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WIRELESS IP CAMERA SYSTEM

INSTALLATION AND USER MANUAL

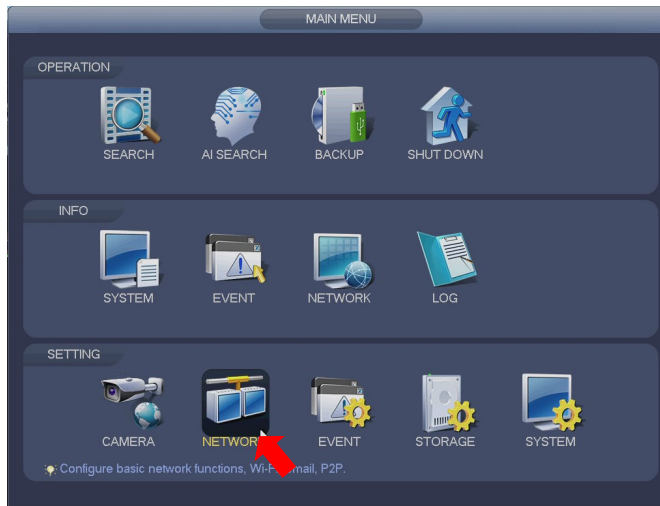
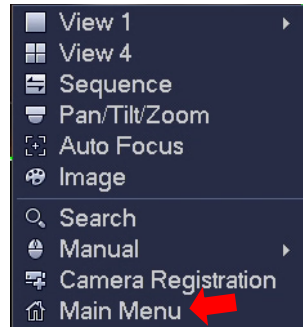
*This manual is for both Cowcam and Farm Yard Security systems

Updated Nov, 2019

TROUBLESHOOTING: FINDING THE SOFTWARE SERIAL

NUMBER

- To locate the software serial number for your System, you 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” under the “setting” category
- Once you are in the network settings page click on the “P2P” or “easy4ip” 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



WARRANTY COVERAGE

Allen Leigh Security is proud to offer a one year warranty on our livestock monitoring systems which covers any manufacturer 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 blackouts.
- 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 packaged correctly.

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 customer will be responsible for the full retail value of any loaner equipment that is not returned.
- 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.

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:

Cowcam.ca

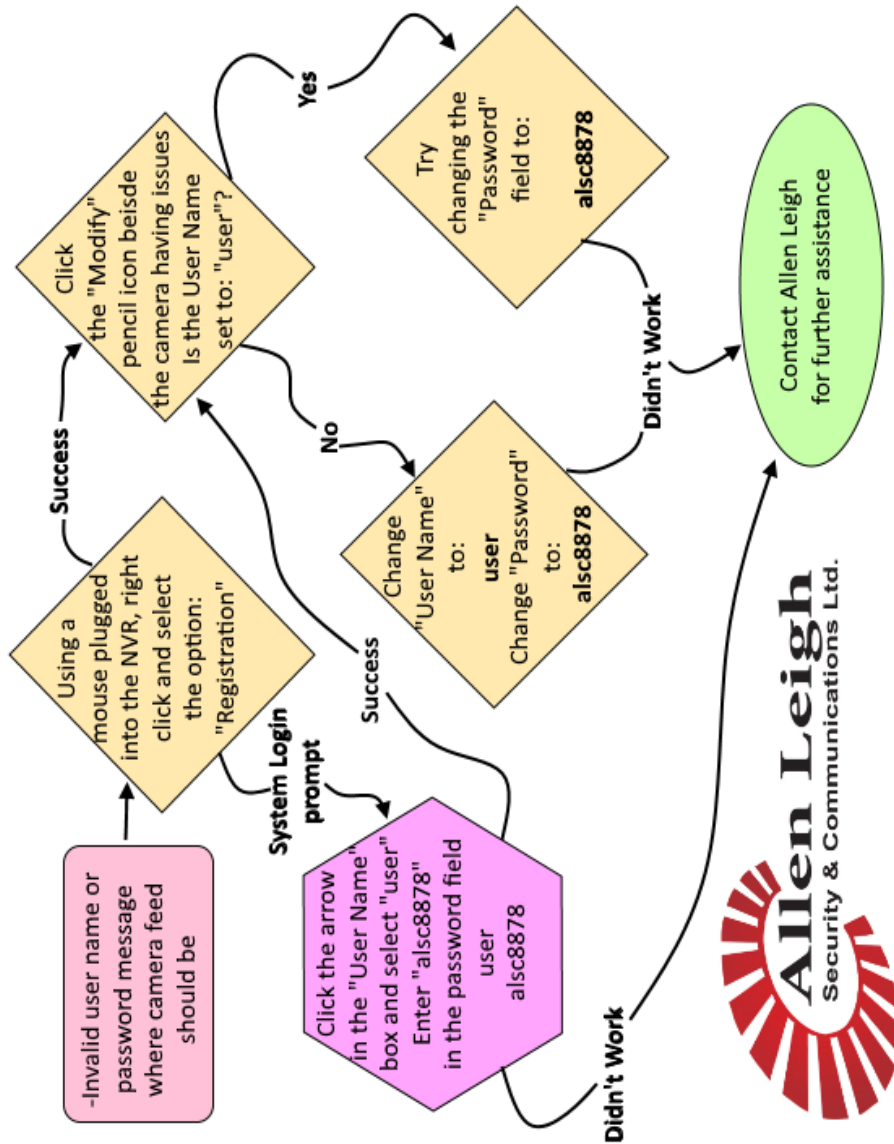


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ATTENTION NEW CUSTOMERS

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, 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.

If you are in Manitoba, please do not forget to send a copy of your invoice back to us with your section/township/range and signature for your Cow Cam to be **PST exempt!**

Thank You! And Enjoy!

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

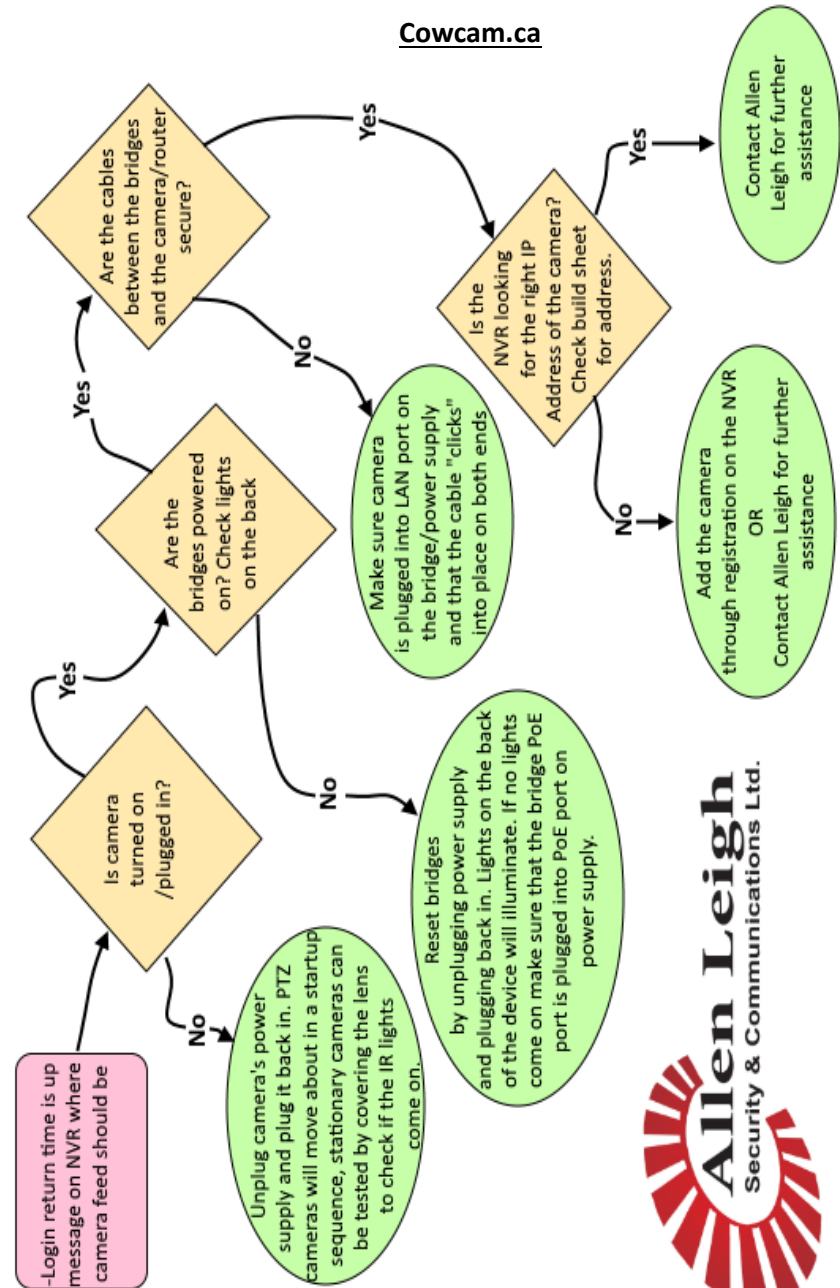


"Trusted Quality, Trusted Support, Trusted Service!"

TROUBLESHOOTING: LOGIN RETURN TIME IS UP

Before contacting Allen Leigh, please download the IP CowCam Support pack from the downloads section located at:

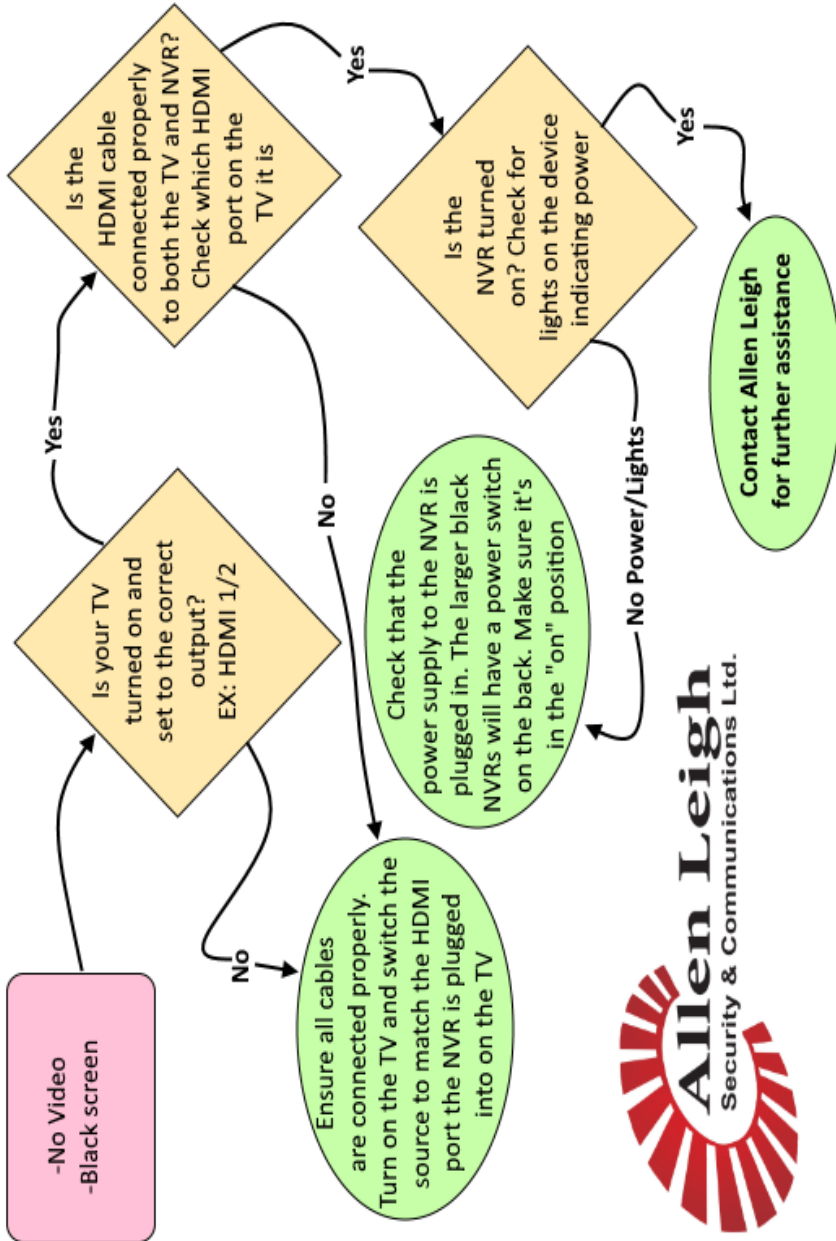
Cowcam.ca



TROUBLESHOOTING: NO VIDEO/BLACK SCREEN

Before contacting Allen Leigh, please download the IP CowCam Support pack from the downloads section located at:

Cowcam.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 (Local Area Network) connection, is a wired connection which is 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 following pages are a list of all the components that may have been included with your system. Use the following pages 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: This 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.



30X 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 31X optical zoom, is able to rotate 360° and tilt from the horizon to down at the ground.



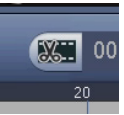
12X PTZ camera: This camera is intended to be used inside a building/barn or outside to cover smaller areas. It can be mounted to a pole or wall along the perimeter of the viewing area. Camera has 12X optical zoom, rotates 360° and is able to tilt from the horizon to down at the ground.



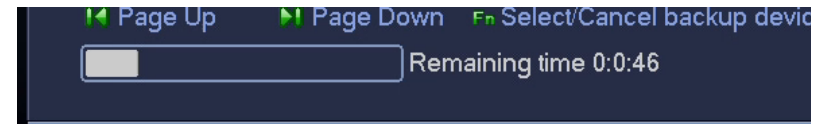
5-50mm PTZ bullet camera: This camera is intended to be used outside to cover larger areas and can be mounted to a pole or wall along the perimeter of the viewing area. It has 10X optical zoom, can rotate 180° and is able to tilt up and down.

USING THE SYSTEM: VIEWING AND BACKING UP RECORDED VIDEO

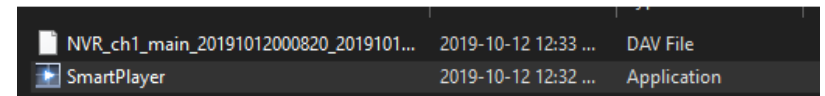
- To back up (recover) recorded footage first plug a blank USB drive into the NVR
- Then you will have to create a “clip” to do this select where you want the video clip to start on the time line and click the “video clip” (5) Icon
- Then go select where you want the clip to end on the time line and 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



- 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



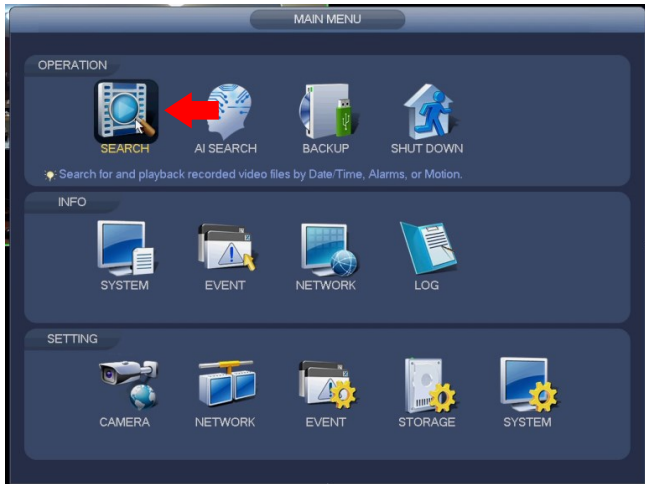
- Once the backup is finished It can be viewed on a pc by launching the “smart player” that is automatically added to the usb drive by the NVR during the back up process



USING THE SYSTEM: VIEWING AND BACKING UP RECORDED VIDEO

Adding a Hard Drive (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 30 if you don't know how to do this
- Once in the main menu click on the "search" option under the "OPERATION" heading



- 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) select one to play
- You can adjust the play back speed using the play controls (4)



COMPONENT NAMES AND USAGE



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 to see licence plates at night not people or cars

7-35mm Varifocal 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 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.

3.6mm Fixed IP 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.

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

Wi-Fi Bridge: The Wi-Fi 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.

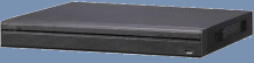
COMPONENT NAMES AND USAGE



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.



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.



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.



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 router doesn't have enough LAN ports for all of your devices.



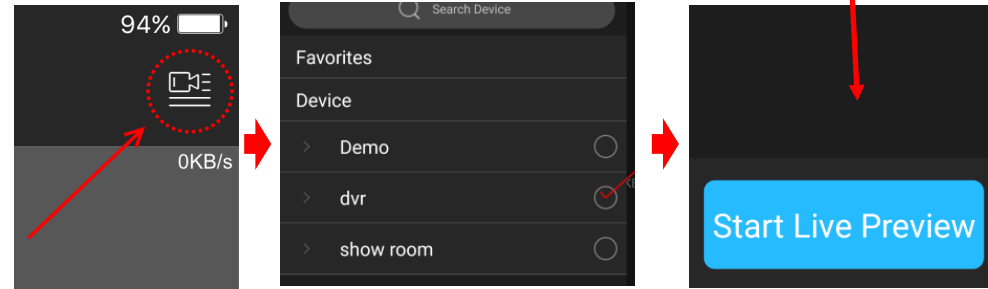
5 port PoE switch: This device is the same as the regular 5 port switch (above), but it is also able to power up to 4 cameras via PoE (Power over Ethernet)



PoE injector for fixed cameras: This 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.

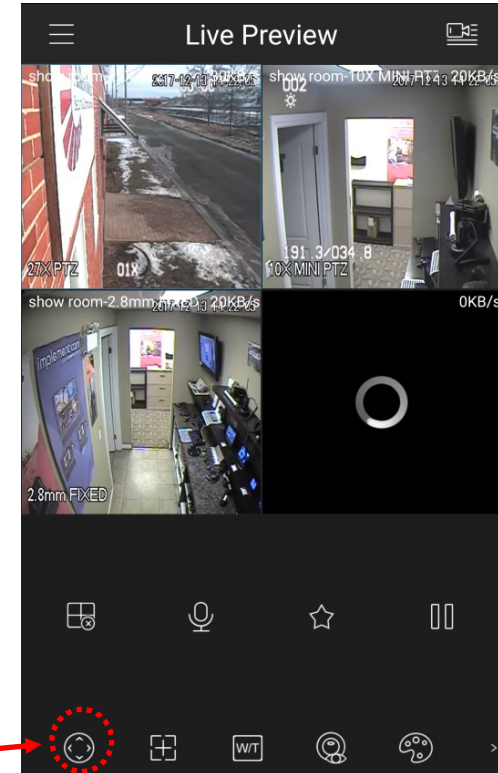
USING THE SYSTEM: VIEWING YOUR CAMERAS ON A PHONE OR TABLET (USING)

Once you have added the cameras to your phone they will be stored in the "device list". To view your cameras just open the app, tap the device list icon in the top right corner of the screen, select your cameras, and tap "start live preview".



You will now see your cameras displayed in the default 2X2 grid pattern.

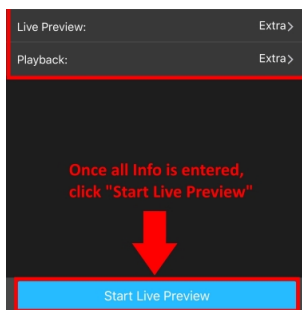
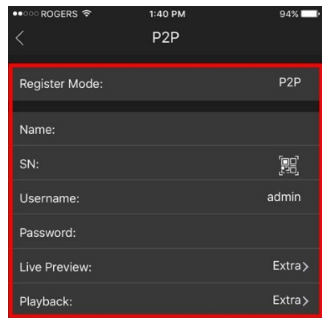
- You can go full screen by double-tapping on the camera you want to see.
- To control the cameras from the app, tap on the camera you want to use and tap the PTZ icon, then move the camera by swiping the screen or pinching/stretching your fingers to zoom in and out.



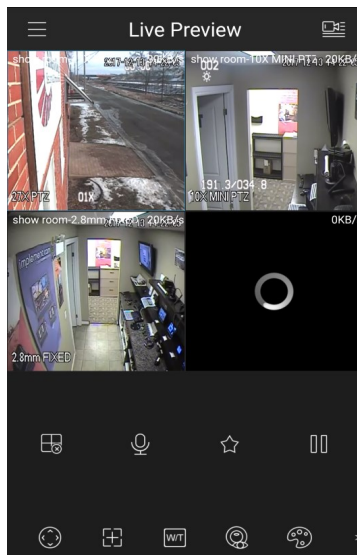
PTZ CONTROL

USING THE SYSTEM: VIEWING YOUR CAMERAS ON A PHONE OR TABLET (SETUP)

- The “P2P” menu will now be displayed.
- Enter in a name for your cameras under the “Name” option. This can be whatever you want.
- 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 user name is “user” and default password is “alsc8878”.
- Once everything is entered tap “Start live Preview”



- If everything was done correctly you will now see your cameras displayed in the “live preview” page.



COMPONENT NAMES AND USAGE

PoE injector for Wi-Fi Bridge: This Power over Ethernet (PoE) injector powers the Wi-Fi 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.



12V PTZ camera power supply: This unit provides power to the PTZ cameras. This power supply is fully weatherproof and can be mounted outside.



24V PTZ camera power supply: This unit provides power to the PTZ cameras. This power supply is fully weatherproof and can be mounted outside.



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



Outdoor 4 port PoE switch box: This box contains a 4 port PoE switch to power up to 4 cameras at once and 1 Wi-Fi bridge. It can also be used to add more than 2 cameras to one Wi-Fi 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 fixed cameras to the PoE injectors.



COMPONENT NAMES AND USAGE



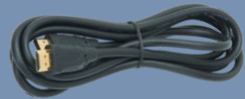
Indoor Cat5 network cable: This cable is used inside for connecting the NVR and bridge PoE injector to the router.



24V PTZ Camera power cable: This cable is used outside for connecting the camera to the power supply. This power cable is colored red with orange ends.



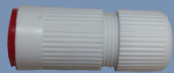
12V PTZ Camera power cable: This cable is used outside for connecting the camera to the power supply. This power cable is colored red with black ends.



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/PTZ bullet cameras from rain and snow.



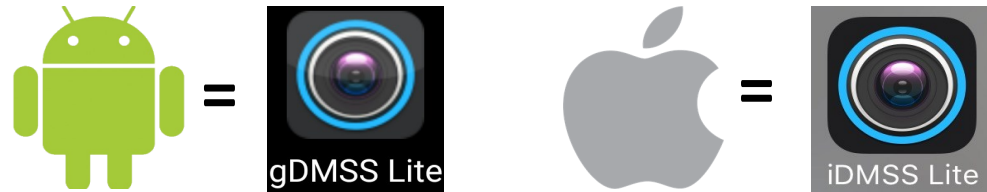
Universal mount camera mount: This mount is included with the 25X universal mount camera. It is used to mount the camera to the top of a pole or to a ceiling.

USING THE SYSTEM: VIEWING YOUR CAMERAS ON A PHONE OR TABLET (SETUP)

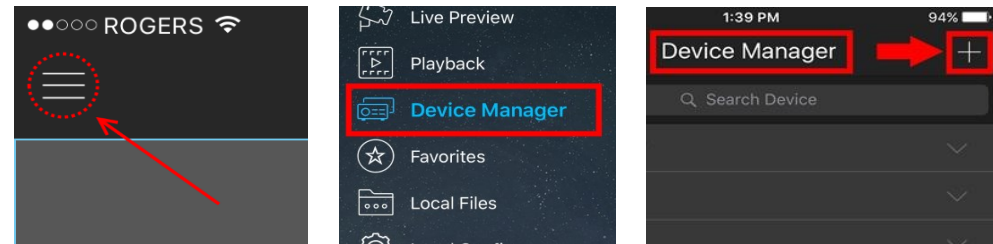
The first time you view the camera system on your tablet or phone you will need to install the viewer app and add your cameras to it. This portion of the manual will cover how to do this.

If you have already installed the app and added your cameras, you can skip forward to page (38).

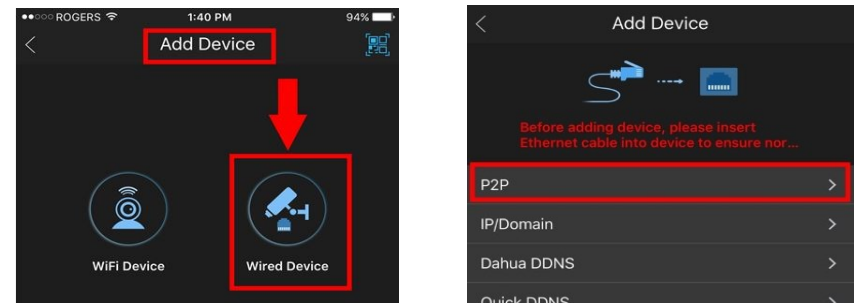
- The first step is to download the app on your tablet or phone. For iPhone the app is called “iDMSS Lite” & for android the app is called “gDMSS Lite”.
- The can be downloaded for free on the goggle play store or the apple app store.



- Open the app and tap the lines in the upper left corner of the screen to open up the menu.
- Then tap on “device manager” to open up the device manager page.
- Once in the device manager page tap the “+” at the top right corner of the screen to open the “add device” page.

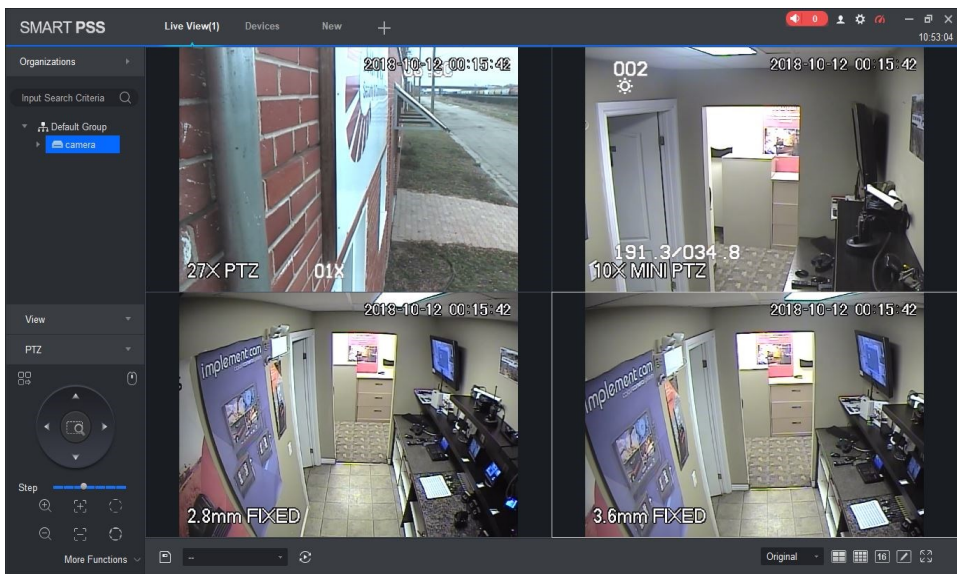
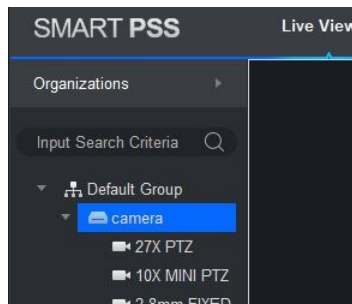


- Tap the “wired device” icon.
- Then select “P2P”.

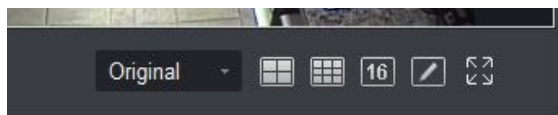


USING THE SYSTEM: VIEWING CAMERAS ON YOUR COMPUTER

- 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.

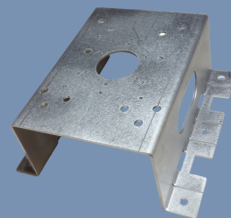


VIEW CONTROLS



- 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.

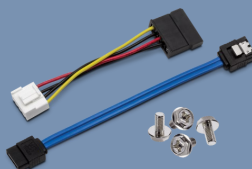
COMPONENT NAMES AND USAGE



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).



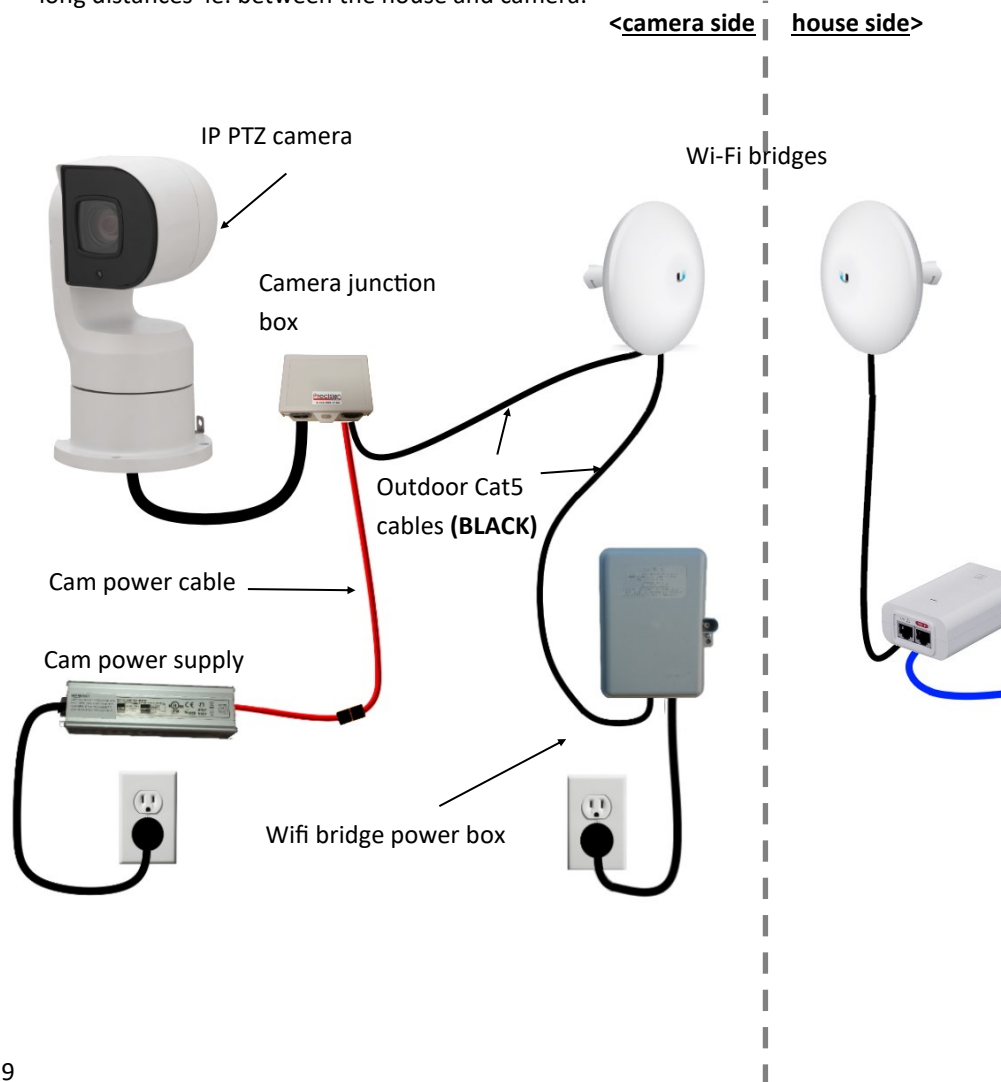
AC power cord: This power cable is used to connect the 8CH NVR to power.

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 most IP camera systems:

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

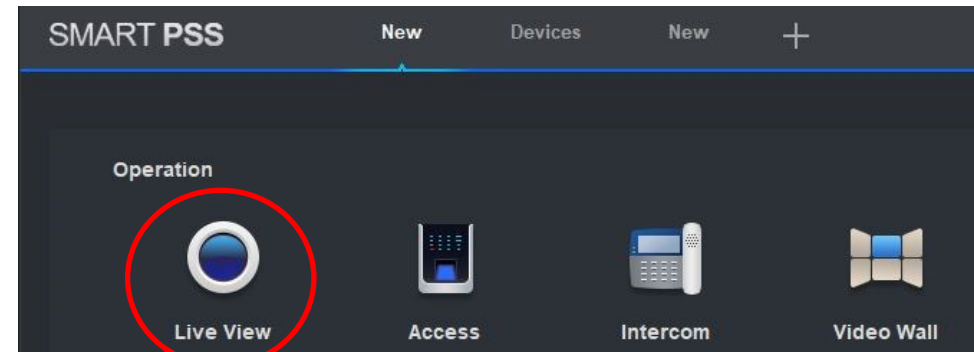


USING THE SYSTEM: VIEWING CAMERAS ON YOUR COMPUTER (WINDOWS SETUP)

- 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.

type	Device Model	Port	Channel Number	Online Status	SN	Operation
	N/A	N/A	4/0/0/0	Online	AM003714080032	

- 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 SmartPSS.

- 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 SmartPSS installation process will be different for MAC computers. If you are using a Mac please download the SmartPSS Mac installation guide from our website.

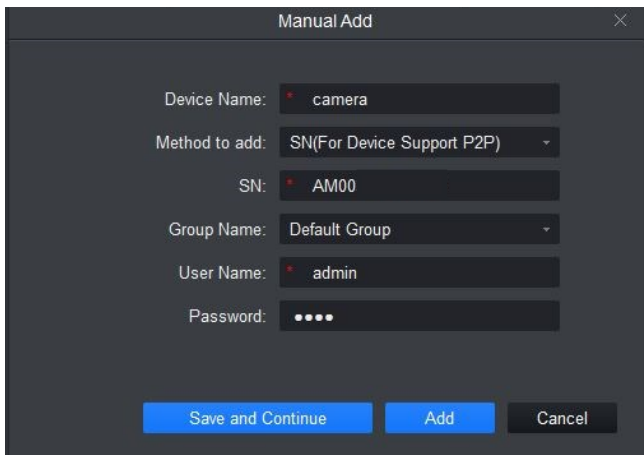
USING THE SYSTEM: VIEWING CAMERAS ON YOUR COMPUTER (WINDOWS SETUP)

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 SmartPSS 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

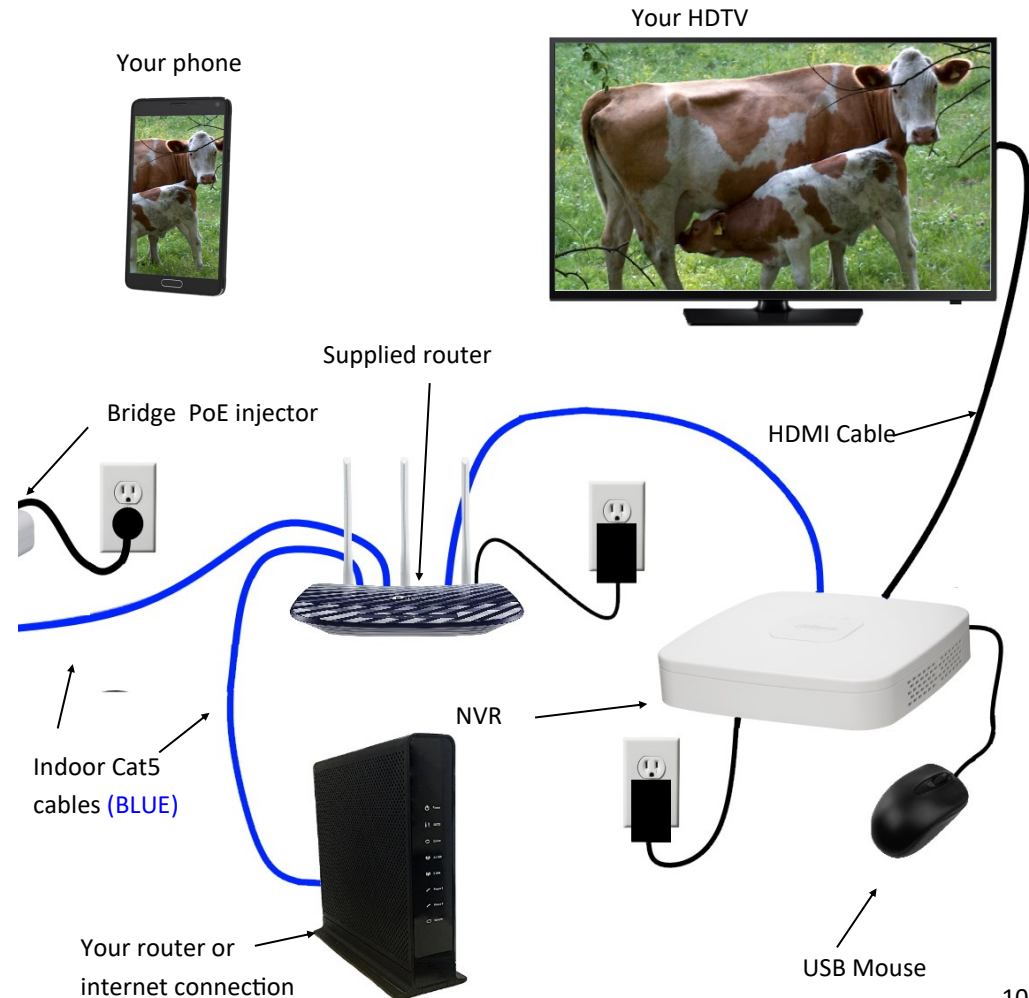


- The “manual add” dialog box will now appear.
- Enter in a name for your cameras under the “Device Name” option. This can be whatever you want.
- Change the “method to add” option to “P2P”.
- Enter the software serial number for your NVR into the “SN” box. You can find the NVRs software serial number 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 user name is “user” and default password is “alsc8878”.
- Click “Save and continue”.



BASIC SETUP DIAGRAM

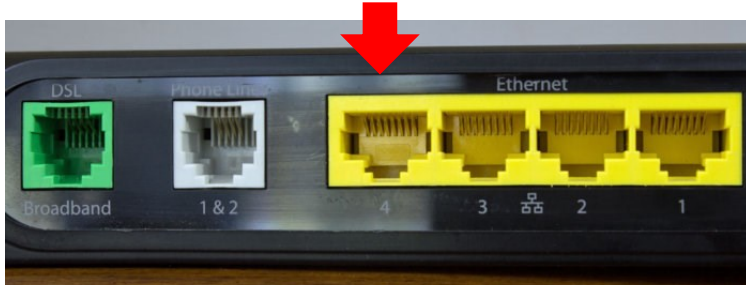
- **PoE injectors:** The PoE, or Power over Ethernet injectors, are used to add power to the standard network cable allowing for a single network cable to be used to provide both power and a network connection to a device. This is mainly used for the Wi-Fi bridges but some cameras also use this feature.
- **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 (if installed).
- **Router:** we provide a router with most systems to make setup easy but you will need to connect this router to your existing router or modem if you wish to view your cameras remotely



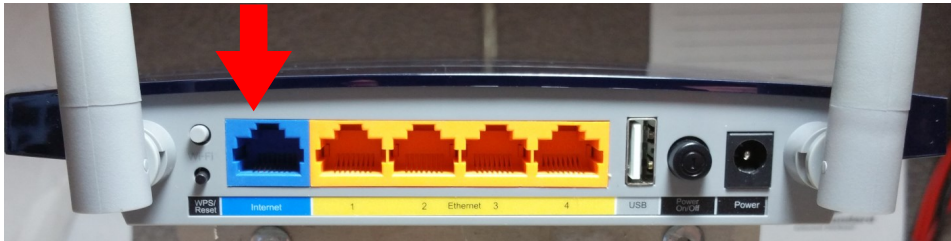
SETTING UP AT THE HOUSE: THE ROUTER

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 5 cable into any free **LAN** port on your existing router or modem, these ports are normally colored yellow and may also be called “Ethernet”.

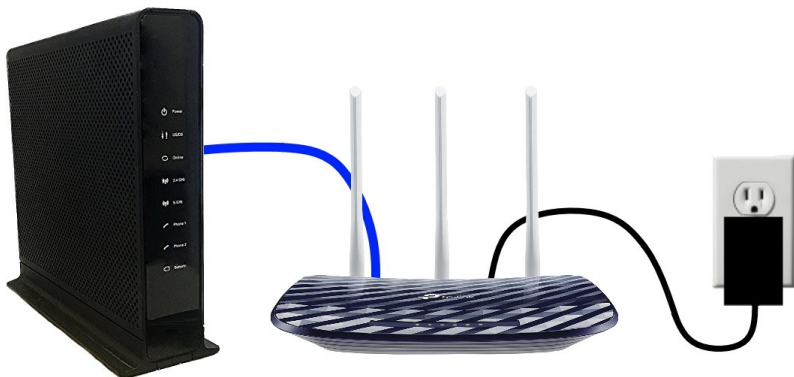


- Then plug the other end of the cat 5 cable into the “Internet” (WAN) port on the new router (TP-Link). This port is blue.

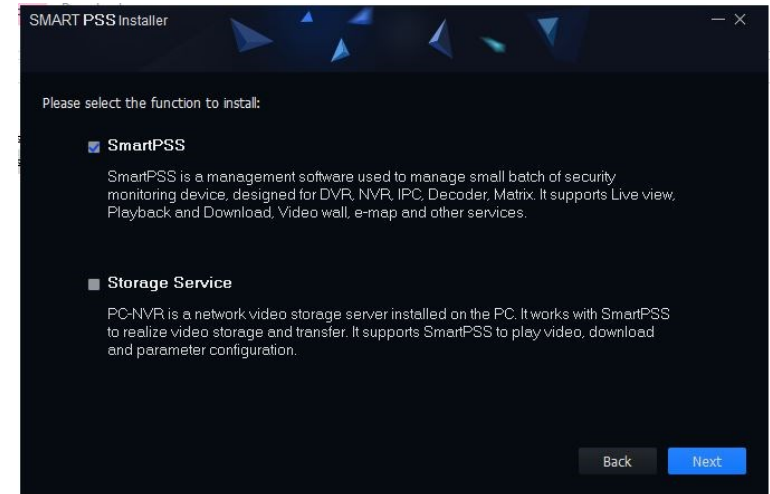


- Now plug the power cable into the “power” jack on the back of the new router and plug it into the wall outlet.
- Ensure the power switch is pushed in and the router is powered on by observing the lights on the front of the unit.

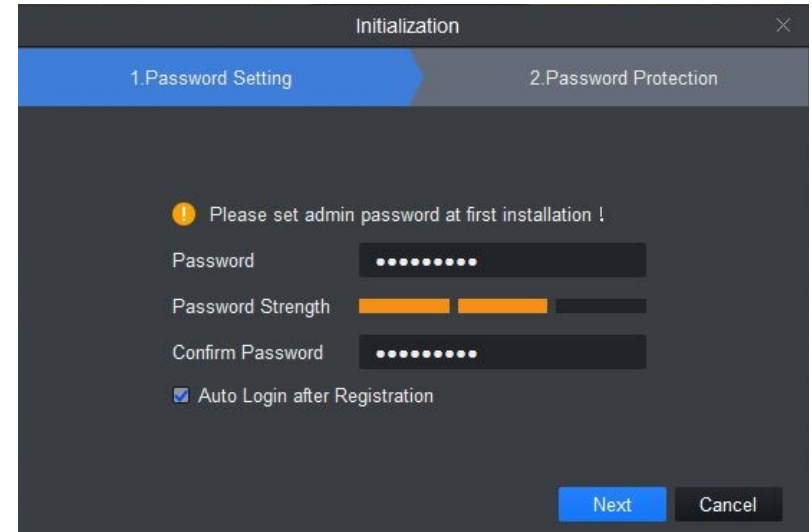
IMPORTANT! All other components of the camera system will plug into the TP-LINK router we provided you with the system. Do not plug any of the camera system components into your existing router as it will not work properly.



USING THE SYSTEM: VIEWING CAMERAS ON YOUR COMPUTER (WINDOWS SETUP)



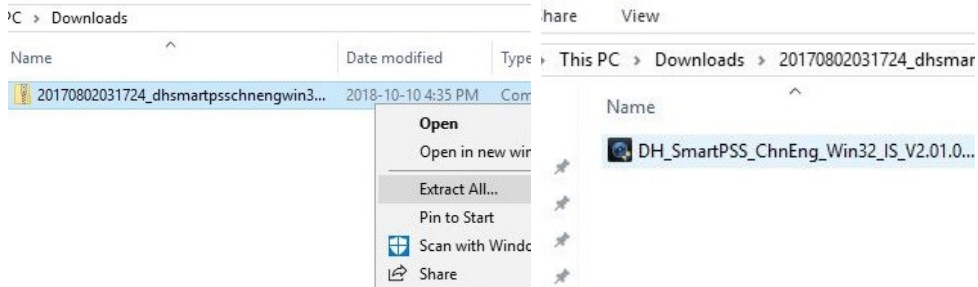
- Once installation is complete SmartPSS should start automatically, if not, click on the SmartPSS icon that is now on your desktop.
- Once the software starts up it will require you to setup a password for SmartPSS. This password is only for the SmartPSS software itself and does not relate to any of 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.



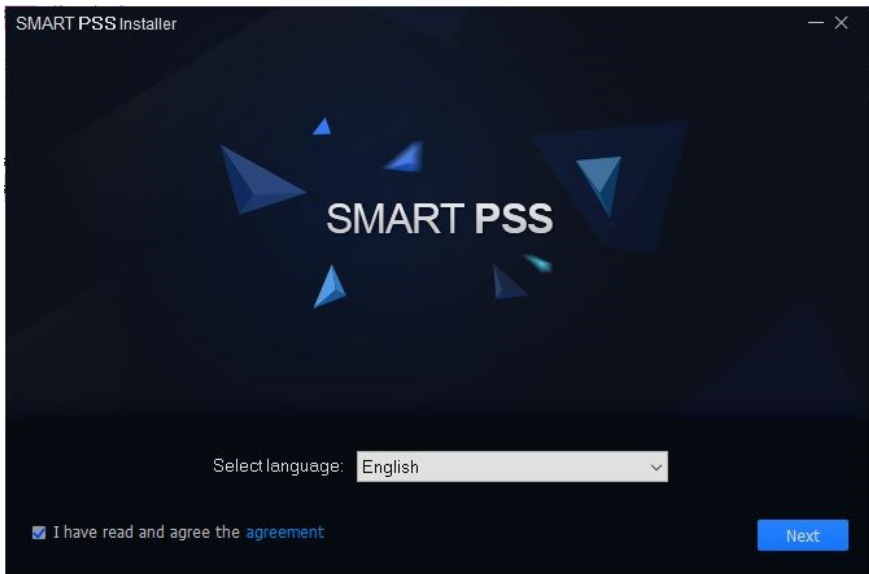
USING THE SYSTEM: VIEWING CAMERAS ON YOUR COMPUTER (WINDOWS SETUP)

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.precisioncam.ca/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.



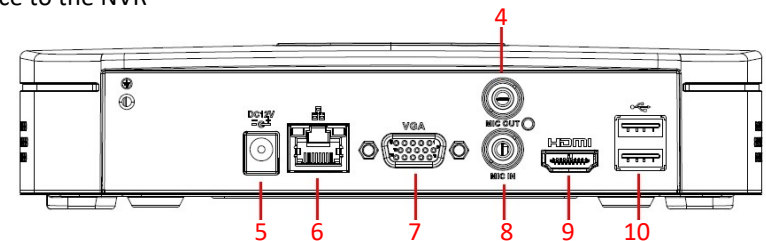
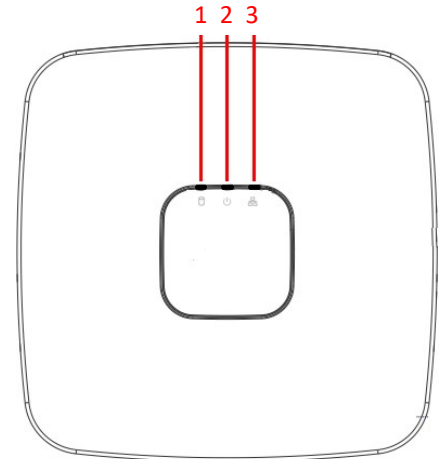
- In the next window un-select the storage service option and click next.
- After that just keep clicking next until the installation is done.

SETTING UP AT THE HOUSE: NVR (4CH)

- Setting 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 run the cable to the router. Plug the other end into one of the yellow “Ethernet”(LAN) ports on the supplied router.
- 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.



- 1) **HDD led:** Displays hard drive activity
- 2) **Power led:** Displays power status of NVR
- 3) **Network led:** Displays network status
- 4) **Analog audio out:** For audio playback through a stereo receiver or speakers
- 5) **Power input:** Power supply input
- 6) **LAN port:** For connecting the NVR to the network
- 7) **VGA output:** For connecting the NVR to a computer monitor
- 8) **Microphone input:** For connecting external microphones for audio recording
- 9) **HDMI output:** For connecting NVR to HDTV or monitor
- 10) **Rear Dual USB:** Usb connection for connecting a mouse or usb storage device to the NVR

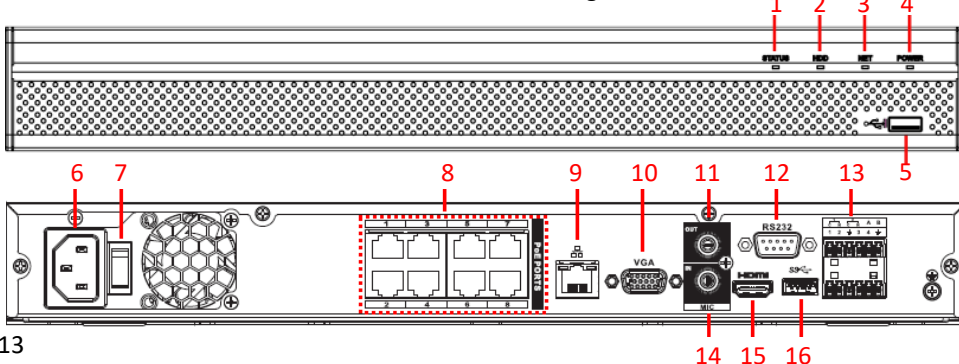


SETTING UP AT THE HOUSE: NVR (8CH)

- Setting 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 port on the front or the back of the NVR.
- Plug the female end of the power cable into the NVR and the male end into a wall outlet and switch the unit on with the power switch on the back.



- 1) **Status led:** Displays NVR status
- 2) **HDD led:** Displays hard drive activity
- 3) **NET led:** Displays network status
- 4) **Power led:** Displays power status of NVR
- 5) **Front USB:** For connecting mouse or usb storage device
- 6) **Power input:** Power supply input
- 7) **Power switch:** Cuts power to system (for emergency use only)
- 8) **Plug and play POE ports:** For connecting cameras or other devices directly to the NVR, also provides power to PoE cameras
- 9) **LAN port:** For connecting the NVR to the network
- 10) **VGA output:** For connecting the NVR to a computer monitor
- 11) **Analog audio out:** For audio playback through a stereo receiver or speakers
- 12) **RS232 input/output:** For connecting the NVR to external control systems (not used for cowcam)
- 13) **Alarm input:** Allows sensors to be connected to the NVR to trigger recording
- 14) **Microphone input:** For connecting external microphones for audio recording
- 15) **HDMI output:** For connecting the NVR to HDTV or monitor
- 16) **Rear USB 3.0:** High speed usb connection for connecting a mouse or usb storage device to the NVR



USING THE SYSTEM: VIEWING CAMERAS ON THE NVR

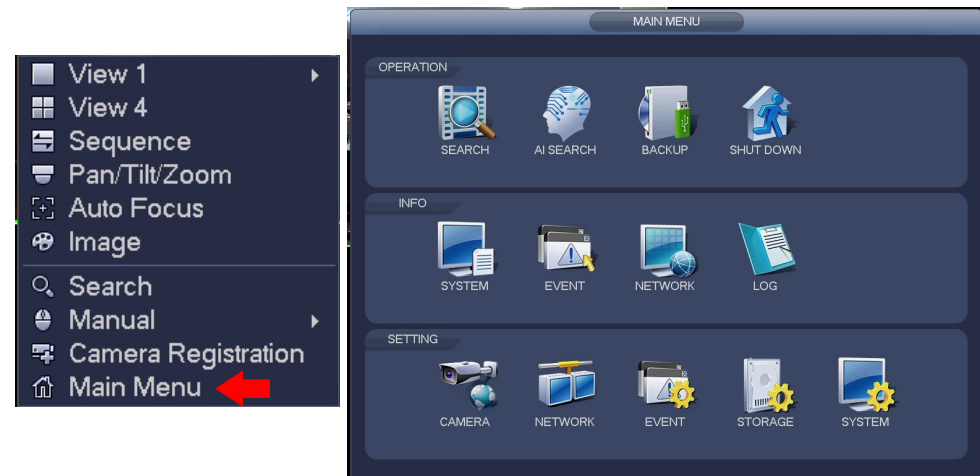
You can also change how many cameras are on screen at once.

- 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.



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.



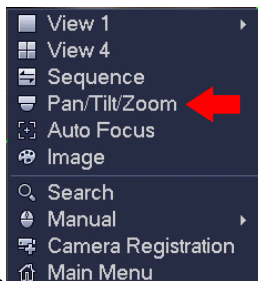
USING THE SYSTEM: VIEWING CAMERAS ON THE NVR

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 “alsc8878”.
- 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 precision.cam.net.



- 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.



SETTING UP AT THE HOUSE: WIFI BRIDGE

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



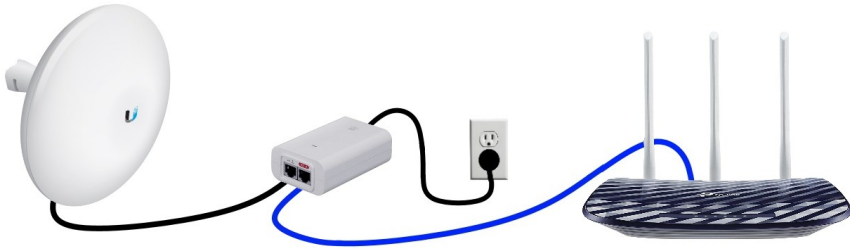
- Remove the weatherproofing cover from the back of the bridge by sliding it down. Next, plug the cable that will go to the power supply in the house into the port labelled “MAIN PoE IN + Data”. Replace the cover while routing the cable through one of the holes in the cover.



- 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.



SETTING UP AT THE HOUSE: WIFI BRIDGE



WALL MOUNTING BRIDGE

- 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 of the camera bridges.



POLE MOUNTING BRIDGE

- 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 of the camera bridges.

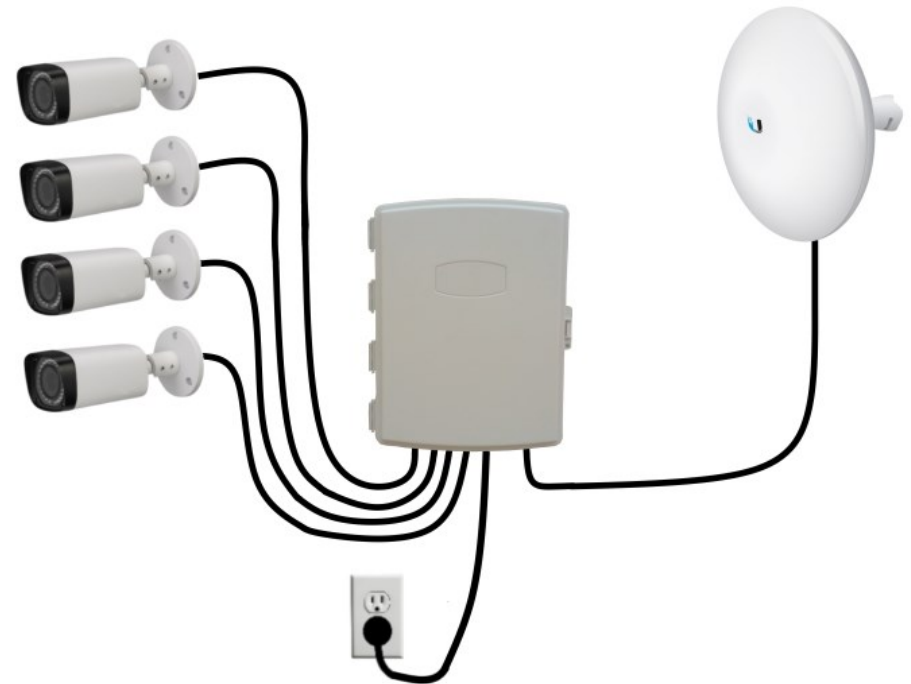


SETTING UP AT THE CAMERA SIDE: WI-FI BRIDGE SET-UP WITH A FIXED CAMERA AND AN OUTDOOR POE SWITCH BOX

SWITCH BOX



- Once all cameras and the bridge are connected, 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.



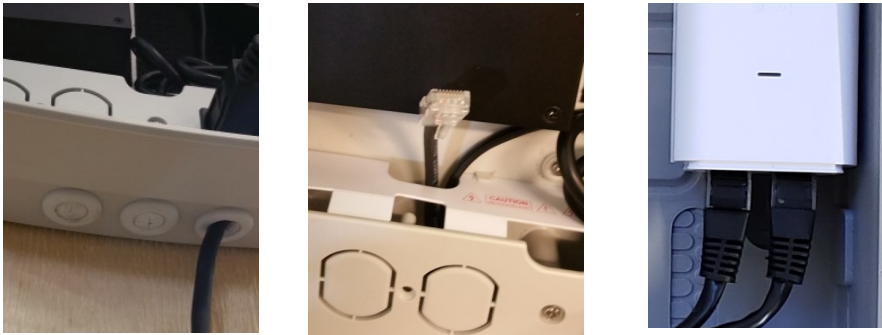
NOTE: Do not plug in power box until all devices are connected.

SETTING UP AT THE CAMERA SIDE: WI-FI BRIDGE SET-UP WITH A FIXED CAMERA AND AN OUTDOOR POE SWITCH BOX

SWITCH BOX



- 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 port PoE switch.



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

SETTING UP AT THE CAMERA SIDE: PTZ CAMERAS

The first step to setting up a PTZ camera is mounting the camera itself. You will need your camera, camera power supply, camera power cable, an outdoor cat5 cable “camera to bridge”, camera connector cover box, mounting hardware and your 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 25X 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.



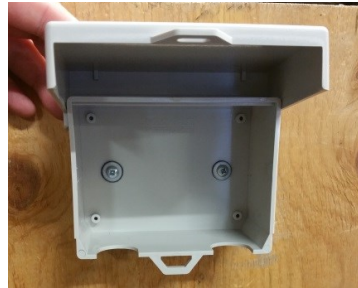
SETTING UP AT THE CAMERA SIDE: PTZ CAMERA SET-

UP

- 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 camera connector protection box near your camera with the hinge towards the sky and the grommets toward the ground. Mount it using the included screws and sealing washers. 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.
- Then place the other grommet around the power and cat5 cable, insert it in the other cut-out on the box. Connect the power and cat 5 cable to the camera pigtail.



SETTING UP AT THE CAMERA SIDE: WI-FI BRIDGE SET-

UP WITH A FIXED CAMERA AND POWER BOX

- You can now plug in the power box and camera power supply and are done setting up at the camera side!
- 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.



SETTING UP AT THE CAMERA SIDE: WI-FI BRIDGE SET-

UP WITH A FIXED CAMERA AND AN OUTDOOR POE

SWITCH BOX

Setting up your fixed cameras with the outdoor PoE switch box is similar to setting up with a fixed 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 22).
- Mount the outdoor PoE switch box near an outlet box 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!**

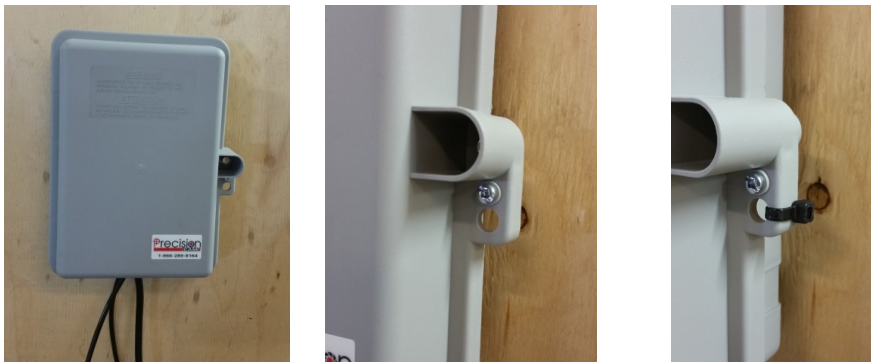
SETTING UP AT THE CAMERA SIDE: WI-FI BRIDGE SET-UP WITH A FIXED CAMERA AND POWER BOX



- Run the cat5 cable for the bridge through the grommet and connect it to the “PoE” port on white UBIQUITI PoE injector.
- Run the cat5 cable for the camera through the grommet and connect it to the “PoE” port on the smaller PoE injector.
- 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. Tighten the screw to hold the cover shut.
- You can also add a cable tie or lock for extra security.



SETTING UP AT THE CAMERA SIDE: PTZ CAMERA INSTALLATION

- 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 bridge will be mounted.
- Connect the camera power cable to the matching orange power connector on the camera pigtail and run the camera power cable towards the power outlet.
- Mount the camera power supply near the power connection using the supplied mounting hardware and connect the camera power cable. Do not plug in the camera power supply yet.



- You are done installing your PTZ camera! You can now move onto the bridge installation portion or the manual (page 19) for the next step.

SETTING UP AT THE CAMERA SIDE: WI-FI BRIDGE SET-UP WITH A PTZ CAMERA

After setting up your PTZ camera you will need to setup the Wi-Fi bridge. This portion of the manual doesn't cover mounting the bridge since bridge mounting is already covered on page 15.

- 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 “MAIN PoE IN + DATA” and run the cable towards the power outlet to be connected to the power box later.
- Plug the cat5 cable from the camera into the port labelled “LAN2 PoE OUT + DATA”.
- If required use pliers to snap out the second cable hole on the cover and replace the cover while routing the cables through the holes.



- Mount the bridge ensuring it has clear line of sight to the one at the house, see page 15 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 bridge PoE power box and included mounting hardware.

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

SETTING UP AT THE CAMERA SIDE: WI-FI BRIDGE SET-UP WITH A FIXED CAMERA

After setting up your camera you will need to setup the Wi-Fi bridge. This portion of the manual doesn't cover mounting the bridge since bridge mounting is already covered on page 15.

- 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 “MAIN PoE IN + DATA” 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 15 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 bridge 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.

SETTING UP AT THE CAMERA SIDE: 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 later.



- You are done installing your fixed camera! You can now move on to the bridge installation portion or the manual (page 24) for the next step.

SETTING UP AT THE CAMERA SIDE: WI-FI BRIDGE SET- UP WITH A PTZ CAMERA



- Run the cat5 cable for the bridge through the grommet and connect it to the "PoE" port on the injector.
- If you are going to have 2 PTZ cameras connected to the same bridge you also have to run the cable for the second camera into the box and plug it into the "lan port on the POE injector.
- The injector is held in the box with Velcro so you can pull it off the back of the box to make connecting the cables easier.



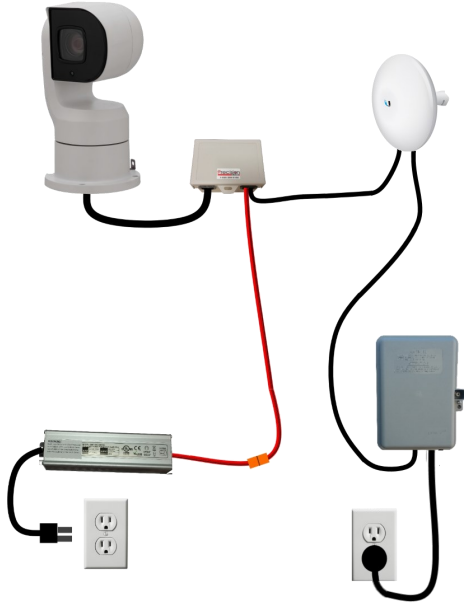
- Ensure the grommet is correctly seated and close the lid of the box and tighten the screw to hold the cover shut.
- You can also add a cable tie or lock for extra security.



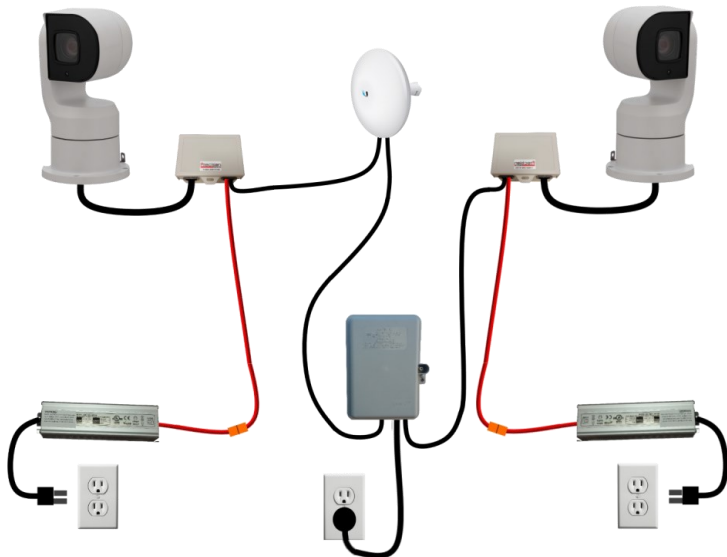
SETTING UP AT THE CAMERA SIDE: WI-FI BRIDGE SET-UP WITH A PTZ CAMERA

- You can now plug in the power box and camera power supply and are done setting up at the camera.
- 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.

PTZ CAMERA SETUP



OR: SETUP WITH 2 PTZ CAMERAS



SETTING UP AT THE CAMERA SIDE: 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. You may need to cut the black plastic tab on the connector on the cat 5 to fit it through the housing
- Plug the network cable into the camera connector.

