



VMukti<sup>TM</sup>

ambicam<sup>TM</sup>

# FSV DOCUMENT

## FLYING SQUAD VEHICLE





# Flying Squad Vehicle (FSV)



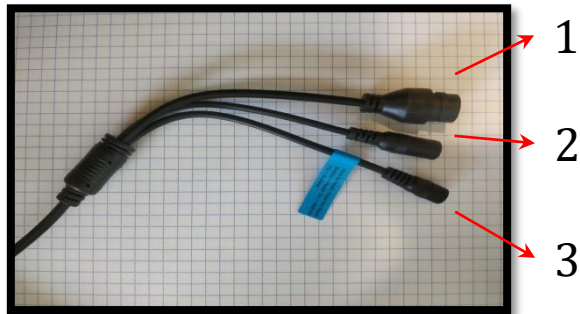
- **PTZ CAMERA**
- **PTZ Antenna**
- **PTZ STEEL back PLATE**
- **Camera Installation stand**
- **LAN cable 10 mtr**
- **LAN cable(5mtr)**
- **Battery**
- **BATTERY TERMINAL**
- **Battery insulation cover**
- **DC12v to AC 230v converter**
- **Electric Power Strip(6+1)**
- **NVR with HDD**
- **PTZ Charger/SMPS(adapter)**
- **Internet router 4G sim card (gsm)**
- **GPS With Sim and Cable**
- **LCD for Surveillance**
- **LCD stand**
- **VGA Cable**
- **Cable Tie 6,10,12 for internal Cable Fitting**
- **4MM SQUARE 2 CORE Cable for Battery Connection**
- **1.5mm Square 3 core cable for LCD power cable**
- **1.5mm two core Square**
- **Cable for PTZ Camera**

# What is a PTZ Camera?



**PTZ CAMERA**

Pan-tilt-zoom (PTZ) cameras are built with mechanical parts that allow them to swivel left to right, tilt up and down, and zoom in and out of a scene. They're typically used to monitor wide open areas requiring a 180- or 360-degree view, and deployed in guard stations where active personnel can operate them through a remote camera controller.



1. LAN Port
2. DC Pin Port
3. Reset Button

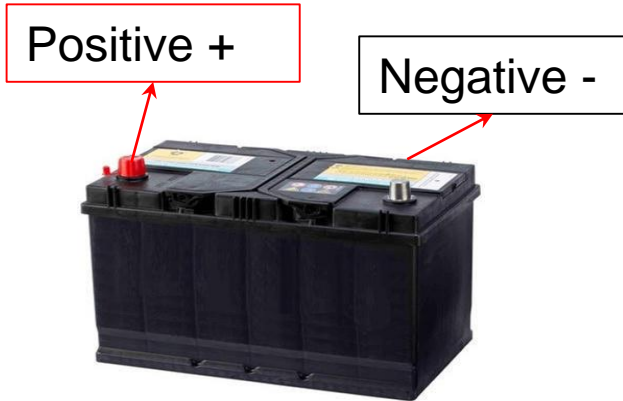


**PTZ Camera Stand**



**PTZ Camera Steel Back Plate**





A battery is a source of electric power consisting of one or more electrochemical in which chemical energy is converted into electricity and used as a source of power to store the energy for powering electrical devices, such as flashlights, mobile phones, and electric cars.



Battery terminals are the electrical contacts used to connect a load or charger to a single cell or multiple-cell battery.



Battery terminal covers can be plastic, rubber or any kind of synthetic polymer that can seal the terminals against water and incidental electrical contact. many new vehicles use them to prevent short-circuiting or arcing against the car body.



DC Converter

It is a circuit that converts a DC (12v) source into AC (220v) 50Hz voltage to supply AC loads. A 12V DC to 220 V AC converter can also be designed using simple transistors( Diode & Transformer). It can use power adaptors up to 150W but can be made.



Power Strip

Electric power strips are also known as Extension boards. It is a multiple electrical socket connected in parallel to each other and encased in a shockproof box. It is used for connecting multiple devices to a single board.



Power Supply

A CCTV 12v Power Supply Distribution Box allows surveillance system operators to easily manage the power of multiple CCTV cameras at a single focal point.



HDMI Port

VGA Port

LAN Port

USB Port

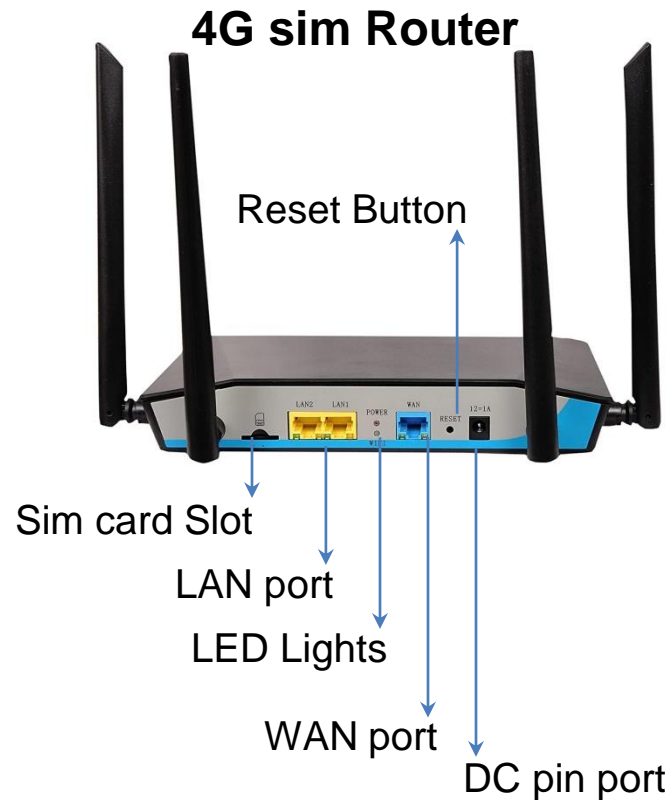
DC Pin Port

Network video recorders (NVR) are types of video recording systems used for security cameras. On the surface, both systems serve the same purpose: they capture video footage transmitted from the cameras and store that stream so you can play it back later.

A computer hard disk drive (HDD) is a non-volatile data storage device. Non-volatile refers to storage devices that maintain stored data when turned off.



Hard Disk Drive



A 4G Wi-Fi router, containing a built-in LTE broadband modem, uses a SIM card to share internet connections. You can use a 4G Wi-Fi router for internet sharing anywhere, as long as it is within the network range of the network service provided by your mobile operator.

SIMs are computer chips that hold information and allow you to connect with your network. This means you can make calls, send SMS messages and connect to mobile internet services like 3G, 4G, and 5G



**Sim card**



**Memory Card**

An SD card, short for Secure Digital card, is a type of removable memory card used to read and write large quantities of data in a wide variety of mobile electronics, cameras, smart devices, and more.





**LCD Screen**



**VGA Cable**



**Power Cable**

“Liquid Crystal Display.” LCD is a flat panel display technology commonly used in TVs and computer monitors.

Video Graphics Array( VGA cable) is a device used to transfer video signals. It does this by acting as a link between the DVR, NVR, COMPUTER and the monitor or between the computer and the television screen.

Image result for what is power cable power cord, line cord, or mains cable is an electrical cable that temporarily connects an appliance to the mains electricity supply via a wall socket or extension cord.



→ **2 Core  
4mm**

This type of cable is used to connect big appliances which battery and heavy load are used.



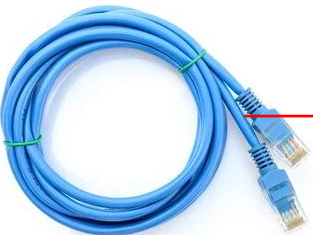
→ **3 Core  
0.75mm**

This type of cable is used to connect small appliances which LCD and small equipments are used.



→ **2 Core  
1.5mm**

This type of cable is used to connect small appliances which Camera, routers, adaptors are used



→ **LAN Cable**

A LAN cable is a cable that connects to computers, network switches and then from the switch to a router, modem, DSL which powers your internet from an internet service provider. We are using LAN cable to connect NVR to router and router to PTZ (IP camera).



GPS is a Global Positioning System It uses a GSM sim technology. an electronic system using a network of satellites to indicate on a receiver the position of a vehicle, cars. It is used in security purposes and vehicle tracking.

## Connection-

**Red:** Positive

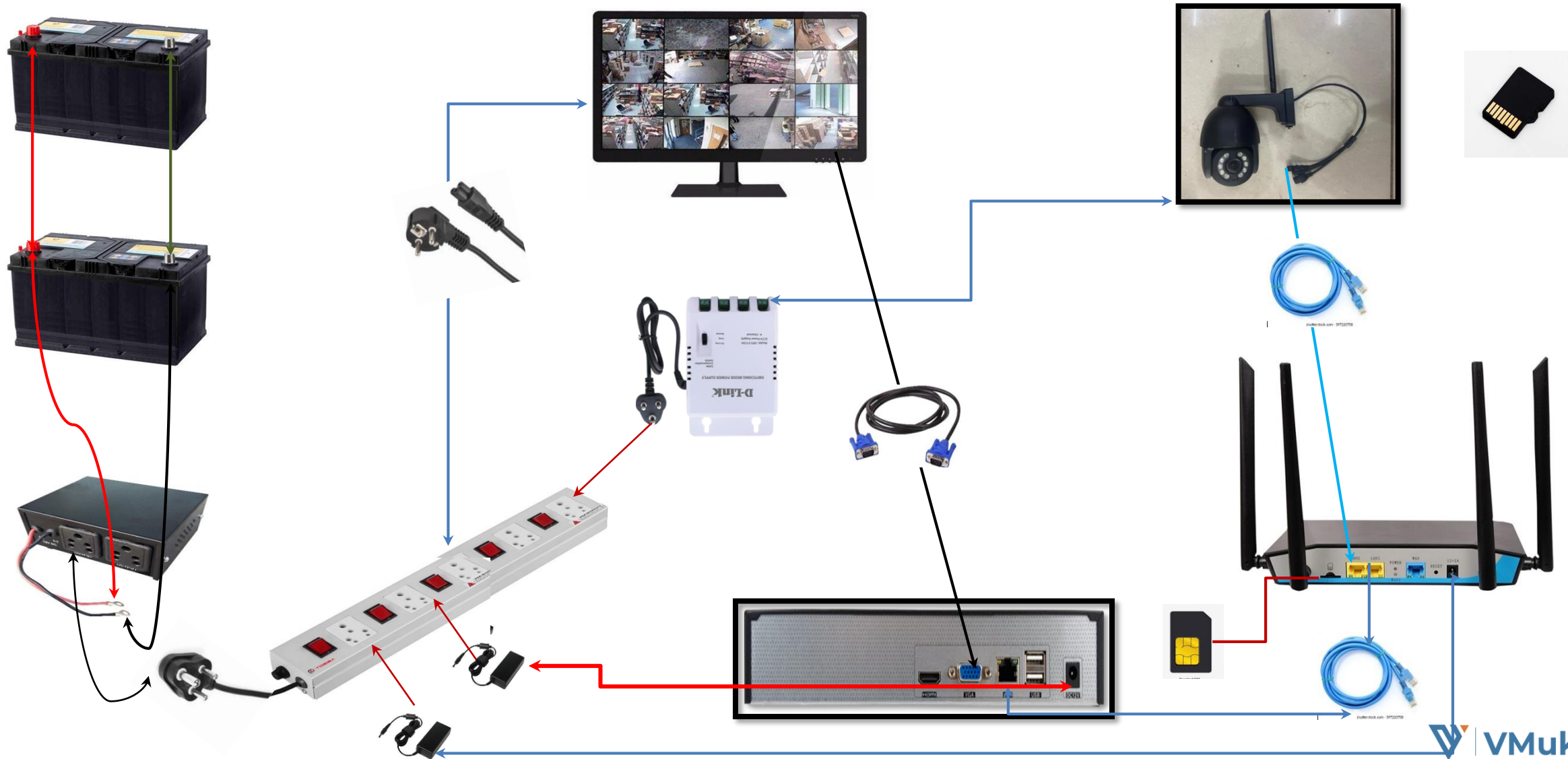
**Black:** Negative/Earthing

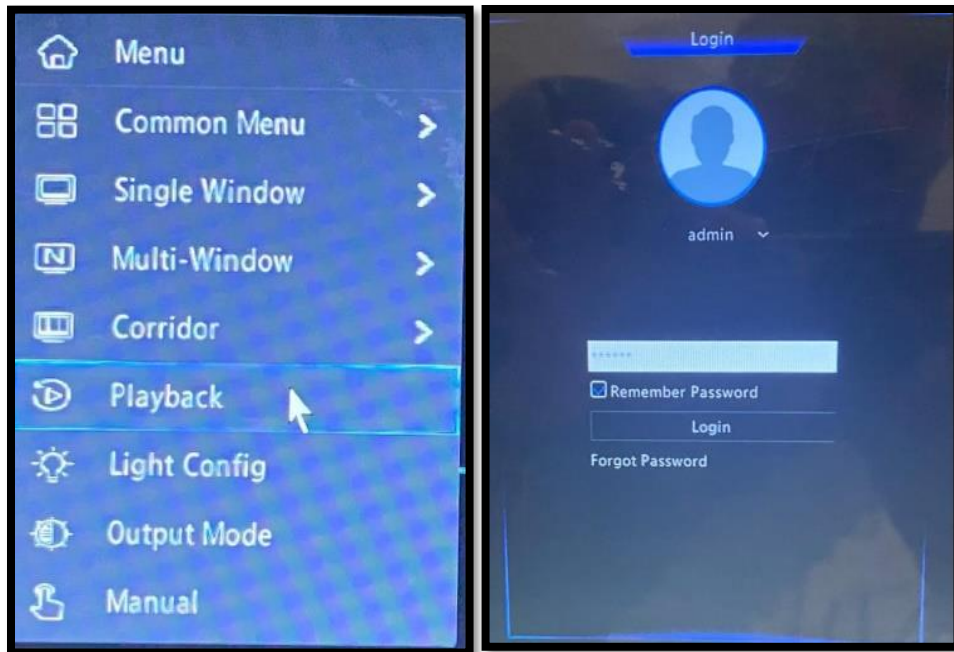
**Orange:** Ignition

**Yellow:** NA



# Installation guide

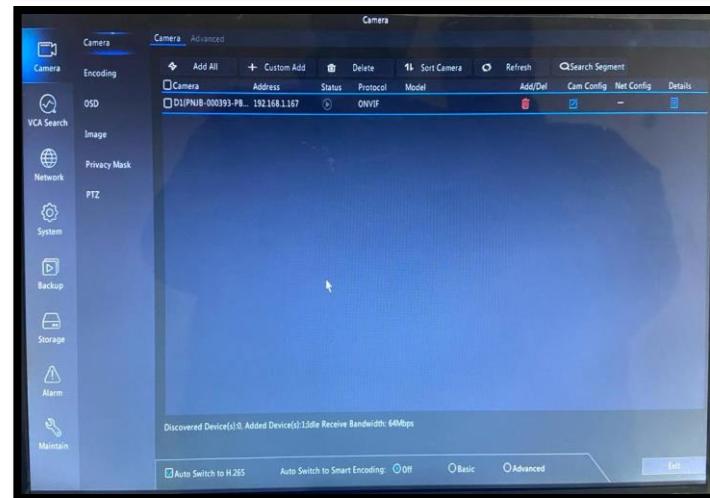
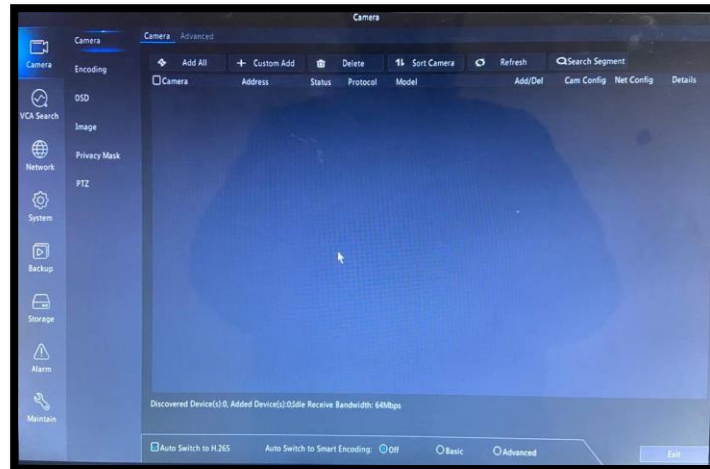




## How to Login to NVR?

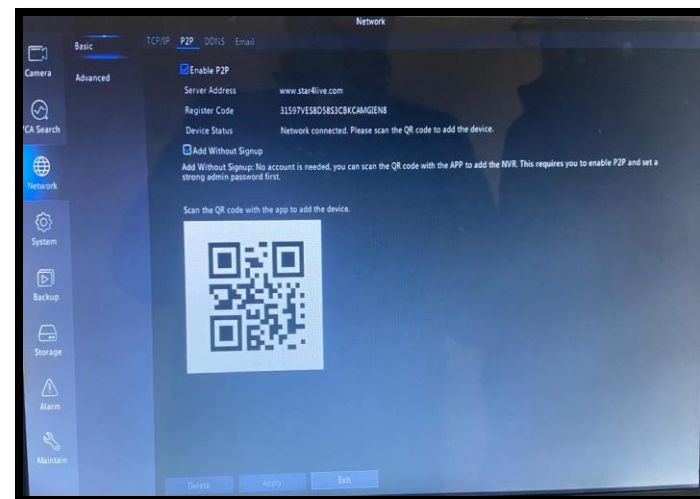
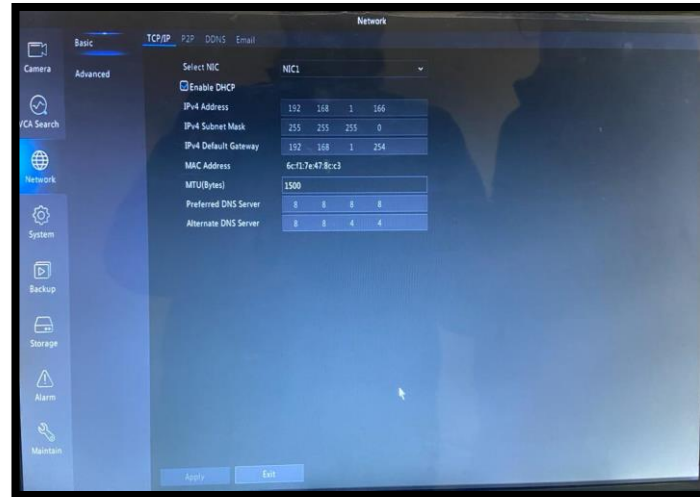
1. With the help of mouse right click on the screen.
2. Click Main Menu.
3. Login Page will appear.
4. Fill Username and Password.
5. **Click Login**

## How to Add PTZ camera to NVR?



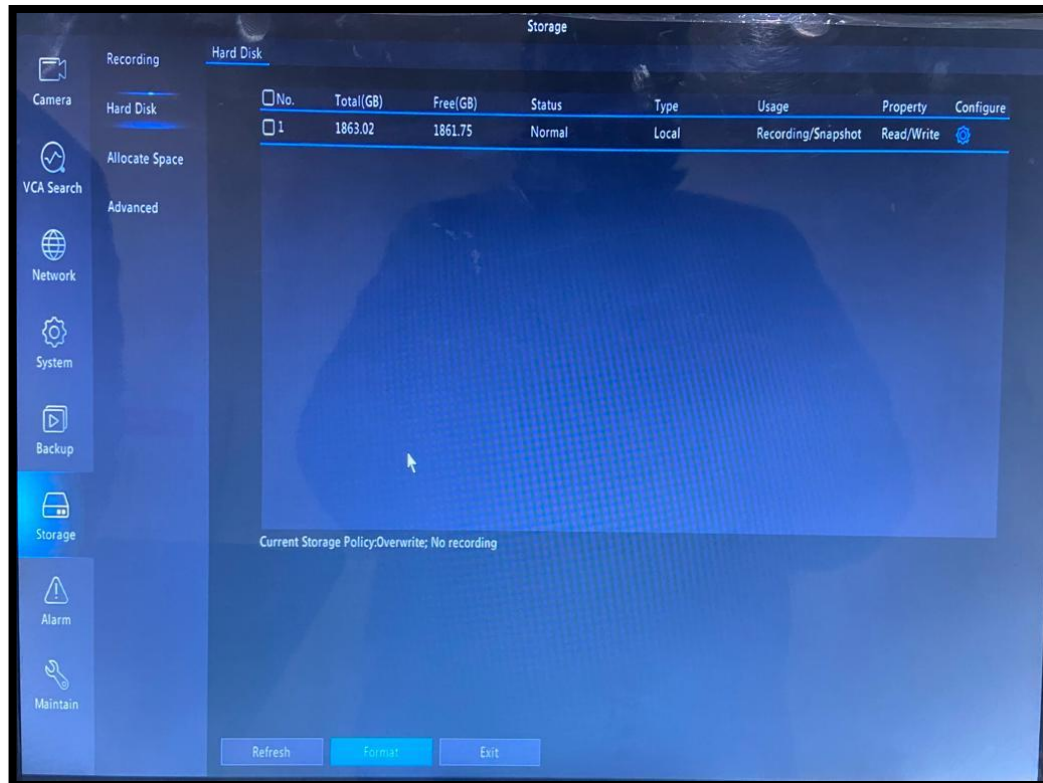
1. Enter Main Menu.
2. Click Login.
3. Open Camera Setting.
4. Search for IP Cameras in the search option.
5. Select Refresh.
6. It will take up to 2 minutes to search an IP.
7. After 2 minutes IP address with camera Serial number will appear.
8. Click on the Camera and select add all.
9. Cameras will get added automatically to the main Screen.





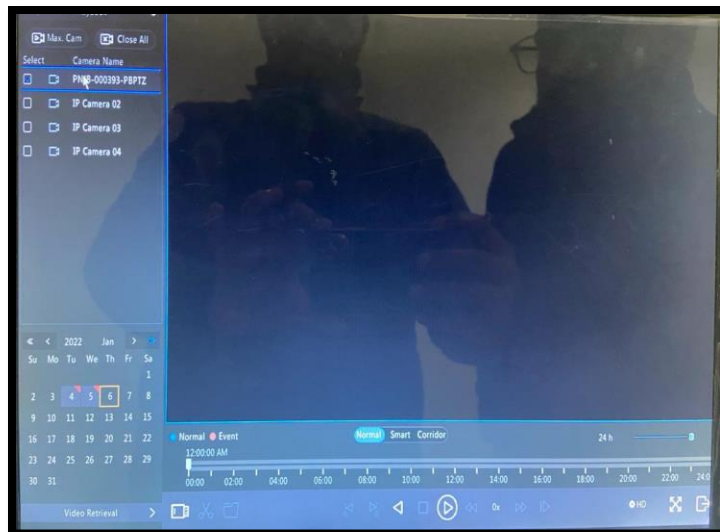
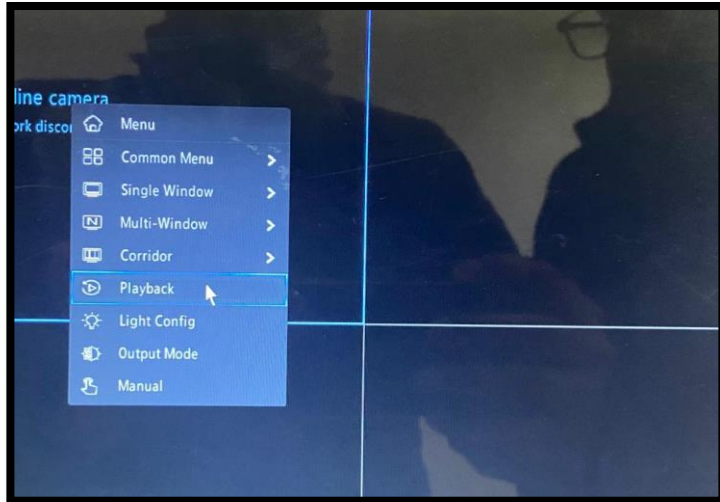
## How to online NVR?

1. Click Main menu.
2. Click Login.
3. Open Network settings
4. Click Basic (TCP/IP).
5. Tick on Enable DHCP.
6. Go to P2P.
7. Tick on Enable P2P settings.
8. Check Device Status.
9. Device Status will be changed to connected.
10. Exit.



## How to Check Storage Device is working?.

1. Enter Main Menu.
2. Open Storage Settings.
3. Click On Hard Disk.
4. Check if the Device is listed or not.
5. If the status is normal hard drive is in working condition.
6. If the status is error hard drive is faulty and need to be changed.



## How to check Playback

1. Right click, Enter Main Menu.
2. Click Login.
3. Right click and Exit
4. Again click right and select playback.
5. Select Channel of which You want to view Recording.
6. Select Date and Time.
7. Click the Play Button.





1. **PTZ Camera Not Working?.**
2. **NVR Not Working?.**
3. **DC To AC Converter Not Working?.**
4. **Router, Network Not Working?.**
5. **LCD Display Not Working?.**



## PTZ Camera Not Working?.

1. Verify Camera Power & Connection.
2. Check The Power Supply (Adaptor).
3. Check The Lan Connecting Which Connected To Router To Ptz Camera.
4. Check Fuse Of Power Strip.
5. Check Ir Of Ptz Camera.
6. Check The Dc Pin Which Connected To Ptz Camera To Dc Pin.



## NVR Not Working?.

1. Verify NVR power & connection.
2. Check the power supply (Adaptor).
3. Check the lan connecting which connected to NVR to Router.
4. Check fuse of power strip.



## DC To AC Converter Not Working?.

1. Check the output power of dc to ac converter.
2. If not working dc to ac converter kindly change it.
3. Check the Battery output power.



## Router, network Not Working?.

1. Verify Router power & connection.
2. Check the power supply (Adaptor).
3. Check power led of Router.
4. Check network led in router.
5. Check sim card inserted properly and data pack.
6. Check lan cable which connected properly.



## LCD Display Not Working?.

1. Check the power cable.
2. Check the vga cable which connected to between NVR to led display.



# SOLUTION IN PRACTICE - HOW IT WORKS

## CENTRAL MONITORING SETUP





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#DekhteRaho



[www.vmukti.com](http://www.vmukti.com) |  
[www.ambicam.com](http://www.ambicam.com)



[contact@vmukti.com](mailto:contact@vmukti.com)

**HEAD OFFICE**

VMukti Solutions pvt. Ltd.  
3 – 4 VMukti house, Shivalik Plaza,  
Near Sahjanand College, IIM road,  
Ambawadi, ahmedabad – 380015 Gujarat.



VMukti