## Design Guide



## The Easy to fit IP CCTV system!

The Zip IP range consists of a complementary range of cameras and NVRs (Network Video Recorders) that work seamlessly together. Using the built in PoE switch you literally plug them in and they work!



✓ Exclusive to the UK CCTV trade



- ✓ Black or white IP cameras
  - -8/10 users prefer black for external use
- ✓ Easy to use Plug & Play
  - For fast effortless set up
- **✓** Powerful features
  - Covers most user requirements

- ✓ Superb UK Technical support
  - 10 strong team
- ✓ Software written by us in the UK
  - Customisable for you
- **✓** UK managed DDNS servers
  - Keeping your CCTV secure





## Easy to use GUI that's child's play to operate!









The Zip IP range consists of a complementary range of cameras and NVRs (Network video recorders) that work seamlessly together. You literally plug them in and they work! Zip PoE NVRs feature "Power over Ethernet" (PoE) so they actually also power the cameras directly removing the need for your CCTV cameras to have a separate power supply.

The Zip range is exclusive ONLY to the CCTV trade so you won't see it everywhere online like Amazon, eBay etc.

## Zip by name, Zippy by nature! Zippy to learn, zippy to use!

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"Child's play to use. "





#### A basic Zip IP CCTV system consist of four things.



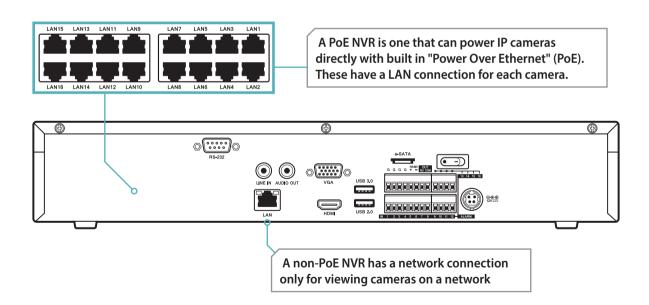






#### The Basics...

There are effectively 2 types of Network Video Recorders (NVRs) - PoE and non-PoE.



Some NVRs don't have PoE built in as you may want to connect your Zip IP cameras to an existing "local area network" (LAN) rather than running your cables directly from a camera to NVR. If this is the case you can save a little money on the NVR buying one without PoE and then powering the cameras independently via local 12V PSUs or from PoE adapters. Sometimes you may connect some cameras directly to the NVR and some to the network, if this is the case you may still use a PoE enabled NVR but it will only be powering the cameras directly connected to it.

If you're not sure then choose an NVR with PoE & connect your cameras straight to it with our ready-made patch/network leads. "

#### **Connecting Your IP CCTV Cameras To The NVR**

The simplest, most foolproof way is to use ready-made patch leads. These have the connectors already made off so you don't have to worry about crimping the ends on and getting them wrong.

We sell ready-made patch leads both in black and white in a variety of lengths - 1m, 2m, 5m and 100m

If you want to make up your own leads you need a quality CAT5e cable (such as anti-hum), plugs and a crimp tool (such as the RapidFit range). You will find these online, sometimes you may want to make your own cables so it's easy to run them out through smaller holes.







#### **TOP TIP**

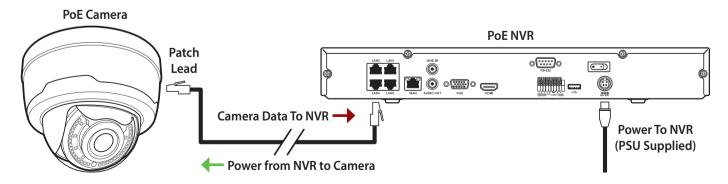
If you need to thread your cable through holes and difficult locations and don't think you can use patch leads, think again!

Simply estimate a suitable location you can join the patch cable and then cut the cable at the appropriate length into two. Now thread the patch cable through the holes and route it so both cut ends now meet at a convenient location. Use an IP joint box IP-BOX005 to join the cables together. It's much faster than crimping the ends and you can cut the cable shorter maximising system performance!



#### **Powering The Cameras**

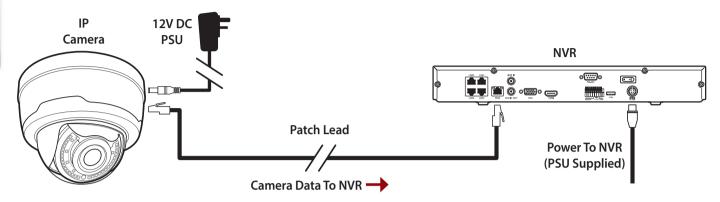
If you have an NVR with built in PoE it will power the cameras if directly connected to it so you don't need a PSU.

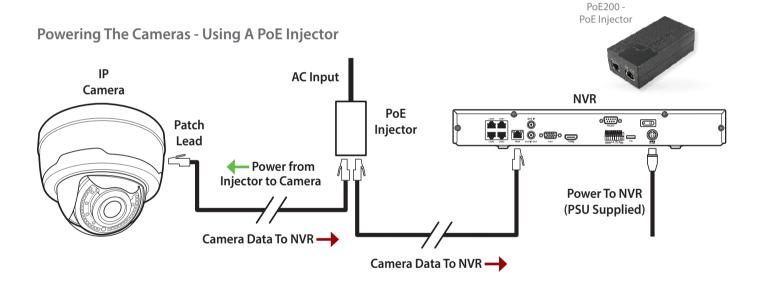


NVR models: ZIP204, ZIP208, ZIP216, ZIP226

If you have some cameras connected to the LAN (so it's not directly connected to the NVR) if the LAN switch is PoE this may power the cameras if it's big enough if not use either a traditional 12V PSU and cable to power it or "**inject**" 12V power into the cable using our PoE injectors.

#### Powering The Cameras - Using A Local 12V PSU





#### **Viewing The Cameras**

You can either use a monitor connected to the NVR or a computer, tablet or phone to view it over a network. Some users prefer both a local monitor and use a PC/phone. From an installer's perspective you need a monitor at the NVR to help set it up if needed and also check camera angles of view and

locations, so we would always recommend a local monitor for this purpose.

A test monitor is also really handy. The Zip cameras and ZipNVR are Plug & Play so there are little if any settings to get them up and running. If you get stuck contact us but it really is straight forward.





#### Setting Up The Network For Remote Viewing On A Phone, Tablet Or PC

The ZipNVR uses QR codes to set it up over a network. This means for the majority of installations you simply scan the QR code with your mobile phone and it sets up the phone for you with the correct network settings.

 Once the NVR is setup and connected to a network it can be monitored remotely via a phone, tablet or PC.

Simply scan the QR code found on top of the NVR using one of the mobile apps.



2 The network settings will be setup automatically. The NVR can now be monitored from anywhere.

Note: QR codes don't work with every single router so you may need to implement port forwarding on it but don't worry because each ZipNVR comes with free remote router set up with our ZIPPY desktop support software!





It really is that easy to set up the ZipNVR and cameras to create a high performance IP CCTV system.

Choose your cameras based on the features and looks that you want, get the kit ordered and you can literally have it up and running on your kitchen table to try in minutes if you want!

Enjoy our IP CCTY guide

& contact us
if we can be any
further help

info@zipnvr.com





Now you have a good idea of what's involved with the installation of an IP CCTV system, you can start to select the right kit for the job. Here are some recommendations on how to get it right first time, every time.



#### **TOP TIP**

#### Top Tip - Always carry out a Site Survey

Carrying out a thorough site survey may seem like a drain on your time but in the long run it will pay dividends. Use it to tick off your wish list and check the following site conditions so you're happy with the final results.

- 1 Use our free site survey form, write out the purpose of each camera and what they are hoping to capture. This will help you select the right camera and lens but also help with the record and storage settings on your NVR too. How long does it take for your customer to realise a theft has taken place and footage needs to be retrieved? Are there any external factors that will affect the storage levels too such as Licensing arrangements in pubs or Data Protection concerns?
- 2 Check camera positions for the right lens, style, mounting equipment and necessary tools too. Getting the right mounting height is crucial, if you're monitoring an entrance to another building make sure a lorry doesn't obliterate the view every time one passes. Simply by walking the site you will quickly pick up these circumstances.
- 3 Lighting conditions try and time a site survey at dusk so you get a good feel for the ambient lighting level. You may need to consider adding extra lighting or even moving existing lighting if it will interfere with the footage you want to achieve. You can also test out how effective any IR lighting might be in those circumstances.
- 4 Look at the site infrastructure (take photos even) so you can plan your cable routing in advance and look at power outlets available and possible problems that may need to be overcome.

Remember as the saying goes to **fail to prepare is to prepare to fail** so don't miss out this crucial step.



Use the equipment selection tips below to help narrow down your choices then use our Quick comparison chart overleaf to make your final choice.

#### Do I Need A PoE Or Non-PoE NVR?

As mentioned earlier, if in any doubt choose a ZipNVR model with built-in Power Over Ethernet (PoE). This gives you the option to power your cameras directly from the NVR or using the client's existing LAN. They are a few pounds more but offer more flexibility especially on the day of installation when you may encounter additional difficulties.



#### **TOP TIP**

Avoid post installation issues by opting for a PoE model and a separate Patch cable to each camera, that way you won't suspect the cameras if you have network issues.

#### **How Many Channels Do I Need?**

This should be pretty clear after conducting a site survey but think about future plans. If you only require a small 4 camera system now consider an 8 Channel, it will save you money in the long run.



#### **TOP TIP**

Pick an NVR model with extra channels so some are left free for future system upgrades.

#### How Much HDD Storage Do I Need?

How long will an NVR record for is a bit like asking how long is a piece of string. It depends on recording quality, total drive size and the record setting you choose such as 24/7, scheduled or only on alarm activation or video motion PLUS each camera may be set up with different record schedules too. It's best to overestimate so you have plenty of storage capacity and doesn't record over any vital footage.

Zip Model	Number Of Cameras	FPS	HDD Bays	Days Recording (4TB NVR)	Max HDD Capacity*	Max Days Recording
ZIP104 - 4ch NVR, Non PoE	4	25	1	44	6TB	66
ZIP204 - 4ch NVR, PoE	4	25	2	44	12TB	132
ZIP108 - 8ch NVR, Non PoE	8	25	2	22	12TB	66
ZIP208 - 8ch NVR, PoE	8	25	2	22	12TB	66
ZIP116 - 16ch NVR, Non PoE	16	25	4	11	24TB	66
ZIP216 - 16ch NVR, PoE	16	25	4	11	24TB	66
ZIP226 - 32ch NVR, PoE	32	25	8	5.5	48TB	66

<sup>\*</sup>Our NVRs take the latest 8 and 10TB sizes but we've based our table on a maximum capacity drive size of 6TB as they currently represent the best value for money.

We fit & commission your Hard Drives & the Zip NVR so you don't have to bench test before you go out to site. In fact we test 100% of the electronics items that we sell before shipping.

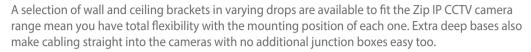
Download our free App at <u>www.ZipNVR.com</u> to calculate your HDD needs





#### Cameras - Indoors, Outdoors, Wall Or Ceiling Mount

All cameras can be fitted indoors but some models such as our sleek mini dome really look the part in an office or retail environment.





#### **Lenses - Type & Setting**

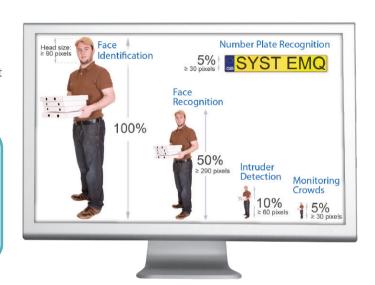
Based on your customer's requirement work out the exact scene you need to capture and use our Lens Calculator app at www.ZipNVR.com to select the right lens size.



#### **TOP TIP**

A motorised lens is a flexible option as you can alter the focus from your NVR and it will auto-focus without you having to go back up the ladder.

Check out models IP-CAM880, IP-CAM535 & IP-CAM930.



#### **Light Levels**

Built in IR LEDs are a great addition to any camera as they add extra illumination to a scene exactly where you need it but additional IR or other lighting is well worth adding to a site. You can buy low cost Light (Lux) Level Meters for as little as £20 that will give you ambient lighting levels or use the guide below as an approximation to what you need from your camera but always work on the assumption that more is better.

#### Typical levels of illumination:





#### **TOP TIP**

Look for a camera with a mechanical day/night filter (a.k.a True Day-Night) they work by filtering out IR light from the sun during day to give a superb colour reproduction but the filter retracts at night for optimum results from IR lighting.

ZipNVRs are available as a barebones with no HDD fitted or with a choice of drive sizes to suit your needs. Simply choose your preferred NVR from the "Quick Selector Guide" below, to check the NVR suits your requirements and then select your preferred camera option.

For 8, 16 and 32 channel NVR models additional bundles of cameras, leads and other handy accessories can be found online.

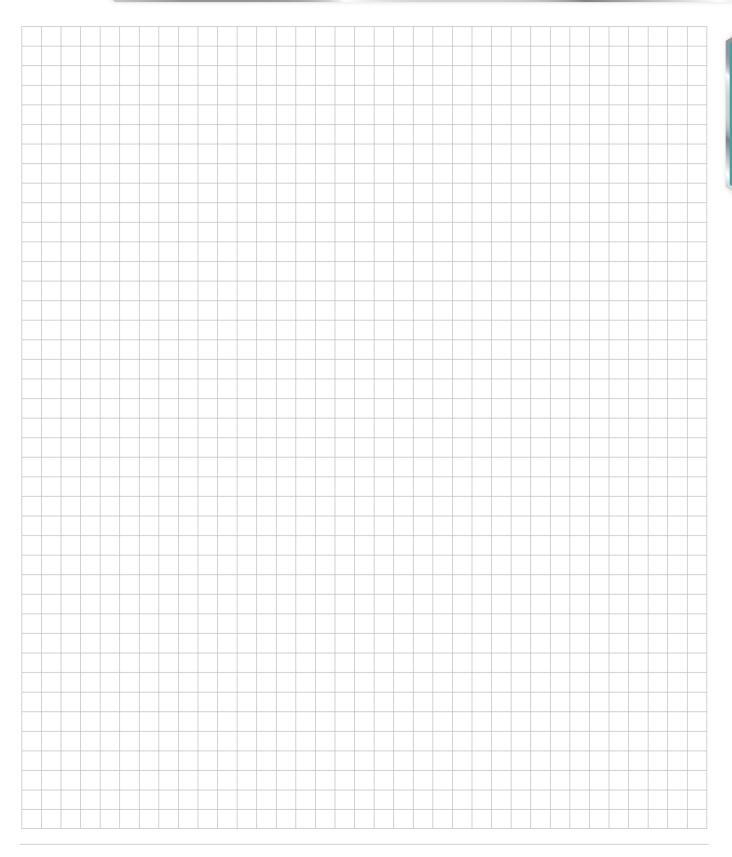
Model	PoE Cameras	Network Cameras	Network Interface	Recording Bandwidth	Alarm Inputs	Alarm Outputs	Hard Drive Bays	Max Capacity*
Zip204	4 Max	4 Max	100 Mbps	40 Mbps	4	1	2	12TB
Zip208	8 Max	8 Max	1000 Mbps	100 Mbps	8	1	2	12TB
Zip216	16 Max	16 Max	1000 Mbps	320 Mbps	16	1	4	24TB
Zip226	16 Max	32 Max	1000 Mbps	320 Mbps	16	4	8	48TB
Zip104	N/A	4 Max	100 Mbps	40 Mbps	4	1	1	6ТВ
Zip108	N/A	8 Max	1000 Mbps	100 Mbps	8	1	2	12TB
Zip116	N/A	16 Max	1000 Mbps	320 Mbps	16	1	4	24TB

<sup>\*</sup>Our NVRs take the latest 8 and 10TB sizes but we've based our table on a maximum capacity drive size of 6TB as they currently represent the best value for money.

## Eyeball Great all rounder suits most jobs Dome Anti-vandal - great for public spaces Mini Dome Great for retail use All-In-One With cable managed bracket

Make	your	design	notes	here







## Your ZP questions answered by our expert

## Zip IP Range - Q & A

#### What's the maximum individual HDD size?

With high definition 4MP cameras the HD storage space of the NVR is very important and we have tested the ZipNVR with the latest 10TB hard discs.

#### Does the Zip IP system support 2-way talk?

The ZipNVRs support talkback so that you can talk and listen remotely from your phone or computer to your CCTV system. For talkback you need to have a microphone with the system and also a loudspeaker system like the "VoiceOff".

## Does the ZipNVR record when the camera is alarmed?

Setting the ZipNVR to record by alarm inputs can be done at either the camera or NVR. If the Zip IP camera has alarm inputs, when triggered it will tell the NVR to record, sending the record signal along the CAT5/6 cable, it's that simple.

## Could I also record Video Footage to my PC as a back up for example?

You certainly can. The ZipVision client software has a feature that on receiving an alarm signal from the NVR it will pop up a camera window and then record that camera from 1-10 minutes depending on settings.

## Does the Zip IP system have Video Motion Detection?

Yes it does, all the Zip IP cameras have this feature and they tell the NVR to automatically record on activation.

#### Does the Zip IP system have email alerts?

Yes it does and it's very easy to set up. The ZipNVRs have what's called "Smart Email" set-up so it's easy to set up and get compatibility with free providers like Gmail. The email supports both SSL and TLS.

## If the ZipNVR is constantly being alarmed will I be bombarded with emails?

No, you can set the Zip's email to only send email using a

schedule that suits you, for example you may set it to send emails from 9-5 when you are at work and your house is empty. You can even set the Smart email function up to send emails say only once every 10 minutes, again preventing unwanted blasts of emails for bonafide triggers. Even though the email is scheduled the NVR still alarms and records on every event.

#### What does the Zip system email when alarmed?

It's a static image that can be sent to up to three individual recipients.

## If I want to see 8 or 16 live channels remotely will it be heavy on the network?

No, a special "**Zip**" channel effectively combines all the individual cameras into one "**multiscreen**" so it only uses the network resources on 1 ch. Smart huh!

#### Does the Zip support Audio recording?

Yes it does provided the Zip IP camera supports audio, all this is done like the alarms down the one Cat5 cable with no additional cable to run in.

#### Is Zip H264 or H265?

The ZipNVR uses the latest H265 standard for better images and smaller file sizes.



Continued Overleaf ▶ ▶ ▶

## If I forget the ZipNVR password, is it easy for me to recover it myself?

Yes it is. The ZipNVR has an "email password" feature which will email your password to whatever email address you have entered in to it for recovery. Alternatively we can give you a temporary password if needed.

#### Does the ZipNVR have RS232 and RS485?

Yes it does making it easy to connect to other equipment like access control and the VoiceOff.

## Can the ZipNVR automatically capture still images or is it just video?

You can capture both simultaneously. The still images can be used for timelapse photography or for security.

#### Can you play back the still images remotely?

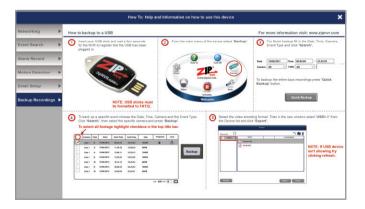
Yes you can select either still images or Video to playback in the ZipVision client software.

## Is it easy to upgrade camera firmware for new features?

Yes incredibly easy, simply put a USB stick in the ZipNVR and apply the new Zip IP camera firmware on the whole system.

#### Does the ZipNVR have built in help guides?

Yes it does, so you can use them as reminders how to do tasks without reaching for the manual.



## On the NVR monitor screen is it easy to layout the camera locations to suit me?

Yes it's very easy, all the cameras support drag and drop location positioning so simply use the mouse to move them to a layout that suits you.

## Can the ZipNVR tell me when a maintenance visit is due?

The ZipNVR supports an "Installer to NVR" messaging services. This enables scheduled push messages to be sent to the NVR to tell you a maintenance visit is due.

#### Does the ZipNVR support Covert cameras?

Yes it does, you can hide a camera from being seen by an operator if you want to. This is done with the system users individual permissions.

## Can I secure important footage, for example of a break in?

Yes you can. The Zip features a "**File Lock**" preventing the deletion or over writing of important footage. Clearly you should still back up footage as soon as possible.

#### Is it easy to back up footage for the Police?

It's very easy to save footage from the ZipNVR and it's done in just a few clicks. You can even save the footage in an AVI format if you prefer which means that it is "Police Ready" and can be played on most common devices without special player software.

#### Is the client software easy to use?

Yes it is, designed in the UK it's got a clear and uncluttered interface that is intuitive to use. It has drag and drop tabs so that you can re-arrange the software on your computer to suit the style you work in. You can even duplicate the camera view tabs up to 4 times so that you can create multiple camera layouts perfect for commercial installations.

## Can you record cameras direct to the PC using the ZipVision software?

Yes you can. ZipVision allows you to scheduled local recording on the PC based on individual NVRs or cameras. Although useful this is a supplementary feature and it's not intended as an NVR replacement.

#### Does ZipVision have an eMap facility?

It does indeed. You can save a plan of the building into ZipVision then locate your cameras on to it. This is a really useful feature for commercial installations where different operators may not know where each camera is located. On motion detection or alarm the camera on the eMap would flash.



## On my remote PC can a window pop up with that camera's images when alarmed?

Yes the ZipVision supports alarm activation camera pop up. It can even automatically record the camera if you want at the PC as well as the NVR!!

## Can the Zip IP system work on limited bandwidth networks?

Yes the Zip has "Tri-Stream" technology. You can set the NVR to record at 4MP but you can also have a "mobile stream" and "sub stream" that can send lower resolution images to remote locations to prevent hogging the network.

## Does the Zip system have any nifty software tools to help me?

Yes we have a Zipfinder tool that can be used to scan a network to find all Zip devices on it helping configure equipment or upgrade firmware.

## Does the Zip have any "Smart" features or "video analytics"?

It certainly does. The Zip cameras have smart functions such as "line crossing", basic Face detection and can even can be set up to monitor object removal which is useful to catch thieves. To use these features you need to use the Zip cameras and ZipNVR as the features are built in to the Zip IP cameras and they then trigger the ZipNVR to record, alarm etc.

## Does the ZipNVR require special player software to play back recorded files?

No, you can save files as police evidence directly as an AVI file, alternatively you can save them as highly compressed high quality H265 Qzip files that will need the bundled "Vzipplayer" software to playback these. The ZipNVR natively records in H265 but you can back up files also to H264 if required.



## Questions and Answers about the ZP IP system

## What makes the ZipNVR different for the CCTV installer?

The ZipNVR is different in many ways, with its UK designed interface and software it's really easy to fit and very simple to use.

#### Is the Zip IP system easy to set up?

Yes, it's child's play to set up, Simply connect the zip cameras to the PoE ZipNVR with a patch cable and it will first autodetect the Zip IP cameras then auto-configure them for you!

#### Is the Zip IP system neat and easy to fit?

The PoE feature of the ZipNVR powers the cameras down the Cat5/6 cable so that no additional power supplies are needed for the CCTV system, this makes installation extremely easy saving you time and resulting in a quality neat and tidy installation.

#### If you don't use the PoE NVR is it still easy to fit?

Even if the Zip IP cameras are not directly connected to the ZipNVR's built in PoE switch you can still search for the IP cameras and then manually configure them at a central location direct from the NVR for a convenient set up.

#### What's the Zip's recording resolution?

Standard is 4MP but all the ZipNVRs feature up to 4K recording on at least one channel and boast 4K output with stunning playback quality.

#### Is setting up remote viewing on a phone easy?

Setting up remote viewing is a doddle. Simply scan the ZipNVR's QR code by a smart phone and the phone connects to the Zip with no port forwarding required. If you still want to set the ZipNVR up the traditional way using port forwarding this is still an option.





# Intuitive and modern that's a breeze to learn, designed in the



Modern, slick and easy to use are the best ways to describe the ZipNVR's client software "ZipVision".

ZipVision is attractively laid out and presented with a modern feel, helping the end-user get the most out of their positive investment in the ZipNVR.

## ZipNVR Interface

#### **Disc Menu System**

Every ZipNVR has our ultra easy to use Disc menu system. With its clear and simple layout, it's easy to navigate and find all the features the ZipNVR has to offer.

It's designed to be intuitive so it's ultra-fast to learn.

If you need any help or guidance the ZipNVR also has useful "how to" guides built in.

#### Three clicks completes most actions!



#### **Simple Menu Screens**

Clear, uncluttered and simple tabbed menus make it easy for the installer or user to navigate around the system.

The menu system and layout has taken around 18 months of work for the System Q team to complete so that it looks and feels fresh and easy to use.

If you are seeking a NVR where the user says 'I like the look of that software' the Zip is for you.



#### **Easy Monitoring & Playback**

If you are looking to find particular footage it's easy to do with the ZipNVR

You can search by either time and date or by an action that has triggered the NVR to record.

Actions that can be used to trigger recording are:

- ✓ Video Motion detection
- ✓ Alarm inputs to the camera
- ✓ Alarm inputs to the NVR
- ✓ Line crossing
- ✓ Object missing detection
- ✓ Face detection Note this is only a basic face detection feature, not facial recognition.



## View and control your NVR from anywhere at anytime!



#### **ZipVision Phone Client**

- ✓ Available for Android and iPhone
- ✓ Remote viewing, single or multi channel
- ✓ PTZ control, movement, zoom and presets
- ✓ Remote playback of recorded footage

The Zip phone app allows you to remotely monitor and control your NVR whilst on the go. This useful little app boasts remote viewing, remote playback, remote record, PTZ control and relay control.



Just search
'ZipVision'
in the Play store



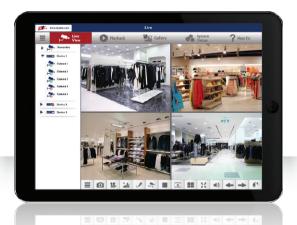
Just search
'ZipVision'
in the App store

Or scan the QR code











#### **ZipVision Tablet Client**

- ✓ Available for Android tablets and iPad
- ✓ Clear single or multi channel remote viewing
- ✓ Easy full screen PTZ control
- ✓ Ideal for remote playback of recorded footage

The Zip tablet app offers the same great features as the phone app and the larger screen means it's even easier to use. The tablet app allows you to remotely monitor and control your NVR, remote viewing, remote playback, remote record, PTZ control and relay control.



Just search
'ZipVision'
in the Play store

Or scan the QR code





Just search
'ZipVision'
in the App store

Or scan the QR code



## A few little extras to enhance your experience!

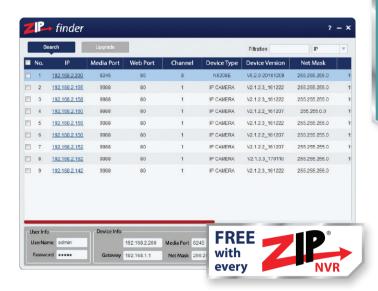


#### **Zip Finder**

- ✓ Quickly find IP cameras on a network
- ✓ Launch cameras in internet browser
- ✓ Edit camera IP addresses and ports
- ✓ Upgrade camera firmware

Zip Finder is a great tool for managing your IP cameras. It quickly finds and displays all of your Zip IP cameras on the network.

From here you can modify IP addresses, gateways and ports. Launch a browser window to view and control the camera using the Zip IE client. You can also upgrade the camera's firmware to ensure you're always up to date.





#### **VZip Player**

- ✓ Easy to use interface
- ✓ Play H.265 footage from NVR on a PC or Mac

The VZip Player is a media player which is automatically added to the backup device whenever footage is backed up from the NVR. VZip Player can be installed on a PC or Mac allowing you to replay footage from the NVR. This is especially useful as most other media players don't support the new H.265 encoding like the VZip Player does.





#### **Zip Desktop Widget**

- ✓ Resizeable liveview window
- ✓ Stays on top of all other programs

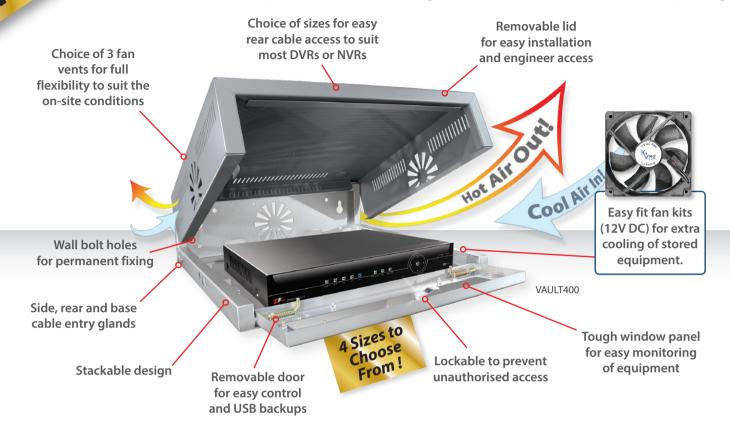
Zip Desktop Widget is a simple but extremely useful desktop widget that allows you to have a single camera live on your desktop in a resizeable window. The window stays on top of other applications so that you can keep an eye on key areas like a reception or nursery without breaking from your work. Find out more at www.ZipNVR.com.



New!

### KitVault® Lockable DVR/NVR Enclosures -

Keep vital CCTV footage secure from theft or tampering



## Helps keep your CCTV system "GDPR" compliant!

Find out more on how to ensure your CCTV system is compliant with GDPR of the CCTV code of practice in our handy guide...

