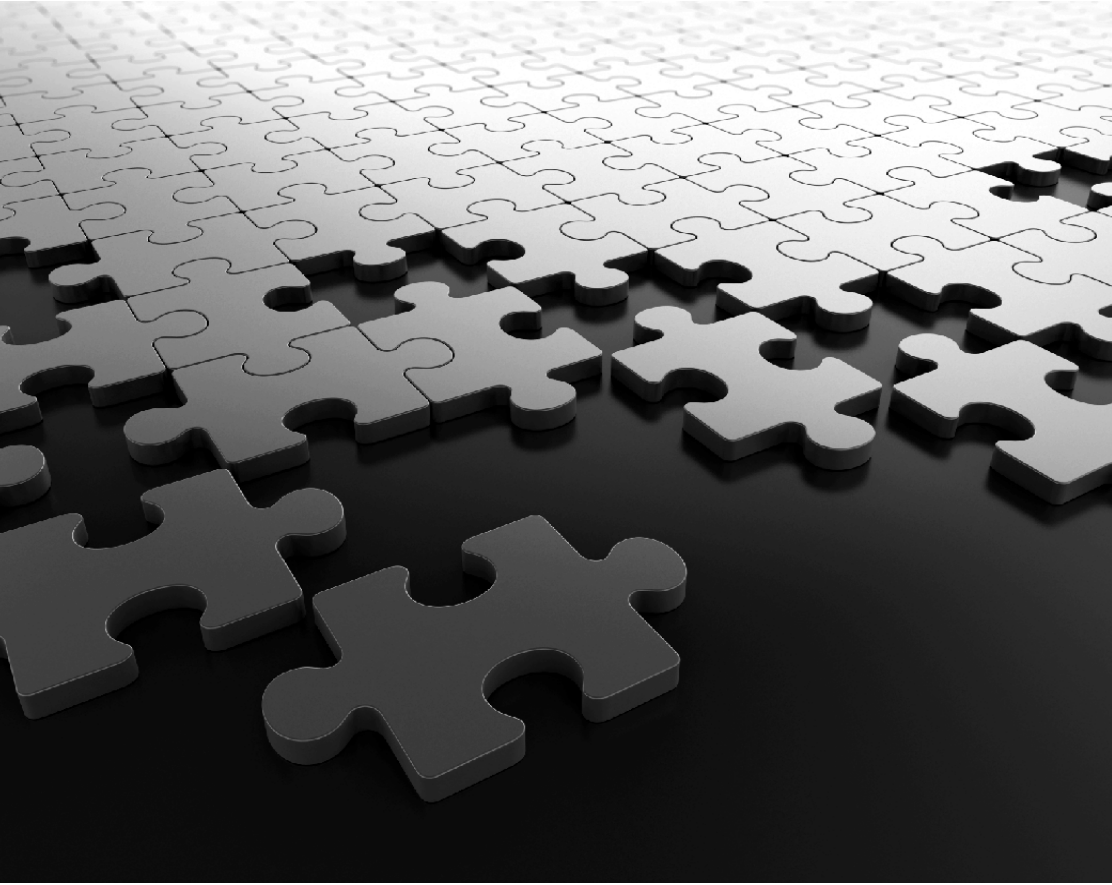


**SATATYA NVR**  
**Quick Start**





# Matrix SATATYA PARAM NVR

Video Surveillance Solution

**Quick Start**



## Documentation Disclaimer

Matrix Comsec reserves the right to change, at any time, without prior notice, the product design, specifications, components, as engineering and manufacturing may warrant.

This is a general documentation for all models of the product. The product may not support some of the features and facilities described in the documentation.

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## Warranty

For product registration and warranty related details visit us at:

<https://www.matrixcomsec.com/warranty/#IP-video-surveillance>








## Copyright

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## Safety Instructions

The product contains coin cell battery which is to be kept away from children. If swallowed, can cause severe internal burns.

# Certification

Devices	Compliance
<p>Certification Completed: NVR8S, NVR0801X, NVR0801X P2, NVR1601X, NVR1601X P2, NVR1602X, NVR1602X P2, NVR3202X, NVR3204X, NVR6404X, NVR6408X, NVR0401XS P2, NVR0801XS P2, NVR1601XS P2, NVR3204X P2, NVR6404X P2, NVR6408X P2, NVR9608X P2, NVR3202X P2</p>	   
<p>Certification Completed: HVR0408S/HVR0408P, NVR24P</p>	  

Version 8

Release date: October 15, 2024

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# ***Know Your SATATYA NVR***

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Thank you for choosing the Matrix SATATYA NVR.

This Quick Start is meant to help you get familiar with SATATYA NVR/NVRX/NVRX P2 Series, install the device and configure its basic parameters.

To view or download the documents related to this product, scan the QR Code printed on the Product Label/Packaging Label.

This is a common document SATATYA NVR/NVRX/NVRX P2 Series. If required, the configurations of specific variant of NVRX/NVRX P2 are mentioned explicitly. The word NVR is used through-out the document and it represent NVR/NVRX/NVRX P2, unless specified. NVRX and NVRX P2 supports same features unless mentioned explicitly.

You may also view or download the documents from <https://www.matrixcomsec.com>

For product registration and warranty related details, please visit <https://www.matrixcomsec.com>

Mentioned below are the variants of the product. The main difference is in the number of cameras and hard disks supported.

## **NVRX P2 Series Variants**

**NVR0401XS P2:** This NVR is having configuration of maximum 4 IP channels and 1 hard disk.

**NVR0801XS P2:** This NVR is having configuration of maximum 8 IP channels and 1 hard disk.

**NVR1601XS P2:** This NVR is having configuration of maximum 16 IP channels and 1 hard disk.

**NVR0801X P2:** This NVR is having configuration of maximum 8 IP channels and 1 hard disk.

**NVR1601X P2:** This NVR is having configuration of maximum 16 IP channels and 1 hard disk.

**NVR1602X P2:** This NVR is having configuration of maximum 16 IP channels and 2 hard disk.

**NVR3202X P2:** This NVRX is having configuration of maximum 32 IP channels and 2 hard disk.

**NVR3204X P2:** This NVRX is having configuration of maximum 32 IP channels and 4 hard disk.

**NVR6404X P2:** This NVR is having configuration of maximum 64 IP channels and 4 hard disk.

**NVR6408X P2:** This NVR is having configuration of maximum 64 IP channels and 8 hard disk.

**NVR9608X P2:** This NVR is having configuration of maximum 96 IP channels and 8 hard disk.

### **NVRX Series Variants**

**NVR0801X:** This NVR is having configuration of maximum 8 IP channels and 1 hard disk.

**NVR1601X:** This NVR is having configuration of maximum 16 IP channels and 1 hard disk.

**NVR1602X:** This NVR is having configuration of maximum 16 IP channels and 2 hard disk.

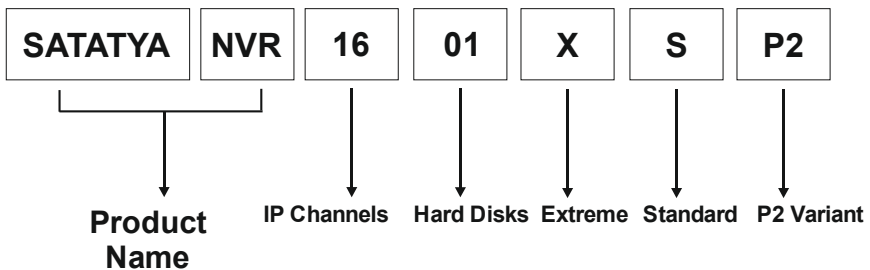
**NVR3202X:** This NVR is having configuration of maximum 32 IP channels and 2 hard disk.

**NVR3204X:** This NVR is having configuration of maximum 32 IP channels and 4 hard disk.

**NVR6404X:** This NVR is having configuration of maximum 64 IP channels and 4 hard disk.

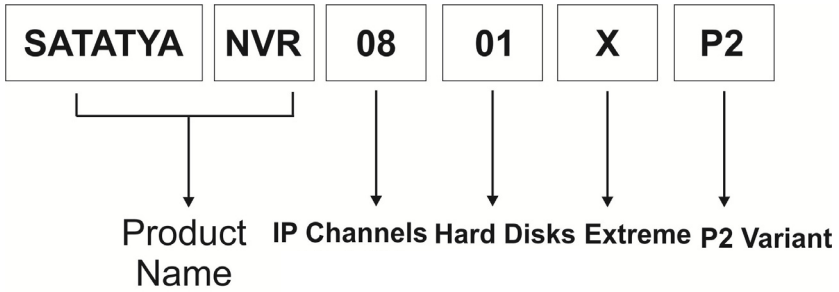
**NVR6408X:** This NVR is having configuration of maximum 64 IP channels and 8 hard disk.

## **Naming Convention of NVRXS P2 series**

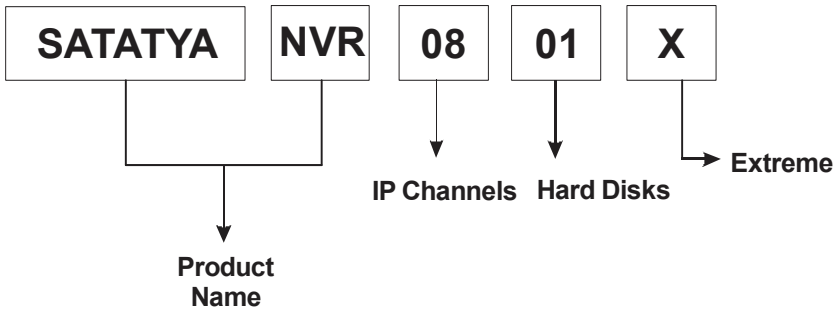




## Naming Convention of NVRX P2 series



## Naming Convention of NVRX series



Built on a high performance embedded microprocessor and video compression technology, SATATYA NVR provides uninterrupted performance while recording, monitoring and playback, best image quality with minimum storage space requirement. In addition to efficient local and remote monitoring.

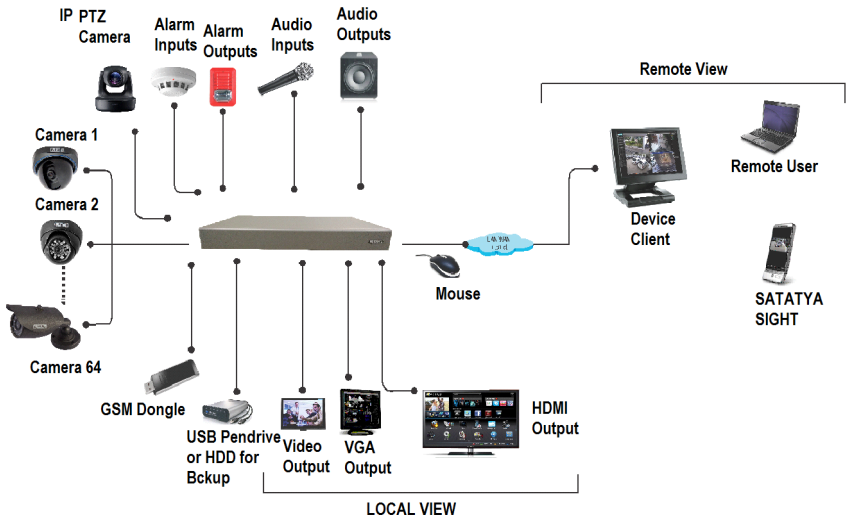
This Quick Start guide is meant to help you get familiar with SATATYA NVR, install the device and configure its basic parameters.

This is a common document for all the configurations of SATATYA NVR/NVRX/NVRX P2 series.

Please read this document carefully before you begin the installation, and retain it for future reference.

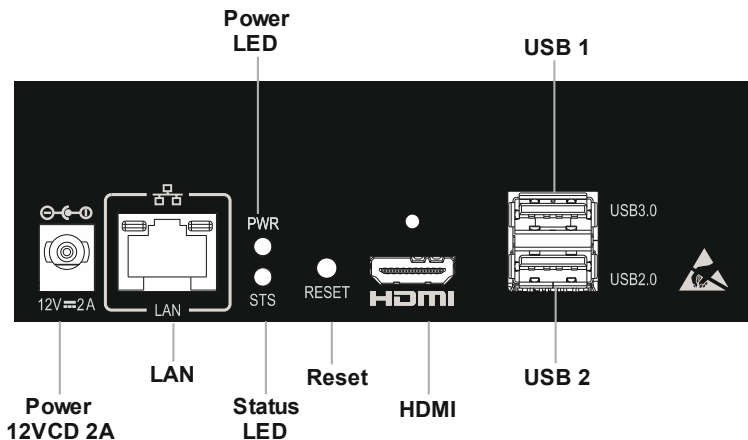
For complete product information and for detailed instructions on the installation and configuration of SATATYA NVR/NVRX/NVRX P2, you may refer the *Matrix SATATYA System Manual*.

# The Interfaces



# NVRX Panel

NVR0401XS P2/NVR0801XS P2/NVR1601XS P2



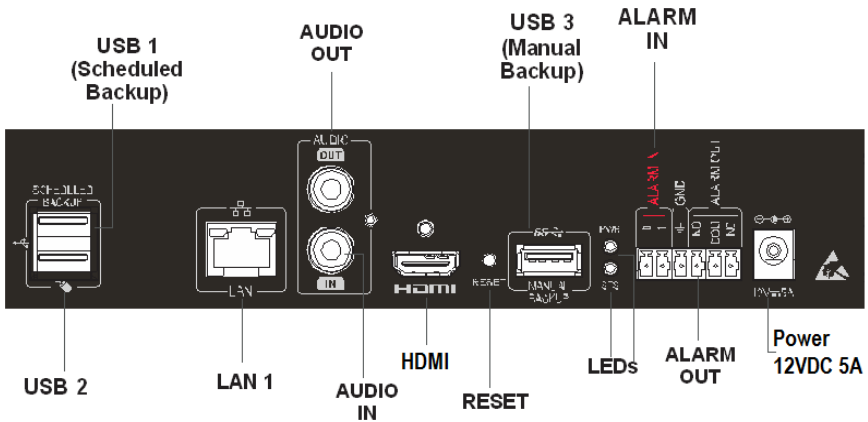
## Ports and Connectors

Interface	Description	All Variants
USB 3.0 (Upper)	USB 3.0, used for Manual Backup. To connect USB Mouse. To connect Dongle.	Yes Ratings: 5VDC - 500mA
USB 2.0 (Lower)	USB 2.0, used for Scheduled Backup. To used to connect USB Mouse. To connect Dongle.	Yes Ratings: 5VDC - 500mA
HDMI 2.0	To connect a high definition digital monitor or TV for Main view.	Yes
LAN (RJ45)	To connect a standalone personal computer, or a LAN Switch, or to connect to the Internet over a DSL Modem or Router.  Ethernet Speed:10/100/1000Mbps	Yes
Reset	Press and hold down the reset button for atleast 4 seconds to default the following parameters. <ul style="list-style-type: none"> <li>• LAN Settings</li> <li>• User Settings</li> <li>• General Settings</li> </ul>	Yes

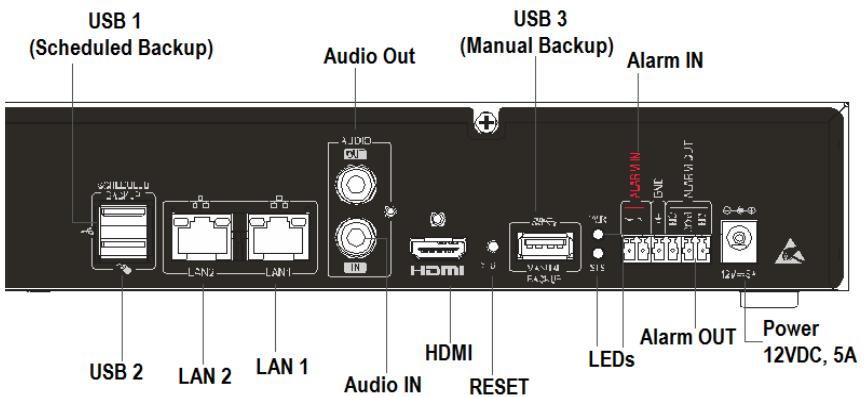
# General Specifications

Parameters	NVR0401XS P2, NVR0801XS P2, NVR1601XS P2
Power Supply	12VDC, 2A
Operating Temperature	0°C to +45°C (32°F to 113°F)
Humidity	5% to 95% RH Non-Condensing

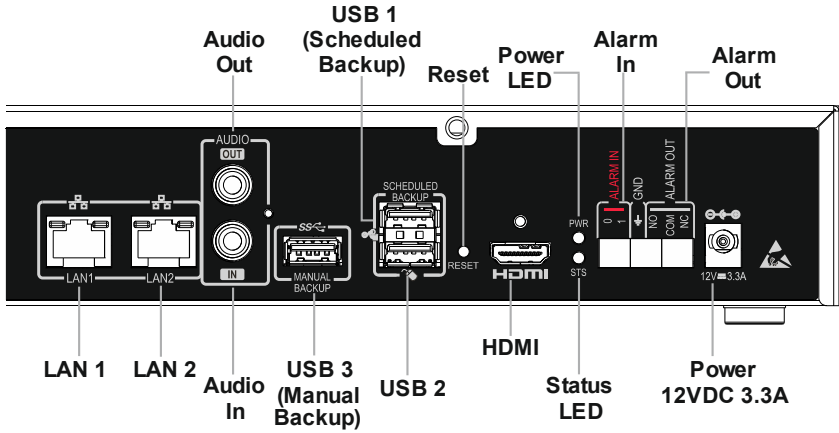
## NVR0801X/NVR1601X/NVR0801X P2/NVR1601X P2



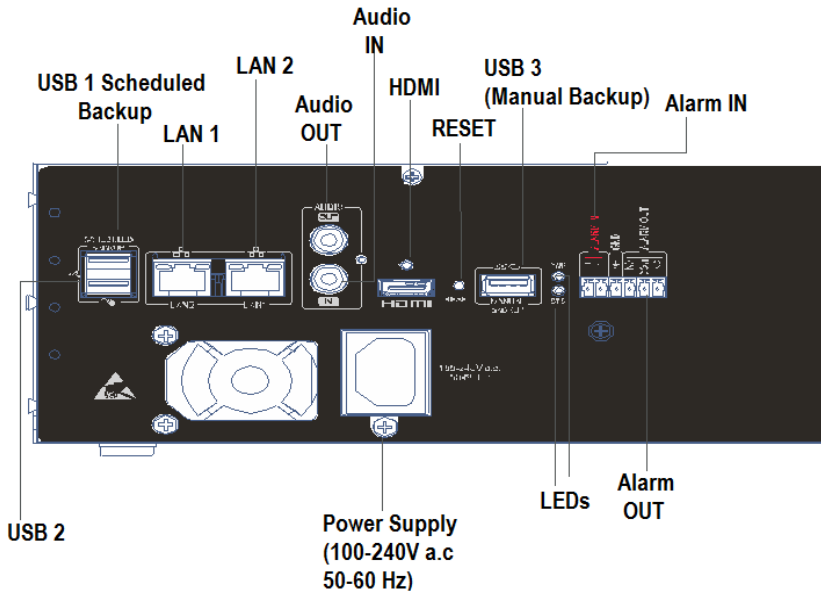
## NVR1602X/NVR3202X/NVR1602X P2



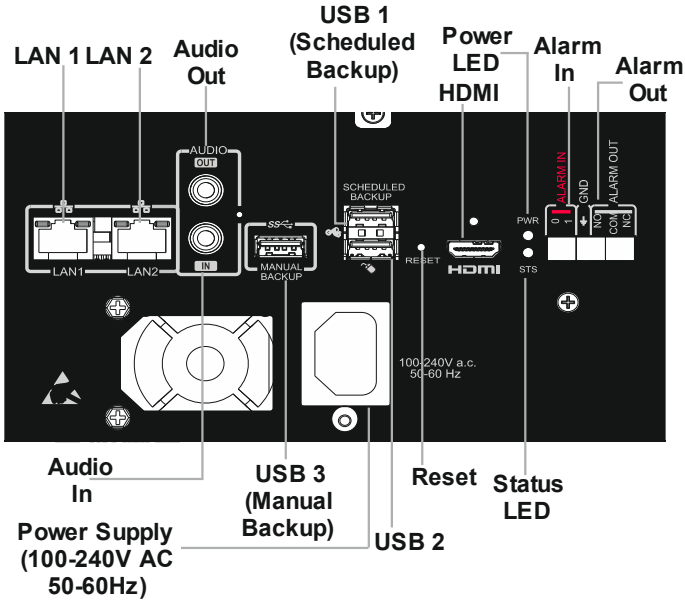
## NVR3202X P2



## NVR3204X/NVR6404X/NVR6408X



**NVR3204X P2/NVR6404X P2/NVR6408X P2/NVR9608X P2**



## Ports and Connectors

Interface	Description	All Variants
USB 1 (Upper)	USB 2.0, used for Scheduled Backup. To connect USB Mouse. To connect Dongle.	Yes Ratings: 5VDC - 500mA
USB 2 (Lower)	USB 2.0, used to connect USB Mouse. To connect Dongle.	Yes Ratings: 5VDC - 500mA
USB 3	USB 3.0, used for Manual Backup. To connect USB Mouse. To connect Dongle.	Yes Ratings: 5VDC - 900mA
Alarm In (Terminal Block Plug)	To connect a sensor device to detect alarm events.	Yes (2)
Alarm Out (Terminal Block Plug)	To connect an alarm sounding relay device such as a hooter or siren.	Yes (1)
HDMI 2.0	To connect a high definition digital monitor or TV for Main view.	Yes (1)
LAN (RJ45)	To connect a standalone personal computer, or a LAN Switch, or to connect to the Internet over a DSL Modem or Router. Ethernet Speed:10/100/1000Mbps	LAN 1 - Present in all variants LAN 2 - Present in all variants except NVR0801X and NVR1601X
Audio In (RCA)	To connect audio input device such as a mic.	Yes (1)
Audio Out (RCA)	To connect a low impedance earphone, active sound box or an amplified speaker.	Yes (1)
Reset	Press and hold down the reset button for atleast 4 seconds to default the following parameters. <ul style="list-style-type: none"> <li>• LAN Settings</li> <li>• User Settings</li> <li>• General Settings</li> </ul>	Yes

## General Specifications

Parameters	NVR0801X, NVR1601X, NVR1602X, NVR0801X P2, NVR1601X P2, NVR1602X P2, NVR3202X, NVR3202X P2	NVR3204X, NVR6404X, NVR6408X, NVR3204X P2, NVR6404X P2, NVR6408X P2, NVR9608X P2
Power Supply	12VDC, 5A	SMPS
Operating Temperature	0°C to +50°C (32°F to 122°F)	
Humidity	5% to 95% RH Non-Condensing	

## LED And Buzzer State

The NVRX/NVRX P2 variants has a set of LEDs and Buzzer for indication of events on the SATATYA NVRX/NVRX P2 series. It has been explained in the table below.

State Description	Status LED Cadence	Power LED	Buzzer (System)
Supply is connected but application is not yet initialized.	OFF		N.A.
On Application Initialization	Red 1000 - ON and 1000 – OFF		3000 – ON
System in normal state (Connected to network).	Green 500 - ON and 500 – OFF		N.A.
Storage Incomplete Volume.	Red 1000 ON–5000 OFF		1000 - ON and 5000 – OFF
Storage Full Alert.	Red 2000-ON–2000 OFF		N.A.
Storage Full.	Red 1000 ON–3000 OFF		N.A.
Formatting Disk.	Red 1000 ON–1000 OFF		N.A.
Firmware upgrade in process.	Orange (ON till firmware upgrade process completes)	Green Steady	N.A.
Firmware upgrade failed.	Red 1000 ON–1000 OFF		1000 - ON and 1000 – OFF
Recording failed for 1 or more enabled cameras (Not all)	Orange (500 – ON and 500 – OFF) ON till recording of all enabled cameras gets started		N.A.
Recording failed for all enabled cameras	Red (Steady Light till recording of any one enabled camera gets started)		N.A.
Trigger from Event	Green 500 - ON and 500 – OFF		3000 - ON and 1000 – OFF
Backup Device full	Green 500 - ON and 500 – OFF		1000 - ON and 2000 – OFF
No Backup Device	Green 500 - ON and 500 – OFF		1000 - ON and 3000 – OFF



State Description	Status LED Cadence	Power LED	Buzzer (System)
Temperature reached 100 degree	Red 500 - ON and 500 – OFF		500 – ON and 5000 – OFF
Temperature reached 105 degree	System shuts down	Green Steady	N.A.
After crossing 100 degrees, Temperature comes back to less than 100 degree	System automatically comes in normal stage and cadence stops		N.A.

# The User Interface

You can view recordings, operate and configure SATATYA NVR locally (on-site), or from any location across the world on a network computer. You can also view live videos on smart phones.

## Local View

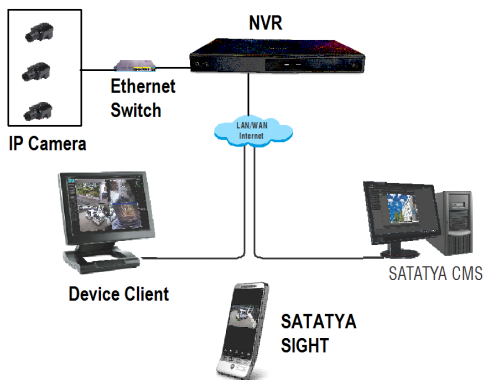
The Local View enables on-site access to live and stored videos of SATATYA NVR using the Local Client. You can access all the features and configure the NVR settings from the Monitor connected to your NVR. You can also operate the device using a USB Mouse and USB Keyboard.



## Remote View

SATATYA NVR offers you two options for Remote View: A Device Client and SATATYA SIGHT.

### Remote View



## Device Client

The SATATYA Device Client enables access to live and stored video images of SATATYA NVR from a remote location through the Web. Using the Device Client you can access, search, browse, display and transfer stored video to a remotely connected workstation. You can also configure the NVR and camera settings, receive notification of events such as alarm, motion detection and video loss.

## SATATYA SIGHT

SATATYA SIGHT is a mobile application which supports live view of the channels and allows the user to view the live recordings any time, anywhere, on your smart device.

SATATYA SIGHT supports Android, Windows and iOS-based devices.

To know more, you can download the application from Play Store or App Store and refer to the FAQs.

## The Virtual Keypad

A virtual keypad will appear when you select an option in the Local Client that requires you to enter digits or alphabets.



If you are using a Mouse for operation,

- Click the digits or alphabets on the virtual keypad with the mouse and press the **Enter** button.
- Click the space bar to insert space.
- Click the **Shift** key to change case (upper case or lower case) for the alphabets.

## USB Keyboard

For enhanced accessibility and faster navigation, various functions in the Local Client can be performed using keyboard shortcuts. A list of available shortcut keys with the action they perform, have been broadly classified and mentioned in the *Matrix SATATYA System Manual*. Refer the same for detailed information.



# Installing SATATYA NVR

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## **WARNING!**

- *Opening or removing the device cover without adequate precautions may result in electric shock or exposure to other hazards.*
- *To reduce the risk of electric shock, do not perform any servicing other than that contained in the instructions in this document, unless you are qualified to do so. Servicing should be done by a qualified technician only.*
- *Use the product only for the purpose for which it was designed.*

## What Your Package Contains

### **Common Package contents**

- SATATYA NVR unit
- A USB Mouse
- Alarm Out Terminal Plug\*

\*Not provided with NVRXS variants

### **NVR0401XS P2/NVR0801XS P2/NVR1601XS P2**

- A 12VDC @ 2A power adapter
- 3 HDD fitting screws
- 1 HDD Power Cable
- 1 HDD SATA Cable

### **NVR0801X/NVR1601X/NVR0801X P2/NVR1601X P2**

- A 12VDC @ 5A power adapter
- 4 HDD fitting screws
- 1 HDD Power Cable
- 1 HDD SATA Cable

### **NVR1602X/NVR3202X/NVR1602X P2/NVR3202X P2**

- A 12VDC @ 5A power adapter
- 8 HDD fitting screws
- 2 HDD Power Cable
- 2 HDD SATA Cable
- 2 Clamps for Rack Mounting

### **NVR3204X/NVR6404X/NVR3204X P2/NVR6404X P2**

- 1 Cable Mains 3 Pin
- 16 HDD fitting screws
- 4 HDD SATA Cable
- 2 Clamps for Rack Mounting

### **NVR6408X/NVR6408X P2/NVR9608X P2**

- 1 Cable Mains 3 Pin
- 32 HDD fitting screws
- 8 HDD SATA Cable
- 2 Clamps for Rack Mounting

## Things You Will Need

- A Power Hand Drill
- A Wire Stripper
- Insulation Tape
- A Screwdriver set
- Cameras (IP Cameras, PTZ cameras).
- Monitors (HDMI) with the appropriate cables to connect.
- At least one SATA Video Surveillance Hard Disk (upto 10TB), if you want to record on a hard disk in the NVR. You can install eight hard disks.
- A USB Mouse or Keyboard (Wired or Wireless) to operate the NVR, if required.
- A personal computer or a LAN computer with a browser installed on it (Internet Explorer, Mozilla Firefox, Google Chrome), if you want access the NVR from a remote location.
- Any audio device you want to connect with cables.
- An Ethernet cable to connect to a computer/LAN/WAN (over a DSL Modem or Router).
- Insulated copper wires (wire range: 28-16 AWG, 0.5 -1.5mm<sup>2</sup>), if you want to connect sensor and alarm devices.
- A rack, if you want to mount the NVR on a rack.

## Preparing for Installation

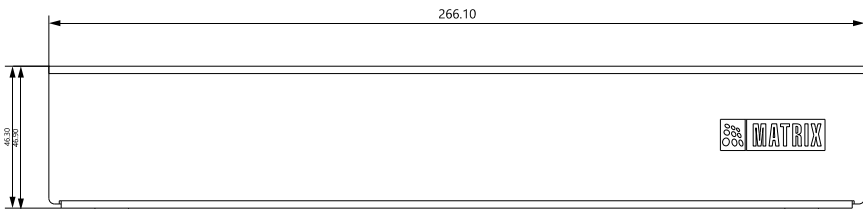
- Select a suitable location after reviewing your video surveillance layout requirements, cable runs and power needs.
  - The SATATYA NVR is meant for indoor installations only.
  - The SATATYA NVR unit can be mounted on a rack or placed on any stable flat surface such as a desk.

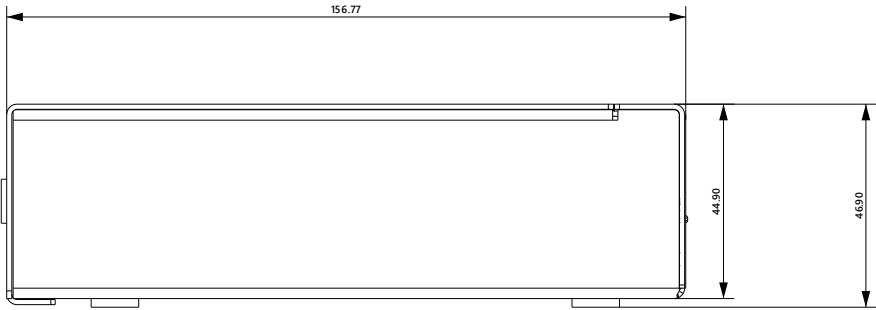
- Select a suitable location for installation taking the following recommendations into consideration. The location should:
  - be secure, yet easily accessible for servicing the equipment.
  - not expose the device to direct sunlight, extreme heat or moisture, high voltages.
  - have adequate ventilation to prevent overheating.
  - do not place the device near any heating appliances.
  - be clear of any obstructions to the ventilation holes on the side panels of the NVR.
  - do not stack objects on the device.
  - have a power outlet close-by
  - keep away from children
- Complete the wiring and installation of all the devices you want to connect to SATATYA NVR.
- Unpack SATATYA NVR and check the package contents.

Do not discard the packaging material. If any of the items is missing or damaged, please contact the source from where you purchased the product.

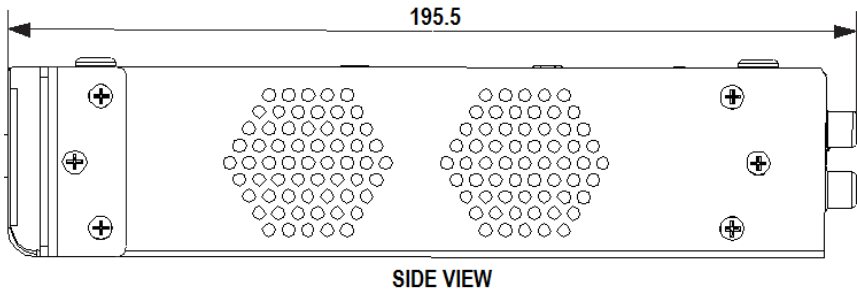
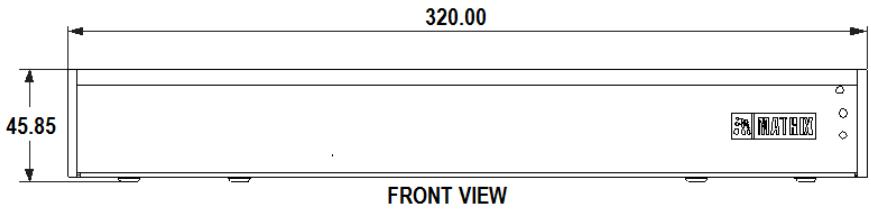
- You are recommended to first install the hard disk(s), make the required cable connections, and then mount the device. If you choose rack mounting, fix the side clamps and then mount the device.
- Refer to the following diagrams for the location of screws that you will need to remove and secure when installing the hard disks and the rack mounting side clamps.

### **NVR0401XS P2/NVR0801XS P2/NVR1601XS P2**

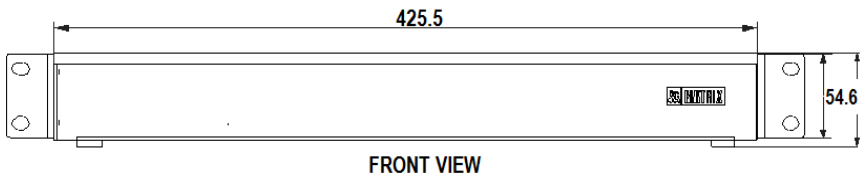




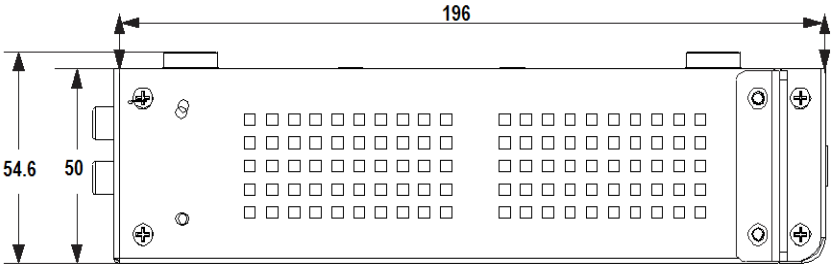
**NVR0801X/NVR1601X/NVR0801X P2/NVR1601X P2**



**NVR1602X/NVR3202X/NVR1602X P2/NVR3202X P2**

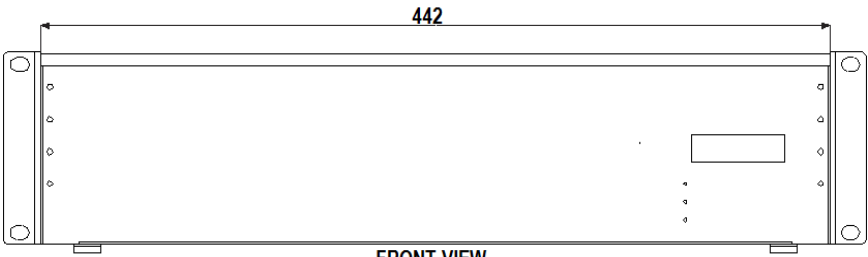




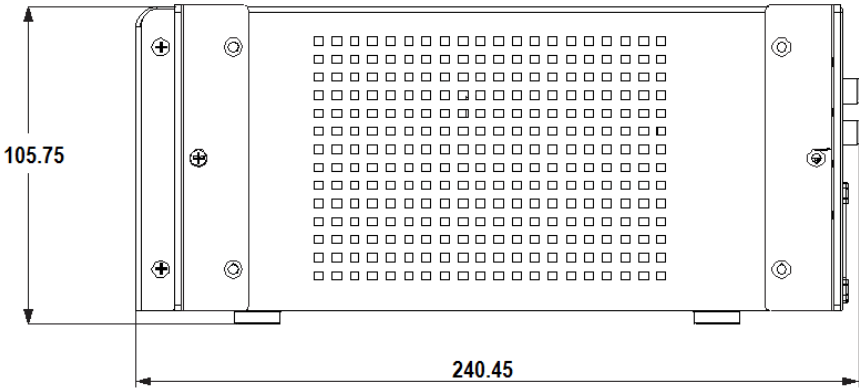


SIDE VIEW

**NVR3204X/NVR6404X/NVR3204X P2/NVR6404X P2**

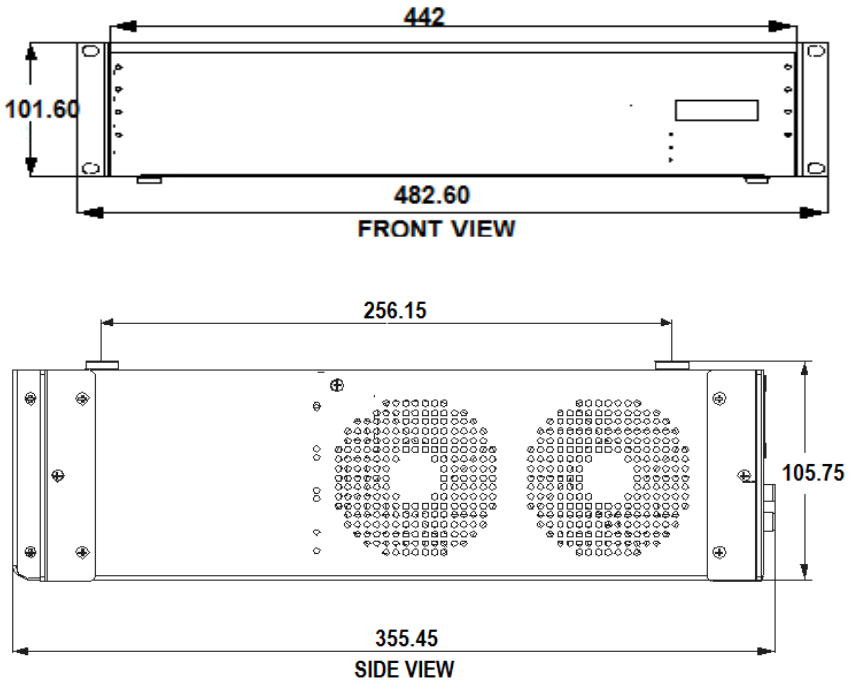


FRONT VIEW



SIDE VIEW

**NVR6408X/NVR6408X P2/NVR9608X P2**



## Installing the Hard Disk

### Number Of HDDs supported in Various NVRX/NVRX P2 variants

NVRX/NVRX P2 series supports maximum eight Hard disks. The storage capacity of each hard disk is upto 10 Terabytes. Following table shows Hard disk support in each variant.

<b>NVRX/NVRX P2 variants</b>	<b>Number of supported SATA interfaces</b>
NVR0401XS P2/NVR0801XS P2/ NVR1601XS P2	1
NVR0801X/NVR1601X NVR0801X P2/NVR1601X P2	1
NVR1602X/NVR3202X NVR1602X P2/NVR3202X P2	2

<b>NVRX/NVRX P2 variants</b>	<b>Number of supported SATA interfaces</b>
NVR3204X/NVR6404X NVR3204X P2/NVR6404X P2	4
NVR6408X NVR6408X P2/NVR9608X P2	8

You are recommended to install video surveillance SATA Hard disks of any standard brand.



**CAUTION!** Any electrostatic energy coming in contact with the hard disk or the internal parts of the NVR can cause permanent damage to them. Before you begin the installation of the hard disk, make sure your workstation is static-free. Always wear an electrostatic discharge preventive wrist strap or belt and use a grounding mat.

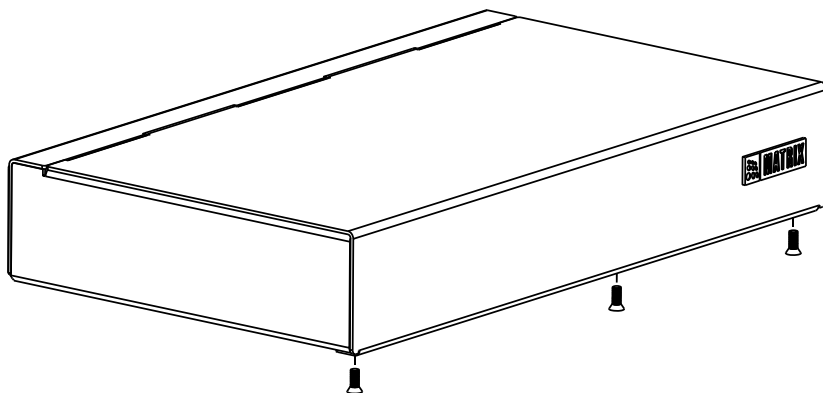
- Make sure power supply is disconnected. Unplug the power adapter, if you have connected it to SATATYA NVR.

### **NVR0401XS P2/NVR0801XS P2/NVR1601XS P2 HDD Installation**

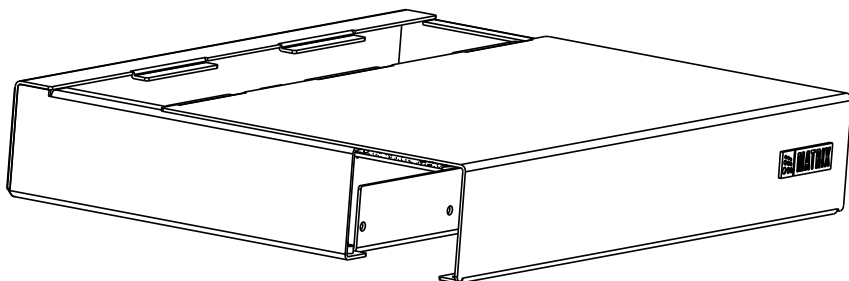
This section includes the common procedure of installing single Hard Disk in all the above mentioned variants.

#### **Hard Disk Mounting**

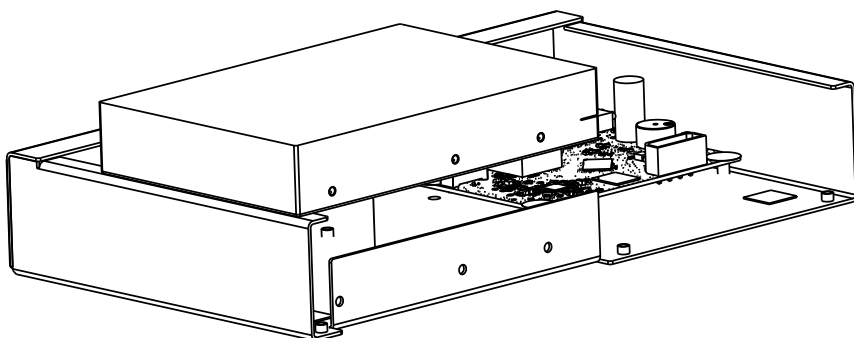
1. Unscrew three screws at the bottom on the enclosure.



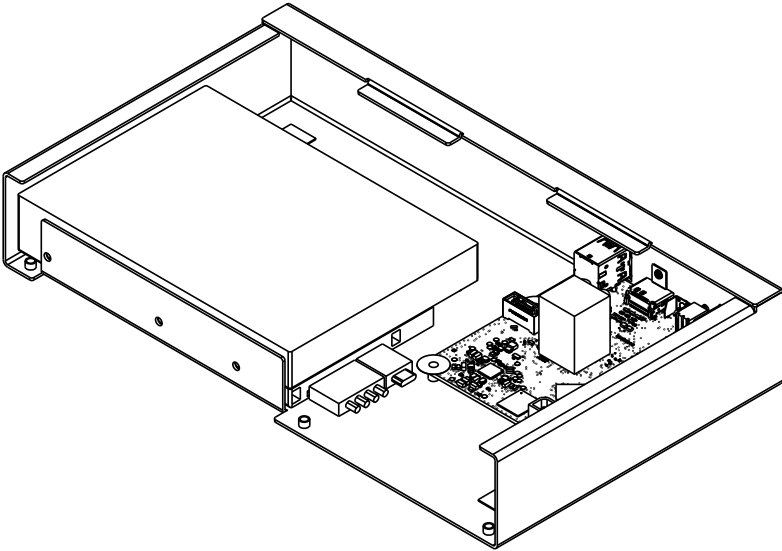
2. Slide the top cover backwards to remove.



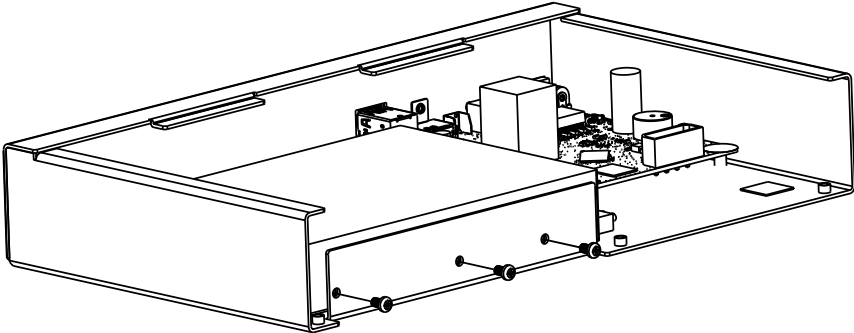
3. Place the HDD onto the HDD Stand-up.



- Align the holes of the HDD with that of the enclosure.



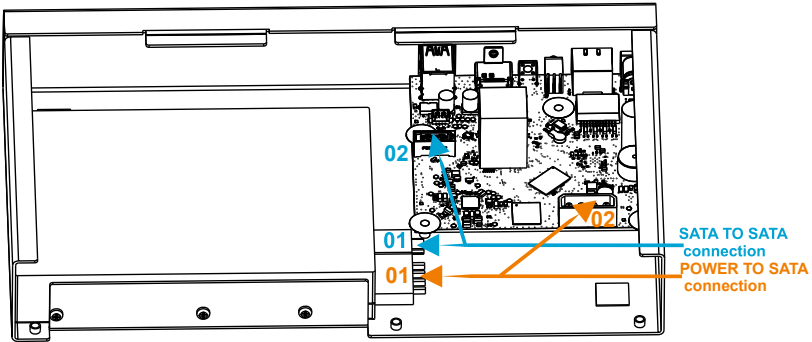
4. Affix the three screws provided into the aligned holes and tighten the same.



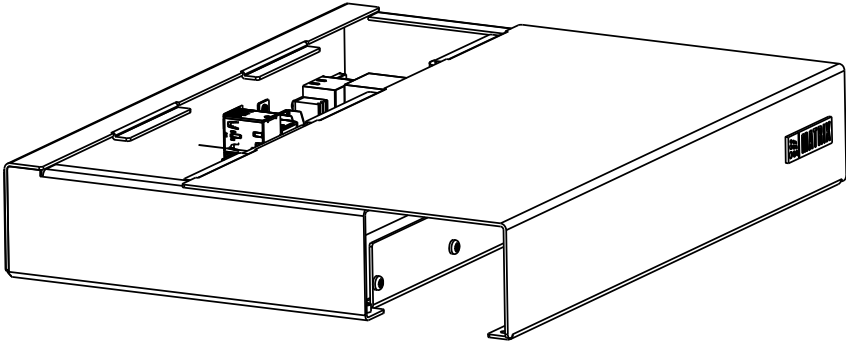
### ***Hard Disk Cable Routing***

5. Inside the package you will find one SATA cable for the hard disk and one Power cable.

6. Plug one end of the SATA cable(01) and Power cable (01) into the respective connectors on the hard disk and the other ends (02) of the cable as shown below.



7. Slide the top cover back in place and affix the three screws at the bottom of the enclosure.

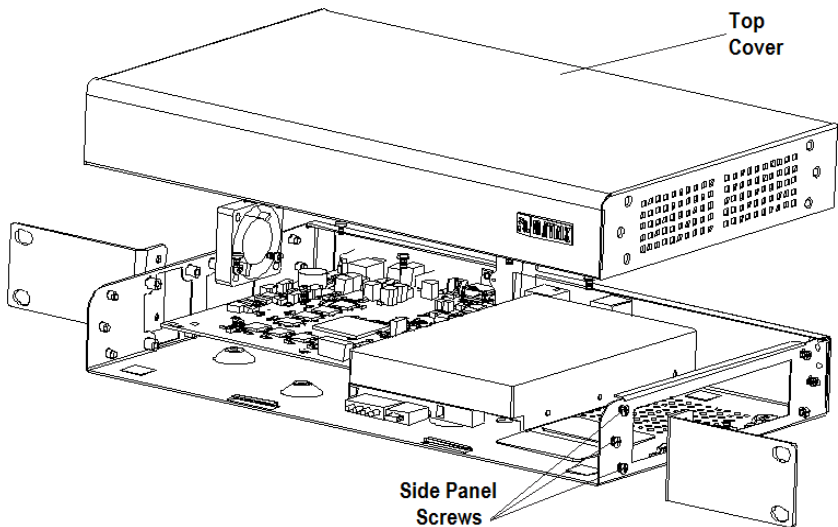


### **NVR0801X/NVR1601X/NVR0801X P2/NVR1601X P2 and NVR1602X/NVR1602X P2/ NVR3202X/NVR3202X P2 HDD Installation**

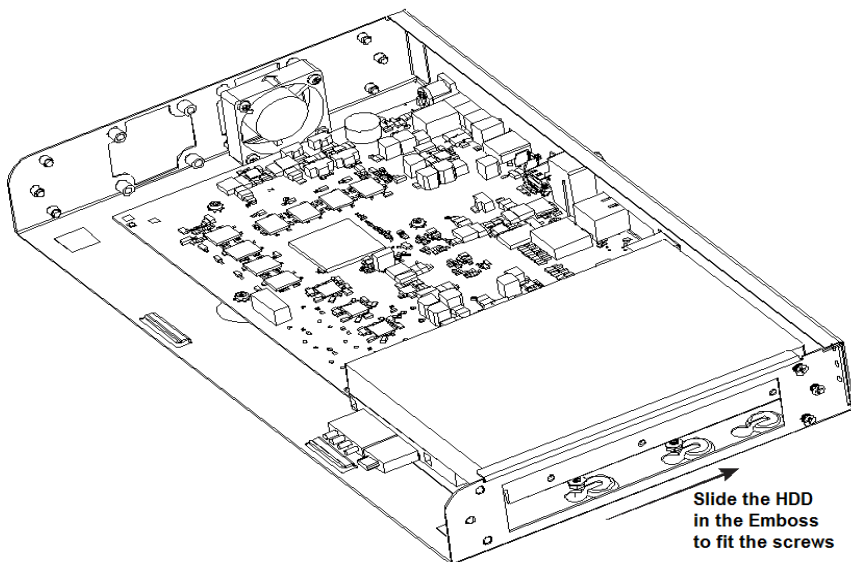
This section includes the common procedure of installing single Hard Disk in all the above mentioned variants.

#### ***Hard Disk Mounting***

1. Loosen the screws at the side panel to remove the top cover.
2. Fix four screws in the HDD (Do not fit the screws completely, turn just two - three rounds).

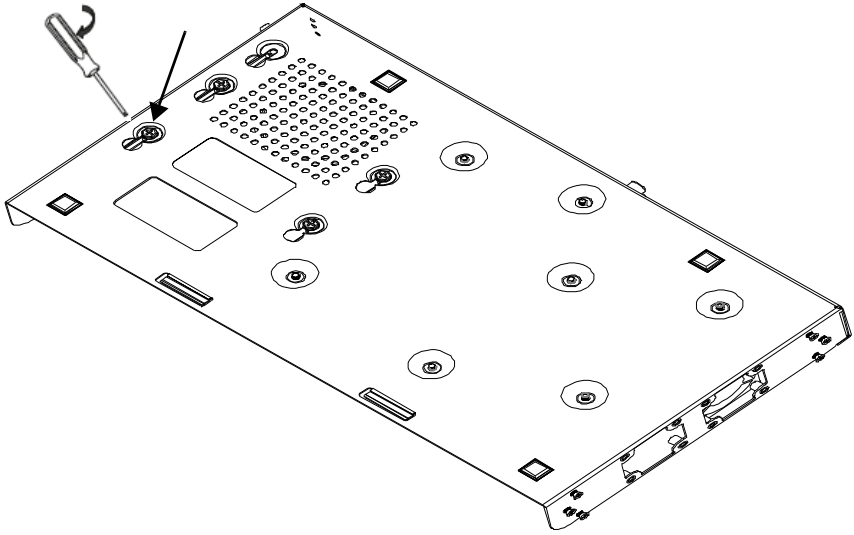


3. Place the HDD in accordance with the four holes in the bottom of the enclosure as shown.



4. Slide the HDD along with the screw in the emboss.

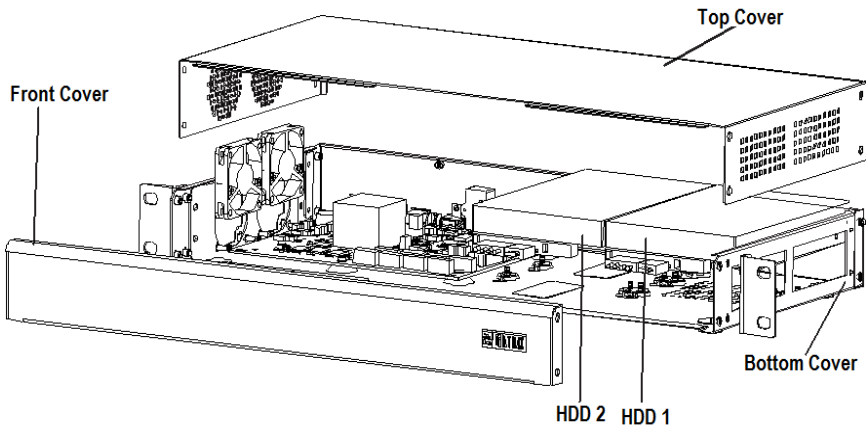
- Turn the device upside down and then turn the screw using a magnetic screw driver to fix the HDD firmly as shown below.



*Maximum torque to be applied for tightening the screws is 3 kgf.cm. Applying more than specified torque will cause a damage to the HDD and the emboss.*

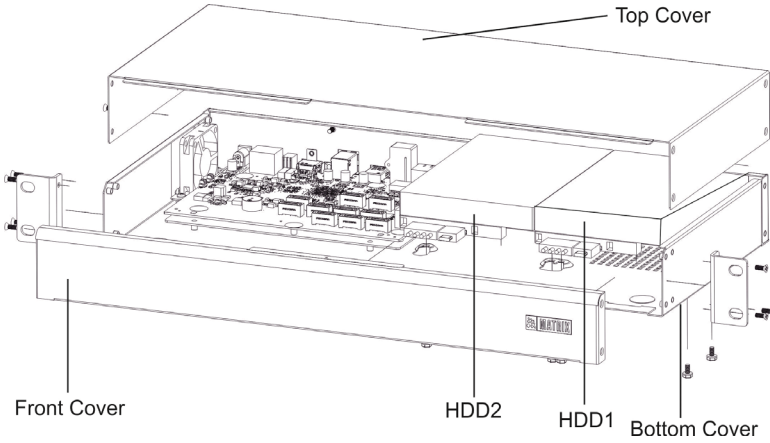
Follow the same procedure for mounting two HDDs in NVR1602X, NVR1602X P2, NVR3202X and NVR3202X P2 as shown below.

### **NVR1602X/NVR1602X P2/NVR3202X**





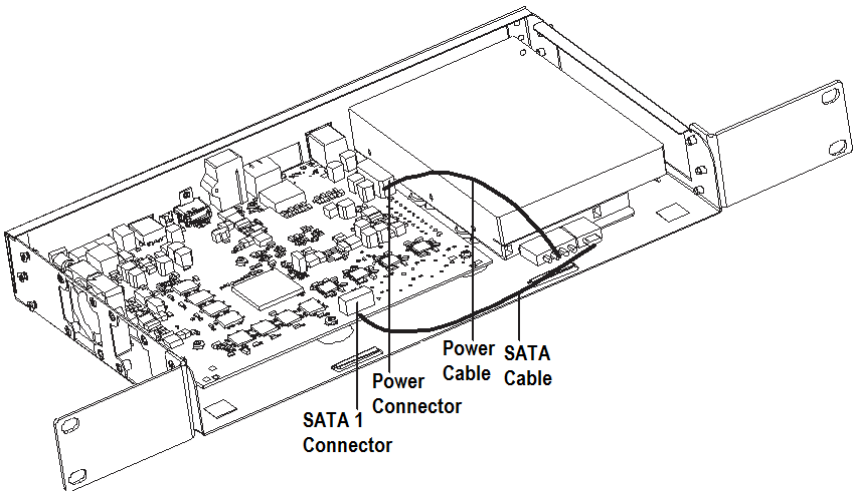
## NVR3202X P2



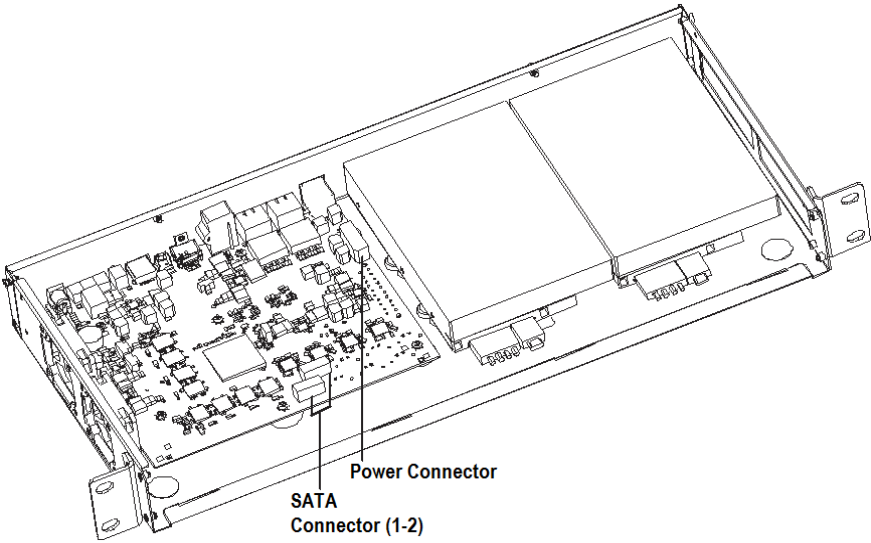
### Hard Disk Cable Routing

1. Inside the package you will find one SATA cable in NVR0801X/NVR0801X P2 and NVR1601X/NVR1601X P2 and two in NVR1602X/NVR1602X P2 and NVR3202X/NVR3202X P2 for each hard disk.
2. Plug the SATA cables and power cables into the respective connectors on the hard disk as shown below.

### NVR0801X/NVR1601X/NVR0801X P2/NVR1601X P2



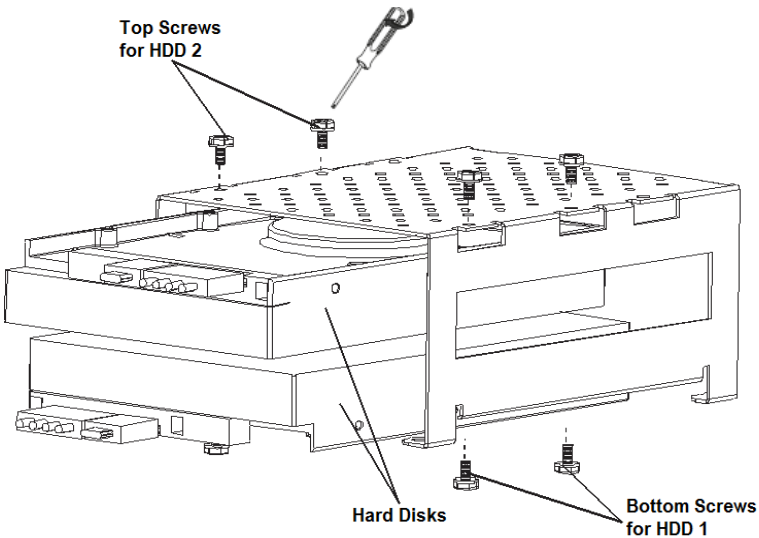
Similar connections can be done in **NVR1602X/NVR1602X P2/NVR3202X/NVR3202X P2**.  
Connectors are shown below.



## **NVR3204X/NVR6404X/NVR3204X P2/NVR6404X P2 HDD Installation**

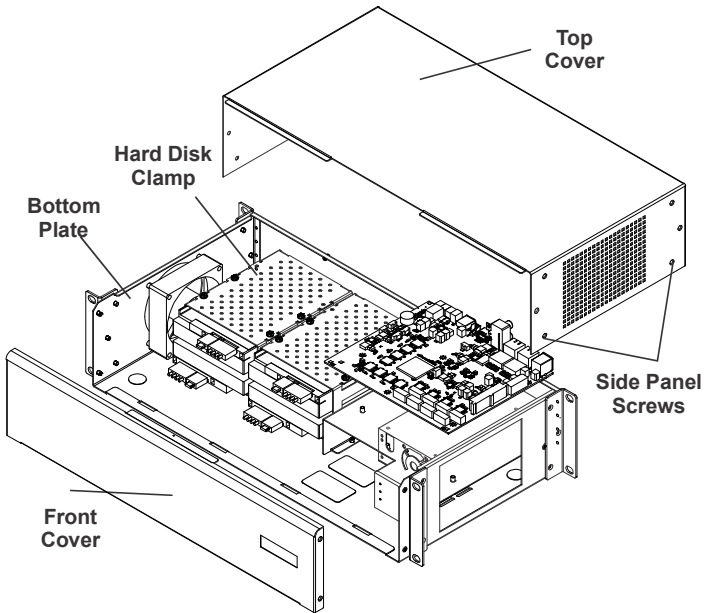
### ***Hard Disk Mounting***

1. Loosen the screws at the side panel to remove the top cover.
2. Take the clamp and place the Hard Disk inside the clamp. Secure the HDD inside the Clamp with the four screws provided using the magnetic screw.



3. Now place the Clamp fitted with the Hard Disks on the bottom plate.

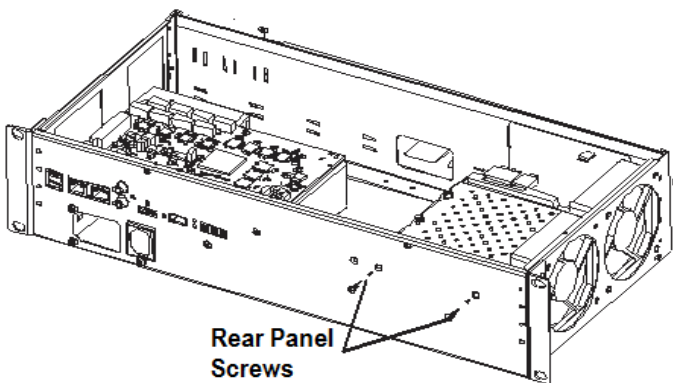
### NVR3204X/NVR6404X/NVR3204X P2/NVR6404X P2



4. Fix the clamp fitted Hard disks on the bottom plate with screws available at the rear and side panel.

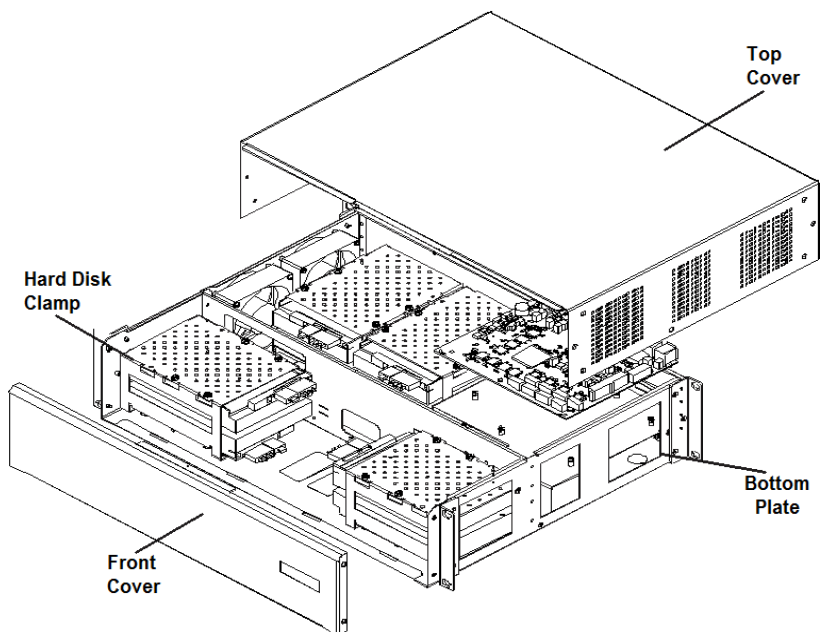


*Maximum torque to be applied for tightening the screws is 3 kgf.cm. Applying more than specified torque will cause a damage to the HDD and the clamp.*



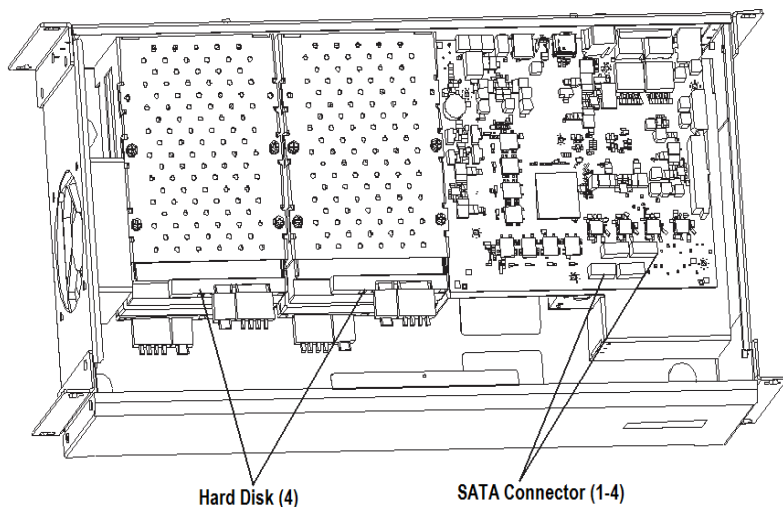
Similar alignment can be done in NVR6408X/NVR6408X P2/NVR9608X P2 with the eight Hard Disks as shown below.

## NVR6408X/NVR6408X P2/NVR9608X P2

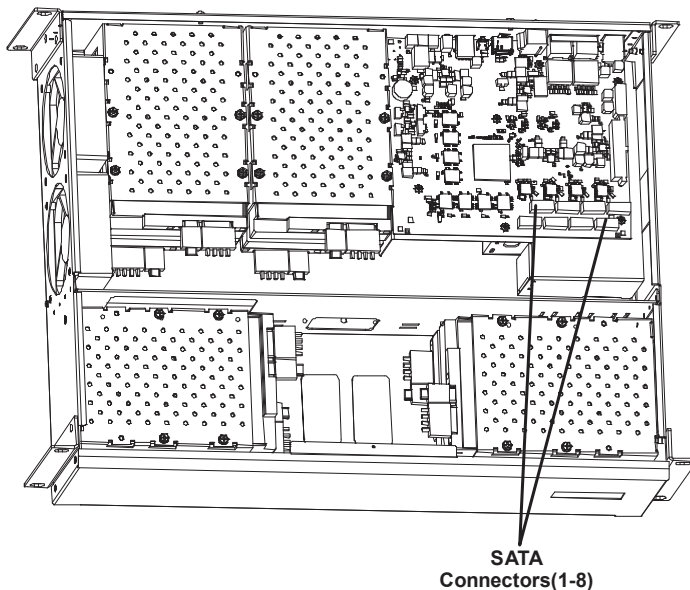


### ***Hard Disk Cable Routing***

1. Inside the package you will find four SATA cable in NVR3204X/NVR3204X P2 and NVR6404X/NVR6404X P2 and eight in NVR6408X/NVR6408X P2/NVR9608X P2 for each hard disk.
2. Plug the SATA cables and power cables into the respective connectors shown below on the hard disk.



Similar connections can be done in **NVR6408X/NVR6408X P2/NVR9608X P2**. Connectors are shown below.



# Connecting Devices

## Cameras

NVRX variants	Number of IP Cameras supported
NVR0401XS P2 NVR0801XS P2 NVR1601XS P2	4 8 16
NVR0801X NVR0801X P2	8
NVR1601X/NVR1602X NVR1601X P2/NVR1602X P2	16
NVR3202X/NVR3204X NVR3202X P2/NVR3204X P2	32
NVR6404X/NVR6408X NVR6404X P2/NVR6408X P2	64
NVR9608X P2	96

## Monitors

- If you are using an HDMI compatible monitor such as a high definition Digital TV, connect one end of the cable to the Video IN of the monitor and the connect the other end to the HDMI port.



*The recommended length for HDMI cable is upto 3 meters (9.8 ft.).*

## Audio Inputs



*Not applicable to NVRXS P2 variants.*

One Audio input channel is available on your NVRX variant to which you can connect one microphone.

- If you are connecting a Mic, connect the wire from the Mic to the **Audio IN** port of your NVR.



The wire from the Mic must have an RCA connector. If the wire from the Mic has a stereo connector, use an RCA to 3.5mm Stereo Converter cable. Connect the RCA end of the cable to the Audio IN of the NVRX.

## Audio Output



Not applicable to NVRXS P2 variants.

- You may connect low impedance earphone, active sound box or an amplified speaker to the **Audio OUT** port of your NVRX variants.

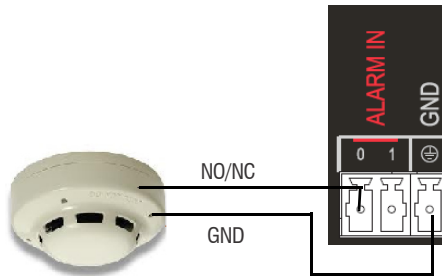
## Alarm In



Not applicable to NVRXS P2 variants.

- You can connect upto 2 sensors to all the variants of NVRX. Connect the wires from the Sensor device you have installed into the **SENSOR IN/ALARM IN** port on the rear panel.

Connect the NO/NC wire from the sensor into any pin (0 or 1) of Alarm IN. Connect the ground wires from the sensor into any one of the “Ground” pins.

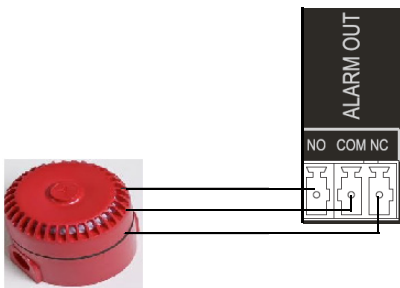


## Alarm Devices



Not applicable to NVRXS P2 variants.

- You can connect 1 alarm device to NVRX variants. Connect the wires from the Alarm device (Hooter or Siren) you have installed into the **ALARM OUT** port on the rear panel. The wires must be fed into the terminal block plug provided to you.



## Computer/LAN/WAN

- You can connect SATATYA NVR to a standalone personal computer or to a LAN switch or to a WAN for Remote View.
- Connect the Ethernet cable from your computer/LAN Switch to the Ethernet port on the rear panel.
- To connect SATATYA NVR to the Internet, connect its Ethernet port either directly to the DSL Modem or Router or over a LAN Switch.



- *When connecting the Ethernet Port of SATATYA NVR to a network computer, you may need to change the IP Address, the Subnet Mask and Gateway address of SATATYA NVR. You may ask your Network Administrator for the IP Address assignment used on the network, the IP Address, Subnet Mask and Gateway Address for SATATYA NVR. You may configure the IP Address Assignment and other network parameters from the Local View or from the Device Client. Refer to [“Configuring Network Settings”](#)*

## Backup Storage Device

- To store back up of the recordings, you may connect any removable storage device such as an external hard disk or a pen drive to the USB ports labeled **Backup**.
  - For Manual and Scheduled backup connect the device to the USB port. Refer to [“LED And Buzzer State”](#).

## Mouse/Keyboard

- Connect a wired or wireless Mouse or Keyboard to USB port.



## GSM Dongle

- Connect the GSM dongle to the USB port as described in [“Ports and Connectors”](#).

## Connecting Wires to the Terminal Blocks

- Connections to the Alarm Input and Alarm Out Ports are to be made using the Terminal Block Plugs provided to you in your package.

Wire Range of the Terminal Block plugs is 28-16 AWG (0.5 -1.5mm<sup>2</sup>).

## Connecting Power Supply

To Power On Device	NVR0801X, NVR1601X, NVR1602X, NVR0801X P2, NVR1601X P2, NVR1602X P2, NVR3202X, NVR3202X P2	NVR3204X, NVR6404X, NVR6408X, NVR3204X P2, NVR6404X P2, NVR6408X P2, NVR9608X P2
Power Supply	12VDC, 5A	SMPS



*The AC input to the Universal Power Supply Adapter can be 100-240VAC@50- 60Hz. It is advisable to route the power supply from the mains through a Uninterrupted Power Supply (UPS) for continuous operation.*

To Power On Device	NVR0401XS P2/NVR0801XS P2, NVR1601XS P2
Power Supply	12VDC, 2A

- If you have completed all the connections you want to make, plug the Power Adapter into the power outlet. Switch on the power supply. Wait for the reset cycle to complete.



*When the system is running you may feel the surface of the NVRXS P2 enclosure is hot. This is normal as the heat generated by HDD (Hard Disk) and electronic components is dissipated on the NVRXS enclosure body. Be careful when you come in contact the surface of the NVRXS enclosure.*



# Accessing the SATATYA NVR

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## Accessing the Local Client

The SATATYA device comes factory configured with the following default IPv4 address settings. If you wish to use IPv6 address, you need to configure the same as per your requirement.

Ethernet Port 1 default settings:

**IP Address: 192.168.1.123**

**Subnet Mask: 255.255.255.0**

**Gateway Address: 192.168.1.1**

Ethernet Port 2 default settings:

**IP Address: 192.168.2.2**


**Subnet Mask: 255.255.255.0**

**Gateway Address: 192.168.2.1**

To access the Local Client, you need to connect a Monitor, Keyboard and Mouse / LAN PC to the NVR, Default IP Address: 192.168.1.123 (LAN1).



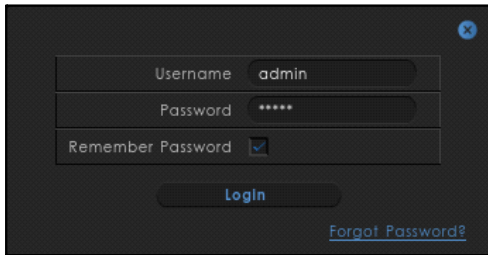
*Make sure the LAN PC and NVR are in the same network.*

- Switch on power supply to your NVR.
- The Matrix corporate logo will appear on your screen.
- The default Live View monitoring layout (4x4) will appear on your monitor screen.
- Hover the mouse at the bottom of the monitor screen to invoke the Toolbar. Click **Login** .

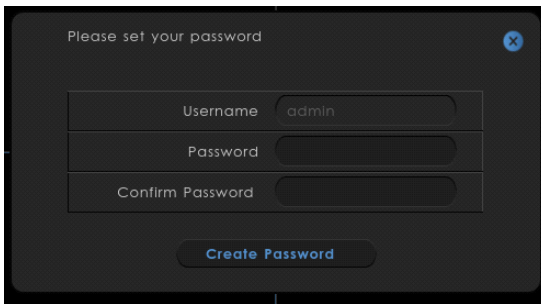


*If you have connected a PC in your LAN with NVR as well as cameras are connected in the same network, then these cameras can be added directly. A pop-up confirming the same appears. Click **Yes** to confirm.*

- The **Login** pop-up appears. Enter the **Username** (default: admin) and **Password** (default: admin). Click **Login**.

A dark-themed login form with a close button (X) in the top right corner. It contains three input fields: 'Username' with the value 'admin', 'Password' with masked characters '\*\*\*\*\*', and 'Remember Password' with a checked checkbox. Below the fields is a 'Login' button and a link for 'Forgot Password?'.

- During the first login, the **Please set your password** pop-up appears. Enter the **Password** you wish to set and in **Confirm Password** re-enter the same.

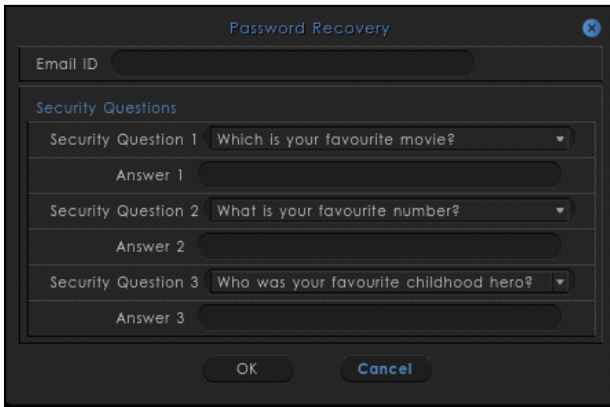
A dark-themed 'Please set your password' pop-up window with a close button (X) in the top right corner. It contains three input fields: 'Username' with the value 'admin', 'Password', and 'Confirm Password'. Below the fields is a 'Create Password' button.

*The Password you set must have atleast:*

- *a minimum of 5 characters to a maximum of 16 characters.*
- *1 Uppercase (A-Z)*
- *1 Lowercase (a-z)*
- *1 Number (0-9)*
- *1 Character - \_.,()[]:@!#\$\*+/\*

Click **Create Password**.

The **Password Recovery** pop-up appears. You can configure the Email ID and/or Security Questions which will be used to recover the password if you forget the password.

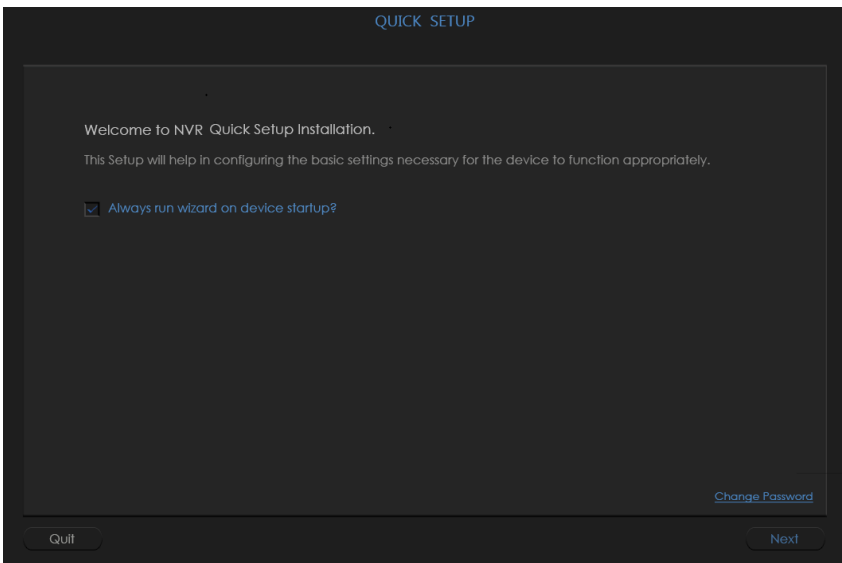


The screenshot shows a dark-themed 'Password Recovery' dialog box. At the top, there is a title bar with the text 'Password Recovery' and a close button (X). Below the title bar is a text input field labeled 'Email ID'. Underneath is a section titled 'Security Questions' containing three rows. Each row has a dropdown menu for a question and a text input field for the answer. The questions are: 'Which is your favourite movie?', 'What is your favourite number?', and 'Who was your favourite childhood hero?'. At the bottom of the dialog are two buttons: 'OK' and 'Cancel'.

Click **OK** to save or click **Cancel** to discard.

The Login pop-up appears again. The **Username** and **Password** are auto-filled. The Password is the one that you set in the Create Password pop-up. Click **Login**.

Once logged in, the **Quick Setup Wizard** pop-up appears. It allows you to configure the basic parameters of NVR like Time and Language, Network, Storage, Camera Configuration and Search Camera.



The screenshot shows a dark-themed 'QUICK SETUP' dialog box. The title bar contains the text 'QUICK SETUP'. The main content area has the following text: 'Welcome to NVR Quick Setup Installation.', 'This Setup will help in configuring the basic settings necessary for the device to function appropriately.', and a checked checkbox labeled 'Always run wizard on device startup?'. At the bottom right, there is a link labeled 'Change Password'. At the bottom of the dialog are two buttons: 'Quit' and 'Next'.

If you wish to change the Password, you can do so by clicking the **Change Password** link on the Welcome page.

To navigate through the Wizard click **Next**. For configuration details of the Quick Setup Wizard, refer to [“Quick Setup Wizard”](#).

To change the LAN IP Address as per your installation scenario, refer to [“Network”](#) in [“Quick Setup Wizard”](#). For example, the LAN1 IP is set as 192.168.111.165.



*The IP Address of the NVR you set must not conflict with that of any other device on the LAN and it should be in the same Subnet as the network PC you are trying to access. If you need to change the IP Address, Subnet Mask and Gateway Address of your NVR, do it first from the Local Client and then connect the NVR to the LAN switch.*

You can cancel the Quick Setup process by clicking **Quit**. However, these parameters can also be configured later from the detailed configuration links. For details refer to the Matrix SATATYA System Manual.

After you have configured the LAN 1 IP Address of NVR as per your network installation scenario you can now access the Device Client, refer to [“Accessing the Device Client”](#).

## Accessing the Remote Client

You can access the Remote view in two ways, using:

- Device Client, refer to [“Accessing the Device Client”](#)
- SATATYA SIGHT, to know about how to use SATATYA SIGHT, download the application from Play Store / App Store and refer to the FAQs.

## Accessing the Device Client

Pre-requisites of the PC on which you wish to install the Device Client are as follows:

Hardware/Software	Recommended
Operating Systems	1. Windows 10 2. Windows 7 Service Pack 1 3. Windows 8 4. Windows 8.1 5. Windows Server 2003 Service Pack 2 6. Windows Server 2008 R2 SP1 7. Windows Server 2008 Service Pack 2 8. Windows Server 2012 9. Windows Vista Service Pack 2 10. Windows XP Service Pack 3
Processor	Intel Core i3 or higher at 1.6 GHz or faster
RAM	4 GB or higher
Hard disk	40 GB
Screen resolution	Minimum 1024 x 768
Graphics Accelerator	DirectX 9.0
Network Interface card	10/100 Base-T network adapter

The SATATYA device comes factory configured with the following default IPv4 address settings. If you wish to use IPv6 address, you need to configure the same as per your requirement.

Ethernet Port 1 default settings:

**IP Address: 192.168.1.123**

**Subnet Mask: 255.255.255.0**

**Gateway Address: 192.168.1.1**

Ethernet Port 2 default settings:

**IP Address: 192.168.2.2**

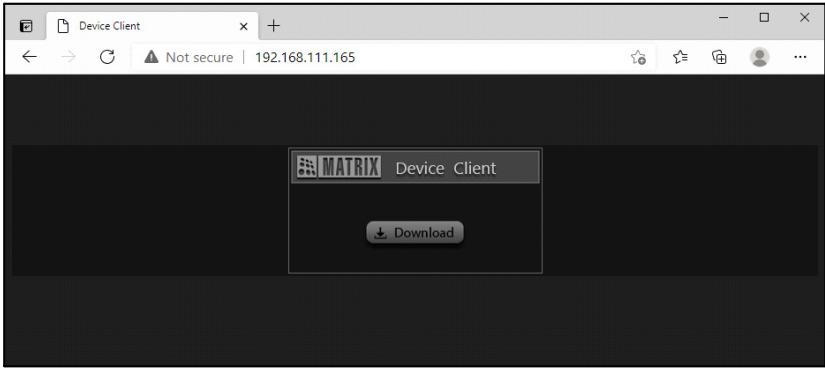
**Subnet Mask: 255.255.255.0**

**Gateway Address: 192.168.2.1**

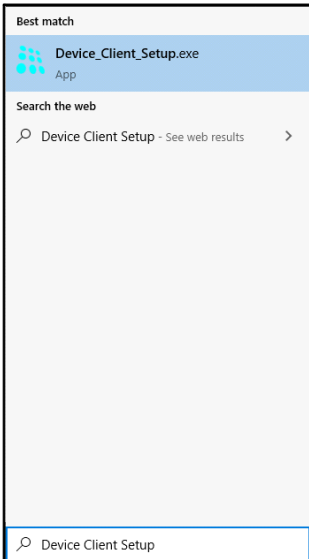
To access the Device Client,

- Open the web browser on your PC (make sure the PC is in the same network as NVR).

- In the Address Bar of the browser, enter the IP Address of NVR, for example LAN1: 192.168.111.165 as set from the Local Client. Press the Enter key on your keyboard.
- Click **Download** to download the Device Client Setup.



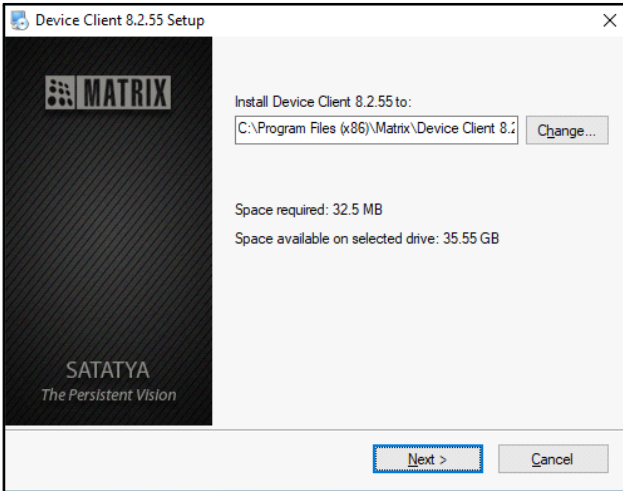
- Click on your PC search option and enter **Device Client Setup**. Click the same.



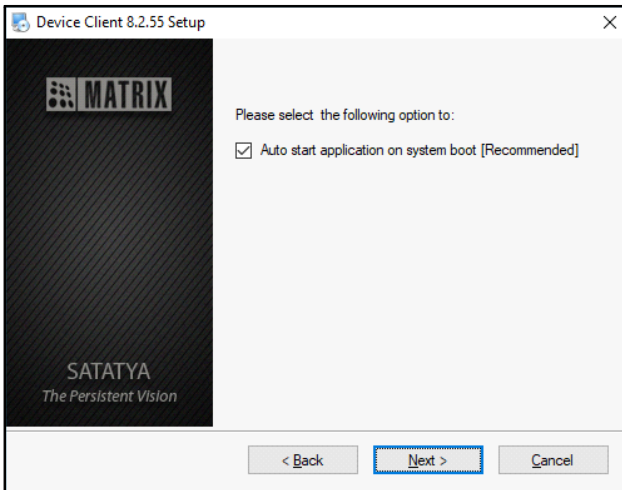
*Make sure you run the setup from the administrator login.*



- The Device Client Setup installation window appears.



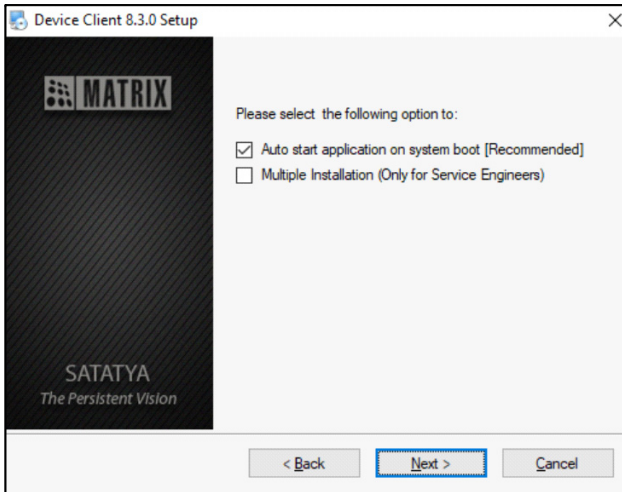
- The Default Path at which it will be installed appears. However, if required, you may change the Path of the folder where the Device Client is to be installed. Click **Next** to install the Device Client.



- Select the **Auto start application on system boot** check box, if you want the application to be launched every-time at the time of system boot. If enabled then the Device Client opens automatically on your screen, whenever the system boots.



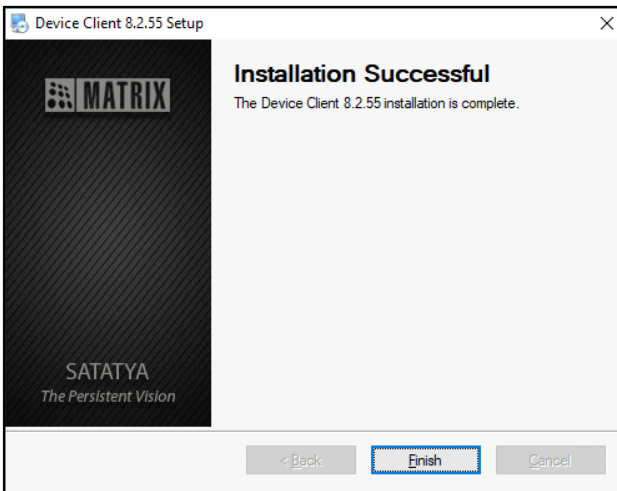
If you have Device Client already installed on your PC and you are installing an upgraded version, the option for **Multiple Installation** appears. For example, you have installed Device Client 8.2.55 and now you are upgrading the same with 8.3.0.




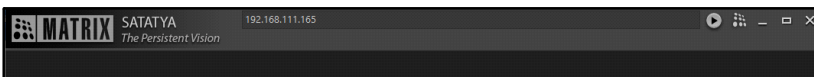
The option **Multiple Installation** is only for the System Engineers and not for end users. User should not enable the same while installing the Device Client setup.

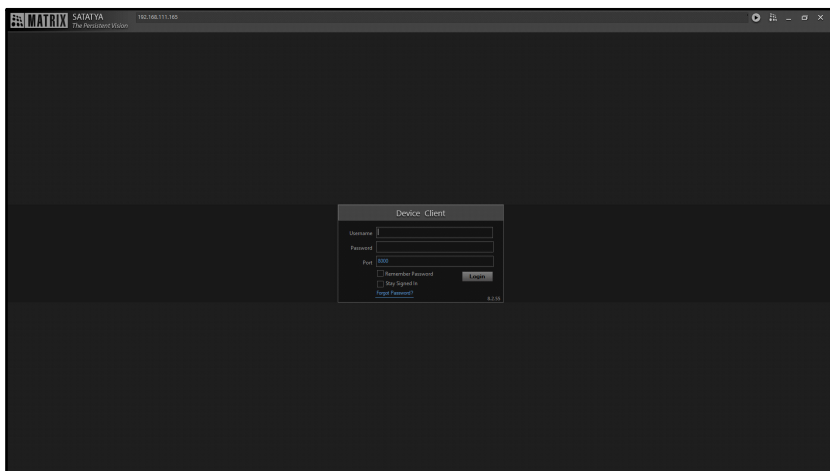
For System Engineers, Multiple Installation will require an Authentication Key. Only after the successful authentication, they can proceed with the Multiple Installation. For Authentication Key, please contact our Technical Support Team.

- Click **Next** and the installation begins. Once the installation is completed successfully, the following window appears.



- Click on **Finish** to complete the installation.
- The Device Client  icon appears on your Windows Desktop.
- Double-click on the icon to launch the Device Client Application.
- The Login page appears. Enter the IP Address of NVR you set, for example 192.168.111.165 in the Address Bar and press Enter key on your keyboard.

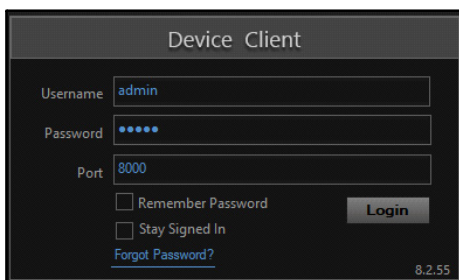




SATATYA supports three access levels - Administrator, Operator, Viewer. The default user names and passwords for these three levels are:

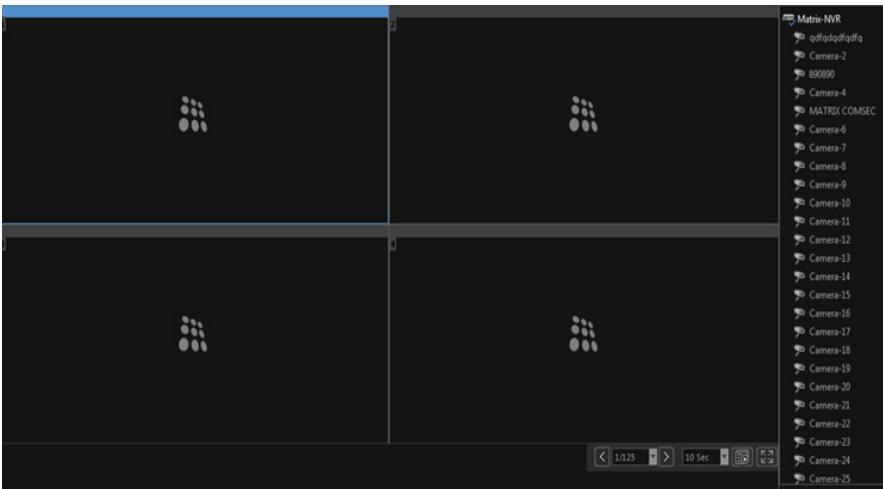
Access Level	Default User Name	Default Password
Administrator	admin	admin
Operator	operator	operator
Viewer	viewer	viewer

- The Login pop-up appears. The **Username** and **Password** are auto-filled. The Password is the one that you set while accessing the Local Client for the first time.

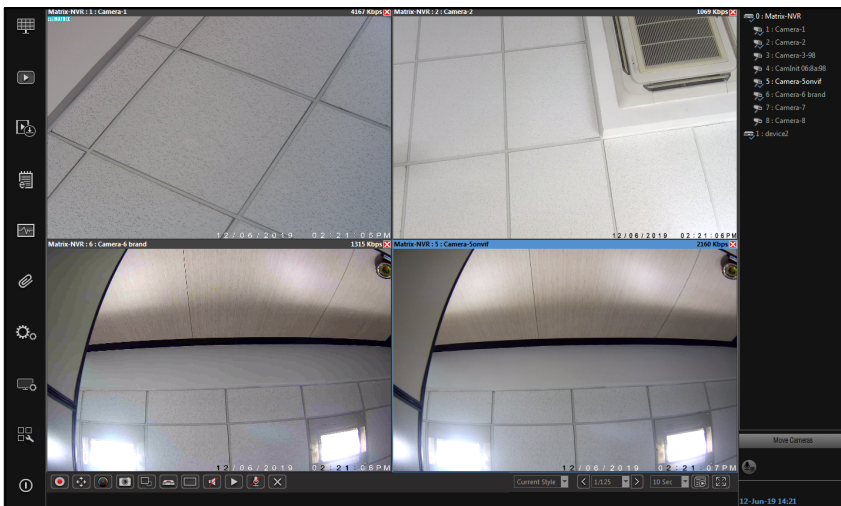



*If you have not accessed the Local Client earlier, then you need to set the Password now from the Device Client. For details, refer to [“Accessing the Local Client”](#). Make sure your PC and NVR are in the same network. If you set the Password from the Device Client, then you can access the Local Client using the same Password.*

- The Device Client Live View screen appears, with the default display layout (2x2).

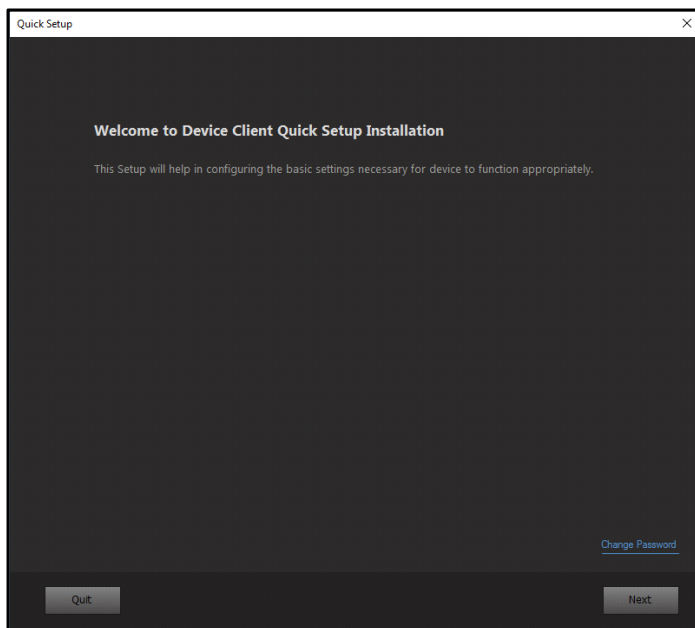


- Right-click on the device name in the right pane and select the **Connect All** option.
- The Live View of the cameras appears.



Click **Quick Setup**  from the left pane, if you wish to configure the basic parameters of NVR such as Date and Time, Network, Storage, Camera Configuration and Search Camera quickly.

The Quick Setup Wizard Welcome page appears.



If you wish to change the Password, you can do so by clicking the **Change Password** link on the Welcome page.


To navigate through the Quick Setup Wizard, click **Next**. For details, refer to "[Quick Setup Wizard](#)".

You can cancel the Quick Setup process by clicking **Quit**. However, these parameters can also be configured later from the detailed configuration links provided in the Device Client. For details refer to the Matrix SATATYA System Manual.



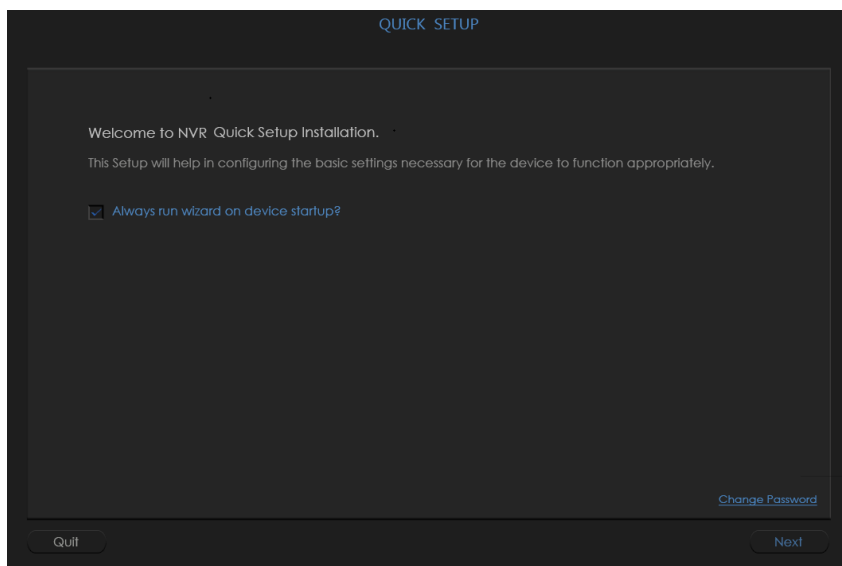
*SATATYA NVRX allows nine simultaneous login sessions on the Device Client.*

# Quick Setup Wizard

The Quick Setup Wizard appears automatically in the Local Client. However in the Device Client you need to click **Quick Setup**  from the left pane.

The Quick Setup Wizard configurations in the Local Client and the Device Client are similar.

Quick Setup Wizard configurations in the Local Client are as follows:



The **Always run wizard on device startup** check box will be selected by default and the Quick Setup Wizard will appear automatically every-time the device starts and is logged in again.



***Always run wizard on device startup*** option appears only in the Local Client.

To navigate through the Quick Setup Wizard, click **Next**. Click each link for details:

- [“Time and Language”](#)
- [“Network”](#)
- [“DHCP Server”](#)
- [“Storage”](#)

- “HDD Group”
- “Configure Camera”
- “Search Camera”
- “Status”

## Time and Language

Configure the Time and Language settings as follows:

The screenshot shows the 'Quick Setup' interface for 'Time and Language' settings. At the top, there is a progress bar with steps: 1. Time and Language, 2. Network, 3. DHCP Server, 4. Storage, 5. HDD Group, 6. Configure Camera, 7. Search Camera, and 8. Status. The current step is 'Time and Language'. Below the title, there are two radio buttons: 'Local Time' (unselected) and 'UTC Time' (selected). A checkbox 'Synchronize NVR Time Zone to ONVIF Cameras' is checked. The 'Time Zone' is set to '(GMT+05:30) Chennai, Kolkata, Mumbai, New Delhi'. The 'Date' is '07-Oct-2024' and the 'Time' is '10:29:44'. There is a 'Set' button with a globe icon. Below that, a checkbox 'Auto Synchronize with NTP Server' is checked. The 'Preferred NTP Server' is '192.168.101.202', the 'Update' interval is '24 Hours Interval', and the 'Language' is 'English'. At the bottom, there are 'Quit', 'Back', and 'Next' buttons.

**Synchronize Camera Time With:** Select the radio button of the desired option — **Local Time** or **UTC Time** — with which the time of the Camera is to be synchronized.

- **Local Time:** Selecting this option will update the time of the camera as per the current time of SATATYA Device. Also, the Time Zone of camera will be changed to the Standard Time Zone (GMT) accordingly.
- **UTC Time:** Selecting this option will update the time of the camera as per the running time in SATATYA Device but, it will not affect the Time Zone of the camera. If the **Synchronize NVR Time Zone to ONVIF Cameras** option is enabled then current Time Zone of the camera will also be updated as per the configurations in SATATYA Device.

**Synchronize NVR Time Zone to ONVIF cameras:** Select this check box to sync the Time Zone as well as Date and Time of NVR with the connected cameras.





*The **Synchronize NVR Time Zone to ONVIF Cameras** is applicable only if **UTC Time** is selected as the **Synchronize Camera Time With** option.*

**Time Zone:** Select the relevant Time Zone based on the location from the drop-down list.

**Date:** Set the Date by clicking on the calendar icon.

**Time:** Set the Time in 24 hours format. Click each option — HH, MM, SS — and then select the desired value from the drop-down list.

**Set:** Click **Set**  to save the settings.

**Auto Synchronize with NTP Server:** Select this check box if you wish to allow synchronization of the Device Date and Time with that of the NTP Server.

**Preferred NTP Server:** You can specify the IP Address or Host Name of the Preferred NTP Server to be used to update and synchronize System's Real Time Clock periodically at defined time interval. For example: NIST. The Preferred NTP Server field supports both IPv4 and IPv6 addresses.

- If you wish to configure IPv4 address, make sure you have selected either **IPv4** or **IPv4 & IPv6** as the **IP Addressing Mode** option in "**LAN 1**" or "**LAN 2**".
- If you wish to configure IPv6 address, make sure you have selected **IPv4 & IPv6** as the **IP Addressing Mode** option in "**LAN 1**" or "**LAN 2**".

**Update:** The Update Interval specifies the time period in hours between successive time synchronizations. Select the desired option from the drop-down list — Every 6 Hours, Every 12 Hours, Every 24 Hours.



*The **Date and Time** of cameras added through ONVIF in the device will be same as set in the **Time and Language** page.*

**Language:** Select the required Language from the drop-down list. This will be set as the default language of the Local as well as Device Client.



- *The **Language** feature is applicable only for NVRX/NVRX P2 variants.*
- *The other Languages except English must be configured first by Admin Group Users from the Device Client so that they appear in the Language drop-down list.*
- *The updated language will be reflected in the Device Client or vice-versa after next login.*

# Network

Configure the Network parameters for **LAN 1** and **LAN 2** as follows:

## LAN 1

The screenshot shows the 'Quick Setup' interface for network configuration. The 'Network' section is active, showing settings for 'LAN 1'. The 'IP Addressing Mode' is set to 'IPv4'. Under 'IPv4 Assignment Mode', the 'Static' radio button is selected. The IPv4 address is '192.168.111.214', the subnet mask is '255.255.255.0', and the default gateway is '192.168.111.1'. The 'DNSv4 Mode' is set to 'Static', with preferred DNS '192.168.1.1' and alternate DNS empty. The 'IPv6' section is disabled. At the bottom, there are 'Quit', 'Back', and 'Next' buttons.

Network	
LAN	LAN 1
IP Addressing Mode	IPv4
IPv4 Assignment Mode	<input checked="" type="radio"/> Static <input type="radio"/> DHCP
IPv6 Assignment Mode	<input type="radio"/> Static <input checked="" type="radio"/> DHCP <input type="radio"/> SLAAC
IPv4 Address	192.168.111.214
IPv6 Address	
Subnet Mask	255.255.255.0
Prefix Length	64
Default Gateway	192.168.111.1
Default Gateway	
DNSv4 Mode	<input checked="" type="radio"/> Static <input type="radio"/> Automatic
DNSv6 Mode	<input checked="" type="radio"/> Static <input type="radio"/> Automatic
Preferred DNS	192.168.1.1
Preferred DNS	2001:4860:4860::8888
Alternate DNS	.
Alternate DNS	.

Select LAN 1 from the **LAN** drop-down list.

**IP Addressing Mode:** Select the IP Addressing Mode from the drop-down list options — IPv4, IPv4 & IPv6.

If you select IPv4, you can configure “IPv4 Assignment Mode” and “DNSv4 Mode” only.

If you select IPv4 & IPv6, you can configure “IPv4 Assignment Mode”, “DNSv4 Mode”, “IPv6 Assignment Mode” and “DNSv6 Mode”.

### ***IPv4 Assignment Mode***

The SATATYA NVRX/ NVRX P2 has two modes of IP assignment based on which the network settings of the NVRX can be configured. You can configure two modes — Static, DHCP — from the Quick Setup Wizard as follows:

**Static:** Click the Static radio button to select this option and configure the following parameters:

- **IPv4 Address:** Configure an IPv4 IP Address to be assigned to the LAN Port of NVRX/ NVRX P2.
- **Subnet Mask:** Configure the Subnet Mask to be assigned to the LAN Port of NVRX/ NVRX P2.
- **Default Gateway:** Configure the IPv4 IP Address of the Gateway to be assigned to the LAN Port of NVRX/ NVRX P2.

**DHCP:** Click the DHCP radio button to select this option. The DHCP Server automatically assigns an IPv4 IP Address, Subnet Mask and Default Gateway Address to the LAN Port of NVRX/ NVRX P2.

### ***DNSv4 Mode***

The DNSv4 Mode enables you to specify the Server that normally provides the translation of Domain Names to IP Addresses in your network.

If you have selected **IPv4 Assignment Mode** as **Static**, you can select only **Static** as the DNS Mode.

If you have selected **IPv4 Assignment Mode** as **DHCP**, you can select either **Automatic** or **Static** as the DNS Mode.

If you select the **Automatic** radio button the DNS Server in your network will automatically provide the translation of Domain Names to IP Addresses.

If you select the **Static** radio button, then configure the **Preferred DNS Server** and **Alternate DNS Server** (if required).

If the Preferred DNS Server is not able to resolve a domain name immediately, it will then distribute the domain name query to Alternate DNS Server in the network.

The Alternate DNS Server, will provide the domain name translation if the Preferred DNS Server is unavailable to do so.

### ***IPv6 Assignment Mode***

The SATATYA NVRX/ NVRX P2 has three modes of IP assignment based on which the network settings of the NVRX can be configured. You can configure three modes — Static, DHCP,SLAAC — from the Quick Setup Wizard as follows:

**Static:** Click the Static radio button to select this option and configure the following parameters:

- **IPv6 Address:** Configure an IPv6 IP Address to be assigned to the LAN Port of NVRX/ NVRX P2.
- **Prefix Length:** Configure the Prefix Length to be assigned to the LAN Port of NVRX/ NVRX P2.
- **Default Gateway:** Configure the IPv6 IP Address of the Gateway to be assigned to the LAN Port of NVRX/ NVRX P2.

**DHCP:** Click the DHCP radio button to select this option. The DHCP Server automatically assigns an IPv6 IP Address, Prefix Length and Default Gateway Address to the LAN Port of NVRX/ NVRX P2.

**SLAAC:** Click the SLAAC radio button to select this option. The device will automatically generate an IPv6 Address. SLAAC is a mechanism that enables the device to auto-configure a unique IPv6 Address by combining the Prefix received in the Router Advertisement and its own MAC Address. The same is assigned to the LAN Port of NVRX/ NVRX P2.

### ***DNSv6 Mode***

The DNSv6 Mode enables you to specify the Server that normally provides the translation of Domain Names to IP Addresses in your network.

If you have selected **IPv6 Assignment Mode** as **Static**, you can select only **Static** as the DNS Mode.

If you have selected **IPv6 Assignment Mode** as **DHCP/SLAAC**, you can select either **Automatic** or **Static** as the DNS Mode.

If you select the **Automatic** radio button the DNS Server in your network or Router/ITSP will automatically provide the translation of Domain Names to IP Addresses.

If you select the **Static** radio button, then configure the **Preferred DNS Server** and **Alternate DNS Server** (if required).

If the Preferred DNS Server is not able to resolve a domain name immediately, it will then distribute the domain name query to Alternate DNS Server in the network.

The Alternate DNS Server, will provide the domain name translation if the Preferred DNS Server is unavailable to do so.



*The configuration of selected option (LAN 1 or LAN 2) will be saved once it is switched from LAN 1 to LAN 2 or vice versa.*

## LAN 2

Select the LAN 2 from the **LAN** drop-down list.

The screenshot shows the 'Quick Setup' interface for network configuration. At the top, there is a progress bar with steps: 1. Time and Language, 2. Network (selected), 3. DHCP Server, 4. Storage, 5. HDD Group, 6. Configure Camera, 7. Search Camera, and 8. Status. Below the progress bar, the 'Network' section is displayed. It features a 'LAN' dropdown menu set to 'LAN 2' and an 'IP Addressing Mode' dropdown menu set to 'IPv4 & IPv6'. The configuration fields are as follows:

Field	Value
IPv4 Address	192 .168 .2 .2
Subnet Mask	255 .255 .255 .0
Default Gateway	192 .168 .2 .1
IPv6 Address	
Prefix Length	64
Default Gateway	

At the bottom of the screen, there are three buttons: 'Quit', 'Back', and 'Next'.

For LAN 2, you can configure two modes — IPv4, IPv4 & IPv6— as **IP Addressing Mode**.

If you select **IPv4**, you can configure IPv4 parameters.

If you select **IPv4 & IPv6**, you can configure both IPv4 and IPv6 parameters.

**IPv4 Address:** Configure an IPv4 IP Address to be assigned to the LAN Port of NVRX/ NVRX P2.

**Subnet Mask:** Configure the Subnet Mask to be assigned to the LAN Port of NVRX/ NVRX P2.

**Default Gateway:** Configure the IPv4 IP Address of the Gateway to be assigned to the LAN Port of NVRX/ NVRX P2.

**IPv6 Address:** Configure an IPv6 IP Address to be assigned to the LAN Port of NVRX/ NVRX P2.

**Prefix Length:** Configure the Prefix Length to be assigned to the LAN Port of NVRX/ NVRX P2.

**Default Gateway:** Configure the IPv6 IP Address of the Gateway to be assigned to the LAN Port of NVRX/ NVRX P2.



LAN 2 option will not be available for the devices having a single LAN port and will be visible as per your NVRX/ NVRX P2 variant.

## DHCP Server

Configure the DHCP Server parameters as follows:

**Enable DHCP Server:** Select the check box to enable DHCP Server configuration.

**Ethernet Port:** Select the desired Ethernet Port — LAN 1, LAN 2— from the drop-down list.

**Start IP Address:** Specify the Start IP Address to be assigned to the DHCP Clients.

**Number of Hosts:** Specify the number of hosts to be assigned IP Address by the DHCP Server.

**Subnet Mask:** Specify the Subnet Mask of the DHCP Server.

**Default Gateway:** Specify the Default Gateway of the DHCP Server.

**DNS Address:** Specify the DNS Address to be assigned to the DHCP Clients.

**Lease Hours:** Specify the Lease Hours for which the IP Addresses are allocated to the DHCP clients.

Click **IP List and Status** to fetch the list of IP Address assigned to the DHCP Clients by the DHCP Server.



- *DHCP Server is applicable to NVRX/NVRX P2 variants only.*
- *After completing the configurations if you change any parameter of the DHCP Server or LAN Port, the allocated IP List will get cleared.*

## Storage

You can configure the volume for the storage in NVR. It supports different RAID levels for storing the data in multiple physical disks interfaced with the NVR.

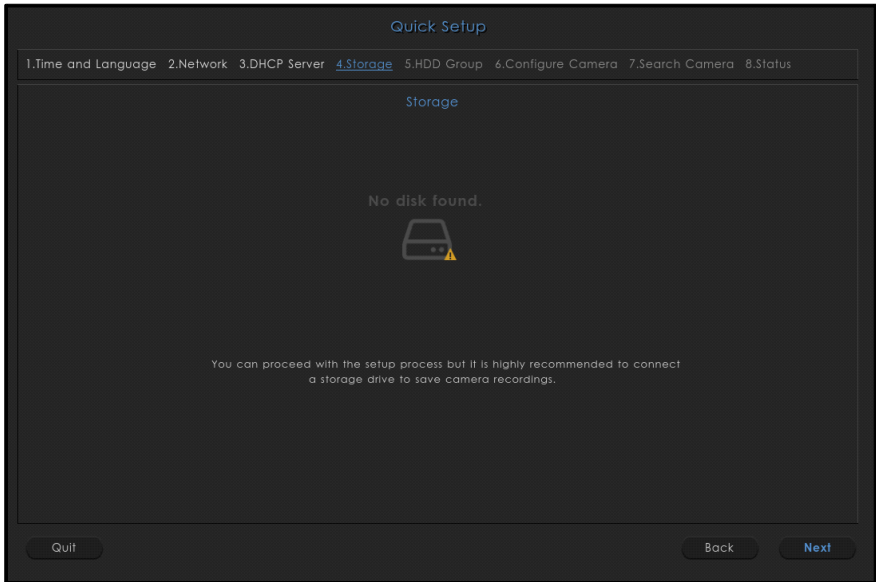
RAID level is used to improve the performance of the system by load sharing and providing fault tolerance and redundancy. This maintains redundant data which can be used to restore data on the event of disk failure.

SATATYA NVR Series variants support RAID 0, RAID 1, RAID 5 and RAID 10 HDD modes.

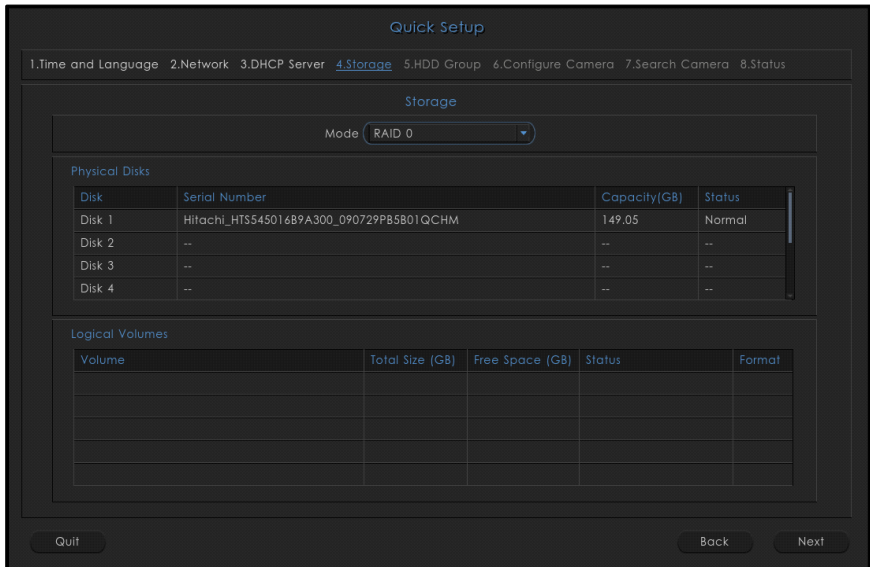
Among all the NVRX/NVRX P2 variants, there is difference in number of available SATA interfaces and Ethernet ports. So based on SATA interfaces, RAID level can be configured.

For the detailed explanations of supported RAID types and to know more about RAID creation and Total Logical Volume in different NVRX/NVRX P2 series variants, refer the **Raid Concept** in the Matrix SATATYA System Manual.

Storage page appears on the screen as **No Disk Found** if the Hard Disks (HDD) are not connected with the device.



Once the HDDs are connected you can configure the storage for your NVR as follows:




The NVR provides different modes for storage management. Select the desired mode of storage from the **Mode** drop-down list — Single Disk Volume, RAID 0, RAID 1, RAID 5, RAID 10.





*The RAID options will be visible as supported by your variant.*

The **Physical Disks** section displays — Serial Number, Capacity and Status of the connected disks.

The **Logical Volumes** section displays — Volume (Mode along with the Disk Number), Total Space, Free Space, Status and Format options of the connected disks. Click **Format**  of the desired disk if you wish to format it.

## HDD Group

You can group the HDDs and allocate cameras to these groups in the following — NVR3202X P2, NVR3204X P2, NVR6404X P2, NVR6408X P2 and NVR9608X P2.

The **HDD Group** displays the maximum number of Hard Disks installed in the system.



*The HDD Group will differ for each device variant according to the maximum number of Hard Disks supported and installed in the system. For number of Hard Disks supported for each variant, refer to Installing Hard Disk in Matrix SATATYA System Manual.*

**Select Volume** displays the disks/RAID automatically. This is dependent on the **Mode** selected in the **Storage** tab.



*The RAID supported for each device variant will differ according to the number of Hard Disks installed and the mode selected in the “Storage” tab. For RAID supported in each variant, refer to RAID Creation in NVRX series variants in Matrix SATATYA System Manual.*

**Select Cameras** displays all the cameras connected to the system.

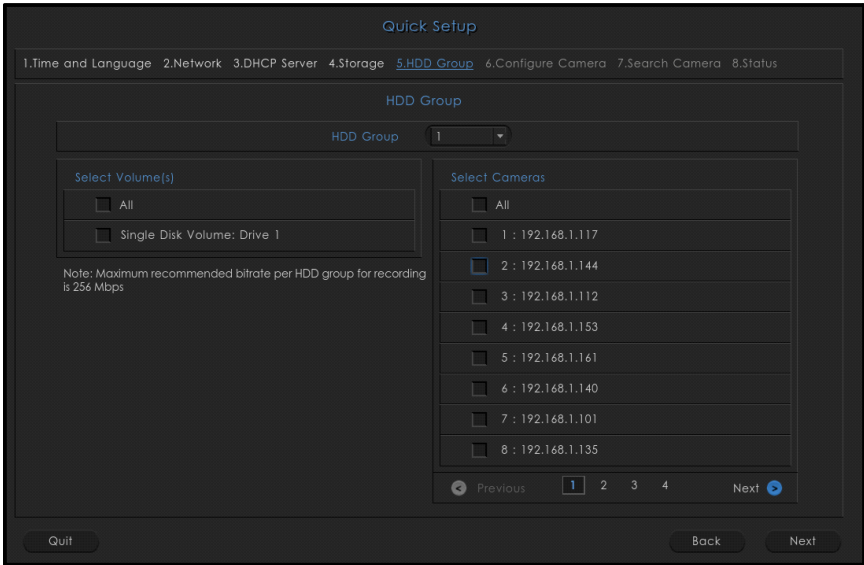
You can create HDD Groups in which you can assign cameras to the desired Volumes. The recordings of these selected cameras will be stored in the selected Volumes.

For Example,

Under **Storage** tab, the **Mode** selected is Single Disk Volume.

Then, under **HDD Group** tab, all the disks will appear individually as per the number of HDDs connected.

Whereas, if the **Mode** is selected as RAID 0/1/5/10, then all the disks will appear as Logical Volumes according to the configured RAID. The maximum number of supported disks is 8.

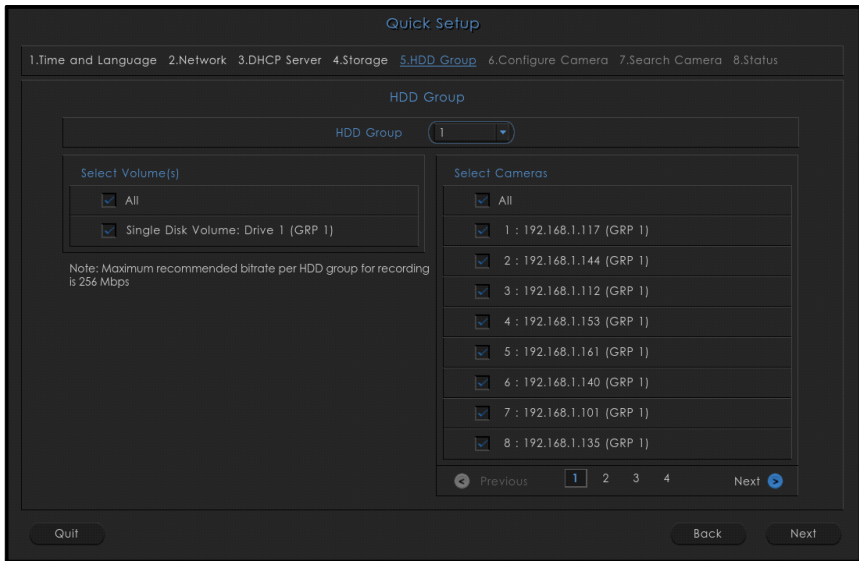


Configure the HDD Group parameters as per your requirement:

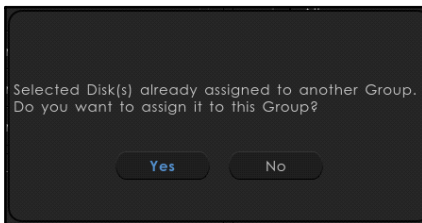
**HDD Group:** Select the desired HDD Group from the drop-down list to which you wish to allocate HDDs displayed under Select Volume(s).

**Select Volume(s):** Select the check boxes of the desired Volume(s) to be allocated to the selected HDD Group. For Example, HDD Group 1 can have Disk 1 and Disk 2, Group 2 can have Disk 3, Disk 4 and Disk 5 and so on. The Group number will be displayed once the disks are allocated to a group.

**Select Cameras:** Select the check boxes of the desired cameras that you wish to allocate to the Volumes assigned to the selected HDD Group. The recording of the selected cameras will be stored in the Volumes assigned to the selected HDD Group. The Group number will be displayed once the cameras are allocated to a group.

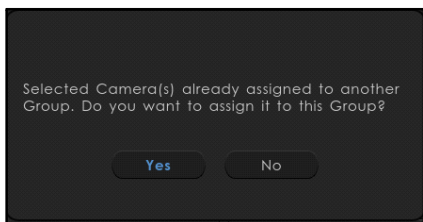


One Volume can be allocated to any one of the HDD Groups. Similarly, one camera can be allocated to any one of the Volume within a HDD Group. When a Volume which is already allocated to a group is selected to be allocated to other group, the following pop-up appears.



Click **Yes** to move the Volume to the selected group or click **No** to discard.

Similarly, when a camera which is already allocated to a group is selected to be allocated to other group, the following pop-up appears.



Click **Yes** to move the camera to the selected group or click **No** to discard.

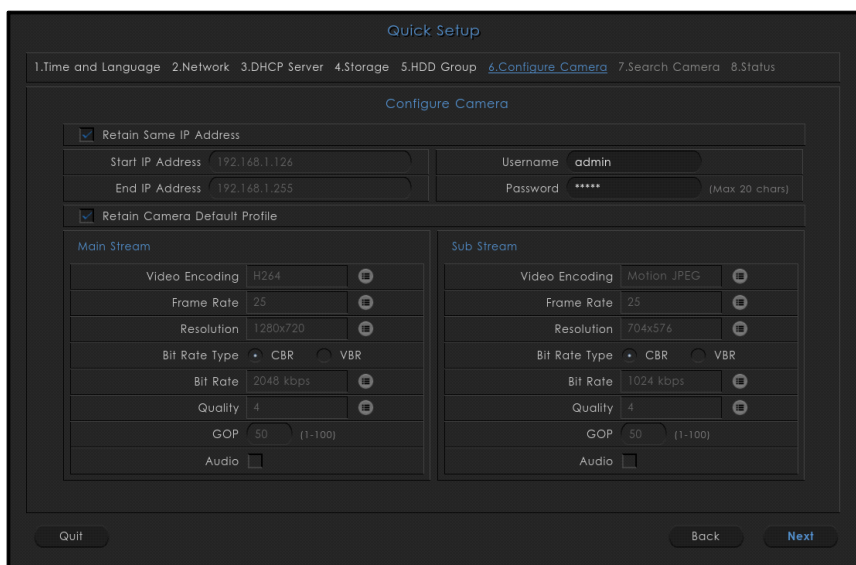
Click **Save** to save the configuration. All the ongoing recording will stop and will resume as per the new HDD Group configuration.



*It is recommended that the Total Bitrate of all the cameras in a HDD Group should be 256 Mbps for optimum performance.*

## Configure Camera

This page allows you to configure the parameters for the cameras to be added to the NVR.



- **Retain same IP Address:** Select this check box, if you wish to add the searched cameras with the same searched IP Address to NVR. Clear this check box, if you wish

to define the range of IP Addresses that are to be assigned to the searched cameras. All the cameras will be assigned IP Address within this defined range and then added to the NVR. For this you must configure the **Start IP Address** and **End IP Address**.



*When Retain Same IP Address check box is selected and the searched cameras have both IPv4 and IPv6 address, then the camera will be added with IPv4 address only.*

- **Start/End IP Address** : Define a range, that is, the Start IPv4/IPv6 Address and End IPv4/IPv6 Address within which the searched cameras must be assigned IP Addresses.
- **Username/Password**: Enter the Username and Password of your choice with which the cameras are to be added to the device.
- **Retain Camera Default Profile**: Select the check box if you wish to autostart the Live Stream of the cameras with their default profiles. Clear the check box if you wish the set the Main Stream and Sub Stream parameters as per your choice.

## Main Stream and Sub Stream

This option enables you to set the streaming parameters for the defined cameras. Configure the parameters for the Main Stream and Sub Stream as follows:

**Video Encoding**: Click the picklist and click again to select the desired Video Encoding option.

**Frame Rate**: Click the picklist and double-click to select the desired Frame Rate. The range of frame rate that can be set for a camera is 1 to 30, for cameras added via Brand-Model and Camera Initiation. In NVRX/NVRX/NVRX P2 when cameras are added via ONVIF, the range of frame rate that can be set is 1 to 64. The range for cameras added via ONVIF will differ. It will depend on the frame rate range supported by the camera.



*2MP Ruggedized cameras with firmware IPCamera\_S05\_FirmwareV03R01 and later support Frame Rate range 1 to 60, added via any method. This is applicable for NVRX/NVRX P2 series only.*

**Resolution**: Click the picklist and click again to select the desired Resolution option.



*The Stream Resolution of selected IP Camera will be displayed in the Resolution list. In case, you have configured the ROI (Region Of Interest) in the running Stream Profile of the IP Camera then, the Stream Resolution of that particular Stream will be displayed in the Resolution list.*

*The camera streams with custom resolution of minimum 64pixels and maximum 8192pixels will be displayed in the Live View.*

*The VGA resolution, that is 640x480 is supported in all Matrix Cameras supported by NVR/NVRX, except the following:*

- *SATATYA CIBR13FL40CW*
- *SATATYA CIDR13FL40CW*
- *SATATYA CIDRP20VL130CW*
- *SATATYA CIBR30FL36CG*
- *SATATYA CIBR30FL60CG*
- *SATATYA CIDR30FL36CW*
- *SATATYA CIDR30FL60CW*

**Bit Rate Type:** Click the desired radio button — Constant Bit Rate (CBR) or Variable Bit Rate (VBR).

**Bit Rate:** Click the picklist and click again to select the desired Bit Rate option.

**Quality:** Click the picklist and click again to select the desired Quality option. Selecting higher settings will give you higher quality video, at the expense of network bandwidth and disk storage capacity.

**GOP:** Configure the desired GOP from 1 to 100.

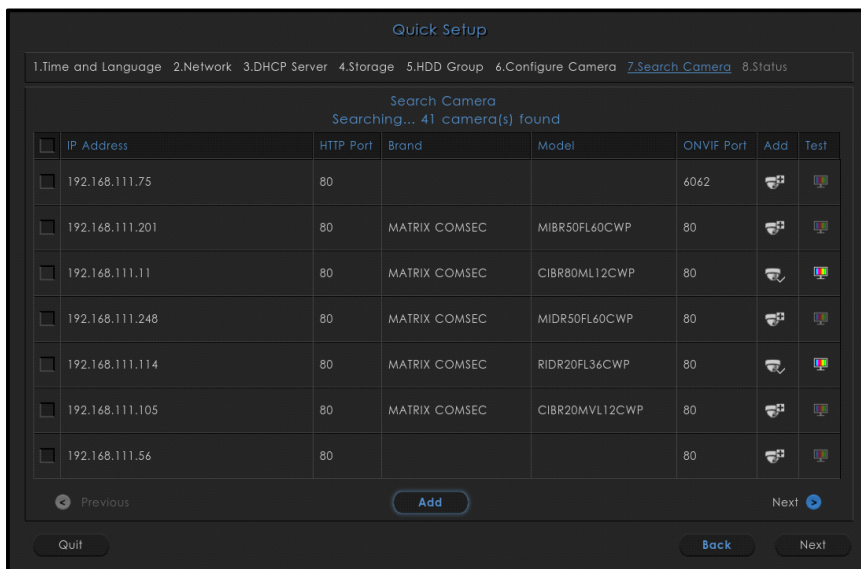
**Audio:** Select this check box if you wish to enable Audio in synchronization with the video for the stream type of selected camera. Clear to disable.



*Audio will function only if supported by the camera.*

## Search Camera

As per the configuration of the LAN parameter, the cameras in the network will be displayed with the following details — IPv4/IPv6 Address, HTTP Port, Brand Name, Model Name, ONVIF Port, Add and Test Camera— on this page.

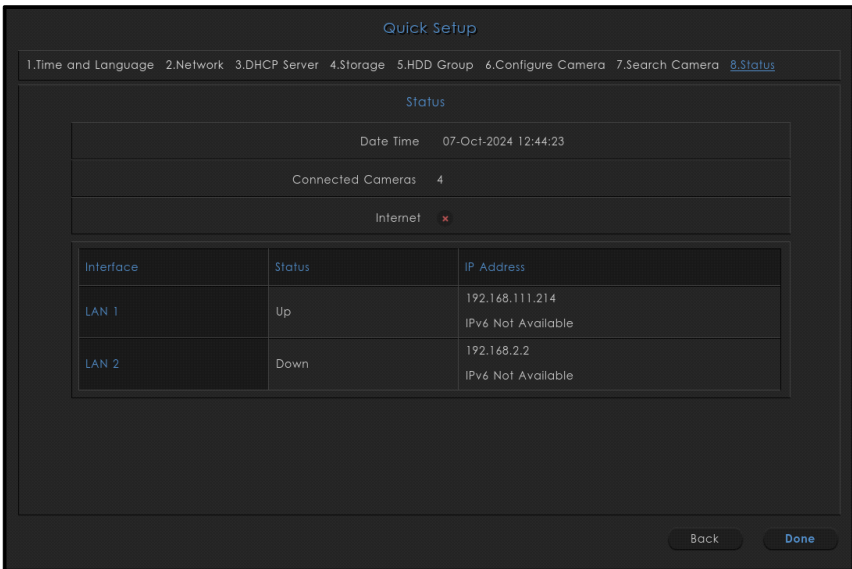


If the Camera is already added, then the **Add** column will display status with symbol . **Test** against the added camera is enabled. Click Test to test the Camera.

If the Camera is not added, then the **Add** column will display status with symbol . Click each to add the Cameras individually. Then Test will be enabled. Click Test to test the Camera.

If the Cameras are not added and you wish to auto configure all the cameras, then select the check boxes of the desired cameras and click **Add**. For details, refer to the Matrix SATATYA System Manual (Device Configuration > Camera Settings > Camera Search).

# Status

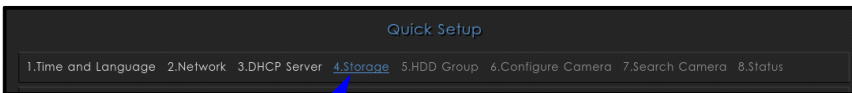


The following details are displayed — Date and Time, Connected Cameras and Internet connectivity.

**Interface** section displays the connected LAN and its status with assigned IPv4/IPv6 Address depending on the IP Addressing Mode option selected in “[LAN 1](#)” or “[LAN 2](#)”.

Click **Done** to complete the setup or **Back** button to re-configure the previous parameters.

Once all parameters are configured you can also switch to the particular parameter to re-configure by clicking on to the respective tab.

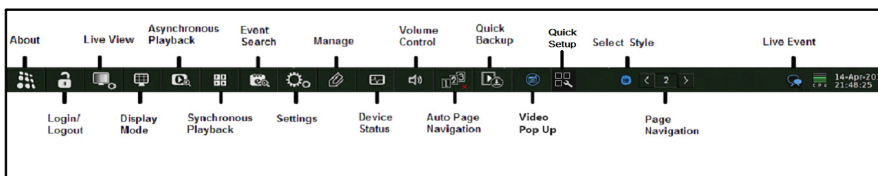


*You can also access the Quick Setup from the Device Client. The configurations are similar to that of the Quick Setup in the Local Client. For details refer to the Matrix SATATYA System Manual.*



## Accessing the Toolbar - Local Client

- Hover the mouse at the bottom of the monitor screen to invoke the Toolbar.



- You can also access the **Quick Setup**  from the Toolbar.
- To change other configuration settings, click **Settings** . The following screen appears:



Click the desired link to change the configurations.

After to have completed the desired configurations and if you wish to exit the application, click

**Logout**  from the Toolbar.



# Configuring SATATYA NVR

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## Formatting the Hard Disk

You can format the hard disks you have installed from the Local Client or Device Client.


### From Local Client

To format the Hard Disk you have installed in the NVR, make sure you have connected a Monitor, Mouse and Keyboard to the NVR, the NVR is powered on and is working.

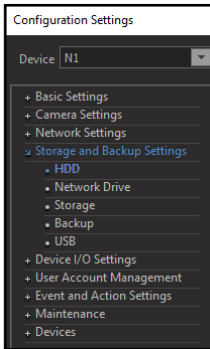
Invoke the tool bar using the mouse.

- Log in with the **Username** (default: admin) and **Password** (as set by you).
- Click **Settings**  on the Toolbar.
- Click **Storage and Backup Settings** and then click **HDD**.
- The **HDD Management** page appears. Click **Format**  of the desired disk to format it. SATATYA NVR will start formatting the hard disk. The status of the hard disk will change from **Normal** to **Creating** and then to **Formatting**.

### From Device Client

- Make sure you have installed the Device Client installed on your PC.
- Double-click the Device Client  icon.
- In the address bar enter the current IP Address of your NVR and press the Enter key of your keyboard.
- Enter the **Username** (default: admin) and **Password** (as set by you).
- Click **Login**.

- Click **Device Configuration**  from the left pane.



- Click **Storage and Backup Settings**, then click **HDD**.
- The **HDD Management** page appears. Click **Format**  of the desired disk to format it.

## Configuring Network Settings

The SATATYA device comes factory configured with the following default IPv4 address settings. If you wish to use IPv6 address, you need to configure the same as per your requirement.

### LAN 1

IP Address: **192.168.1.123**  
Subnet Mask: **255.255.255.0**

### LAN 2

IP Address: **192.168.2.2**  
Subnet Mask: **255.255.255.0**



*The number of LAN ports differ according to the variants. To know more about the number of LAN ports, refer to [“Know Your SATATYA NVR”](#).*



Ask your network administrator for information on the IP Addressing used by the network to which your NVR is connected.

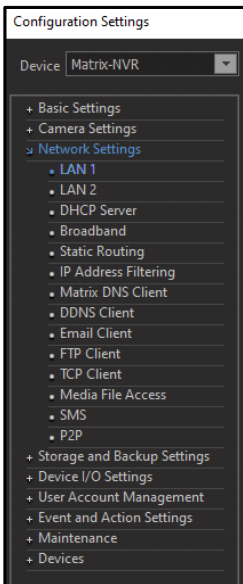
## From Local Client

- Hover the mouse at the bottom of the monitor screen to invoke the Toolbar.

- Click **Settings** .
- Click **Network Settings** and click either **LAN 1** or **LAN 2** or **DHCP Server**.

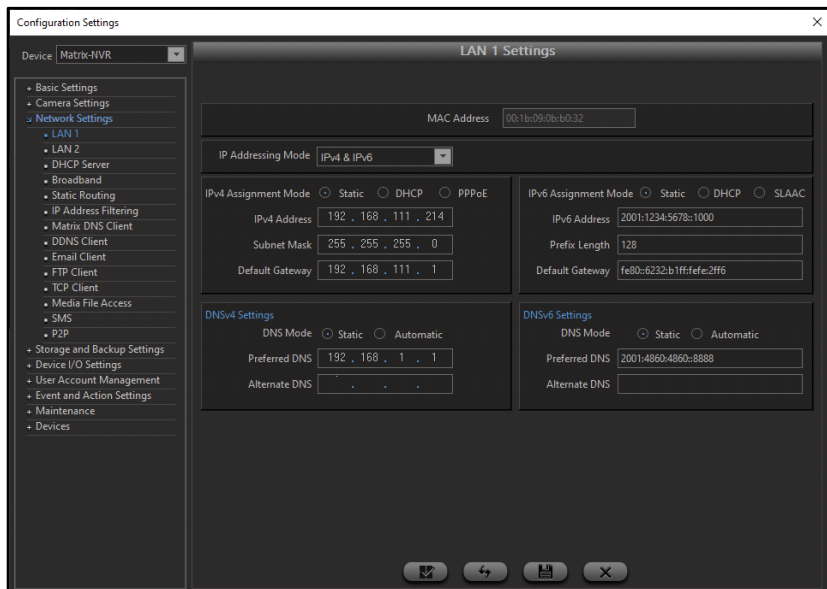
## From Device Client

- Make sure you have installed the Device Client installed on your PC.
- Double-click the Device Client  icon.
- In the address bar enter the current IP Address of your NVR and press the Enter key of your keyboard.
- Enter the **Username** (default: admin) and **Password** (as set by you).
- Click **Login**.
- Click **Device Configuration**  in the left pane.
- Click **Network Settings**.



## LAN 1 Settings

Click **LAN 1**.



- **MAC Address:** This field displays the MAC address of the NVR's Ethernet port and cannot be edited.
- Select the **IP Addressing Mode** of the network to which your NVR is connected from the drop-down list options — IPv4, IPv4 & IPv6.

If you select IPv4, you can configure “IPv4 Assignment Mode” and “DNSv4 Settings” only.

If you select IPv4 & IPv6, you can configure “IPv4 Assignment Mode”, “DNSv4 Settings”, “IPv6 Assignment Mode” and “DNSv6 Settings”.

### IPv4 Assignment Mode

The NVRX/NVRX P2/HVR has three modes of IP assignment based on which the network settings of the HVR can be configured. The following three modes of IP assignments are available:

- **Static:** On selecting Static mode, the administrator can assign:
  - **IPv4 Address:** Static IPv4 IP Address to the HVR based on the availability.
  - **Subnet Mask:** The Subnet Mask for the LAN.
  - **Default Gateway:** The IPv4 IP Address of the Gateway.

- **DHCP:** On selecting the DHCP option, the DHCP server automatically assigns an IPv4 IP address to the HVR when it comes on the network.
- **PPPoE:** On selecting the PPPoE mode, the IPv4 IP Address and the Subnet Mask will be assigned automatically by the PPPoE Server. Configure the **User Name** and **User Password** as provided by the network administrator.

## DNSv4 Settings

The DNSv4 Settings enables you to specify the Server that normally provides the translation of Domain Names to IP Addresses in your network.

- If you have selected **IPv4 Assignment Mode** as **Static**, you can select only **Static** as the DNS Mode.
- If you have selected **IPv4 Assignment Mode** as **DHCP/PPPoE**, you can select either **Automatic** or **Static** as the DNS Mode.
  - If you select the **Automatic** radio button the DNS Server/PPPoE Server in your network will automatically provide the translation of Domain Names to IP Addresses.
  - If you select the **Static** radio button, then configure the **Preferred DNS Server** and **Alternate DNS Server** (if required).

If the Preferred DNS Server is not able to resolve a domain name immediately, it will then distribute the domain name query to Alternate DNS Server in the network.

The Alternate DNS Server, will provide the domain name translation if the Preferred DNS Server is unavailable to do so.

## IPv6 Assignment Mode

The NVRX/NVRX P2/HVR has three modes of IP assignment based on which the network settings of the HVR can be configured. The following three modes of IP assignments are available:

- **Static:** On selecting Static mode. the administrator can assign
  - **IPv6 Address:** Static IPv6 IP Address to the HVR based on the availability.
  - **Prefix Length:** The Prefix Length for the LAN.
  - **Default Gateway:** The IPv6 IP Address of the Gateway.
- **DHCP:** On selecting the DHCP option, the DHCP server automatically assigns an IPv6 IP Address to the HVR when it comes on the network.

- **SLAAC:** On selecting the SLAAC mode, the device will automatically generate an IPv6 IP Address. SLAAC is a mechanism that enables the device to auto-configure a unique IPv6 IP Address by combining the Prefix received in the Router Advertisement and its own MAC Address. The same is assigned to the LAN Port of NVRX/ NVRX P2.

## DNSv6 Settings

The DNSv6 Settings enables you to specify the Server that normally provides the translation of Domain Names to IP Addresses in your network.

- If you have selected **IPv6 Assignment Mode** as **Static**, you can select only **Static** as the DNS Mode.
- If you have selected **IPv6 Assignment Mode** as **DHCP/SLAAC**, you can select either Automatic or Static as the DNS Mode.
  - If you select the **Automatic** radio button the DNS Server in your network or Router/ITSP will automatically provide the translation of Domain Names to IP Addresses.
  - If you select the **Static** radio button, then configure the **Preferred DNS Server** and **Alternate DNS Server** (if required).

If the Preferred DNS Server is not able to resolve a domain name immediately, it will then distribute the domain name query to Alternate DNS Server in the network.

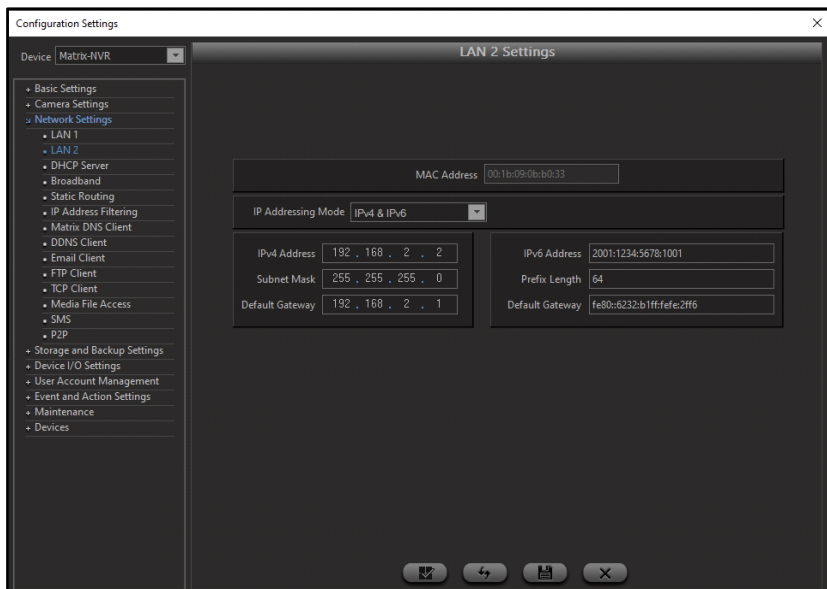
The Alternate DNS Server, will provide the domain name translation if the Preferred DNS Server is unavailable to do so.

- Click **Save**.



## LAN 2 Settings

Click **LAN 2**.



- **MAC Address:** This field displays the MAC address of the NVR's Ethernet port and cannot be edited.

For LAN 2, you can configure two modes — **IPv4**, **IPv4 & IPv6**— as **IP Addressing Mode**.

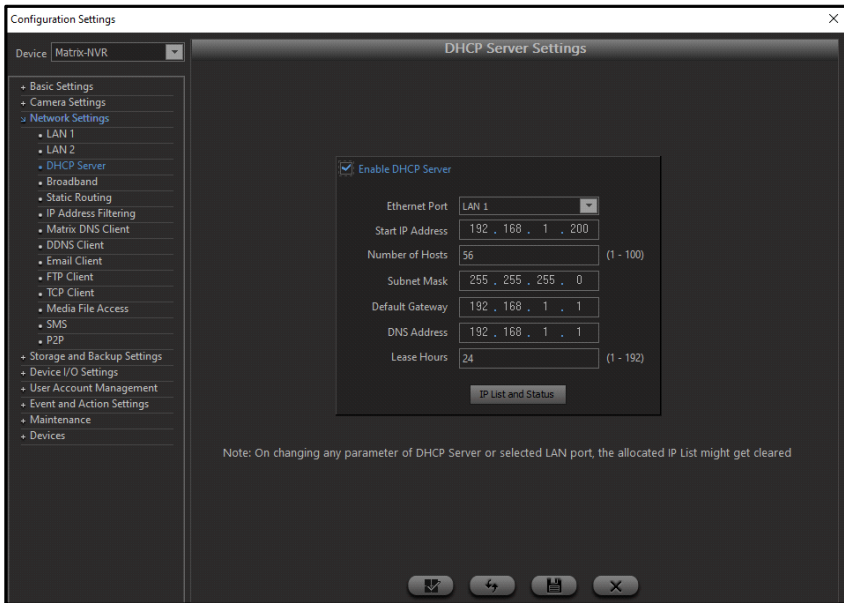
- If you select **IPv4**, you can configure IPv4 Parameters.
- If you select **IPv4 & IPv6**, you can configure both IPv4 and IPv6 Parameters.
  - **IPv4 Address:** Configure an IPv4 IP Address to be assigned to the LAN Port of NVRX/ NVRX P2.
  - **Subnet Mask:** Configure the Subnet Mask to be assigned to the LAN Port of NVRX/ NVRX P2.
  - **Default Gateway:** Configure the IPv4 IP Address of the Gateway to be assigned to the LAN Port of NVRX/ NVRX P2.
  - **IPv6 Address:** Configure an IPv6 IP Address to be assigned to the LAN Port of NVRX/ NVRX P2.
  - **Prefix Length:** Configure the Prefix Length to be assigned to the LAN Port of NVRX/ NVRX P2.

- **Default Gateway:** Configure the IPv4 IP Address of the Gateway to be assigned to the LAN Port of NVRX/ NVRX P2.
- Click **Save**.

## DHCP Server Settings

DHCP Server is a network server that automatically provides and assigns IP Addresses, Default Gateways and other Network parameters to the client devices. NVR support a DHCP Server. To use the DHCP Server, you must configure the following:

Click **DHCP Server**, the DHCP Server Settings page appears:



- Select the **Enable DHCP Server** check box.
- Select the desired **Ethernet Port** — LAN 1, LAN 2— which will be used for dynamic assignment of IP Addresses to the DHCP Clients (IP cameras).



*LAN1 and LAN2, will be displayed if the NVRX/NVRX P2 installed supports two ports. In LAN 1 Settings if the IP Assignment Mode is set as DHCP or PPPoE, then LAN 1 will be disabled.*

- Enter the **Start IP Address**. It is the starting IP Address to be assigned to the DHCP Clients. The DHCP Server will start assigning IP Addresses to the DHCP Clients from this IP Address onwards.

- Enter the **Number of Hosts** (that is the number of clients) to be assigned IP Addresses by the DHCP Server.
- Enter the **Subnet Mask** to be assigned to the DHCP Clients.
- Enter the **DNS Address** to be assigned to the DHCP Clients.
- Enter the **Lease Hours**. This is the maximum time for which the IP Address will be allocated to the DHCP Client. Valid Range: 1 to 192 hours. DHCP Clients should renew their lease within the Lease Hours. If the Clients do not renew their lease before the expiry of the configured Lease Hours, the DHCP server will free the IP Address and this IP Address may be assigned to another DHCP Client in LAN network.
- Click **Save**.

### IP List and Status

IP Address	MAC Address	Host Name	Lease Time (HHH:MM)
192.168.1.228	a0:bd:1d:94:23:8b	XVR	023:58
192.168.1.201	70:20:84:00:dd:92	GARWITTEST	023:56

- Click **IP List and Status**.
- After the DHCP Server has assigned the IP Addresses to all the Clients, their list with their details — IP Address, MAC Address, Host Name, Lease Time (that is the remaining Lease Hours) is displayed here.

For detailed description of all the parameters, refer to the Matrix SATATYA System Manual.

Close the configuration window to return to the Live View screen.



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