I-VIEW NOW

because events happen in *real time*

NVR Installation Manual

FLIR

1/31/2015

V1.0

DNR400

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Workflow

1. **Network Setup**: Setting a Static IP, enabling external access via port forwarding
    a. **LAN Setup:** static IP address assigned by site IT staff
    b. **Port Setup:** forward ports to allow Device commands to be sent from I-View Now
2. **Configure SMTP email:** This will be used to communicate alerts and alarms to I-View Now. The SMTP server and SMTP ID provided on the "Installer Data" Worksheet will be used here
3. **User Setup**: Change the default administrator password. I-View Now will be using this password to log into the device. I-View Now suggests using the suggested password on the "Installer Data" worksheet.
4. **Recording Setup:** The NVR will be set to record by schedule or by events. Event recording will only record when either a motion or alarm event is detected. Scheduled recordings occur during the scheduled time.
5. **Alarm Input Setup:** Here the technician will be setting up the alarm inputs on the back of the NVR to perform two actions: 1) Trigger recording on all connected cameras. And most importantly, 2) Send SMTP (email) alert to I-View Now upon the event of an alarm.
6. **Motion Detection Setup:** activate video motion recording for desired cameras.
7. **Configure I-View Now Entry Delay**: Entry delay is configured through the I-View Now portal.
8. **Test**: Here you will test the individual inputs on the NVR as they are connected to your alarm panel relays or other input devices. It is recommended that you test all inputs for functionality and to ensure the proper configuration has been setup in the I-View Now portal.
9. **Trouble Shooting:** This section is provided to help the technician troubleshoot common problems encountered while installing NVR's.

Installation Worksheet

The I-View Now Portal will provide an Installation Worksheet after entering the NVR make and model into the system. This sheet will contain configuration information for the NVR's notifications area, and provides a form to fill in details about the site setup (alarms, zone names). An example worksheet is printed below.

DVR/NVR #1:

SMTP Account ID:	example@ivnview.com	DVR Username:	admin
SMTP Server ID:	ivnview.com	DVR Password:	11111
SMTP Server Port:	3480		
Location IP Address:	_____		
Device Port Number:	_____		
Device Port Number:	_____		

Pin 1	Camera ___	Event Type: ☐ Alarm ☐ Panic ☐ Alert ☐ Arm ☐ Disarm ☐ Unused	Zone Desc _____
Pin 2	Camera ___	Event Type: ☐ Alarm ☐ Panic ☐ Alert ☐ Arm ☐ Disarm ☐ Unused	Zone Desc _____

You will need to retrieve the IP address while on-site. Either ask the customer/IT department for the IP address, or visit http://ipalarmtools.com while on-site for the correct address.

Default NVR Login

Plug a monitor into the VGA output on the NVR. Also, plug the mouse provided with the NVR into the front side USB port of the NVR unit. The default password is admin. Be aware that the Menu's presented in this manual can vary slightly depending on the exact model and firmware version.

User Name: admin
Password: 12345

USB Mouse

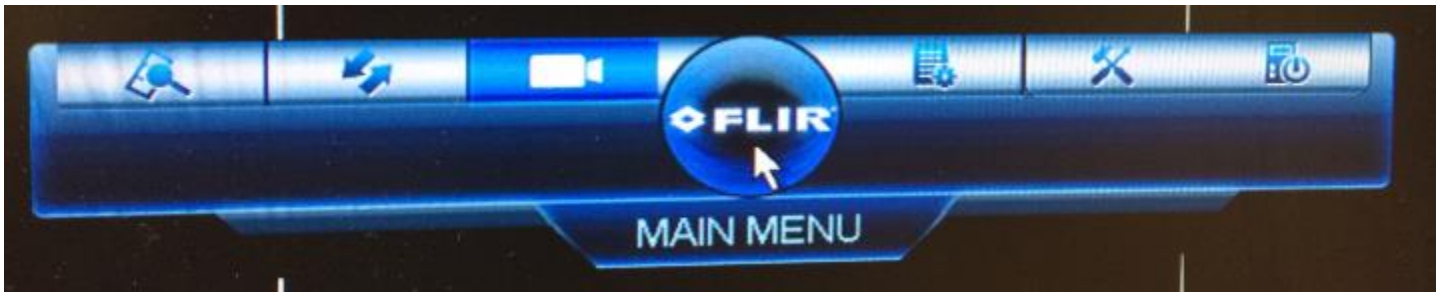
VGA Cable

VGA Port

Network Setup

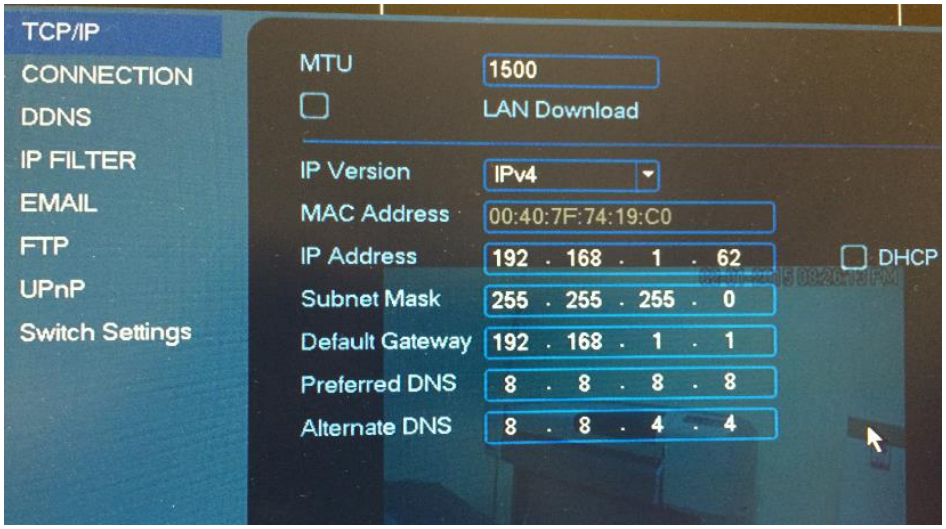
After logging into the device for the first time, the first setting that should be changed is the IP address. The NVR requires a static internal IP address because one or more communication ports will have to be forwarded to it from the firewall/router on site.

- RightClick “Setup” at the bottom of the screen
- Click Main Menu
- Login with User: admin Pass: 12345
- You will be presented with the MAIN MENU Bar



- From the Main Menu click on the Hammer and Screwdriver for “SETTING” and Choose “NETWORK”

- Start with the TCP/IP Screen
- Get an available Internal Static IP Address from the Site's IT staff
- Also ask for the default gateway (router address) and subnet mask.
- Uncheck DHCP
- Enter the IP Address
- Enter the Gateway Address
- For the DNS server either ask the Site's IT staff for a preferred DNS server or just use the Google public DNS server at 8.8.8.8 and 8.8.4.4
- If the default TCP port 4000 is already in use it can be changed here as well

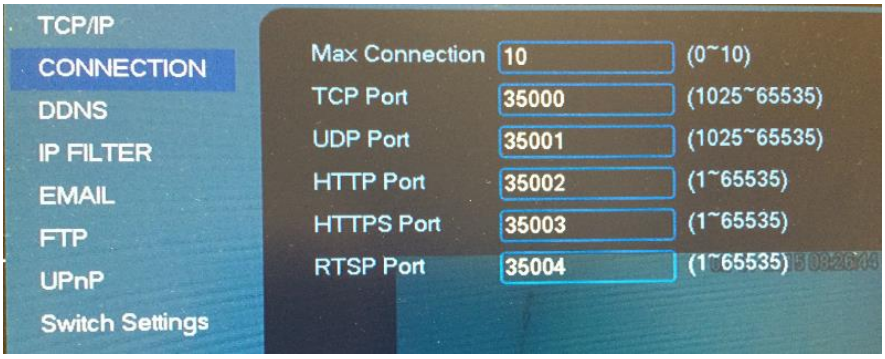


- Set Max Connections to the Maximum allowed (for example on the DNR400 the Maximum is 10)
- Click save/apply to ensure no settings are lost before proceeding

- Next Choose "CONNECTION"

- Set the default Ports as seen in the screenshot. Please make sure these are open in the router/firewall for communication.

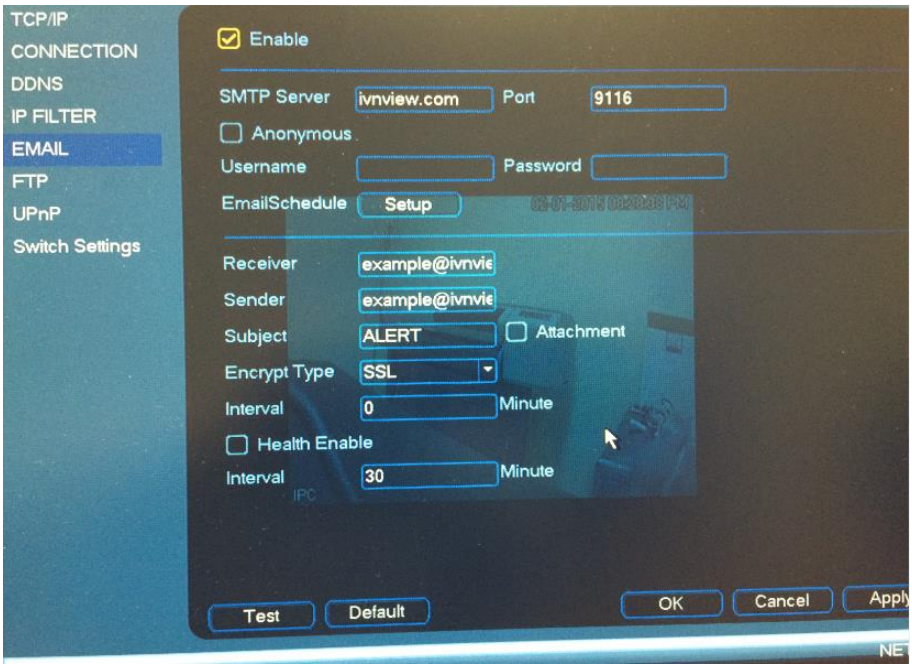
- Click save/apply to ensure no settings are lost before proceeding



SMTP EMail Settings

This section describes how to set up SMTP (email) on the NVR to allow Alarm notifications to be sent to I-View Now.

- Navigate to the “EMAIL” Setting in Network
- Make sure Enable is checked.
- Enter **ivnview.com** for the **SMTP server**
- Enter **9116** for the **Port**
- For Sender, Enter the SMTP ID from the Installer’s Worksheet.
- For Receiver, Enter the SMTP ID from the Installer’s Worksheet.
- **Yes, Sender and Receiver are the same**
- Change Subject to ALERT
- Ensure **Enable SSL is chosen**
- Set Event interval to 0 Minutes
- Click “Test” in lower left to verify connectivity
- Click Apply to Save the settings

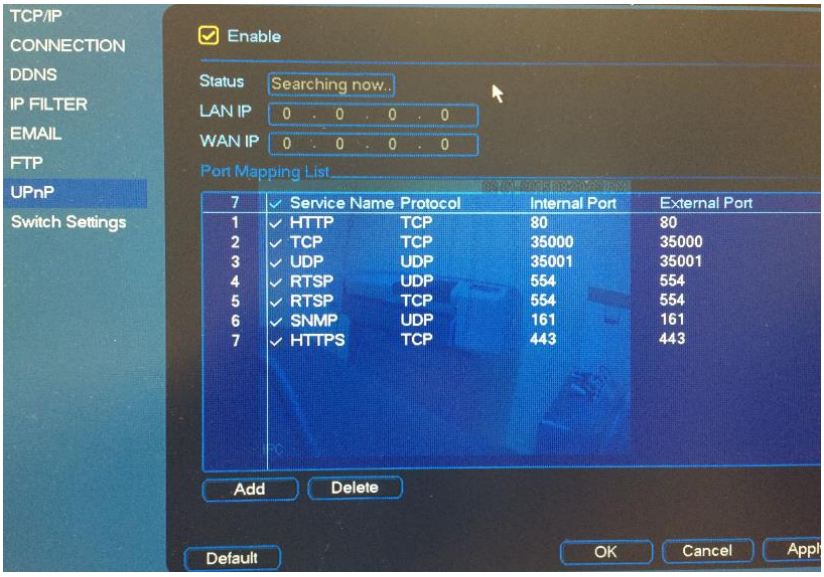


Test Failure can occur if the SMTP Server, SMTP Port, SSL, DNS, or Firewall settings are incorrect. This Test will not verify that the Sender and Receiver are correct. It just verifies connectivity to the I-View Now SMTP Server.

UPnP Setup

If the customer's router supports UPnP – port forwarding can be accomplished automatically**.**

- To check UPnP availability – Choose UPnP in the Network Menu
- Click on "Enable"
- In status you will see "Searching Now"
- If UPnP is available port mapping details will be displayed
- If UPnP is available and you wish to use it, click "Apply" to Save your changes.



(Non-UPnP) Router Settings

Router settings must be examined on a case by case basis. I-View Now requires one port to be forwarded to the Device. This can be done either through port forwarding or NAT (Network Address Translation) depending on what the installation site's router supports. With either of these router features, any unused/unfiltered External Port can be forwarded to the TCP Port (also referred to as the video port). The other approach would be to forward external ports to the NVR using the same External Port and Internal Port. In this case, the ports must be set on the NVR through Network Settings. Common ports used for forwarding the HTTP port are 1024, 1025, 1026, 1027 or 8080. Common ports used for forwarding the Video/TCP port are 8010, 8011, 9000, and 9010.

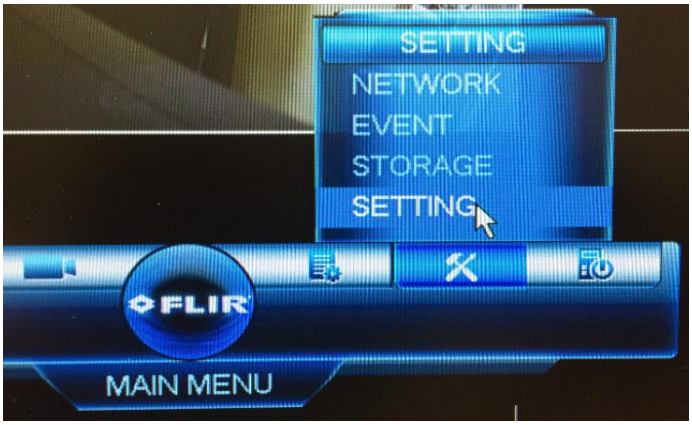
For any of these situations it is the External IP Address and External Port numbers that must be entered into the I-View Now "Installer's Portal."

Note: Any ports used must be unblocked in any firewall devices (typically just the router).

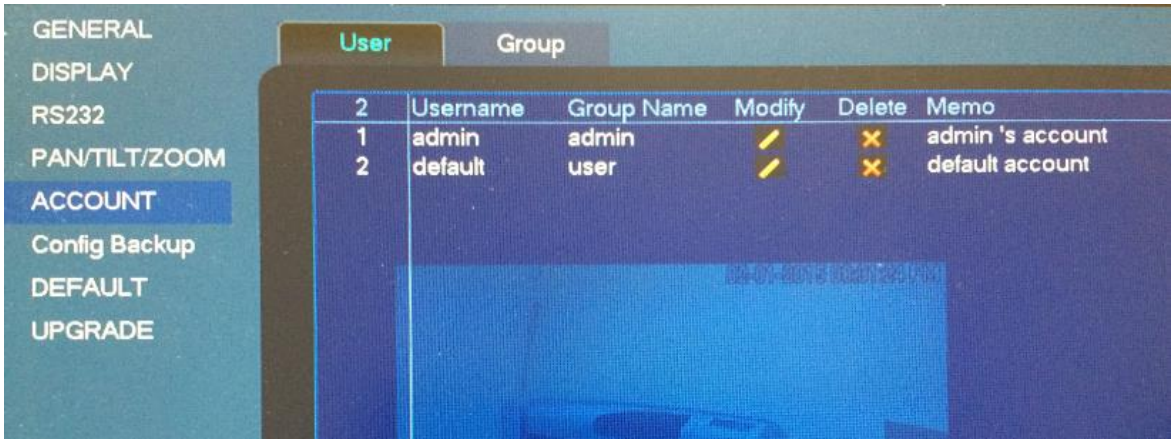
User Settings

This section instructs the tech on how to setup a user account for customer usage. The reason for setting up a separate account is not to lock them out of the NVR, it is to prevent them from making changes to the NVR that would inhibit the NVR's use with I-ViewNow.

- Navigate from the Main Menu and choose "Setting" under "Setting"



- Click on Account
- Click Add User
- Enter the desired user name
- Enter the desired password
- Enter the password again to confirm
- Select Group User
- This process can be repeated for more additional users if necessary

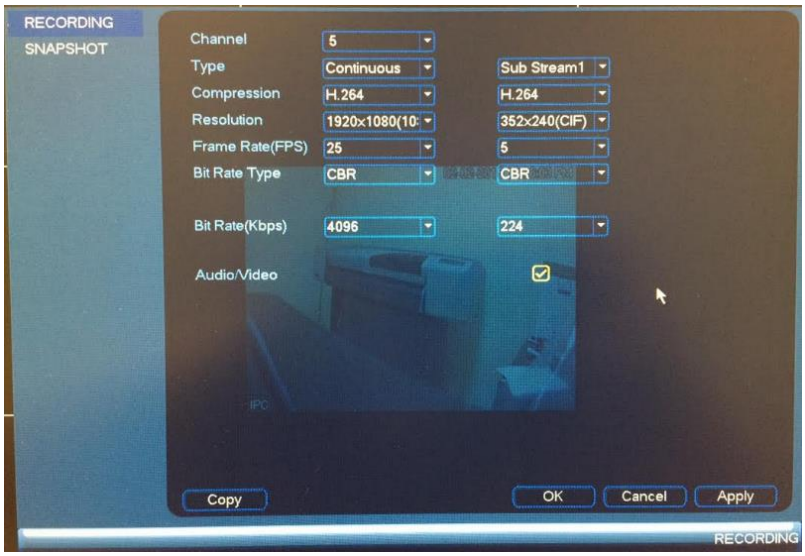


Recording Setup

The Flir NVR records video VIA 2 different stream types. I-ViewNow utilizes the sub-stream from the NVR.

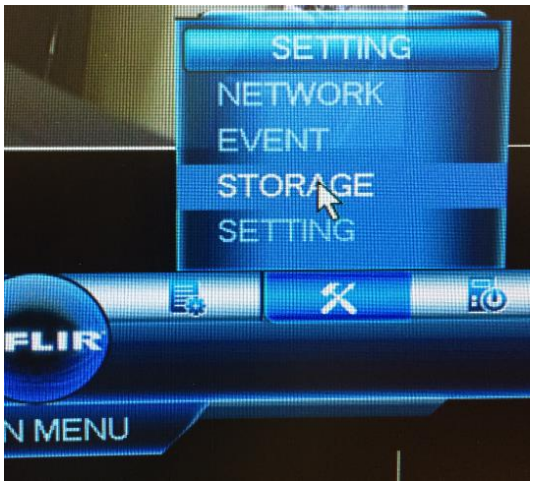
Encoding Settings

The Encoding setup determines format of the video record onto the NVR. For clips to be decoded properly the frame rate must be set to 15 FPS or less on the recording channel being utilized. I-View Now suggests setting up all recording channels in this manner to avoid any potential issues when upgrading or adding cameras to the system.

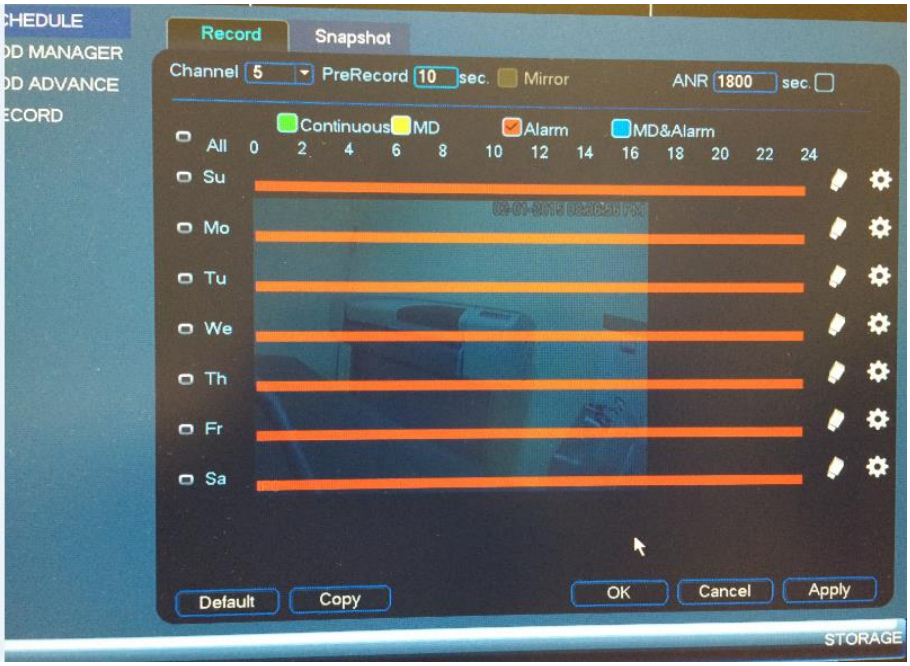


- Navigate to Camera>Recording
- Select Continuous for one type and Sub Stream 1 for the other (see example)
- Select Compression
- Select Appropriate Channel
- Set Compression H.264 for both
- Set Resolution CBR for both
- Set Continuous to FPS 25
- Set Sub Stream 1 to FPS 5
- Set Regular Stream Bit Rate to 4096
- Set Extra Stream Bit rate to 224
- Click Apply/Save

Set your Alarm Schedule

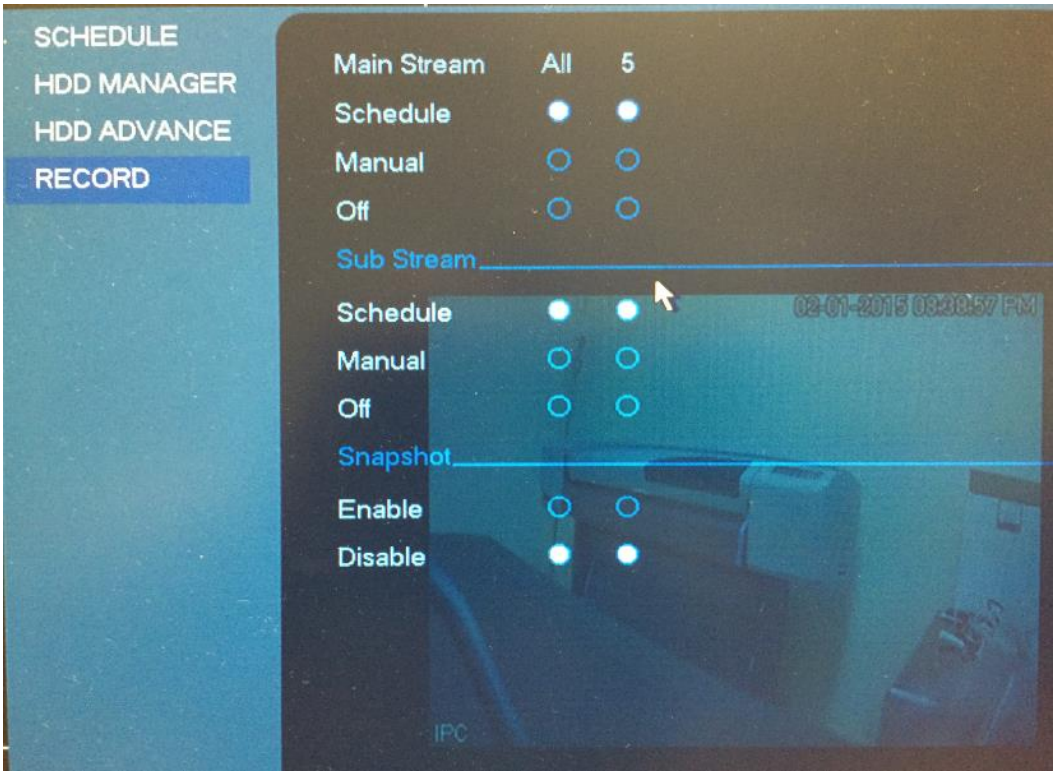


- From the Main Menu Choose the Hammer and Screwdriver and Click on STORAGE
- Choose SCHEDULE and click on the Record Tab
- Set the Appropriate Channel
- Set Pre-Record to 10 Seconds
- The NVR can be set to Continuous, MD (Motion Detect), Alarm and MD & Alarm. Depending upon preference, Continuous or Motion can be chosen. Also make sure ALARM is checked.
- The schedule needs to be set for all cameras and 24 hours. This can be done on the main Schedule Screen graphically by checking ALL and Click and dragging the bar across the timeline. (below)



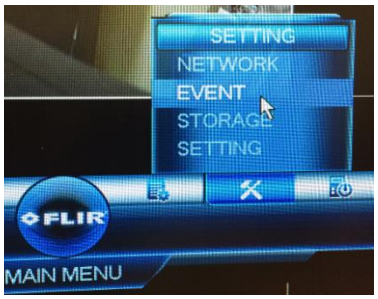
- Or clicking on the Gear Icon and entering the time numerically for each day.

- While in the same page, click on RECORD on the left hand side
- This is where the separate streams are denoted for recording
- Make sure Schedule Options are checked on BOTH the Main Stream and the Sub Stream.
- Snapshot is disabled for all as well.



Alarm Input Setup

Alarm inputs are to be configured to send SMTP notification to I-View Now whenever an alarm event occurs. I-View Now suggests recording on all camera channels whenever an alarm event is detected.



From the Main Setup Menu click on the Hammer and Screwdriver and choose EVENT

- Click the “Alarm” Tab
- Select Alarm In **All or the Appropriate Channel**
- Check the Enable Box
- Set Type Normal Open
- Set anti-dither 5
- Set Latch 10
- Check Send Email
- Check Channels
- Set Post_REC to 10
- Optionally check buzzer
- Checking buzzer makes the NVR Beep when an alarm input is fired

NOTE: The DNR 400 only has 4 physical alarm input connections for the 8 and 16 channel models. This will limit the ability to Video Verify only 4 cameras. Flir and I-View Now are working on updates to allow soft-triggering of cameras that will resolve this issue in the future.

Configure I-View Now Entry Delays

Entry Delays are configurable through the I-View Now Dealer Portal. Log in to configure. NOTE: Entry delay takes a physical contact. For example if the DVR has 16 cameras and one Entry delay, you will only be able to Video Verify 15 cameras.

Test Settings

Once the NVR has been properly configured and the necessary settings entered into the i-viewnow.com portal, it is a good idea to test each alarm input on the NVR by triggering the corresponding device on your alarm panel.

If relay 1 is connected to input 1 on the NVR and it is supposed to trigger when a panic button is pushed, ensure not only that the NVR has received the signal. Also ensure that the I-ViewNow.com portal has received the signal and correctly identifies the type of alarm.