The Xcam Single Camera Kit Tutorial – Posted on X10Community.com 2/2007

One of the popular sellers in the X10 product line is the XCam Single-Camera Kit. Although there are many versions of this kit available, this tutorial focuses on the very basic kit to show you how to set up your system and understand how it works.

For a basic system used for camera monitoring, only these minimum components are needed to get started (you can see each item on the image above):

1 XCam2 Wireless Camera with an Addressable Power Supply
1 Video Receiver (with power supply)
1 Standard Video RCA Cable (with the yellow video ends)

Although the image may look like a lot of components, there really are only 2 things: The Camera and the Video Receiver.

Of course you have the ability to add components over time which is an added bonus, but it's important to first have an understanding of how these simple pieces comprise your system before you start adding to it, for doing so will help make sense as you being to upgrade. In this tutorial, in order to explain the basics, I'll even provide a few examples of adding extra components to provide a better example of the points I am trying to stress.

Let's begin…

Let's start with the assembly so I can explain how these components function as a "unit."

1) Take the addressable Power Supply (see the image to your right) and make sure it is plugged into your Camera.

On the Power Supply you will notice the Letter Codes (from this point I will refer to the letter codes as **House Codes**) and the number codes (which will be referred to as **Unit codes**). In order for your system to communicate, your house codes must match the same letter on your addressable power supply and on the bottom of your video receiver. It doesn't matter what house code letter you use, but they have to match letter-wise if they are to be able to send and receive signals on the same wavelength.

You may also have noticed that the video sender has house codes but no unit codes. This is because in a system you may have multiple cameras (which you set apart by the unit codes), but you'll really only need one video receiver per few cameras to pick up the video feed from those cameras.

Now, why are there multiple house codes (A through P) you may be wondering? Say your neighbor next door has the same system that you have. If you were to match your house code to whatever house code your neighbor has their system set to, your system would be communicating with theirs and you'd be picking up their camera feeds or vice-versa. In order for you to separate your system from your neighbors, you would need to use a different house code letter. This ensures you are not inter-mingling your system and its devices with theirs.

Now about the unit code -- there are sixteen unit codes on each device. This means that you can have up to 16 components to share one house code.   Let's say you have your video receiver set to house code A. Now you have your camera set to A1 (A=House code; 1=Unit Code). For the sake of things, I'll throw in a few more things. Let's add a motion sensor that is set to A1 and a transceiver module that is set to house code A. ***Sidenote: I'm sure you've figured out that the motion sensor once triggered will tell the camera to turn on. However, you'll need the Transceiver Module [see image on below left] to translate the signal from the motion sensor and distribute it to the camera). So, anytime you use modules, motion sensors, or remote controls in your system, you must use have a transceiver module like the one below, otherwise your modules, motion sensors or remote controls would not be able to work properly.***

Ok, back to the example, since your camera shares the same house code and unit code with the motion sensor, if the motion sensor was activated, your camera would automatically be trigged to start up and send a video of what it is seeing to your video sender because both of these components are functioning as one "unit". In the event your motion sensor was set to A1, while your camera was set to A2, the motion sensor would not be able to trigger the camera because they are functioning as separate "units".

Now let's say you have a system with two cameras, two motions sensors, one transceiver module and one video receiver.   Your video receiver and transceiver module is set to house code A. Your first camera and one of the motion sensors is set to A1, while your second camera and the other motion sensor is set to A2. Since the cameras are set to the same house code as the video receiver, the receiver will be able to broadcast the signals from both cameras on to your television – just an fyi, only one camera at a time will broadcast, that being the camera detecting the motion. What will happen here though is that each camera has its own motion sensor that can set it off, but each camera will not be set off by the other motion sensor that has a different unit code. So, as you can see, when we refer to the term unit code, it doesn't reference just one item in particular, but a host of items all working as one "unit."

2) From Step 1 you've plugged the power supply into your camera. Now plug the other end of Addressable power supply into an electrical socket. Next, take the enclosed RCA Video cable and connect one end to the Video Receiver and the other end to your television's RCA Video input. Plug the video sender into an electrical socket to power up the device. You'll also notice the top of the sender opens up to show an antenna. You want the antennae of the video sender to direct towards the antennae of your camera.

Now that your camera and video receiver are powered up and both are on the same house code, turn on your television to the input mode of where you have the RCA video cable plugged in. You should now be viewing the video feed from your camera, and if so have properly set up your first system.

Troubleshooting:

So you've setup your Xcam and Video Sender according to plan and are not able to get a picture on your television. There are several things you can try in order to fix this.

First thing is to make sure all the cables are attached firmly and that both devices are powered up. Next, check to see that the house codes on the camera and video sender share the same code and that the antennas of each device are facing each other.

Next, make sure the television is on and set to the correct input device as to where you have your video sender plugged in to.

If none of these adjustments fix the problem, here are a few more things to try.

1. The transmission signal between the camera and the video receiver can communicate up to 100' apart. Do you feel the distance between your items may exceed this? If so, try moving your devices closer.
2. Maybe your items are within the 100' range. What type of things do you have that can interfere with the transmission signal of these items? For instance, it's much easier for the wireless signal to travel through wood and sheetrock versus cement or metal. If a metal or cement barrier are in the way of the signal, try moving the camera or video receiver to a different location where they can communicate better.
3. Do you operate other wireless devices that may interfere with the signal? As the camera and video receiver operate on a 2.4 ghz signal, you'll find that other wireless devices also operate on this same reception, most popular culprits being cordless phones and wireless routers. Try shutting off these culprits to see if the signal improves. If so, you may need to adjust things by moving your camera and receiver away from these devices where they are not interfering directly with the signals. Another option is to upgrade the cordless phone or router to a 5.8 ghz signal in order to free up the wavelengths.

Glossary / Terms:

Addressable Power Supply: The addressable power supply is the electrical plug of the Xcam camera. The electrical plug is addressable because it allows you to ajdust both the house code or unit code from it.

House Code: The letter code on X10 devices is used for separating or joining differing systems.

Motion Sensor: A sensor that when detects motion or movement triggers a response.

RCA Video Cable: A standard in electronics, allows you to plug a device usinga video cable in order to view video.

Transceiver Module: a 2-way signal device that receives signals from X10 modules, remote controls, or sensors and distributes these signals to other X10 modules or components.

Unit Code: The number code on cameras or modules. Used for separating or joining components within a same system.

Video Receiver: A device that is used to receive wireless signals from cameras or "video sending" equipment. These signals are then broadcasted over a television, monitor or computer, depending on how you set up your system.

XCam Wireless Camera: X10 Wireless Technology Inc.'s prized mini camera. There are many different versions of the XCam camera ranging from wide-eye, to nightvision, and even wired.