WIRELESS IP CAMERA SYSTEM

INSTALLATION AND USER MANUAL

WARRANTY COVERAGE

Allen Leigh Security is proud to offer a one year warranty on our livestock monitoring systems which covers any manufacture defects . The warranty does **not** cover the following:

- Damage caused by acts of nature such as tornados, hail, lightning strikes, fallen trees, excessive amounts of rain or snow, flooding, fire etc.

- Damage caused by electrical problems such as voltage spikes, surges, poor quality power, improper grounding, static discharge, or black outs.

- Damage caused by improper installation, or use of product.

- Damage caused by shipping companies, or as a result of inadequate packaging material from customer.

- Damage caused by full submersion in liquids of any sort, accidental or otherwise.

- Abuse or mechanical damage resulting in system failure, such as dropping or hitting equipment.

- If there is a requirement to return your system to ALSC, please contact us to receive an RMA#, write your RMA# on the package being shipped, and ensure that it is shipped properly.

LOANER PROGRAM

We understand that once you have used a Precision Cam wireless IP camera system it's hard to live without, that's why we offer a loaner equipment program. In the event that you need to send in your system for repair or maintenance you can be supplied with a loaner to keep you up and running.

- We require a valid credit card number to be on file for the duration of the loaner use.

- A damage deposit of 33% of the retail value of equivalent new equipment will be held until all equipment is returned and confirmed to be in the same condition as it was when it left our shop. If any damage to loaner equipment is found, the cost to repair said damages will be subtracted from the damage deposit. The full retail value of any loaner equipment that is not returned will also be subtracted from the dam-age deposit.

- If you are not under warranty, a monthly rental fee will be charged based on the type of equipment borrowed.

Loaner rental rates:

- Fixed cameras : $90 + Deposit

- PTZ cameras: $150 + Deposit

- NVR: $60 + Deposit

- WifI Bridges $100 + Deposit

- Other: based on product value.

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For additional support information please go to :

www.precisioncam.ca/support

SCAN ME

ATTENTION NEW CUSTOMERS

Thank you for purchasing your new Precision Cam wireless Ip camera system! You are sure to get many years of use from your new wireless video system. It comes with a one year warranty on parts and labour. We fully assemble and test your system before it leaves our shop to ensure it's in full working condition when it arrives at your door.

We do strongly recommend you read the manual and **fully assemble** your system in your house before proceeding with the final installation. This will ensure you have a full understanding of how the system works, will allow you to verify everything works and that nothing was lost or damaged in transit.

Should you have any trouble, please refer to our online troubleshooting guides and videos on our website precisioncam.ca, or the troubleshooting chart at the back of this manual.

If you need further assistance feel free to call us toll free at 1-866-289-8164 or 1-204-728-8878 between the hours of 8:30am to 5:00pm (central time) Monday to Friday.

Thank You! And Enjoy!

Like us on Facebook @PrecisionCam
Follow us on Twitter @PrecisionCam
Check out all our products at www.precisioncam.ca

PLEASE READ: INTRODUCTION

This manual will walk you through how to setup and use your new wireless IP camera system. Please read through the section below to get started.

What does IP mean? IP stands for Internet Protocol which basically means any device that is able to communicate directly to your network and the internet. Our new generation of livestock monitoring systems (COWCAM) and farm yard security systems use IP as it allows for better picture quality, easier expandability and the ability to view your cameras from virtually anywhere in the world provided you have a stable internet connection.

Do I need an internet connection to use a Wireless IP Camera system? No you don't need an internet connection to use your system from within your own farm yard. However you will need an internet connection if you want to view your cameras from another location outside your own network (location of cameras).

What is LAN? A LAN or, local area network connection, is a wired network connection, a network or device, the main way that devices communicate on a network. LAN connections are usually a RJ45 jack which looks like a larger version phone jack. You will commonly find several of these on the back of your router.

Even though you don't need an internet connection to use your system, you will need one or more LAN connections at your house to connect the system to your network. In some cases we will provide a router to be used for this purpose.

What are all these parts for? Due to the incredible flexibility of the IP style system, there are many different ways that a system can be set up. On the next page is a list of all the components that may have been included with your system. Use the next page to help identify all the components in your system and find the correct page of the manual for that component.

COMPONENT NAMES AND USAGE

25X Universal mount PTZ camera: IP PTZ camera can be mounted upright on the top of a pole to give you a 360° view of your yard or cattle pens. It can also be mounted upside down on a ceiling or the underside of a rafter to cover the inside of a building or barn.

25X side mount PTZ camera: This camera is intended to be mounted outside on the side of a pole or wall along the perimeter of the viewing area. It has 25X optical zoom, is able to rotate 360° and tilt from the horizon to down at the ground.

16X PTZ camera: This camera is intended to be used inside a building/barn or outside to cover smaller areas. It can be mounted to a pole or wall along the perimeter of the viewing area. Camera has 16X optical zoom, rotates 360° and is able to tilt from the horizon to down at the ground.
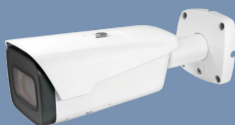
7-35mm Varifocal Bullet camera: This camera is intended to be used inside/outside to cover larger areas. Its motorized lens can be adjusted from 7 to 35mm which makes it perfect for mid to long range viewing. Can be mounted to a pole or wall around the perimeter of the viewing area.

2.7-12mm Varifocal Bullet camera: This camera is intended to be used inside/outside to cover mid-sized areas. Its motorized lens can be adjusted from 2.7 to 12mm which makes it perfect for mid to close range viewing. It can be mounted to a pole or wall around the perimeter of the viewing area.

COMPONENT NAMES AND USAGE

3.6mm Fixed Bullet camera: This camera is intended to be used inside or outside to cover smaller areas. Its 3.6mm lens is perfect for mid to close range viewing. It can be mounted to a pole or wall around the perimeter of the viewing area.

ANPR camera: this specialized Automatic Number Plate Recognition (ANPR) camera is intended specifically for capturing licence plate numbers on moving vehicles. This camera must be paired with a regular fixed camera as the ANPR camera will only be able so see licence plates at night not people or cars

2.7-12mm Varifocal dome camera: this camera is identical to the standard 2.7-12mm camera seen above. The only difference is it is in a Dome rather than a Bullet configuration making it better suited for use where vandalism or aesthetics are a concern

2.8mm.WiFi alarm camera : this is a small stand alone camera that connects to WIfI, it can be used as a stand-alone device or added into an existing system. This camera is intended for use as a security camera for a house or shop with an existing WIFi-connection

WIFI Bridge: The WIfI bridge is used to create a wireless network connection from the camera to the house. One bridge will be mounted at the house and another at each camera location.
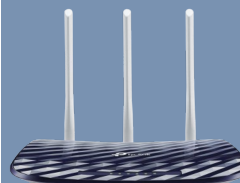
Router: We supply a router with every full camera system. This allows us to setup all our equipment on a separate network than your home internet. This makes setting up the system much easier for you and prevents our system from interfering with your existing network.
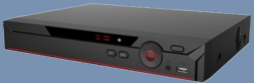
COMPONENT NAMES AND USAGE
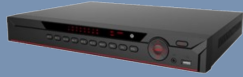
16 CH Network Video Recorder (NVR) : This unit allows you to easily connect your camera system to your tv and records the video footage on a hard disk if its been installed. You can also use the NVR to control PTZ cameras using a mouse. This unit also has alarm inputs for connecting a driveway alarm. Supports up to 16 cameras.
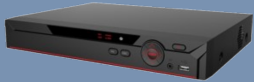
8 CH Network Video Recorder (NVR) : This unit allows you to easily connect your camera system to your tv and records the video footage on a hard disk if its been installed. You can also use the NVR to control PTZ cameras using a mouse. Supports up to 8 cameras.

4 CH Network Video Recorder (NVR) : This unit allows you to easily connect your camera system to your tv and records the video footage on a hard disk if its been installed. You can also use the NVR to control PTZ cameras using a mouse. Supports up to 4 cameras.

5 port switch: This device allows you to add more devices to your network. It acts like a signal splitter for network connections. We usually include this in situations where your existing router doesn't have enough lan ports for all of your devices.

4 port PoE switch: This device is the same as the regular 4 port switch (above), but it is also able to power up to 4 cameras via Poe (power over ethernet)

8 port PoE switch: This device is the same as the regular 5 port switch (above), but it is also able to power up to 4 cameras via Poe (power over ethernet)

Joystick controller: This controller allows for easy control over one or multiple PTZ cameras. It is not required but can be added on if desired

PoE injector for WIfI Bridge: This 24V/24W Power over Ethernet (PoE) injector powers the WIfI bridge over a cat5 network cable. At the house the PoE injector will be located inside, at the camera location the PoE injector will be mounted inside a plastic box to protect it from the elements.

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COMPONENT NAMES AND USAGE

PoE injector for fixed cameras: This 48V/24W Power over Ethernet (PoE) injector powers fixed cameras over a cat5 network cable. This is usually at the camera location mounted inside a plastic box to protect it from the elements.

PoE injector for PTZ cameras: This 50V/60W Power over Ethernet (PoE) injector powers PTZ cameras over a cat5 network cable. This is usually at the camera location mounted inside a plastic box to protect it from the elements.

Outdoor PoE box: This box protects the PoE injectors for the bridges and/or fixed cameras from the elements.

Outdoor PoE switch box: This box contains a PoE switch to power up to 4 or 8 cameras at once and 1 WIfI bridge. It can also be used to add more than 2 cameras to one WIfI bridge.

Outdoor Cat5 network cable: This cable is used outside for connecting the camera to the Bridge, the Bridge to the PoE injector or the cameras to the PoE injectors.

Indoor Cat5 network cable: This cable is used inside for connecting the NVR and bridge PoE injector to the router.
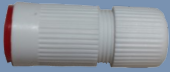
6

COMPONENT NAMES AND USAGE

HDMI cable: This cable is used to connect an NVR to an HDTV that supports an HDMI connection.

Camera connector cover box: This box is used to protect the connectors on the PTZ cameras from rain and snow.

Camera connector cover boot: This boot is used to protect the connectors on the fixed cameras from rain and snow.

Universal mount camera pole top mount: This mount is included with the 25X universal mount camera. It is used to mount the camera to the top of a pole or to a ceiling

Side mount camera wall mount: This mounting arm is included with the 25X and 16X side mount camera. It is used to mount the camera to a wall or the side of a pole top of a pole

Side mount camera Ceiling mount: This pendant mount is an optional add on for the 25X and 16X side mount camera. It is used to mount the camera to the ceiling or underside of a roof or rafter.

COMPONENT NAMES AND USAGE
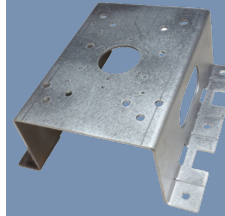
PTZ camera pole/corner mount: This specially designed mounting plate can be bolted or strapped the side of a pole or the corner of a building for easy mounting of PTZ cameras.

Hard Drive : This Hard Disk Drive (HDD) can be added to your NVR to enable recording, they come in 1,2,3,4, and 6TB capacities. The hard drive is normally installed in the NVR by us prior to you receiving the system, but you can also order it from us separately and install it yourself
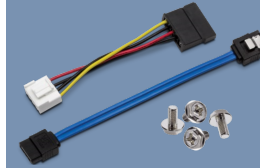
Hard drive installation hardware : The NVR includes a power and data cable as well as 4 screws for installing a hard drive. Keep these safe just in case you ever decide to add a hard drive

Indoor power supply: These are used to power 4CH NVRs or routers

USB mouse: Standard USB mouse for controlling the NVR, you may also use a wireless mouse if you prefer (purchased separately)

AC power cord: This power cable is used to connect to some NVRs to power
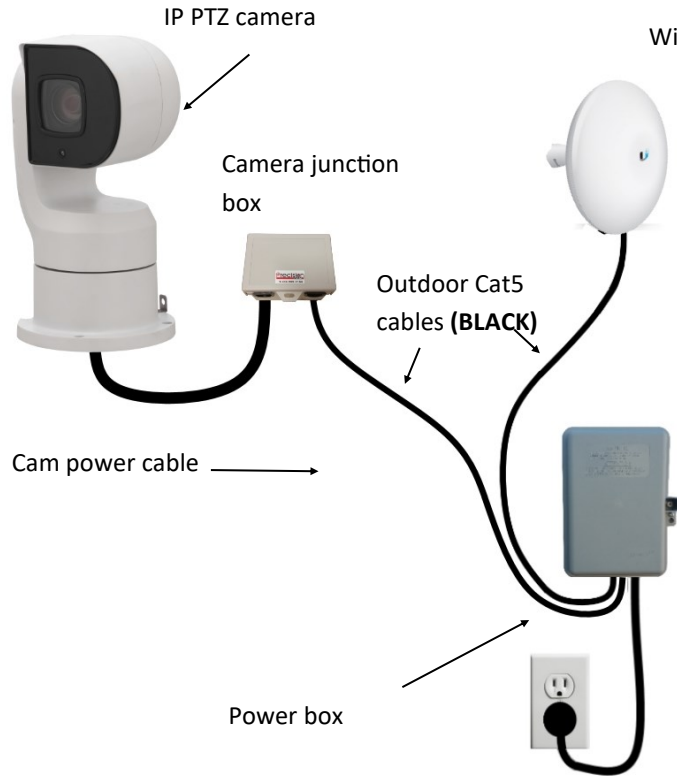
BASIC SETUP DIAGRAM

This is a basic setup diagram for a common system configuration. This page is intended to give you a basic understanding of how the system works. There are in depth setup instructions for each part of the system in this manual.

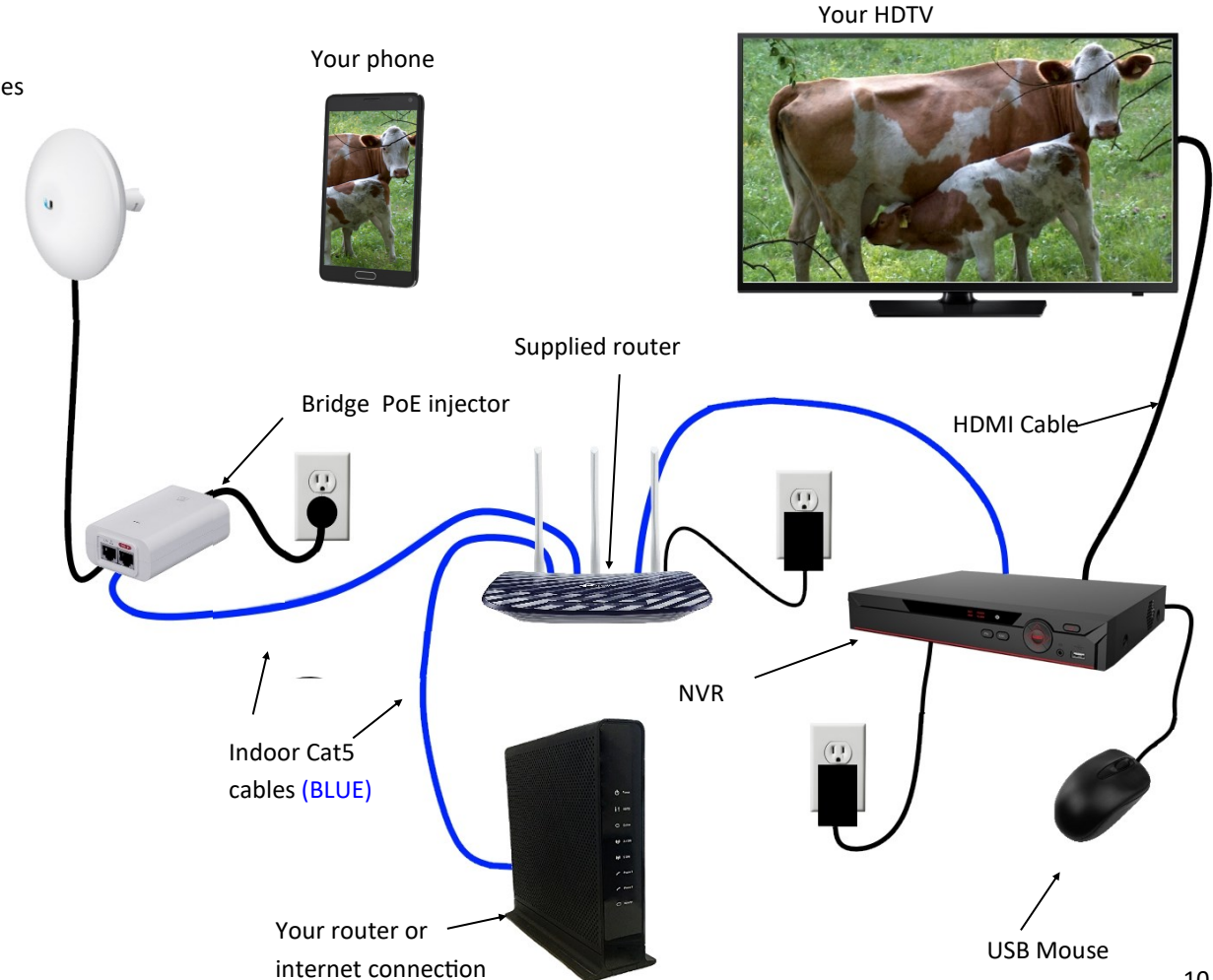There are a few key components in any IP COWCAM system:

- **Cameras:** There are several types of cameras available including pan tilt zoom (PTZ), fixed and vari-focal cameras. The camera is the "eyes" of the system.

- **Power supplies:** Some cameras require their own power supply. These are usually mounted outside with the camera and connect to the camera with a dedicated power cable.

- **WIfI bridges:** WIfI bridges are used to create a wireless internet connection over long distances ie: between the house and camera.

BASIC SETUP DIAGRAM

- **POE injectors:** The POE, or Power over Ethernet injectors, are used to add power to the standard network cable allowing for a single network cable to be used to provide both power and a network connection to a device. This is mainly used for the WIfI bridges but some cameras also use this feature.

- **NVR:** The NVR, or network video recorder, is one of several ways you can view your camera system. The NVR provides an easy way to display cameras on a TV. The main function of an NVR is recording. Using motion detection, the NVR can store days or weeks of video footage to the internal hard drive.

- **Router:** You will need at least 2 network cable (lan) connections into your network for a standard IP camera system. This can be on your own router or on the router we provide you if required.

<camera side | house side>

IP PTZ camera

WiFi bridges

Camera junction box

Outdoor Cat5 cables **(BLACK)**

Cam power cable

Power box

Your phone

Your HDTV

Supplied router

Bridge PoE injector

HDMI Cable

NVR

Indoor Cat5 cables (BLUE)

Your router or internet connection

USB Mouse

SETTING UP THE ROUTER

The first thing you will need to setup at your house is the router that was supplied with your system

- First unpack the router and locate the power cable and included cat 5 cable.

- Plug one end of the cat cable into any free **LAN** port on your existing router or modem, these ports are normally colored yellow and may also be called "Ethernet".
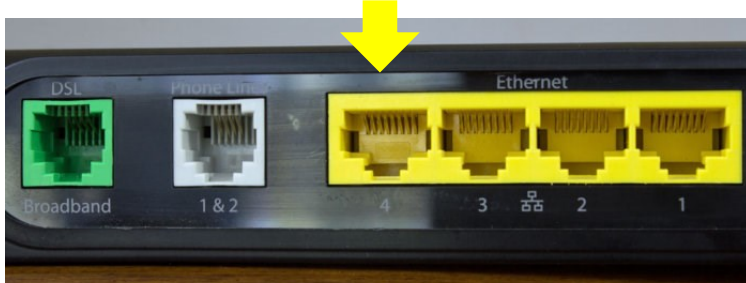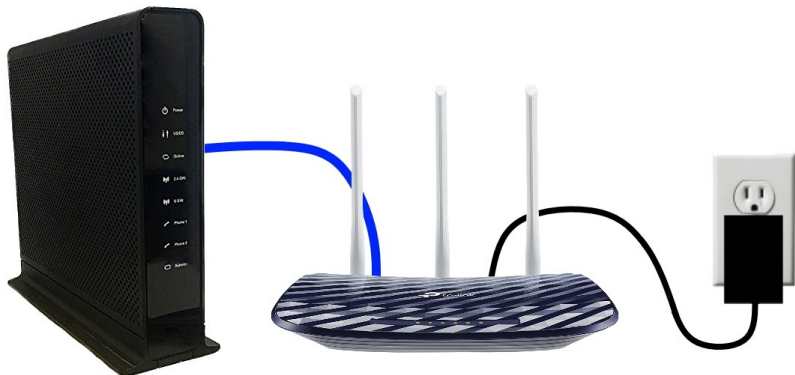

- Then plug the other end of the cat 5 cable into the "Internet" (WAN) port on the new router (TP-Link). This port is blue.
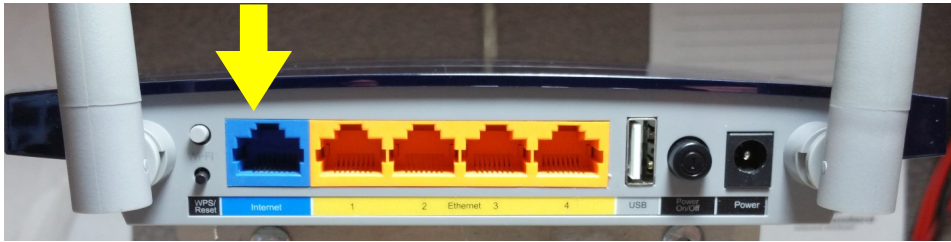
- Now plug the power cable into the "power" jack on the back of the new router and plug it into the wall outlet.

- Ensure the power switch is pushed in and the router is powered on by observing the lights on the front of the unit.

IMPORTANT! All other components of the camera system will plug into the TP-LINK router we provided you with the system. Do not plug any of the camera system components into your existing router as it will not work properly.

SETTING UP THE NVR

- Connecting up the NVR (network video recorder) is a fairly simple process.
- Plug one end of the provided HDMI cable into the HDMI port on the NVR. Plug the other end of the cable into one of the spare HDMI ports on your tv or monitor.
- Plug the one end of the provided cat5 cable into the "LAN" port on the NVR then route the cable to the router. Plug the other end into one of the yellow "Ethernet"(LAN) ports.
- Plug the mouse into the USB port on the front or the back of the NVR.
- Plug the power supply into the wall outlet and plug the dc power connector into the dc input on the back of the NVR.

NVR REMOTE OVERVIEW

Your remote should come pre-paired to your NVR. If you find it does not work you will need to pair it. Simply press the "add" key on the remote and enter the ID of or unit (usually 8) using the keypad followed by the enter Key.

If you don't know the ID of your unit it can be found in the menu under "system>basic"
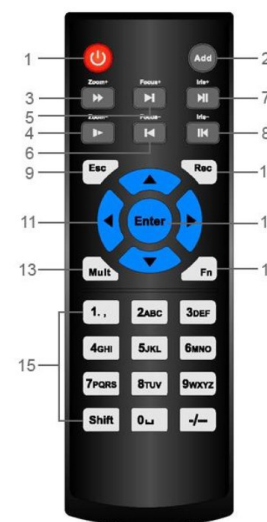
1. Power: hold to shutdown
2. Add: used for pairing remote
3. Forward: fast forward playback
4. Slow: Slow forward playback
5. Next: jump to next clip
6. Previous: jump to previous clip
7. Play-pause: brings up playback window and plays / pauses playback
8. Reverse: plays/pauses playback in reverse
9. Escape: Return/exit key for menu items

10. record key : used to manually activate recording or bring up recording schedule .
11. Arrows: for menu navigation
12. Enter: selection key for menu. Opens menu
13. Multi: change camera view/layout
14. function kay: activates special functions based on current menu
15. alphanumeric keypad: used for text entry , and direct camera selection

4CH NVR OVERVIEW
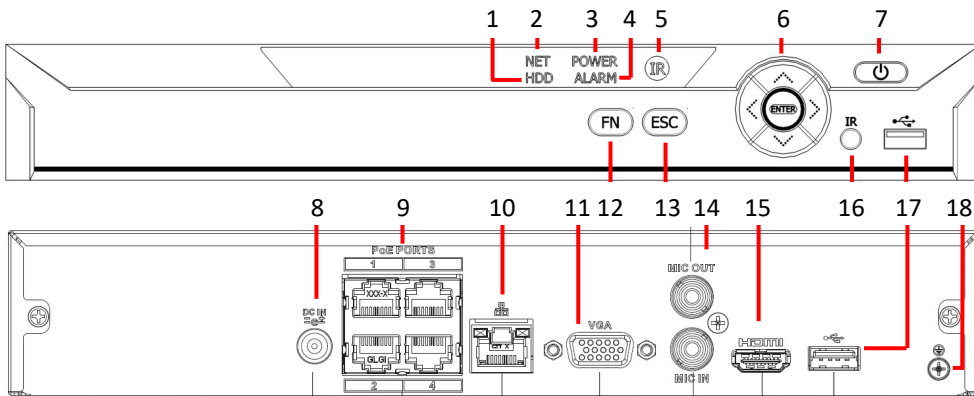
8CH NVR OVERVIEW
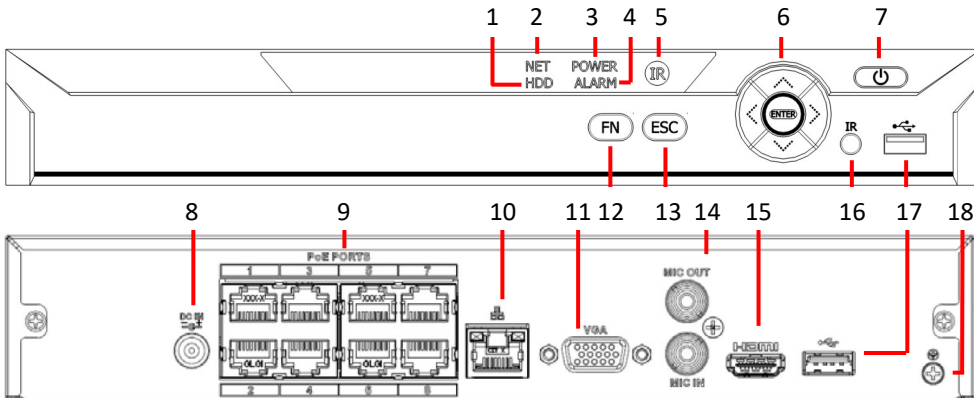
16CH NVR OVERVIEW

NVR OVERVIEW

1. HDD LED: Status light for the internal Hard disk Drive (HDD). Will illuminate if there is an issue with the drive (or if drive is not present)
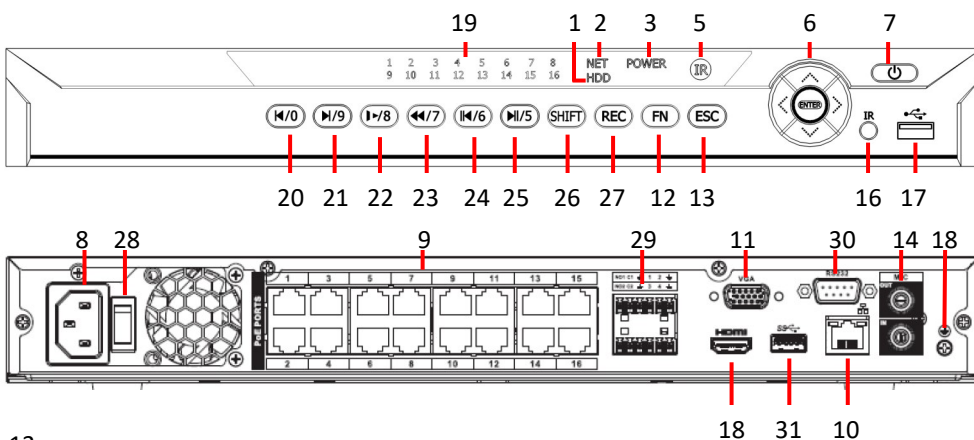
2. Network LED: Status light for primary network connection. Will illuminate if there is an issue with network connection

3. Power LED: Power status light, will illuminate when device is powered on

4. Alarm LED: Alarm status light. Will illuminate if an alarm is activated

5. IR sensor: Sensor for IR remote control

6. Control Pad: Manual control pad for menu navigation and changing camera view type. On 16ch unit arrow keys are also used as the 1-4 number keys for text entry.

>   Up= *(1.,)*
>   Left= *(2ABC)*
>   Right= *(3DEF)*
>   Down= *(4GHI)*

7. Power Key: Hold down to shut down the device

8. Power input: Main power Input

9. PoE Camera ports: Plug-and-play ports for hardwired cameras. Provide power and data for cameras. NVR will automatically connect to cameras that are plugged into these ports if they have not been previously configured

10. LAN port: Main network connection. Connects to the router to give internet access, and/or connection to cameras on the network. Solid green light with flashing amber light indicates a good connection.

11. VGA output: Video output for VGA monitors

12. Function key: Can be used to access PTZ control panel

13. Escape key: Return/exit key for menu items

14. HDMI output: Video output HDTV or monitor

15. Analog audio in/out: Allows use of external mic or speakers.

16. IR extender input: Remote control ex-

tension jack

17. USB: USB connection for connecting a mouse, keyboard, or USB storage device

18. Ground Screw: Optional electrical ground connection for system

19. Camera LEDs : Camera status lights, will illuminate when camera is connected successfully

20. Previous/0 key: Jumps to previous clip in playback . Also used as *(0[space])* key for text entry

21. Next/9 key: Jumps to next clip in playback . Also used as *(9WXYZ)* key for text entry

22. Slow forward/8 key: Slows playback speed. Also used as *(8TUV)* key for text entry

23. Fast forward /7 key: Increases playback speed. Also used as *(7PQRS)* key for text entry

24. Play-Pause backward/6 key: Plays footage in reverse speed. Also used as *(6MNO)* key for text entry

25. Play-Pause forward/5 Key: Opens playback window and plays/pauses playback. Also used as *(5JKL)* key for text entry

26. Shift key: Used to toggle between numbers, upper case, lower case for text entry

27. Record key : Used to manually activate recording or bring up recording schedule

28. Power switch: Manual power switch for unit. Only recommended to be used when unit will be powered off but plugged in for an extended period.

29. Alarm inputs/outputs: Used to connect external alarm devices such as driveway alarms

30. RS232 interface: External serial control interface. Typically not used outside large commercial/industrial applications

31. USB 3.0 Port: High speed USB 3.0 port ideal for large data transfers. Can also be used to connect a mouse or keyboard

SETTING UP THE JOYSTICK CONTROLLER

The IP PTZ joystick controller allows for easy control of your IP PTZ cameras. Setting it up is a fairly simple process.

- Plug one end of the provided indoor cat5 cable into the "LAN" port on the controller and the other end into a free LAN port on your router.

- Plug the power supply into the "DC12V" jack on the back of the controller and plug it into the wall outlet.

JOYSTICK CONTROLLER BASIC OPERATION

Once everything is setup you can login to and use your controller.

Please note if the controller was not ordered at the same time as the rest of your system it may need some additional configuration to get it working. Please call us if this is the case

- Start by logging into the controller the default password is 888888

- To connect the controller to the NVR you must select the correct ID. This is usually 8 but if you need to check this it can be found in the NVR settings menu under system>general>ID

- To connect to the NVR press "ID" then enter the ID# and press "enter" the controller will then say connecting… then you should see the NVR info appear.

- To control a camera press "CAM" then enter the number of the camera you wish to use, and press "PTZ" you will now be able to operate your camera with the joystick.

- To switch cameras press "ESC" and repeat the previous step to select a different camera

JOYSTICK CONTROLLER OVERVIEW
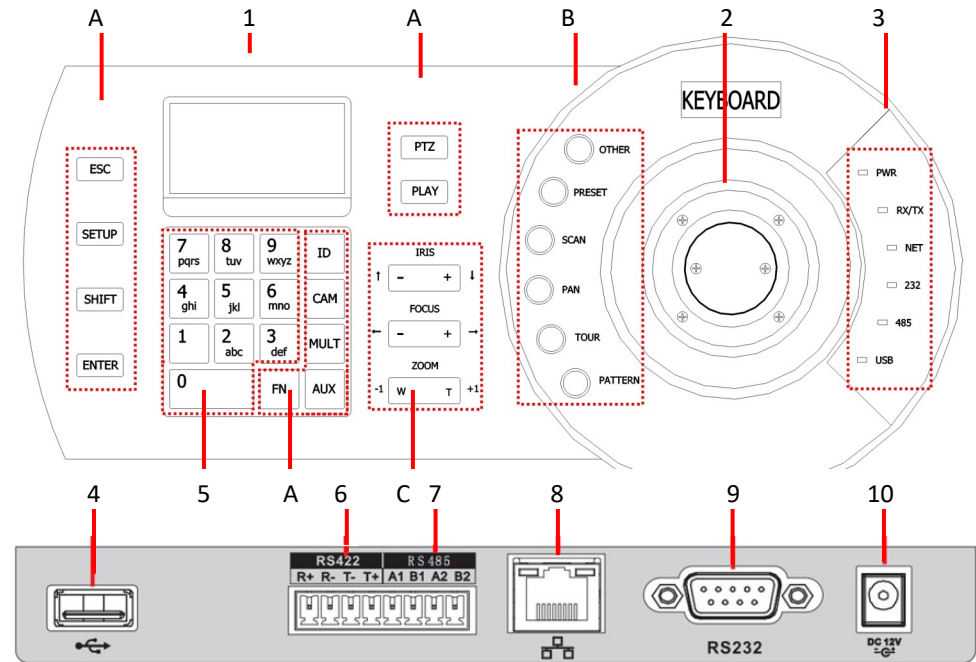
1. LCD Display: Displays current status, and control information
2. Joystick : Main control interface for PTZ control of cameras and NVR menu navigation
3. USB port: Not used
4. Status LEDs: Displays current connection and power status

4. Alphanumeric keypad: Used for text entry
5. RS422 interface: Not used
6. RS485 interface: Not used
7. Lan port: Main network connection
8. RS232 interface: Not used
9. Power Jack : Power supply input

TABLE A: GENERAL FUNCTION KEYS	
ESC	Escape/Return/Exit
SETUP	Used to enter controller setup menu, NVR menu, or to setup presets
SHIFT	Used to switch between letters, numbers, Caps Lock, and symbols for text entry
ENTER	Confirm selection/entry , open NVR menu
PTZ	Used to activate PTZ. Example: to control camera 1 press "CAM" then "1" then "PTZ"
PLAY	Opens playback menu on NVR
ID	Used to select device to be controlled. Example: to control NVR #8 (default setting) . press "ID" then "8" then "ENTER'

JOYSTICK CONTROLLER OVERVIEW

TABLE A: GENERAL FUNCTION KEYS (CONTINUED)	
CAM	Used to switch selected camera. To switch cameras enter the # of the camera you wish to view then press "CAM"
MULT	Multiview key. Switches between split screen/single view. To use Split screen Press "4" then "multi"
AUX	Auxiliary options -press "1" then "AUX" to open manual record settings window on NVR -press "2" then "AUX" top open the on-screen PTZ interface on NVR
FN	Secondary auxiliary key (un-used)

TABLE B: PTZ CAMERA FUNCTION KEYS	
OTHER	Opens on screen menu for camera or clears selection on keyboard
PRESET	Used to call or configure presets -to set a preset. Press "SETUP", enter the preset # then press "PRESET" -to go to/call a preset enter the preset # then press "PRESET"
SCAN	Used to activate or setup scans -to start/call a scan enter the scan number then press "SCAN" -for info on setting up scans see the full controller manual on our website
PAN	Starts/stops auto panning
TOUR	Used to activate or setup tours -to start/call a tour enter the scan number then press "TOUR" -for info on setting up tours see the full controller manual on our website
PATTERN	Used to activate or setup pattern scans -to start/call a pattern scan enter the scan # then press "PATTERN" -for info on setting up patterns see the full controller manual on our website

TABLE C: CAMERA LENS CONTROLLS	
IRIS	Manual adjustment of cameras Iris (normally automatic)
FOCUS	Manual adjustment of cameras focus (normally automatic)
ZOOM	Zoom control (can also be done with joystick)
Please note: any manual changes to focus or iris will return to automatic control once zoom level is adjusted	

HOUSE SIDE WIFI BRIDGE INSTALLATION

You will need to setup a Wifi bridge at the house to receive the signal from your cameras. This bridge is known as the access point.

- Unpack your bridge and mounting hardware

- Remove the weatherproofing cover from the back of the bridge by sliding it down. Next, plug the cable that will go to the power supply in the house into the port labelled "MAIN PoE IN + Data". Replace the cover while routing the cable through one of the holes in the cover.

- Now plug the cable from the bridge into the "PoE" port on the White PoE injector that was included with the bridge.
- Plug another cat5 cable into the "LAN" port on the injector then plug the other end into one of the yellow "Ethernet" (LAN) ports on the router.

HOUSE SIDE WIFI BRIDGE INSTALLATION
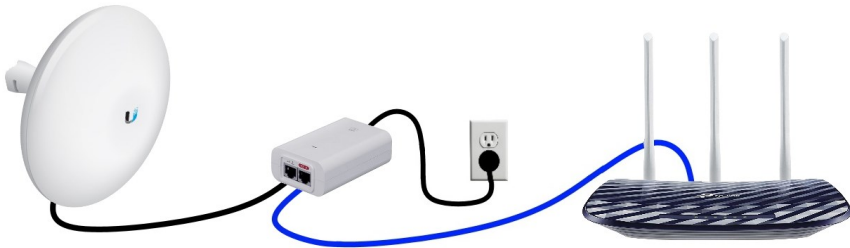
WIFI BRIDGE WALL MOUNTING

- Place the ring over the ball mount so the threaded part is facing toward the ball and attach the mount to the wall using the provided 3" screw
- Attach the bridge to the mount by placing it onto the ball and tightening the locking ring
- It is important to make sure the bridge is mounted level and facing toward the location where the cameras bridges will be

WIFI BRIDGE POLE MOUNTING

- Place the ring over the ball mount so the threaded part is facing toward the ball and attach the mount to the pole using the provided hose clamp
- Attach the bridge to the mount by placing it onto the ball and tightening the locking ring
- It is important to make sure the bridge is mounted level and facing toward the location where the cameras bridges will be

MOUNTING PTZ CAMERAS

The first step to setting up a PTZ camera is mounting the camera itself. You will need your camera, an outdoor cat5 cable, camera connector cover box, mounting hardware and the mount.

- It is ok to mount the camera outside as it is completely weatherproof, however we don't recommend mounting it directly below the eavestrough or roof line as this will expose the camera to more water and ice which may hinder its performance.
- You will need to have a power connection within 30 feet of the camera mounting location.
- Before starting the installation, make sure you will be able to secure the camera mount directly to a stud or into a solid pole. If this is not possible we recommend reinforcing with 3/4" plywood or better.

IMPORTANT: If you are using the universal mount camera you will not need to do the following steps. Instead use the mount that came in the camera box following the installation instructions in the box. Then skip to the next page for the rest of the installation process.

- Your mounting kit includes: 1 universal camera mount, 4 track bolts, 4 washers, 4 lock nuts and 4 lag bolts.
- First identify the correct bolt pattern on the mount by holding the base of the camera up to the mount and find the set of holes that line up properly.
- Then you need to set the 4 track bolts in the mount to create studs for the camera to mount to. To do this, put the bolt through the correct hole, then on the opposite side, stack up the 4 washers on the bolt with the nut on top. Tighten the nut until the track bolt pulls itself into the hole. You can also use a hammer to set the bolts in place if you wish.

- Now place the mount where you wish to install the camera. Mark out and drill the 4 mounting holes with the appropriate sized drill bit and fasten the mount with the 4 included lag bolts.

- Finally, feed the camera cable through the mount, slide the camera onto the track bolt studs and secure it with the included lock nuts.

- It is recommended that you electrically ground the camera mount whenever possible. This will help to protect the camera in the event of lightning or static discharge.

- You can also install the camera without using the mount by using the lag bolts and the cameras' existing mounting holes if you prefer.

- Next, mount the box near your camera with the hinge towards the sky and the grommets toward the ground. Make sure the bonded washers are properly compressed against the back of the box to create a water tight seal.

- Place one of the grommets around the camera pigtail and insert it into one of the cut-outs in the box so the connectors end up inside the box. Bundle the cat5 cable together with the unused connectors on the camera pigtail and place the grommet around them (see picture).

- Then place the other grommet around the cat5 cable, insert it in the other cut-out on the box. Connect the cat5 cable to the camera pigtail.

- Close the lid of the box. You will hear it "snap" shut when it is properly closed.

- Put the included cable tie through the locking tab and tighten to secure the box closed , cut off the extra cable tie.

- Run the cat5 cable to the location where the power box will be mounted.

- You are done installing your PTZ camera! You can now move onto the bridge installation portion or the manual (page 25) for the next step.

FIXED CAMERA INSTALLATION

- To start installation of the fixed camera, find a secure location on a wall or pole and secure it with the included screws.
- Do not mount the camera facing into direct sunlight, this will damage the camera's sensor.
- Mounting can be made easier by loosening the set-screws on the mount to allow the camera to be moved out of the way for easy access to the screw holes.
- It is ok to mount the camera outside as it is completely weather proof, however, we don't recommend mounting it directly below the eavestrough or roof line as this will expose the camera to more water and ice which may hinder its performance.

- Once you install your fixed camera you must install the outdoor rj 45 cover to protect the connection from rain and snow.
- First, take the red rubber washer on the connector and slide it down to the ledge on the connector body.

- Next, place the cap over the end of the cable followed by the rubber insert and the cover body.
- Plug the network cable into the camera connector.

FIXED CAMERA INSTALLATION

- Place the cover body over the connector and rotate it about a quarter turn until it locks into place with a click.
- Push the rubber insert into the back of the cover body making sure it is fully inserted with the flat side facing out and the side with a rim facing in.
- Thread the cap on to the cover housing and fully tighten.

- Run the cat5 cable towards the power outlet location, this will be connected to the power box later.

- You are done installing your fixed camera! You can now move on to the bridge installation portion or the manual (page 25) for the next step.

CAMERA SIDE WIFI BRIDGE INSTALLATION

After setting up your camera you will need to setup the WIfI bridge. This portion of the manual doesn't cover mounting the bridge since bridge mounting is already covered on page 19.

- First unpack your bridge and remove the weatherproofing cover from the back by sliding it down and off.

- Plug the cat5 cable that will go to the power box into the port labelled "lanPoE" and run the cable towards the power outlet to be connected to the power box later.
- Replace the cover while routing the cables through the holes in the cover.

- Mount the bridge ensuring it has clear line of sight to the one at the house, see page 19 for detailed mounting instructions.

IMPORTANT! Since this is a directional bridge it is very important that you face the front of the bridge towards the access point at the house. This will ensure a good connection to the access point bridge .

Next you will need to install the power box. You will need the PoE power box and included mounting hardware.

- Mount the power box near a plug-in using the included screws and rubber sealing washers.
- There is a mounting point at each corner of the box that you must screw through.
- Do not plug in the power box yet.

CAMERA SIDE WIFI BRIDGE INSTALLATION

- Run the cat5 cable for the bridge through the grommet and connect it to the "PoE" port on the White Poe injector that is marked "BRIDGE"
- Then Run the cat5 cable for the camera through the grommet and connect it to the "PoE" port on the BLACK/GREY Poe injector that is marked "Camera"
- The injectors are held in the box with Velcro so you can pull it off the back of the box to make connecting the cables easier.
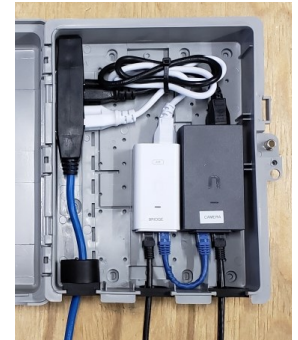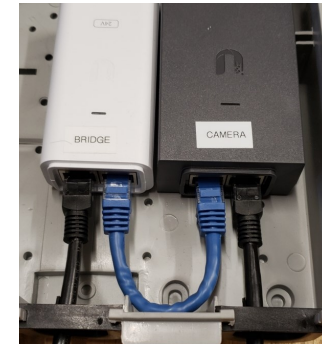
- Ensure the grommet is correctly seated and close the lid of the box and tighten the screw to hold the cover shut.
- You can also add a cable tie or lock for extra security.

CAMERA SIDE WIFI BRIDGE INSTALLATION

- You can now plug in the power box and your are done setting up at the cameras side

FINISHED CAMERA SETUP

CONNECTING A SECOND CAMERA TO A BRIDGE

If you are adding a second camera to a bridge follow the same steps as setting up 1 camera (page 20/24) but plug the cable from the "LAN" side of the Grey/Black PoE injector into the second port on the WIfI bridge itself
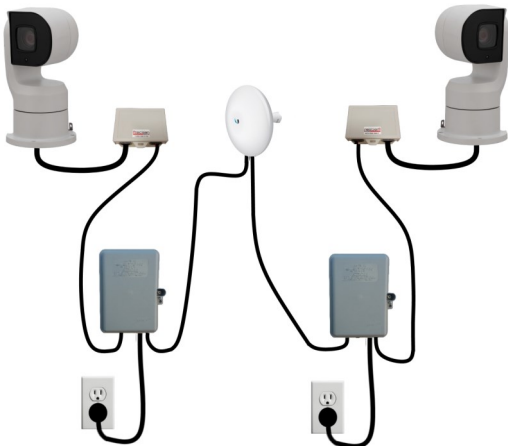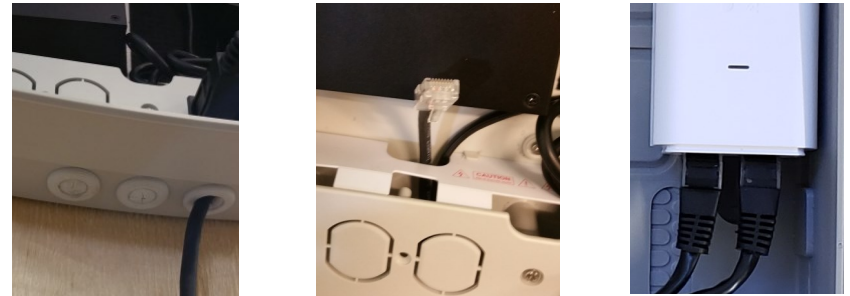

OUTDOOR POE SWITCH BOX INSTALLATION

Setting up the your cameras with the outdoor PoE switch box is similar to setting up with a standard camera power box, with a few differences.

- Install the cameras and bridge the same as you would for the standard camera power box (see page 20,23,25).

- Mount the outdoor PoE switch box near an outlet using the included screws. Make sure the box is mounted with the grommets toward the ground. There are 3 mounting points with rubber grommets.

- **DO NOT PLUG IN THE BOX YET! SHOCK RISK!**

- Run the cat5 cable for the bridge through one of the grommets and plug it into the "PoE" port on the white UBIQUITI PoE injector.

- Run the cat5 cables for the cameras through the grommet and plug them into the larger 4/8 port PoE switch.

OUTDOOR POE SWITCH BOX INSTALLATION

- Close the lid of the box and ensure the locking tab has clicked in place. Use a cable tie to secure the lid.

- Once everything is connected and the box is securely closed, plug in the power box.

- We recommend leaving extra cable hanging at the power box and plug-in to create a drip loop. This will stop water from running down the cable into the box or electrical outlet.
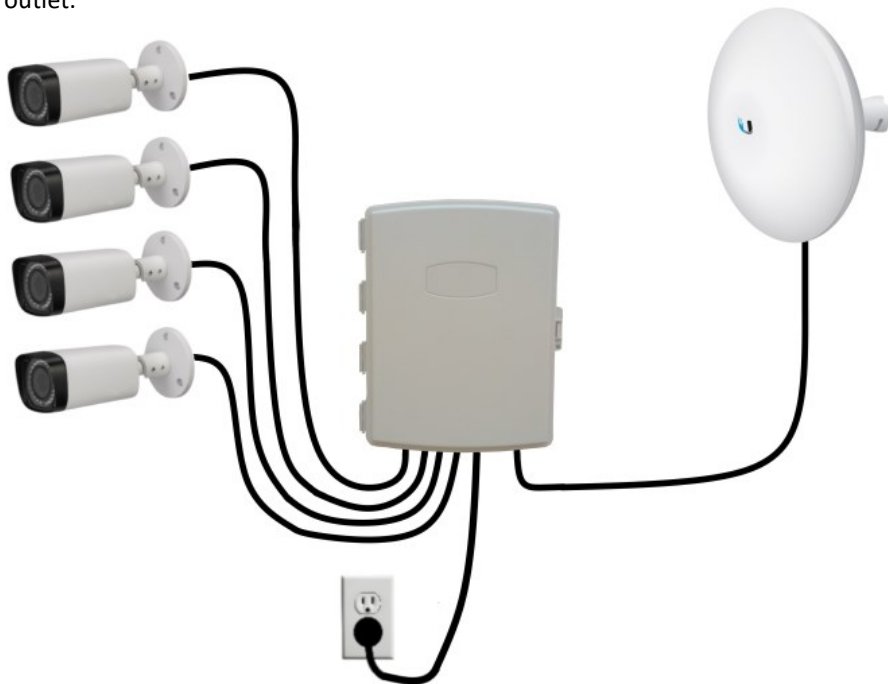
NOTE: Do not plug in power box until all devices are connected.

VIEWING CAMERAS ON THE NVR

Once you get the system setup, viewing the cameras from the tv is a fairly simple process.

- First be sure the NVR is powered on and connected to the network and tv.

- Switch on your tv and make sure it is set to the appropriate input IE: HDMI 1.

- Assuming everything has been hooked up correctly you should now see your cameras displayed on the screen.

- You may be prompted to login, select "user" for the username and the password is "allen2020".

- If you don't see your cameras at this time try re-starting all components of the system , if that does not work see the troubleshooting section in this book or online at www.precisioncam.ca


- To control your PTZ cameras, right click on the square for the camera you wish to control and select the PTZ option from the menu.

- You will now see the PTZ control panel. From here you can move, zoom and focus your PTZ cameras.

- To change the camera you are controlling, right click on the screen again to close the control panel and repeat the steps above to open the control panel on another camera.
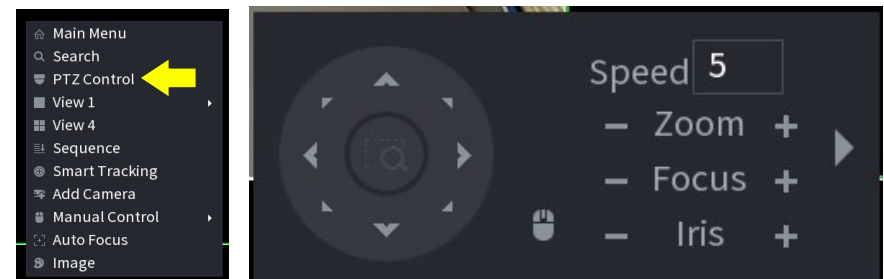
VIEWING CAMERAS ON THE NVR

You can also change how many cameras are on screen at once.

- Right click on the screen to bring up the menu.

- To see 1 camera at a time, move the mouse over the "view 1" selection and select the camera you want from the menu that appears.

- To see 4 cameras on the screen at once, click on the "View 4" selection.
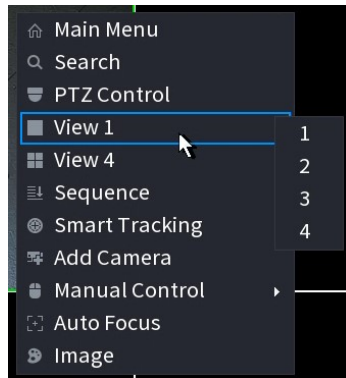
ACCESSING THE NVR MENU

The main menu can be accessed by right clicking screen and selecting "main menu". From here you can do several things like adding/deleting user accounts and changing picture settings.

- If you are unfamiliar with CCTV systems and Networking we generally recommend that you don't change any of the settings in the main menu unless advised to do so by the manual or a precision cam technician as you may cause your system to not function properly.

- Everything in the main menu that needs to be setup will already be setup by us before the unit is sent to you so you shouldn't need to change any settings in the menu.
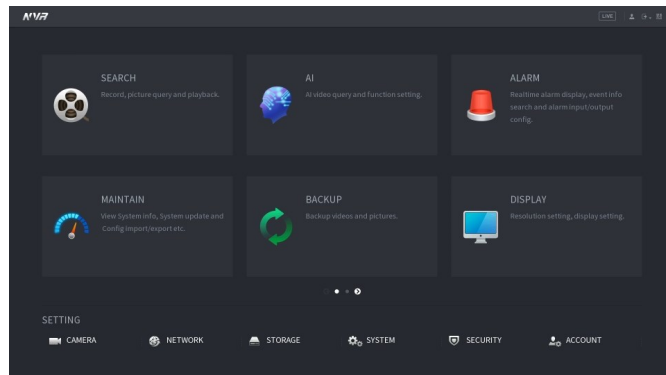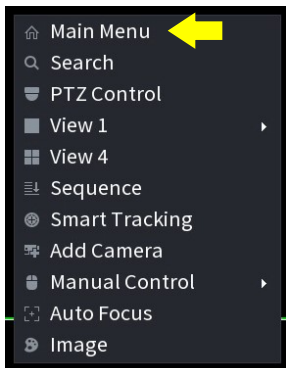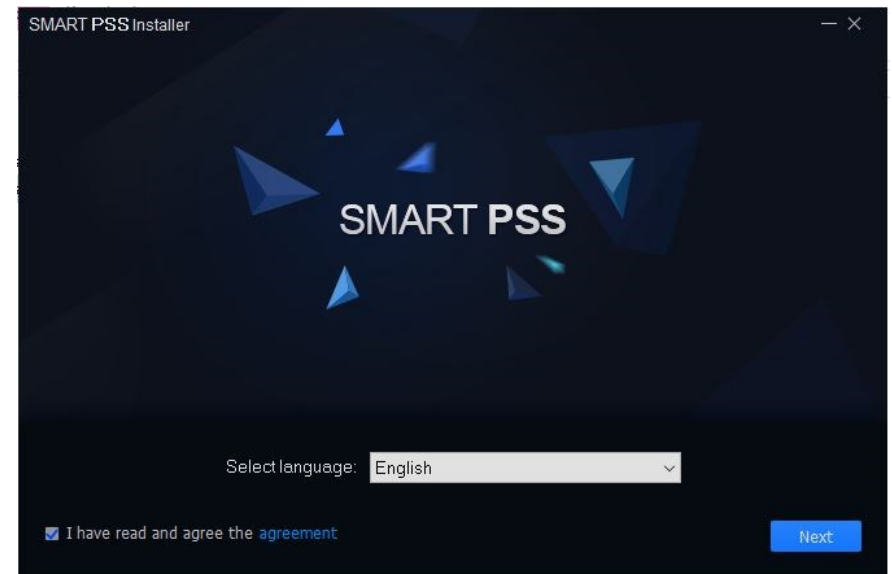

VIEWING CAMERAS ON YOUR COMPUTER

To view the cameras from your computer you first must install the Smart PSS Player software. This section will walk you through how to setup the software. If you have already setup the software you can skip ahead to page 35.

- Go to www.precision cam.net/support/ and download smartPSS from the downloads section.

- Once downloaded, go to your downloads and locate the file. Right click it, then click on "extract all".

- Run the file extractor then click on the "DH_SmartPSS" file to start the installation.
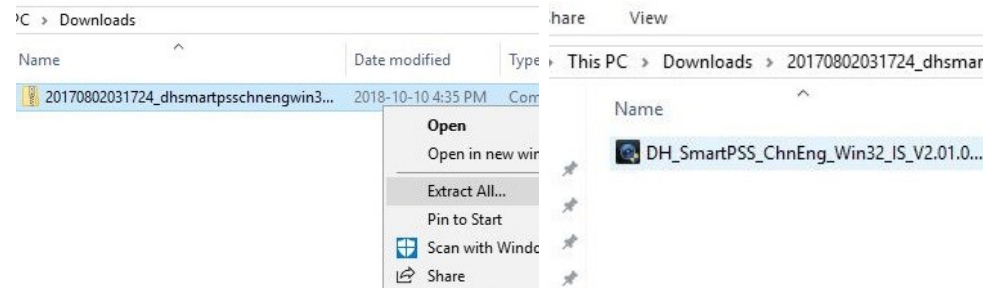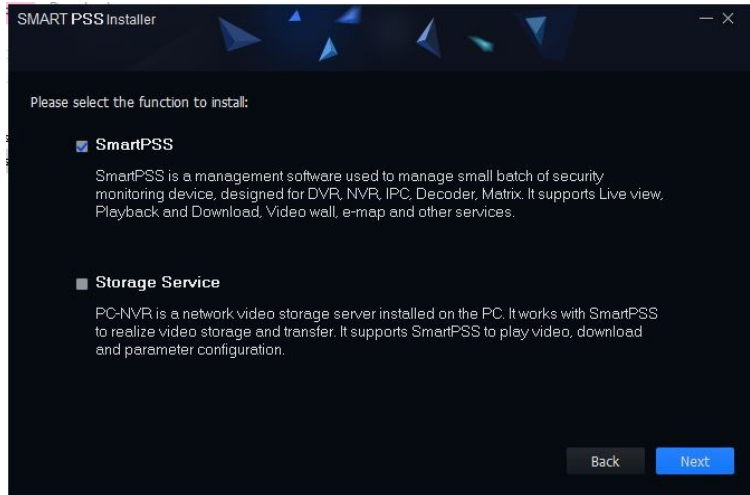

- Once the installation window opens up, select the correct language and click on the "I agree" box and click next.


- In the next window un-select the storage service option and click next.

- After that just keep clicking next until the installation is done.

- Once installation is complete smart pss should start automatically, if not, click on the smart Pss icon that is now on your desktop.
- Once the software starts up it will require you to setup a password for smart PSS. This password is only for the smart pss software itself and does not relate to any of the other passwords for the system.
- To make things easy in the future just click the "Auto login after registration" option so you don't have to use a password every time you start up the program.


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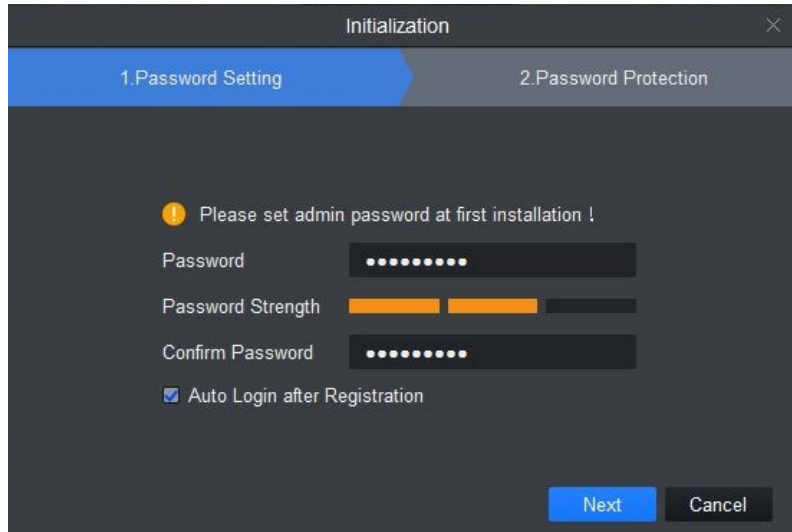
Now that the software is installed on your computer, you will need to add your cameras to it.

- The first thing you should see once you open smart pss is the "devices" page, if not, click in "devices" under the "configuration" tab on the home screen
- Click on the "+ Add" button at the to left of the devices screen
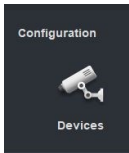
- The "manual add" dialog box will now appear.
- Enter in a name for your cameras under the "Device Name" option. This can be whatever you want.
- Change the "method to add" option to "P2P".
- Enter the software serial number for your NVR into the "SN" box. You can find the NVRs software serial number in the NVRs menu under the "easy4ip" or "P2P" option in the network section of the menu. The serial number can also be found on the data sheet that was provided with your system under "software SN".
- Please note: the software serial number is not the same as the "Box" serial number that is printed on the NVR itself or on the box it came in. if you are having trouble finding the software serial number see page 45 for help
- Then type in the user name and password for your NVR, the default password is "user" and default password is "alsc8878".
- Click "Save and continue".

34
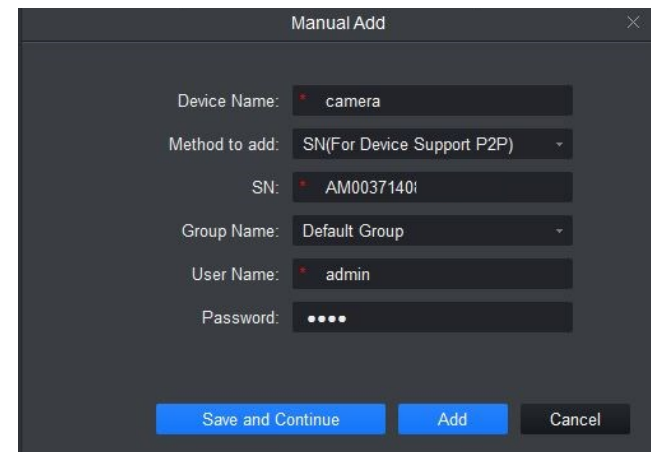
VIEWING CAMERAS ON YOUR COMPUTER

- Your NVR should now appear in the device list, wait until the "online status" light goes green and says "online ".

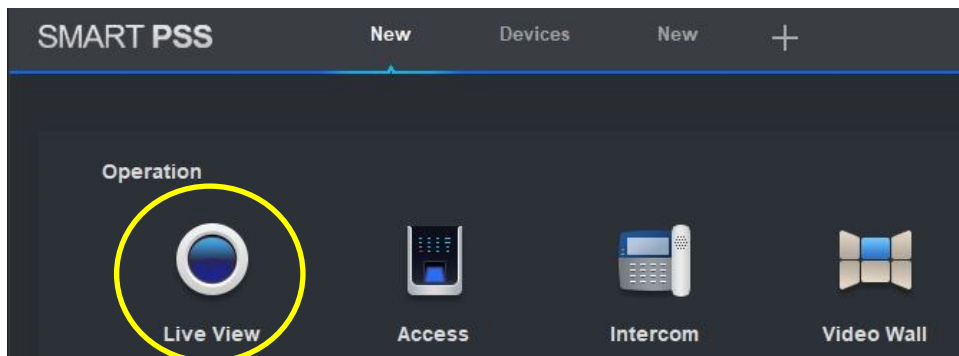- If the status does not say online click on the pencil icon and check that everything has been typed in correctly , and try again.

- Once your device is online, click on the "New" icon at the top of the page to go back to the main screen.

- Once on the main screen click the "LIVEVIEW" icon under the "operation" heading.


IMPORTANT! If you are using a camera system that is only on a local network and not connected to the internet you will not be able to use the P2P/Easy4ip option to add your camera to smart pss.

- Instead you will have to add the device using the IP/Domain option.

- To find the IP address and port# for your NVR, look at the included data sheet that came with your system, or find it under the "network" tab in the NVR settings menu.

FOR MAC USERS! The smart PSS installation process will be different for MAC computers. If you are using a Mac please download the Smart Pss Mac installation guide from our website.

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- Once you have the live view window open, find your device under the "default group" heading on the left hand side of the screen and double click it to start viewing.

- Your cameras will now appear on the screen.
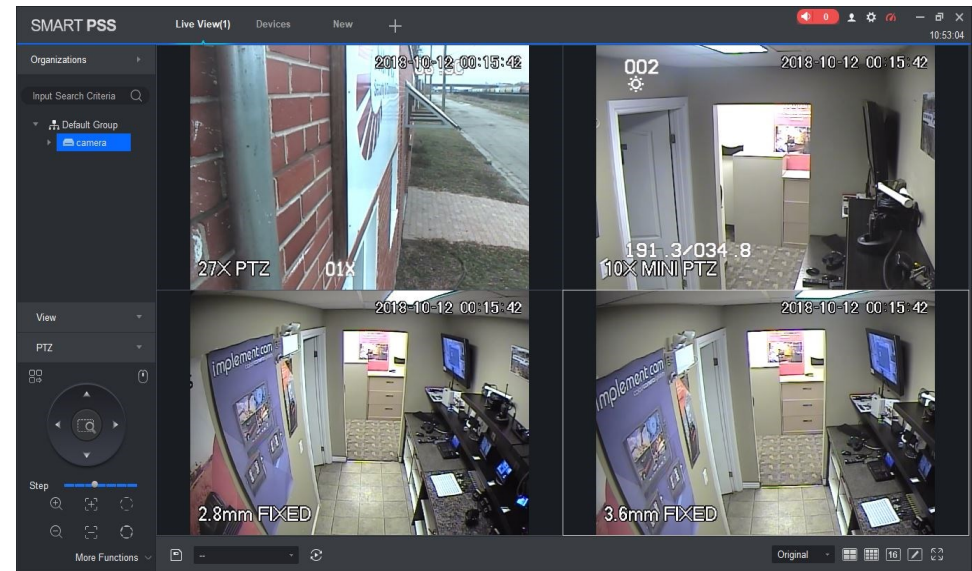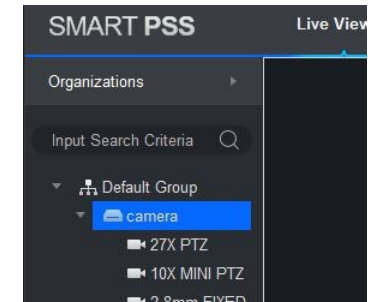
PTZ CONTROLS
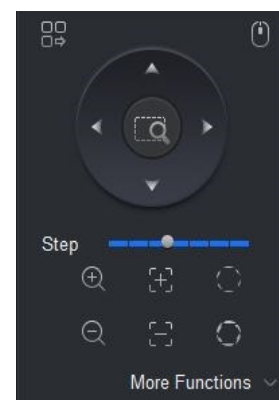
VIEW CONTROLS
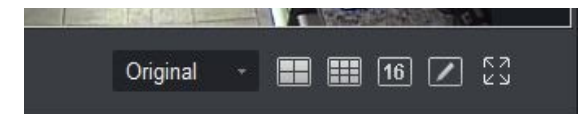
- You can change between different views by double clicking on the camera you want to see or by using the view selection at the bottom of the screen.

- To control your PTZ cameras, click the camera you want to move then use the PTZ controls at the bottom left of the screen to move it. You can also use the mouse to control the camera directly by clicking the little mouse icon on the PTZ control panel.

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The first time you view the camera system on your tablet or phone you will need to install the viewer app and add your cameras to it. This portion of the manual will cover how to do this.

IMPORTANT: this manual only covers connecting your device using the **P2P method**. This will only work if your NVR is **CONNECTED TO THE INTERNET.** If you are using your system without an internet connection but still want to be able to view it on your phone while at home, please check our website or contact us for information on how to set this up.

If you have already installed the app and added your cameras, you can skip forward to page (36).

- The first step is to download the app on your tablet or phone. The app is called DMSS

- The can be downloaded for free on the google play store or the apple app store.

Or you can Scan this code with you phones camera to download the app —>

- The app may ask you to login or sign up for an account after installing. This is not required and you can skip this step if you wish

- Make sure you approve any app permission requests when installing. The app will not function properly without these permissions

- Once you have the app installed go the "home" screen

- Tap on the "+" icon in the top right corner

- Tap on "SN/Scan" from the drop down list

- The app will now activate you phones camera. Scan the DVRs **Software** serial number QR code. You can also manually enter the serial number if preferred If. your not sure how to find the software serial number see page (42) for instructions

- Once the serial number is scanned select "Local" under the "Add to" option and tap "Next"

- On the next page chose "NVR" as the device Type
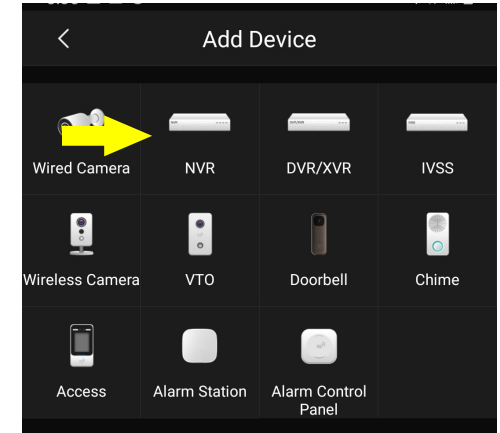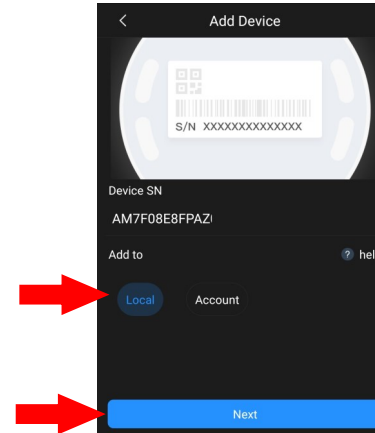
- You will now see the device Information page

- Give your device a name, this can be whatever you want

- Then enter the Username and password that you use to log into the NVR. The Default is Username: User and Password : allen2020 and Tap "save"

- If everything was done correctly you will now see your cameras displayed in the "live preview" page.
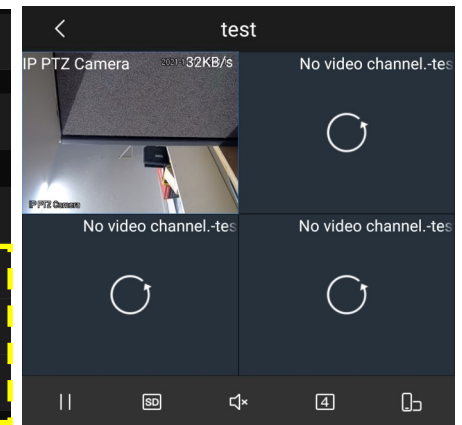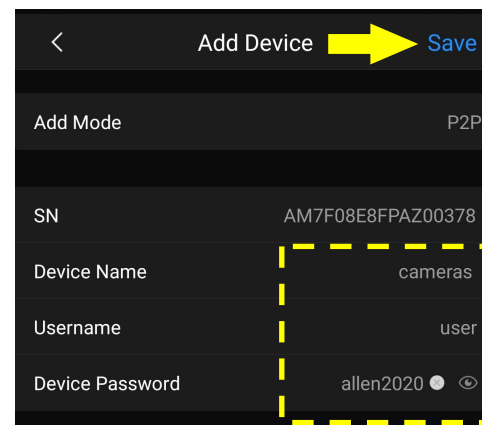
VIEWING YOUR CAMERAS ON A PHONE OR TABLET

Once you have added the your cameras to your phone they will be stored in the "device list".

To view your cameras just open the app and tap play icon next to your device.
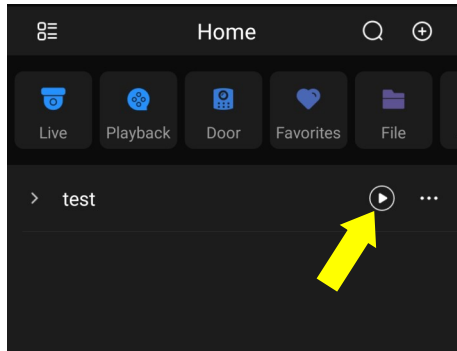
You will now see your cameras displayed in the default 2X2 grid pattern.

- You can go full screen by double-tapping on the camera you want to see.

- To control the cameras from the app, tap on the camera you want to use and tap the PTZ icon, then move the camera by swiping the screen or pinching/stretching your fingers to zoom in and out.
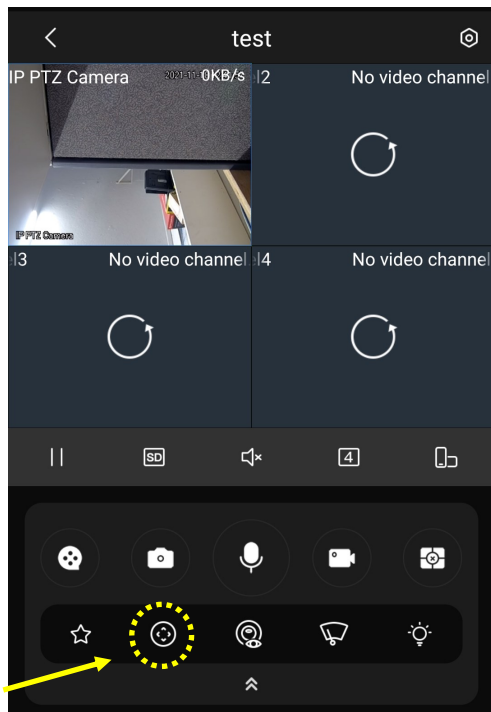
PTZ CONTROL

VIEWING AND BACKING UP RECORDED VIDEO

Adding a Hard Dive (HDD) to your NVR allows you to record and play back video, this section will cover how to view and, recover video from your nvr
- Go to the NVRs main menu see page 31 if you don't know how to do this
- Once in the main menu click on the "search"
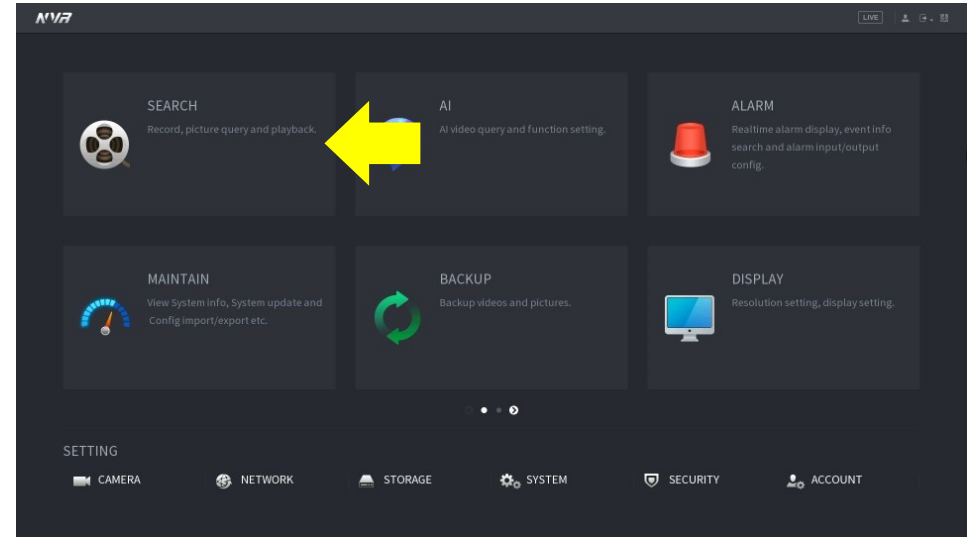
- You will now see the playback screen. To view recorded video:
- Select the camera(s) you want to view in the camera section (1)
- You can now select one of the highlighted dates in the calendar section (2)
- All the available recordings will now appear as colored bars on the time line (3) se-
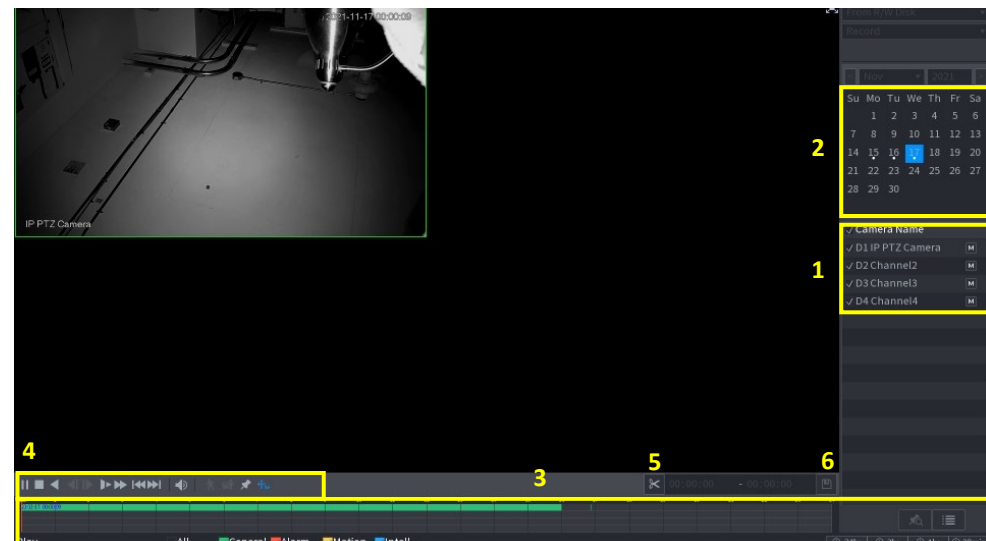
VIEWING AND BACKING UP RECORDED VIDEO

- To back up (recover) recoded footage first plug a blank USB drive into the NVR

- Then you will have to create a "clip" to do this select where you want the video clip to start on the time line and click the "video clip" (5)Icon

- Then go select where you want the clip to end on the time line and click the "video clip"(5) Icon again

- The "save" (6) option will now become available , click on it to bring up the "backup" dialog box

Backup			
Device Name	sdb1(USB USB) ▼	Format	0.00 KB/58.59 GB(Free/Total)
Storage …	/	Browse	
Record C…	D1 ▼		
Type	All ▼	Main Stream ▼	
Start Time	2021 - 11 - 16 00 : 00 : 00	End Time	2021 - 11 - 16 00 : 48 : 36
File Format	DAV ▼		Search Remove

0	Channel	Type	Start Time	End Time	Size(KB)	Play

0.00 KB(Needed Space)   One-Click Ba…   Backup

- Select the folder you would like to save your video file too and click "start" to back up

- Do not remove the USB drive until the backup has finished, there will be a progress bar at the bottom of the dialog box

◄ PgUp	►I PgDn	Fn Select/cancel backup device or file.

Remaining Time 0:2:35
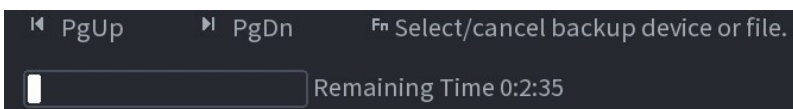
- Once the backup is finished It can be viewed on a pc by launching the "smart player" that is automatically added to the usb drive by the NVR during the back up process

NVR_ch1_main_20191012000820_2019101…	2019-10-12 12:33 …	DAV File
SmartPlayer	2019-10-12 12:32 …	Application
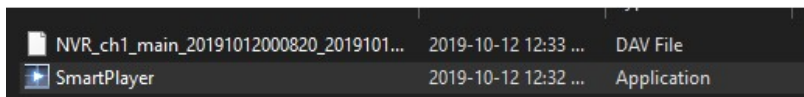
FINDING THE SOFTWARE SERIAL NUMBER

- To locate the software serial number for your System will first need to go into the menu on the NVR itself

- Using the mouse that is connected to your NVR right click anywhere on the screen to display the drop down menu

- In the drop don menu click on "Main Menu"

- You may be prompted to login, select "user" for the username and the password is "alsc8878".

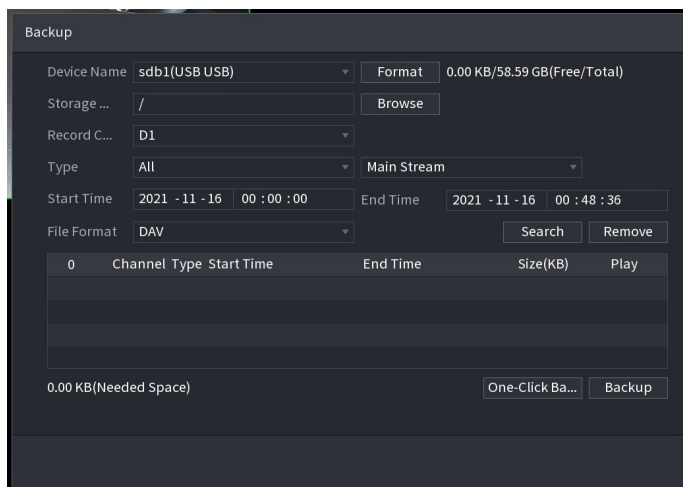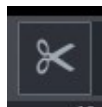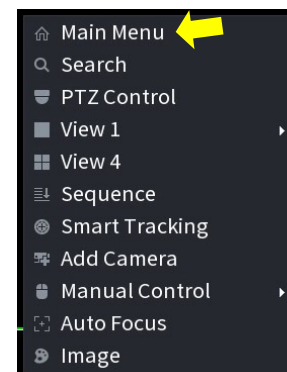- Once in the main menu click on "network" at the bottom

⌂ Main Menu
Q Search
⊟ PTZ Control
■ View 1 ▸
▦ View 4
⇕ Sequence
◉ Smart Tracking
⚑ Add Camera
⬚ Manual Control ▸
⌖ Auto Focus
☺ Image

- Once you are in the network settings page click to the "P2P" option on the left hand side of the page
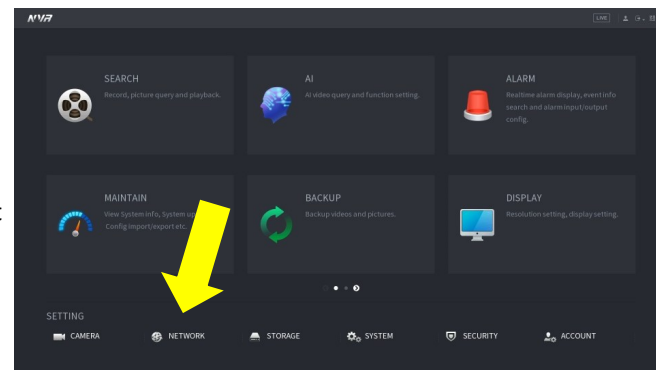
- On this page you will see 2 QR codes the first one is a download link for the cell phone app, the second one is the software serial number

- The serial number is the series of numbers and letters located under the QR code

- You can enter this number manually or scan it with your cell phone
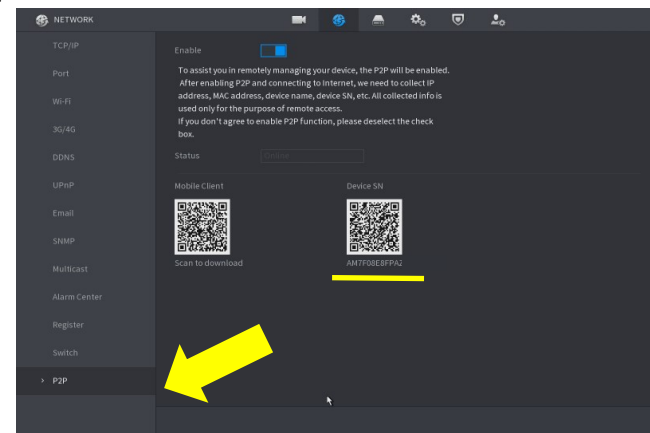
TROUBLESHOOTING: NO VIDEO/BLACK SCREEN

Before contacting Allen Leigh, please download the IP CowCam Support pack from the downloads section located at www.precisioncam.ca/support

- No Video
- Black screen

Is your TV turned on and set to the correct output? EX: HDMI 1/2

Yes →

Is the HDMI cable connected properly to both the TV and NVR? Check which HDMI port on the TV it is

No → Ensure all cables are connected properly. Turn on the TV and switch the HDMI source to match the HDMI port the NVR is plugged into on the TV

Yes →

Is the NVR turned on? Check for lights on the device indicating power

Yes → Contact Allen Leigh for further assistance

No Power/Lights → Check that the power supply to the NVR is plugged in. The larger black NVRs will have a power switch on the back. Make sure it's in the "on" position

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TROUBLESHOOTING: LOGIN RETURN TIME IS UP

Before contacting Allen Leigh, please download the IP CowCam Support pack from the downloads section located at www.precisioncam.ca/support

- Login return time is up message on NVR where camera feed should be

Is camera turned on /plugged in?

No → Unplug camera's power supply and plug it back in. PTZ cameras will move about in a startup sequence, stationary cameras can be tested by covering the lens to check if the IR lights come on.

Yes →

Are the bridges powered on? Check lights on the back

No → Reset bridges by unplugging power supply and plugging back in. Lights on the back of the device will illuminate. If no lights come on make sure that the bridge PoE port is plugged into PoE port on power supply.

Yes →

Are the cables between the bridges and the camera/router secure?

No → Make sure camera is plugged into LAN port on the bridge/power supply and that the cable "clicks" into place on both ends

Yes →

Is the NVR looking for the right IP Address of the camera? Check build sheet for address.

Yes → Contact Allen Leigh for further assistance

No → Add the camera through registration on the NVR OR Contact Allen Leigh for further assistance

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TROUBLESHOOTING: INVALID USER NAME OR PASSWORD MESSAGE WHERE CAMERA FEED SHOULD BE

Before contacting Allen Leigh, please download the IP CowCam Support pack from the downloads section located at www.precisioncam.ca/support

- Invalid user name or password message where camera feed should be

Using a mouse plugged into the NVR, right click and select the option: "Registration"

System Login prompt

Click the arrow in the "User Name" box and select "user" Enter "alsc8878" in the password field
user
alsc8878

Success

Click the "Modify" pencil icon beside the camera having issues
Is the User Name set to: "user"?

Yes

Try changing the "Password" field to:
alsc8878

No

Change "User Name" to:
user
Change "Password" to:
alsc8878

Success

Didn't Work

Didn't Work

Contact Allen Leigh for further assistance
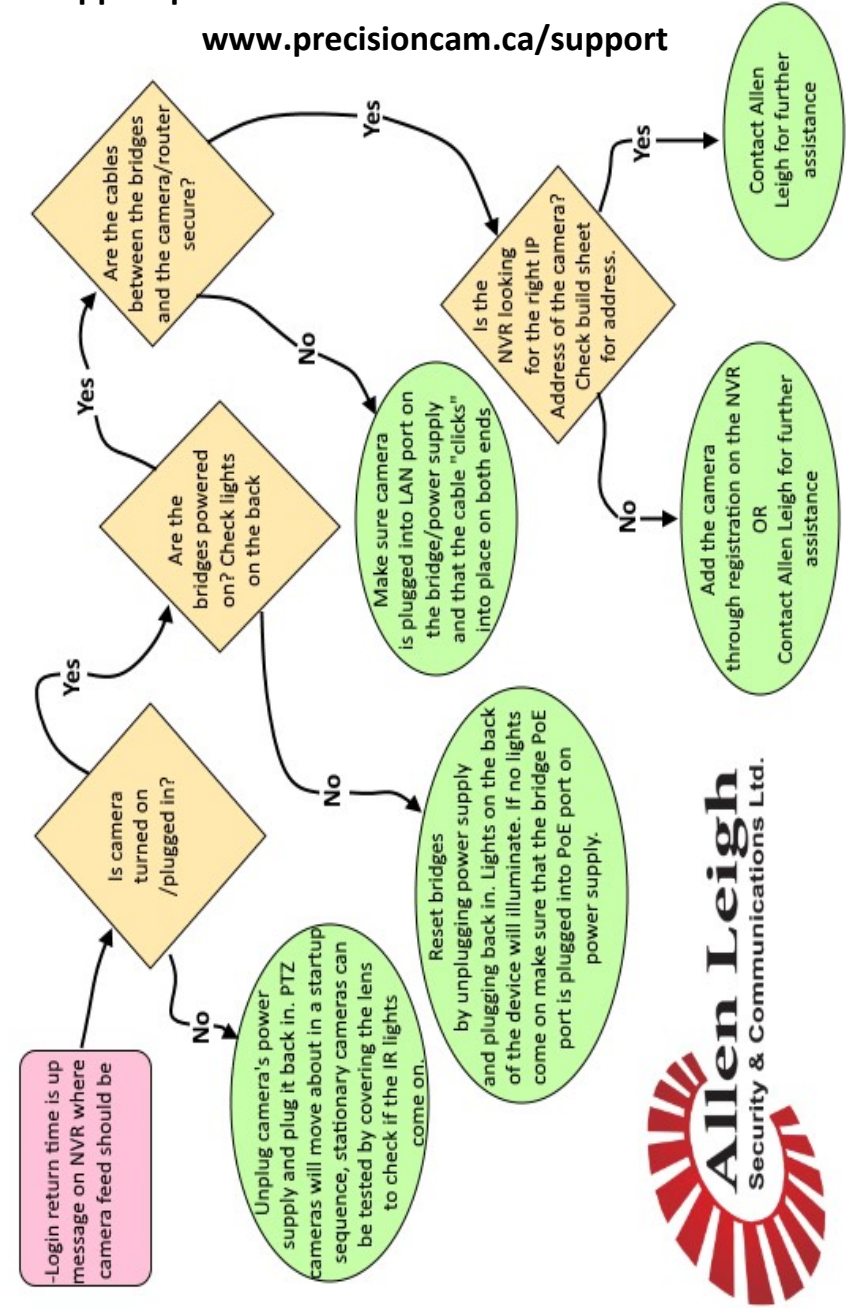
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TROUBLESHOOTING: NO PTZ CONTROL

Before contacting Allen Leigh, please download the IP CowCam Support pack from the downloads section located at www.precisioncam.ca/support
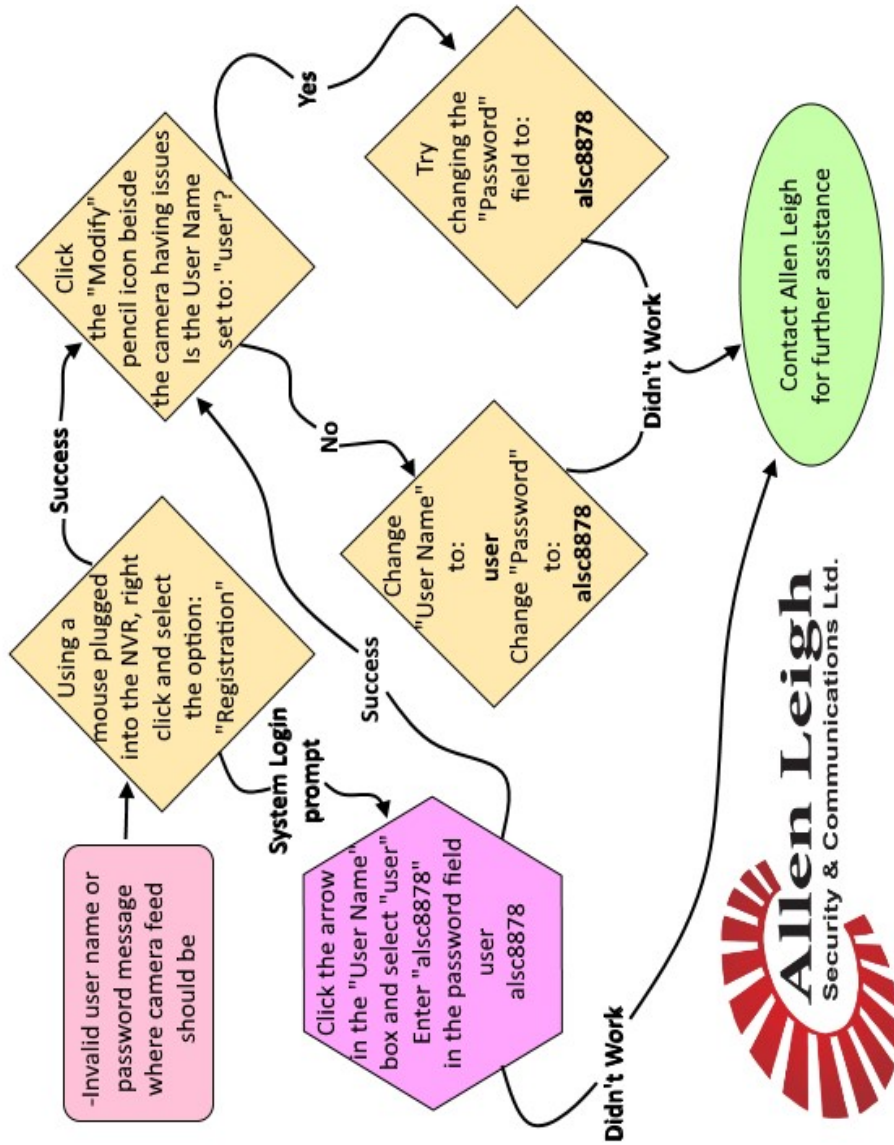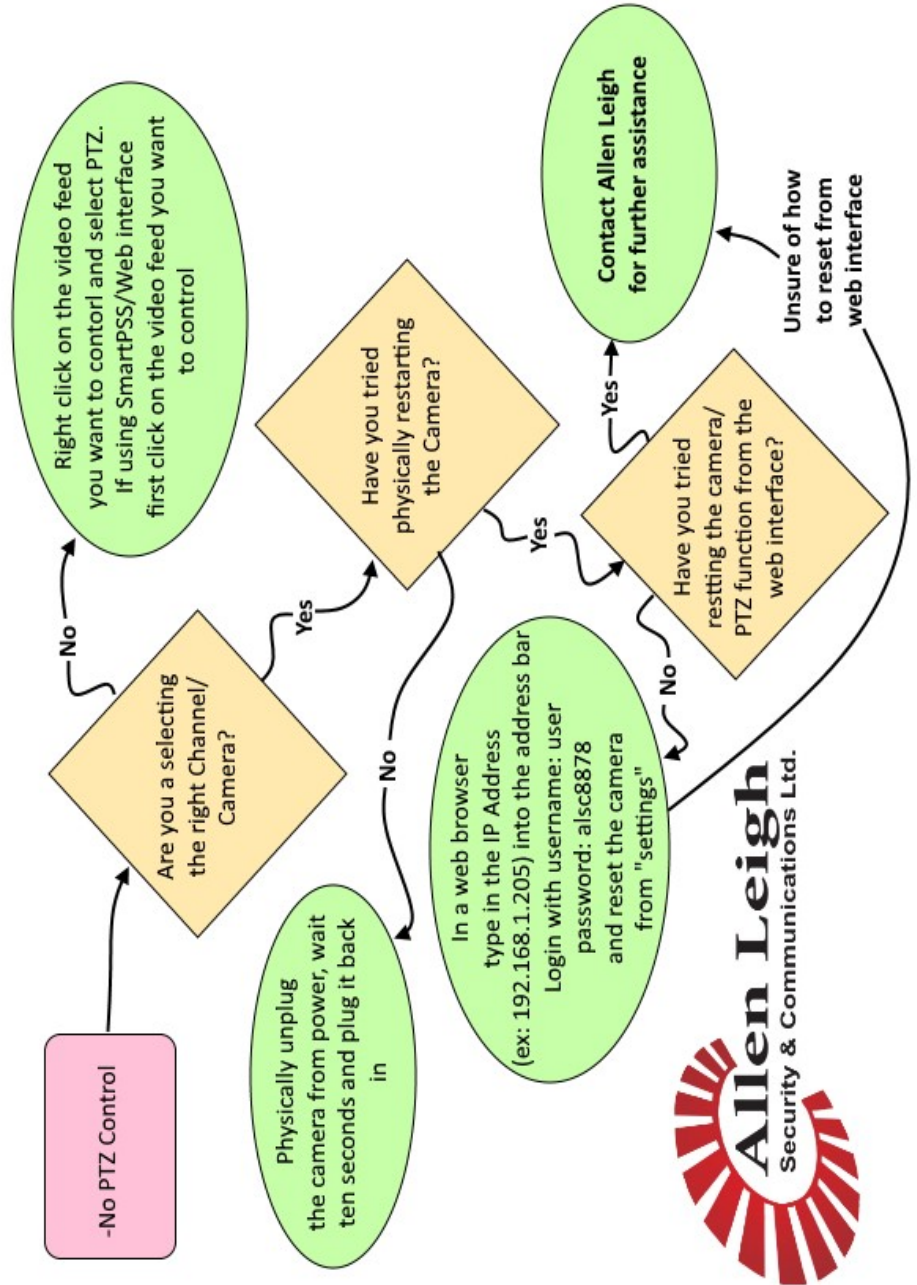
- No PTZ Control

Are you a selecting the right Channel/Camera?

No

Right click on the video feed you want to contorl and select PTZ. If using SmartPSS/Web interface first click on the video feed you want to control

Yes

Have you tried physically restarting the Camera?

Yes

Physically unplug the camera from power, wait ten seconds and plug it back in

No

In a web browser type in the IP Address (ex: 192.168.1.205) into the address bar
Login with username: user password: alsc8878 and reset the camera from "settings"

Have you tried restting the camera/ PTZ function from the web interface?

Yes

No

Unsure of how to reset from web interface

Contact Allen Leigh for further assistance

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