

# DVR Systems

## What to Know Before You Buy

**Based upon the area you are covering, what is the maximum amount of cameras you think you need now or in the future?**

Zmodo carries DVR models that support either 4, 8, or 16 channels. The number of channels represents the maximum number of cameras that can be connected to the DVR. Therefore if you think that you'll need a total of 5 cameras, we recommend ordering an 8 channel DVR.

### **What is more important to you, Price or Performance?**

If Price is more important, we recommend that you order a pre-made security kit that already has all necessary components. If performance is more important to you, we recommend that you custom build your own security system so that each camera tailors to your specific environmental needs.

### **Do you need a Hard Drive with your security system?**

If you wish to record video, an HDD is necessary. Without a HDD, the DVR would only be capable of live viewing and live remote internet viewing; you would not be able to record footage or play back footage.

Some customers may choose to order a system with no HDD because they already have a spare 3.5" SATA HDD that they can install into the DVR. Opening the DVR to install your own HDD does **not** void the manufacturer's warranty, therefore it is not uncommon to purchase a DVR with no HDD and install a HDD by your self.

### **Decide whether you would like wired or wireless cameras for your location?**

There are many advantages and disadvantages to ordering wireless cameras. The obvious advantage is that you do not need to run a video

# DVR Systems

cable from the recorder to every camera.

Not all locations are suitable for wireless camera installations. Wireless cameras depend on a WiFi signal to transmit video wirelessly. Therefore, if your location is very large or has many concrete and/or metal walls and barriers, the WiFi signal may be too weak to successfully transmit the video signal wirelessly.

If you are considering a wireless camera system, it is recommended to take a WiFi device (such as a cell phone), and hold that WiFi device in the approximate area where you plan on installing each camera. If the WiFi device receives a strong WiFi signal from your router, then the IP Camera will also receive a strong signal.

One last thing to consider for wireless systems is that each camera still needs to receive a power signal. Therefore, you will need to be able to run a cable from each wireless camera to a power outlet.

## **If you are customizing your own wired security kit, what equipment is necessary?**

If you are building your own custom security kit, the basic fundamentals to cover are going to be cameras, DVR, cables, and power. Cameras do not include power or cable accessories, so you'll need to make sure to add all accessories to your customized kit.

You'll need a DVR that has the same amount or more channels than there are cameras. For example, if you want to install between 1—4 cameras, you'll need a 4 channel DVR. If you want to install between 5 - 8 cameras, you'll need an 8 channel DVR. If you want to install between 9 -16 cameras, you'll need a 16 channel DVR. If any of your cameras support high resolution, you will need a DVR unit that supports "D1" or "960H" recording.

For each camera, you will need one power cable and one video cable. Most

# DVR Systems

Zmodo resellers sell siamese power + video cables, which means that power and video are combined into the same cable. Power + Video cables typically come in lengths between 25ft and 150ft.



Lastly, you will need to make sure each camera is getting enough voltage and amperage. Every Zmodo camera requires 12 Volts; however, some cameras require more amperage than others. Zmodo re-sellers typically sell 12 Volt adapters with either 3 amps or 5 amps. Cameras with a night vision distance of 80 feet or more require 1 Amp, and cameras with a night vision distance of less than 80 feet require 0.5 Amps. Add together the total amperage requirement of all of your cameras, and purchase enough power adapters to cover the total combined amperage requirement of all cameras.

For example if you are purchasing 4 cameras with a 40ft night vision distance and 2 cameras with a 100ft night vision distance, those cameras will require a total of 4 Amps.  $\{(0.5\text{Amps} \times 4) + (1\text{Amps} \times 2) = 4\text{Amps}\}$  We recommend you purchase one 12V 5Amp power adapter with splitter to accommodate this example arrangement.

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