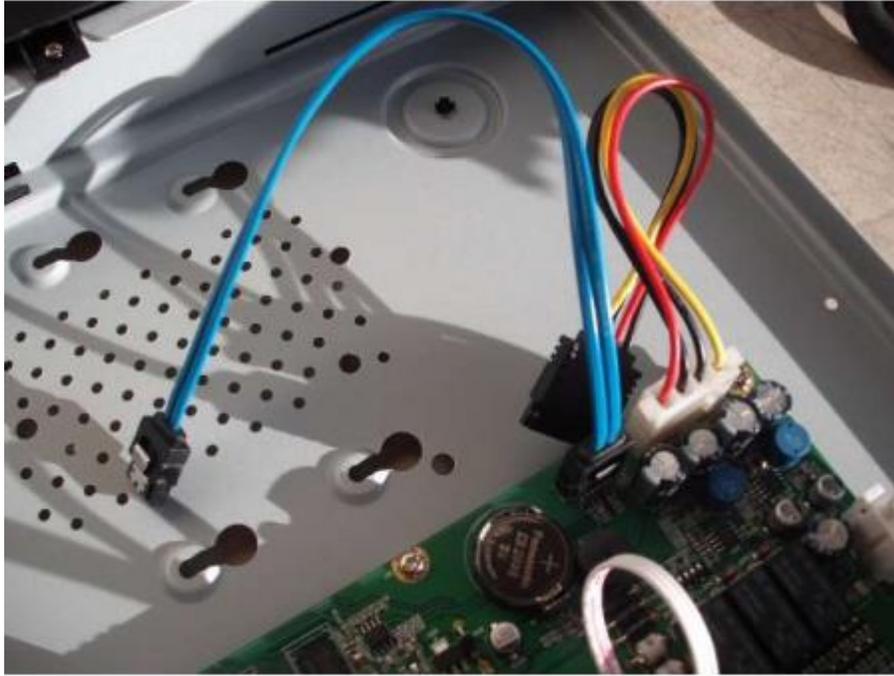


Note: If you ever need to take video evidence to the authorities, we recommend that you leave the video file format in its native .DAV file format as some courts may not accept a file that has been converted. So please be sure to give a copy of the player along with the .DAV file to the authorities so they will be able to play the video on their computers.

Installing your hard drive into your DVR

Step 1: First you will need to remove the top case from the DVR. Do this by removing the screws at the back of the DVR and pulling off the cover. For now set it aside.

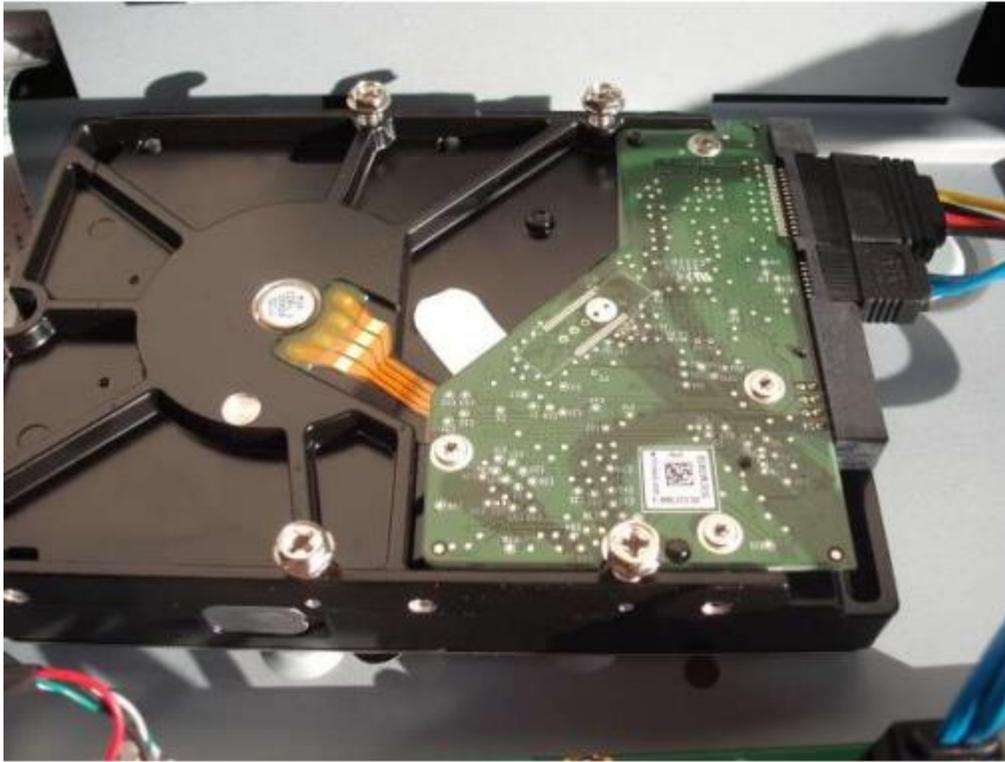
Step 2: Next, connect the SATA cable to the motherboard on the DVR.



Step 3: Connect the other end of the SATA cable (Blue) along with the power cable (Multicolored) to the back of your Hard Drive as seen below.



Step 4: Next, flip your HD (Hard Drive) upside down. Then, insert the four mounting screws into the bottom of the HD but **DO NOT TIGHTEN**. Just make sure they are in there to where they will stay.



Step 5: Next you will need to flip the Hard Drive over and make sure the screws go into the 4 screw slots on the bottom of the DVR. Once that is complete, flip the DVR on its side, then **tighten the screws to secure the HD to the bottom of the DVR**.

Step 6: Replace the cover to the DVR and screw it back into place.

Step 7: Connect the DVR to your TV or Monitor. Then power it on, when it shows your camera channels it will be formatting the Hard Drive (This wipes all data!). Once it is completely formatted you will notice a green "Tape" like symbol in the lower left of each channel corner. This means it is done. Congrats, you have just installed and formatted a Hard Drive.

Formatting your Hard Drive through the DVR's Menu

Step 1: If for any reason you want to wipe out ALL data on your Hard Drive, you can also format it through the Main Menu options on your DVR. To do this, first right click and select "Main Menu" at the bottom of the Menu, then insert your username and password. (Default is: 888888, 888888). Next you should see a new menu popup with the "Advanced" icon located in the lower left, **left click** that now to bring you into the advanced options.



Step 2: Next, once inside the Advanced option you should see HDD Manage. **Left click** that to take you into the Hard Drive options.



Step 3: Once inside the HDD Manage screen you will see a button that says "Execute". Left click the "Execute" button to begin the format process. (Only if you're absolutely sure you want to wipe 100% of data!) Once the format begins you will see an hourglass icon next to your pointer, when the hourglass icon goes away the format on your hard drive should be complete!

See screenshot!



Cell phone application setup

Introduction: In this guide we will take you through getting an iPhone or Android application installed to allow your cameras to be viewable on your cell phone.

Step 1: First we will need to configure the substream on the DVR. This will allow your cell phone video to receive faster and to stream smoothly. Open your DVR's main menu by right clicking and selecting Main Menu from the bottom. Select settings, then select the Encode option. Here we will need to focus on a few areas: First select the dropdown box next to Channel and select "All". Secondly, there is an "Extrastream" column you will notice, we need to set the resolution on this to CIF. To do so click the dropdown arrow next to QCIF and select CIF. Next we will need to lower the frame rate down, select the dropdown box under the CIF box and select 3 to set it to 3 frames per second. Make sure the bit rate type is set to CBR then directly below change the bit rate to 96. See our example below:



Step 2: Before we download the app we need to allow the username to be accessible for multiple devices. To do this you will need to go to **Main Menu > Advanced > Accounts**, once you are in this screen select a username that you would like to use to log into your cell phone (We suggest using the **admin user** for full functionality of the app). Once you have your username selected click the **Modify User** button to bring you to the username options. Here we will need to make sure the box labeled **Reusable** is filled in white, if it is not, click in it to make sure it is selected. Once you are done click the **Save** button at the bottom.



Step 3: Now that we have the sub stream configured and a username set to reusable, we will need to download and install the application to the cell phone. There are two applications, one for Android and the other for iPhone.

The Android app to download is called gDMSS Lite. You can search for and download it in the Market (Play Store).

The iPhone app is called iDMSS Lite, you can download it from the Apple Store.

Both apps are free so if you see a paid version while searching it's not necessary to purchase it. After your app is installed go ahead and open it. You will see an option labeled Device Manager, select that to bring you to the Device Manage page. Next select the Add button in the upper right corner. Here we can edit the fields as follows:

DVR Title - Type in the any name you want for your DVR title.

Server - This is going to be your WAN IP also known as the IP you use to connect from a remote location.

Port - This is the TCP port that is used whenever you configured your port forwarding in your router when you were doing the internet tutorial. By default, this should always be 37777 but just in case you used a different port number when you were configuring your DVR, please use that port number here.

Username - This should be set to the username that you use to log into the DVR from a remote location.

Password - This should also be set to the password you use when logging into the DVR from a remote location.

Max Channel - Set this to the maximum number of channels your DVR can support. If you have a 16 channel DVR set this number to 16, etc.

Once you have these options set to your scenario click the Save button at the top. It will bring you back to the Device Manage screen, click the Back button to go back to the main screen.

Step 4: On the main screen click the top option labeled Real-Time Monitor. Then, click the green plus sign, select the device you just created, then select the channel you want to view. This can be done with each additional "Square" on the monitor screen allowing a total of 4 camera views.

